



# DEAR PARTNERS & COLLEAGUES

This has been a year of turmoil for the energy transition, with enormous shifts in macroeconomic conditions, financial markets, geopolitics, and public policy. Yet amidst this volatility lies unprecedented opportunity.

We are entering an era of historic growth in energy demand and infrastructure, as the meteoric rise of artificial intelligence, widespread electrification and rapid onshoring of advanced manufacturing are driving unprecedented demand for electrons.

At EIP, we're specialists in carving a competitive advantage out of complicated environments. The energy transition is a complex and sustained effort. Among other things, it requires working closely with stakeholders and entrepreneurs to deploy new technologies that result in a cleaner, more secure, and reliable energy system.

Over the last decade, our innovation and collaboration model has been solely focused on this effort – and the results speak for themselves.

In 2024, we facilitated over 300 new contracts between our portfolio companies and our strategic investors, bringing the cumulative value of all bookings enabled by our platform to over \$3.4bn to date. Our portfolio's impact also continues to scale: our companies have cumulatively avoided over \$3.7 million  $\mbox{tCO}_2\mbox{e}$  since 2018. Looking ahead to mid-century, our current investments have the potential to cumulatively avoid between \$5 and \$10 gigatons of  $\mbox{CO}_2\mbox{e}$ .

With over 140 investments made to date, a highly engaged strategic network of over 80 utility and corporate partners, and over \$4.4bn AUM across strategies, we remain competitively positioned to drive meaningful change.

We are proud to share this year's progress and remain steadfast in our commitment to advancing the energy transition—together with our partners and entrepreneurs.

Sincerely yours,

JANG KORI ER

HANS KOBLER, Managing Partner & Founder

**PETER FOX-PENNER,** Chairman of Impact

# EIP OVERVIEW

Energy Impact Partners ("EIP") is a purpose-built investment platform.

#### WE TAKE INDUSTRY FORWARD FASTER

EIP accelerates adoption by leveraging a large network of strategic partners.

#### WE DECARBONIZE AT SCALE

We target the largest carbon emissions sources in the world with highly scalable solutions.

#### WE MEASURE TRANSPARENTLY

Our impact calculations are widely recognized as honest, highly transparent, and rigorous.

140+ Investments in potential leaders in core segments

2015 Launched by industry veterans pioneering unique approach

100+ Team, including business developers 75+ Global strategic investors collaborating

\$4.4Bn+ Assets under management

### EIP'S IMPACT THEMES

We invest in solutions that address the largest emitting sectors from generation to consumption and the infrastructure in between, categorizing them across 7 impact themes.



Generation & Storage

19 companies



Asset Resiliency

10 companies



Materials & Circularity

14 companies



Measurement & **Planning** 

9 companies



**Efficiency &** Management

15 companies



**Just Transition** 

2 companies

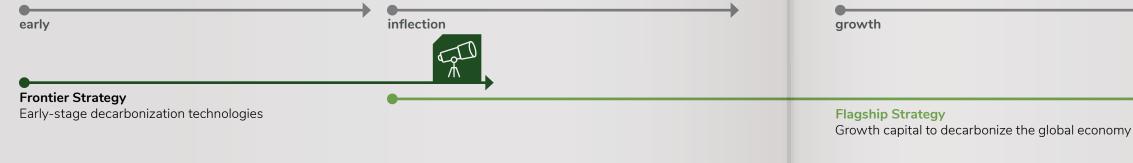


**Delivery & Optimization** 

18 companies

#### **EIP'S INVESTMENT STRATEGIES**

EIP's strategies, from early stage to growth and mature, allow us to collaborate with different platforms and support the energy transition across stages and diverse forms of capital.



mature

**Credit Strategy** 

SBIC licensed funds for middle market companies



**Elevate Future Strategy** 

Maximize impact for overlooked founders and communities

# EIP'S CLIMATE IMPACTS

### **IMPACT PATHWAYS**

EIP understands that energy systems are highly complex. Transformation requires investing in technologies that directly reduce emissions and the foundational systems to unlock them.

Impact pathways are the specific routes through which investments lead to measurable outcomes. These pathways help track and categorize the contributions that different technologies make towards the energy transition. EIP invests across two impact pathways, with percentages representing the spread of our investments across both pathways:



# **Directly Avoided GHG Emissions Impacts** (Direct)

Companies with direct avoided GHG emissions impact assessed via rigorous baseline vs. investment scenario modeling.

·35%

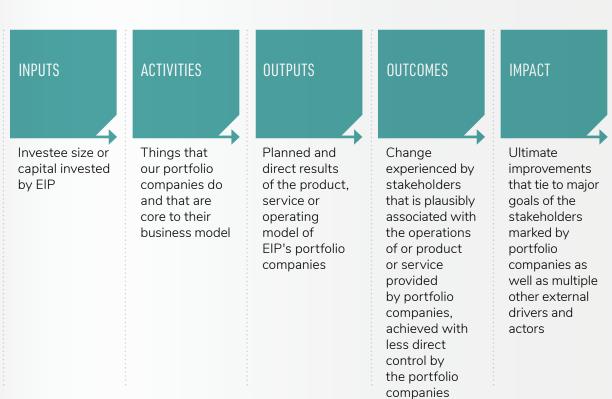


# Foundational Energy Transition Impacts (Foundational)

Companies critical to the energy transition whose benefits contribute to improved resilience, reliability, climate adaptation and/or climate mitigation. Their impacts are assessed through custom KPIs.

### FOUNDATIONAL ENERGY TRANSITION IMPACTS

A framework to contextualize the foundational impacts of our portfolio



#### IMPACT METRICS FROM OUR FOUNDATIONAL PORTFOLIO



eSmart
11,000+
Of overhead
line inspections
conducted with
drones as opposed to
helicopters

TRC
67%
Of revenue derived from climate solutions

CONVEY
160M+
Critical messages
sent on behalf of
utilities during
emergency events

ChargerHelp!

1,400+
EV assets (ports and stations) brought to operational state

### DIRECTLY AVOIDED GHG EMISSIONS IMPACTS

CUMULATIVE EIP PORTFOLIO AVOIDED EMISSIONS SINCE 2018

# 53.7 million

metric tons CO<sub>2</sub>e

Ownership-Weighted 3.7 million metric tons CO<sub>2</sub>e

#### 2050 POTENTIAL AVOIDED EMISSIONS

# 5-10 billion

metric tons CO<sub>2</sub>e

based on current technologies in EIP's portfolio

Equivalent of 1-2% of necessary global avoided emissions by 2050 to meet the 2°C threshold¹

#### **2024 ANNUAL AVOIDED EMISSIONS**

11.3 million metric tons CO<sub>2</sub>e

2.5 million cars off the road for a year equivalent

1 million
metric tons CO<sub>2</sub>e
ownership-weighted

#### PLANNED 5-YR AVOIDED EMISSIONS

247 million metric tons CO<sub>2</sub>e 53.5 million cars off the road for a year equivalent 21 million metric tons CO<sub>2</sub>e ownership-weighted

#### OWNERSHIP-WEIGHTED IMPACTS BY STRATEGY



#### Flagship Strategy

annual enabled avoided emissions increased **62%** from 430,000 to 700,000 tCO<sub>2</sub>e



#### Frontier Strategy

planned 5-year enabled avoided emissions increased **100%** from 10.5 million to 21 million tCO<sub>3</sub>e



#### **Credit Strategy**

annual enabled avoided emissions increased **25%** from 266,000 to 333,000  $tCO_2e$ 



#### **Elevate Future Strategy**

annual enabled avoided emissions of **13,000** tCO<sub>2</sub>e

#### OWNERSHIP-WEIGHTED ENVIRONMENTAL IMPACTS



29.3 million gallons of gasoline equivalent

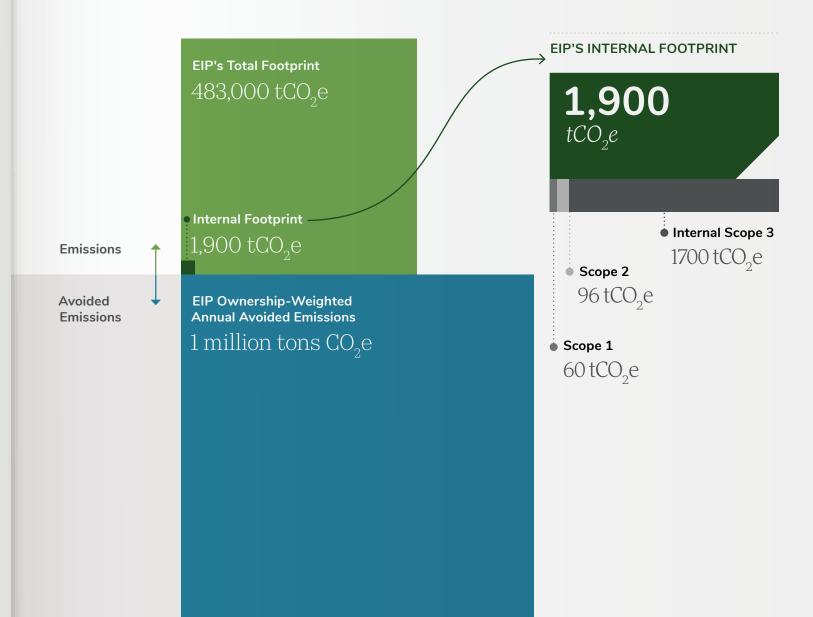
671,000 MWh of electricity

210 metric tons of NOx 125 metric tons of SOx

### EIP'S NET ENABLED IMPACTS

At EIP we have the responsibility to mitigate the emissions from our operations and our portfolio by at least ensuring the avoided emissions we enable through our investments outweigh the emissions associated with process.

EIP Portfolio Avoided Emissions to Footprint Ratio
2.2X



### HELPING OUR PARTNERS SUCCEED

At EIP, a core part of our mission is to help our partners succeed and achieve their decarbonization and resilience goals. In 2024 our strategic partners continue to collaborate across the EIP ecosystem to support their energy transition goals.

#### SAMPLE OF NOTEWORTHY COLLABORATIONS



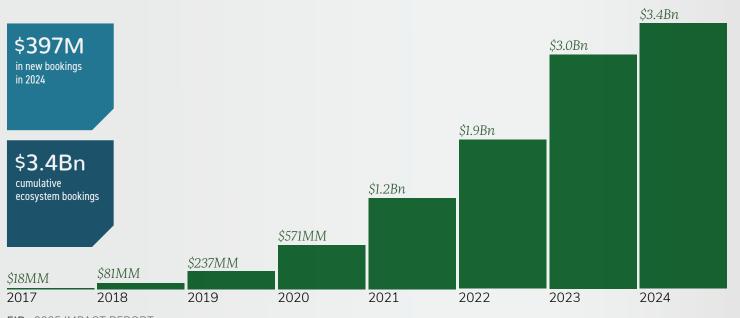
35 onsite partner presentations





902 cumulative ecosystem contracts

#### TOTAL CUMULATIVE ECOSYSTEM BOOKINGS



### **ESG HIGHLIGHTS**

Gathering and reporting data on both impact and other sustainability metrics allows us to grow a portfolio that not only has material positive impacts on the environment, but also ensures that companies achieve these with good environmental, social and governance practices in place.

Key highlights



90+ Environmental, social and governance metrics assessed 90 Number of portfolio companies reporting

86%
Percentage of portfolio companies reporting

Key diversity metrics



28% Women FTEs within our portfolio 37% URM FTEs at EIP

27% URM FTEs within our portfolio

Key SDGs with which our portfolio aligns the most



60 portfolio companies aligned with Industry, Innovation & Infrastructure



25 portfolio companies aligned with Sustainable Cities & Communities



37 portfolio companies aligned with Affordable & Clean Energy



17 portfolio companies aligned with Responsible Consumption & Production

Key ESG guiding frameworks and guidelines







11



# GUIDE TO THIS REPORT

#### Section 1

**About EIP** provides an overview of our mission, portfolio, investors, strategies, impact processes and advisors.

#### Section 2

Climate Impacts explains the avoided emissions our companies enable and other critical impacts our companies have on the energy transition.

#### Section 3

**EIP's Greenhouse Gas Footprint** discusses our scope 1, 2, and 3 footprint, including emissions from our portfolio.

#### Section 4

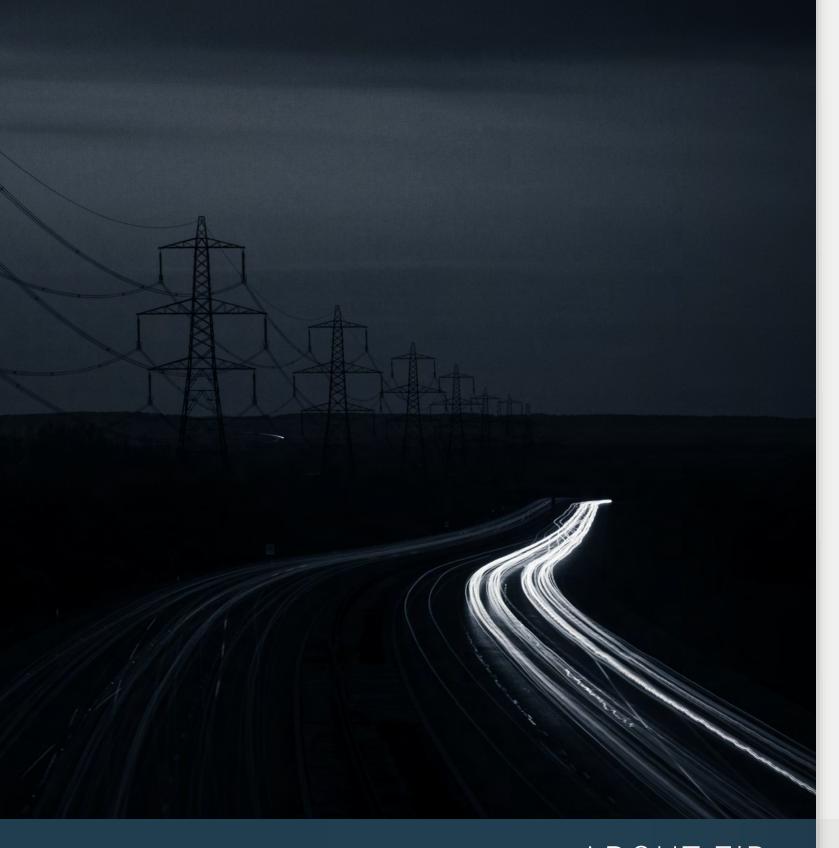
**ESG** showcases the internal practices among our portfolio and EIP, talent efforts, and other ESG related initiatives.

#### Section 5

Thought Leadership, Community Engagement, Awards & Recognition chronicles our perspectives around climate and energy transition trends, how we engage with the community, and recognitions of our efforts.

Additional information, including our online Technical Appendix, can be found at

energyimpactpartners.com/impact



# ABOUT EIP Section 1

# MISSION

To create an investment platform and investor coalition that accelerates the energy transition, while earning strong returns.

EIP is a specialized global investment firm dedicated to unlocking the full potential of the energy transition. The energy transition represents an enormous opportunity for innovation and profitable investment. Since inception in 2015, we have combined our corporate partner network with an accomplished investment and research team to identify and deploy energy transition solutions. Our unique model has now grown to over \$4.4bn in AUM with over 140 investments to date in companies across the clean energy spectrum.

Having engaged with over 1,800 experts across our coalition of 80 strategic corporate partners, today our partners view EIP as a synonym for collaboration. Our corporate partners own or operate huge portions of the world's energy production and consumption systems, including electric and gas networks, industrial facilities, transportation companies, and large-scale buildings. Together, we work to study decarbonization pathways, evaluate new technologies and services, and deploy innovations within the operating footprint of our coalition. We are able to bring these solutions to scale through leveraging the expertise and operations of our partners and their ecosystems.

140+ Investments in potential leaders in core segments 2015
Launched by industry veterans pioneering unique approach

100+ Team, including 20+ researchers & business developers

75+ Global strategic investors collaborating \$4.4Bn+ Assets under management

# THEORY OF CHANGE

Energy systems are deeply networked, critical infrastructure operating at a massive scale. Decarbonizing them requires technology adoption by the companies that own and operate this system from generation to use. Helping them identify technology solutions through collaboration helps accelerate progress toward a clean, resilient, and secure energy transition.

EIP was founded in 2015 and has grown into one of the leading specialized global investment firm dedicated to unlocking the full potential of the energy transition. We are often viewed as the investor of choice for entrepreneurs and the platform of choice for limited partners looking to invest in the energy transition. EIP has also become a key solutions provider in the market – with over 600 commercial partnerships amounting to over \$3bn in bookings between our portfolio and corporate partner network.

Our portfolio companies have avoided 53.7 million tCO<sub>2</sub>e and have the potential to cumulatively avoid between 5 and 10 gigatons of CO<sub>2</sub>e by 2050.

We are proud to have created a unique multi-corporate approach where like-minded utilities, energy companies and industrials share their learnings and collaborate on an aligned strategy in an effort to increase the speed of innovation, reduce costs and mitigate risks.

### A STRATEGIC PLATFORM FOR INNOVATION AND TRANSFORMATION







# STRATEGIC INVESTOR COALITION<sup>2</sup>







































































































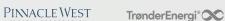














# STRATEGIES

EIP's strategies, from early stage to growth and mature, allow us to learn and collaborate across the different platforms as well as support the energy transition across stages and diverse forms of capital.

We have three funds that are registered with the European Union's Sustainable Finance Disclosure Regulation (SFDR) under Article 8 and Article 9, further ensuring greater transparency and fidelity to our mission.

#### **STRATEGIES ACTIVE IN 2024**

early

inflection

growth

mature



#### **Frontier Strategy**

Focused on early-stage climate technologies essential for decarbonization. This strategy targets solutions addressing major climate challenges where EIP can leverage our coalition partners as sources for technical expertise and deliver first commercial proof-of-concept deployments.

#### Flagship Strategy

Focused on proven, ready-to-scale technologies and business models. Investments are typically inflection or growth stage companies, mostly in the United States and Europe, whose trajectory we can influence with our ecosystem.

#### **Credit Strategy**

Focused on investments in U.S. middle market companies in the emerging energy sector, focused on general sustainability. These funds are licensed as Small Business Investment Companies (SBICs) by the U.S. Small Business Administration (SBA).

#### **Elevate Future Strategy**

Focused on accelerating the energy transition and driving impact in rural and often overlooked (or underestimated) communities. Invests in earlier-stage opportunities across equity, credit, and accelerator/incubator models to achieve broader representation.

# IMPACT APPROACH

The energy transition requires investment across multiple verticals, from decarbonized supply to sustainable demand, with intelligent infrastructure to support both.

Our impact strategy and investment thesis are deeply intertwined. Our impact strategy begins with a simple truth: the energy sector is responsible for over 70% of annual global emissions. Our investment thesis is that deploying new technologies to accelerate the energy transition represents one of the greatest economic opportunities since the industrial revolution - though capitalizing on this opportunity is far from easy.

The energy grid is the largest machine in the world, with deeply complex systems that underpin every aspect of the modern world across millions of

stakeholders in the domain of supply, transportation and consumption. Our competitive edge is working with the corporate partner network that forms that stakeholder group, which gives us an asymmetric advantage on identifying and accelerating the deployment of these technologies.

We have identified three major investment verticals with our corporate partners which drive all our investment strategies: decarbonized supply, intelligent infrastructure, and sustainable demand. These are the primary hunting grounds where our investment and research teams collaboratively identify new technologies and drive deployment with those corporate partners.

To operationalize these verticals, EIP has defined seven impact themes and we take a holistic systems approach towards the energy transition. Our position is that significant investment is required in all seven themes to create a successful energy transition.

Our impact framework has two parts. First, we assess an investment's alignment with the impact themes. Second, we assess that investment's

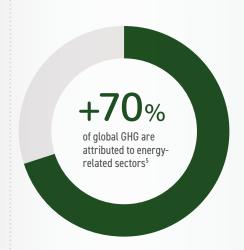
contribution to the impact theme through an impact pathway, which classifies that investment's form of contribution.

The two **impact pathways** are **Directly Avoided GHG Emissions** Impacts and Foundational Energy Transition Impacts. While we prioritize companies that develop solutions, products, and services that lead to directly avoided GHG emissions – for true systems change - it's critical to also invest in the foundational solutions that unlock further carbon savings or contribute to resilience, reliability or adaptation.

To substantiate impact, we conduct detailed baseline modeling and assign KPIs to each company during the investment process and then track them during portfolio monitoring.

In this edition of the Annual Impact Report, we present an updated taxonomy from the themes outlined in "Know Your Impact", published in November 2022.4 This taxonomy of impact themes organizes the complementary and necessary levers identified by EIP to drive global decarbonization.

We invest in solutions that address the largest emitting sectors...





Energy use in

buildings

17.5%





from energy **generation** to consumption and the infrastructure in between...



Decarbonized Supply



Intelligent Infrastructure









with quantifiable results that accelerate the energy transition through two impact pathways



**Directly Avoided GHG Emissions Impacts** 

Portfolio companies that lead to direct GHG avoidance



**Foundational Energy Transition Impacts** 

Portfolio companies that enable impacts critical to the energy transition beyond **GHG** emissions

21

70% of emissions related to energy related sectors

104 equity and debt positions held by

EIP in 2024<sup>3</sup>

2:3 ratio of EIP companies directly avoiding GHG

impact themes

**EIP** · 2025 IMPACT REPORT

Sustainable

Demand

### **IMPACT THEMES**

EIP's portfolio is comprised of portfolio companies that drive the energy transition through at least one of the impact themes.



#### Generation & Storage

Companies that support development of clean energy sources, energy storage, electrification, CCS, and decreased reliance on fossil fuels.



#### Materials & Circularity

Companies that reduce embodied environmental impacts in hard goods and implement business models that allow for easier reuse, recycling, repurposing, life extension, and circularity of goods.



#### **Efficiency & Management**

Companies that focus on increasing resource-use efficiency and work towards more efficiency management of demand side resources.



#### **Delivery & Optimization**

Companies that focus on the development of transmission & distribution infrastructure, resilience & reliability, and optimization of grid operations.



#### **Asset Resiliency**

Companies that develop physical and digital solutions critical to the reliability and safety of electric power systems.



#### Measurement & Planning

Companies that support utilities and corporations on their decarbonization journeys, ensuring they can measure, analyze and improve their GHG emissions.



#### **Just Transition**

Companies that support the global transition to net zero in a way that is as fair and inclusive as possible, creating decent work opportunities.

# ENERGY TRANSITION PORTFOLIO

#### **Decarbonized Supply**

Generation & Storage

Arcadia dragonfly I ION SOLAR Rayleigh ZAP ENERGY **Redrock** Energy # ELECTRIC HYDROGEN **(KOLOMA** # Reverion zolar Carbon America **I**nstagrid RONDO ELEMENTL Palmetto Intelligent Infrastructure Delivery & Optimization Materials & Circularity Sublime Systems () CELERITY Infravision SITETRACKER 6K **▼meta**fuels mill # CHARGE TECHPRO P > BUSTON **#** terragia innowatts\* MUSSER ← myenergi **EST** CH! ChargerHelp **₩** Ceibo Cyclic O Materials OXFORD FLOW ...eSmartSystems ◆ TRC NITRICITY energy **\$V//**E **O**Grover ♦ POWERFACTORS Rheaply SÎTE zitara ( MANUSBIO **₿** RUBICON Asset Resiliency Measurement & Planning COMMUNITY TREE RESILIENT STRUCTURES Vanish ID. Audette<sup>1\*</sup> measurabl Singularity XOUS esgbook \* Particle CONVEY S(YTHE DRAGOS **SWIMLANE** greenly CANARY gridX Urbint Rock Rabbit

#### Sustainable Demand

Efficiency & Management











SMTI



sparkfund

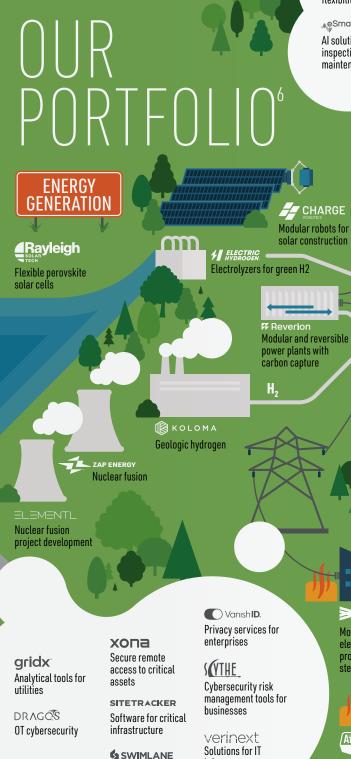
**Just Transition** 





For more information and an extensive list of EIP's portfolio companies, refer to Appendix Table 1

# $\mathbf{m}$ **\_Rayleigh** Flexible perovskite solar cells 🕅 KOLOMA Geologic hydrogen **Nuclear fusion** Nuclear fusion project developme XOUS Secure remote gridx access to critical Analytical tools for assets utilities SITETRACKER DRAGOS Software for critical OT cybersecurity infrastructure SWIMLANE infrastructure **Enterprise security** automation





**Singularity** 

solutions for grid

decarbonization

() CELERITY

companies

Risk management

consulting for utility

◆ TRC

engineering

*innowatts* 

for energy load

forecasting

Environmental and

consulting services

Predictive analytics

(I)

Meter testing

accessories

TECHPRO 🎾

SÏTE

Roadside flagging

and traffic contro

Electrical services and equipment testing

instruments and

Software

**₩** 

GridBeyond'

Demand response

aggregator and flexibility services

**LeSmart**Systems

Al solutions for grid

inspection and

maintenance

CHARGE

Modular robots for

solar construction



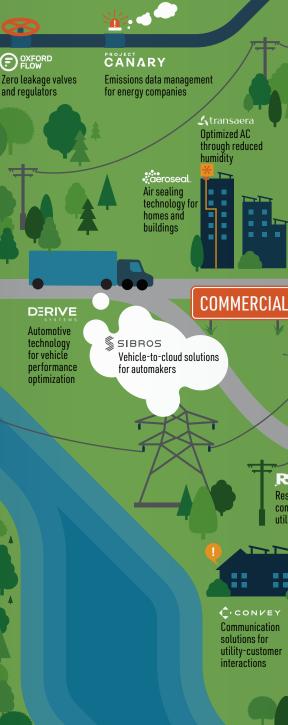
Ourbint

**I** Instagrid

Al risk engine for

worker safety and

emergency response





flo

EV charging solutions provider

CH! ChargerHelp

Maintenance and

services for EV

charging stations

**Bedrock** Energy Geothermal heat

and operator

C HopSkipDrive Safe and dependable transportation services Ovia Smart city transportation planning platform sense Behind-the-meter intelligence (4) HeatT Heat pump sales and installation platform

greenly

sparkfund

and financing

ESG data

platform for

real estate

**Energy transition** 

project management

Gas generators for microgrids and backup power

COMMUNITY TREE

**GHG** accounting

and management

\$ POWERFACTORS

software

esgbook

ESG data and

Renewable energy

asset management

analytics platform

Arcadia

Audette<sup>1</sup>

analytics for

TMC Traffic & Mobility

Transportation

buildings

planning

Utility data and energy

solutions platform

Carbon reduction

Rock Rabbit Al platform easing and emergency response energy rebate access A Hometree Boiler and home emergency insurance services ev. energy Smart software for EV charging RESIDENTIAL -MION SOLAR Residential and commercial solar installations **2** zolar Solar and storage

marketplace

ES SOLAR

Residential and commercial solar

Palmetto

Clean technology platform for residential

installations

customers

₽sмті

pumps

Residential gas

absorption heat



**meta**fuels



# INVESTMENT PROCESS

Impact and ESG assessments are thoroughly integrated into our investment and portfolio management processes. Our impact processes are aligned with industry recognized standards and regulations to maximize positive impact and minimize risk.

EIP embeds strategic value, impact and ESG considerations from preinvestment to exit. In the sourcing phase, the deal teams, research team, and impact team screen for companies that maximize both strategic value and positive impact to the energy transition.

Impact assessments guided by Project Frame and the Impact Management Platform methodologies increase in depth as we further engage with prospective portfolio companies. Alongside, we conduct diligence on environmental, social and governance factors, to ensure that we have a comprehensive view of both a company's internal workings and their external impacts.

EIP's onboarding for each new portfolio company includes

discussion of energy transition impact assessments and potential commercial opportunities and partnerships with our strategic network. An overview of the commercial bookings between our portfolio and EIP's strategic network are discussed in the following pages, "Helping Our Partners Succeed." In addition to embedding sustainability into the deal documentation to ensure ongoing monitoring, the Impact team

also supports portfolio companies throughout ownership as an ongoing effort to improve impact and ESG practices and prepare companies for their exits from the EIP portfolio.

### Sourcing & Due Diligence<sup>7</sup>

# SOURCING

Source companies that align with the energy transition, focusing on maximizing:

Impact · Strategic value

# DUE DILIGENCE

#### Impact Alignment

Assess impact thesis based on:

Impact themes · Impact pathways · Impact thresholds · Contribution to stakeholders

Decision to further diligence

#### FINAL DECISION

#### Impact Assessment

Quantify impact based on:

Scale · Depth · Duration · Additionality

#### Risk Assessment

Diligence risks associated to achieving positive impact

Diligence results presented to IC

#### Onboarding & Value Creation

# ONBOARDING

### Embed sustainability in deal documentation

Reporting

GHG footprint

**Decision to invest** 

#### MONITORING & VALUE ADD

## Annual check-ins with companies to enhance performance

Tracking and benchmarking of impact and ESG KPIs

Assess expected and achieved impact Ad-hoc portfolio support

Annual impact reporting

## EXIT

## Highlight impact and sustainability achievements in **exit story**

Present impact growth opportunities

**GUIDING FRAMEWORKS** 

IMPACT MANAGEMENT PLATFORM













# HELPING OUR PARTNERS SUCCEED

At EIP, a core part of our mission is to help our partners succeed and achieve their decarbonization and resilience goals. Our goal is to de-risk and accelerate a successful energy transition. We work to add value to our partners through onsite briefings, specialized engagements, working groups, and facilitating key collaborations across our ecosystem. Although many of these activities focus on strategic investors with large commercial and industrial operations, our financial investors often participate as well to gain insights and improve their own climate investing strategies.

One of the most important ways we work with our partners is to present to their boards, management teams, and other groups at meetings, retreats, and strategy sessions. Our onsite and specialized work provides insights into the technologies, business models, and policy shifts that are relevant to our partners' decarbonization roadmaps and current operational challenges.

35
onsite partner presentations

31
new research reports for partners

12 working groups with 359 attendees \$3.4Bn
cumulative
ecosystem bookings

902 cumulative ecosystem contracts

### **WORKING GROUPS IN 2024**

Working groups are a key value proposition offered to our LP representatives and invited guests. These intensive, collaborative, multi-day peer-to-peer sessions are key to accelerating the energy transition.

These sessions are led by EIP's research team and include leading solutions providers from EIP's existing investments as well as others. EIP also facilitates executive roundtables throughout the year. These dialogs bring together senior executives from our LPs in specific areas to engage in a focused, in-depth conversation on topics of mutual interest.

In 2024, we held 12 working groups and dialogs on topics shown in the table on the next page. These events attracted a total of 359 attendees from our ecosystem and covered a wide range of topics related to and necessary for the energy transition.



#### **Battery Value Chain**

Global supply chains, lithium graphite and energy-dense materials



#### **Building Efficiency**

Utility energy efficiency programs, ventilation and cooling, software solutions



#### CCUS

Technology maturity, cost and deployments, and measurement and verification



#### **Climate Impact**

Impact measurement and management, net zero and other sustainability topics



#### **CVC Training**

Intensive short course on the key skills and processes in corporate venture capital



#### Cybersecurity

IT and OT security, cloud and DevSecOps



#### **Distributed Generation**

Microgrids, on-site solar and storage, and the role of commercial and industrial players



#### **Electric Distribution Efficiency**

Smart meters, distributed sensors, resource dispatch and asset monitoring



#### **Energy Storage**

Batteries, (lithium-ion, sodium-ion, flow), thermal storage, and macro trends



#### Fleet Vehicle Decarbonization

Truck electrification, clean transportation, and fleet operations



### Future of Energy Storage Executive Roundtable

Discussion on the state of energy storage and its role across Europe.



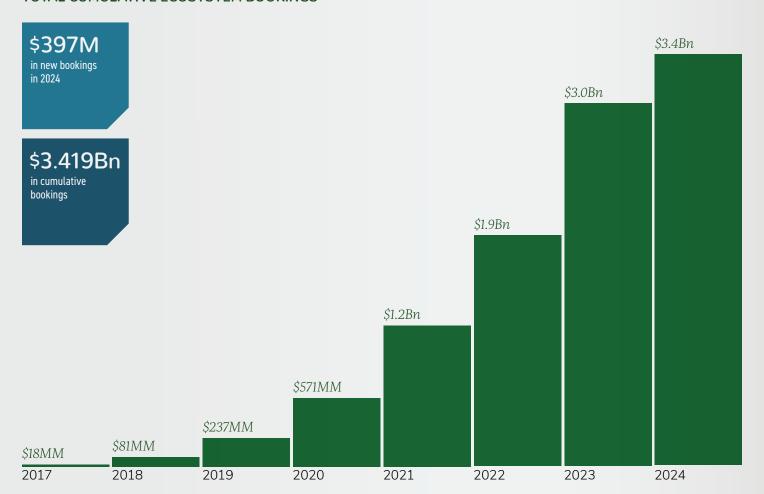
### Future of Power Supply Executive Roundtable

Discussion on emerging power supply solutions focused on nuclear, geothermal, next gen solar, and storage

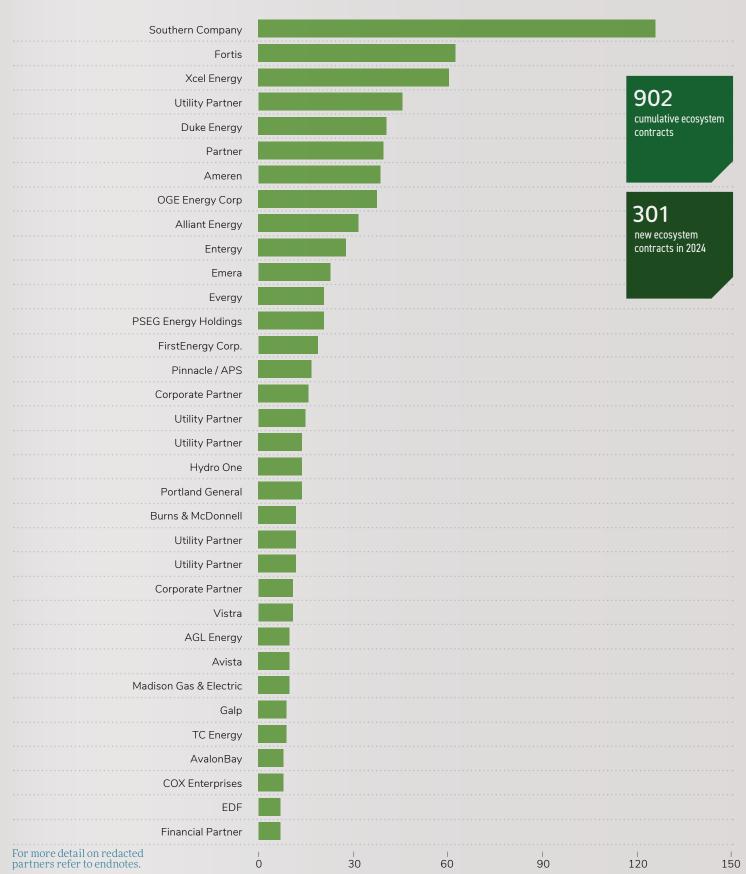
## ECOSYSTEM COLLABORATIONS

In 2024 our strategic LPs continue to collaborate across the EIP ecosystem, by adopting our portfolio's solutions and working with other LPs, to support their energy transition goals. As of the end of 2024, 80% of our strategic partners work or have worked with at least one of our portfolio companies. The number of ecosystem contracts continue to grow, adding 301 new contracts in 2024 to reach a cumulative total of 902 contracts with just over \$3.4 billion in aggregate booking value.

#### TOTAL CUMULATIVE ECOSYSTEM BOOKINGS



#### TOTAL CUMULATIVE ECOSYSTEM CONTRACTS8



31

### NOTEWORTHY COLLABORATIONS

This page highlights a number of noteworthy ongoing collaborations between strategic partners and portfolio companies. These collaborations range from those that we classify as highly strategic, with the potential to trigger significant changes in business processes, to ones at or close to full commercial scale, often with plans to expand to widespread company use. The following pages chronicle two of these collaboration success stories in more detail.

#### **EIP Corporate Partner**

**EIP Utility Partner** 

most critical sites

Prioritizing buildings for

across entire portfolio

decarbonization investments



**EIP Utility Partner** 



Arcadia

Reducing dependence on petroleumbased diesel for data center backup

Securing remote access to the

Audette<sup>1</sup>

Deploying a customer-centric approach to crisis communications





Deploying composite poles and improving arid resiliency



XOUS



HSBC



CANARY

greenly

Innovating on field safety with Al job site briefing technology

Helping UK Small and Medium

Partnering to identify and mitigate

fugitive methane emissions

Businesses Decarbonize

Southern Company Gas





Pioneering multi-day energy storage for a highly renewable future





Enabling electric transportation at multifamily customer sites



Increasing visibility into energy spend by tracking tariff changes across the portfolio

**EIP Corporate Partner** 



Improving efficiency of air conditioning load through proactive dehumidification





measurabl

Implementing centralized, real-time building energy data and analytics to reduce carbon footprint





Improving grid resiliency for the Bolivar peninsula in Southeast Texas

### PIONEERING MULTI-DAY ENERGY STORAGE

Innovation Success **? Xcel** Energy





#### Background

Xcel Energy is a decarbonization leader, with >10 GW of renewables on their system today and another 10 GW planned for the next decade.

Xcel is interested in energy storage to help firm renewables and support resource adequacy.

#### **Project Scope**

Form Energy presented a case to Xcel built from Formware<sup>™</sup>, its grid modeling software, to evaluate the value across multiple grid scenarios and prioritize deployment—super-charging their engagement.

That work led to two multi-day energy storage projects—one in Minnesota and one in Colorado each approved by regulators and supported by private and federal grants.

- 2 GWh of 100-hour iron-air battery storage (10 MW/1000 MWh at each site) connected to the transmission grid will mark a milestone for grid reliability and resiliency and help realize value for large renewable fleets.
- Projects online in 2026-2027, making Xcel one of the first utilities to deploy this novel multi-day storage solution at commercial scale.

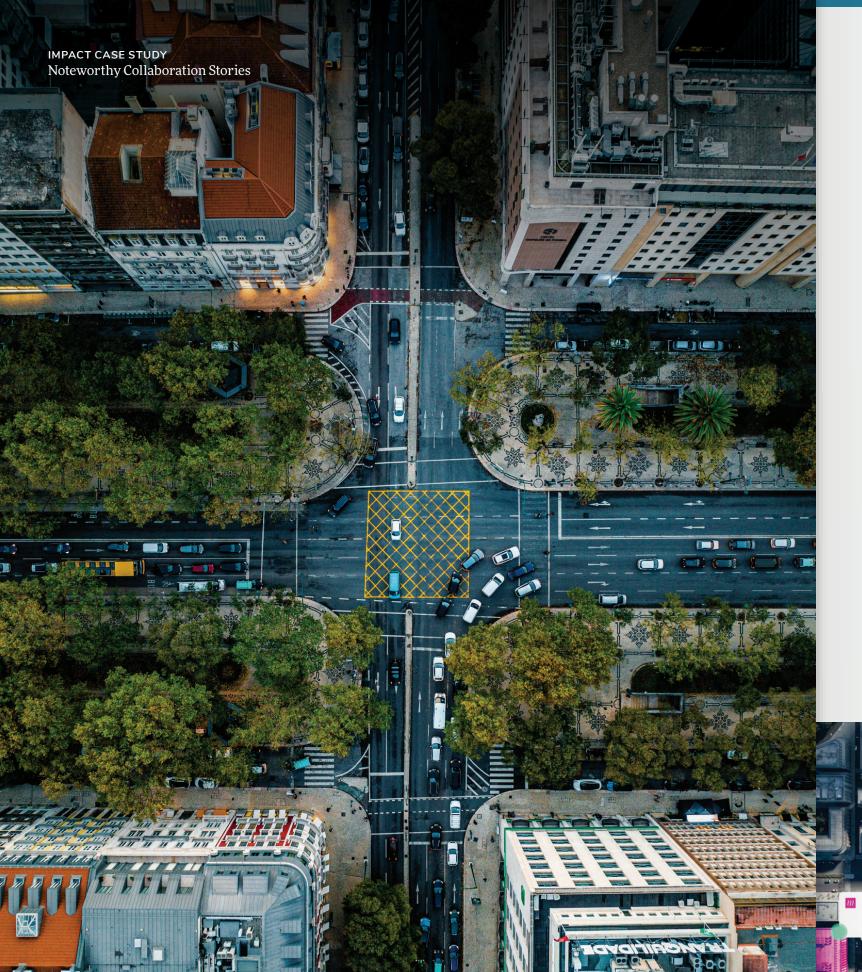


"As we build more renewable energy into our systems, our partnership with Form Energy opens the door to significantly improve how we deliver carbon free energy so that we can continue to provide reliable and affordable electric service to our customers well into the future."

BOB FRENZEL, Xcel Energy Chairman, President and CEO

2 GWh of 100-hour storage

Projects online in 2026-27



## ACCELERATING BUILDING DECARBONIZATION

Innovation Success AvalonBay



Audette<sup>1</sup>

#### Background

AvalonBay (AVB) has set industry-leading SBTi validated targets: 53% reduction in Scopes 1 and 2 and 47% reduction in Scope 3 by 2030.

As they look to execute against this agenda, developing cost-effective asset-level strategies is a top priority. Historically, this sort of data has been challenging to aggregate and analyze, meaning capital planning is more reactive than proactive

#### **Project Scope**

AVB conducted an intensive 6-month pilot with Audette, focusing on 13 properties. The goal was to provide a faster, cheaper alternative to traditional building audits while identifying impactful carbon reduction pathways.

After the completion of the pilot, AVB decided to expand Audette across its entire portfolio and cover its roughly 300 communities.

#### Impact

- Quantification of high-level carbon reduction potential and cost to decarbonize across AVB's entire portfolio (in a matter of weeks)
- Identification of high-priority assets and delivery of property-level, budget-ready decarbonization plans for each of AVB's communities (>60% time savings)

Deployed portfoliowide in ~300 communities

Generates building-specific decarbonization pathways



# IMPACT ADVISORY BOARD

In 2020, EIP established a dedicated Impact Advisory Board to provide input and guidance on EIP's ESG and impact measurement policies and practices and to provide a forum for sharing ideas, best practices, and intelligence.





Anja Gräf is Head of Impact Private Markets at HSBC, for the past 18 years, leading strategic initiatives to expand infrastructure, private markets, and impact investing capabilities. During her tenure, she has been instrumental in strengthening HSBC's global private markets platform and advancing sustainable investment strategies. Prior to joining HSBC, Anja gained experience in working at WGZ Bank AG and as an Ambassador Dusseldorf at Fashion Revolution day.





Ann Klee is a nationally recognized expert in environmental law and policy, and accomplished executive who has led national and global organizations in the private sector and held senior policy positions in the Executive Branch and on Capitol Hill. She serves as Chair of the Board of the Center for Climate and Energy Solutions. She is also a board member of Wabtec Corporation and Sotera Health leading ESG matters, and of Assent, a global technology solution for supply chain sustainability management. She is a proven leader and impact player who has managed high profile, complex environmental problems. driven culture transformation

across organizations, and executed successful sustainability strategies.





Brandon Middaugh is the Senior
Director of Microsoft's Climate
Innovation Fund in their Environmental
Sustainability team. She works
to accelerate innovation through
investments in global climate solutions.
Prior to this, she was Microsoft's
Senior Program Manager, Distributed
Energy where she led the evaluation
and deployment of emerging
energy technologies for their global
cloud operations. Before coming to
Washington State, she held several
senior positions at SunEdison in the
San Francisco Bay area.

The Impact Advisory Board meets on a periodic basis to review EIP's activities and discuss other ESG-related matters of importance to EIP's partners.





Jeff Lyng is the Chief Sustainability
Officer and Vice President of External
Affairs and Policy at Xcel Energy,
where he leads clean energy strategy,
policy, and sustainability initiatives. He
has over two decades of experience
in energy and environmental policy,
including roles at the Center for the
New Energy Economy at Colorado
State University, Opower, and the
Colorado Energy Office. Jeff also
serves on the boards of the Keystone
Policy Center and the American Solar
Energy Society.



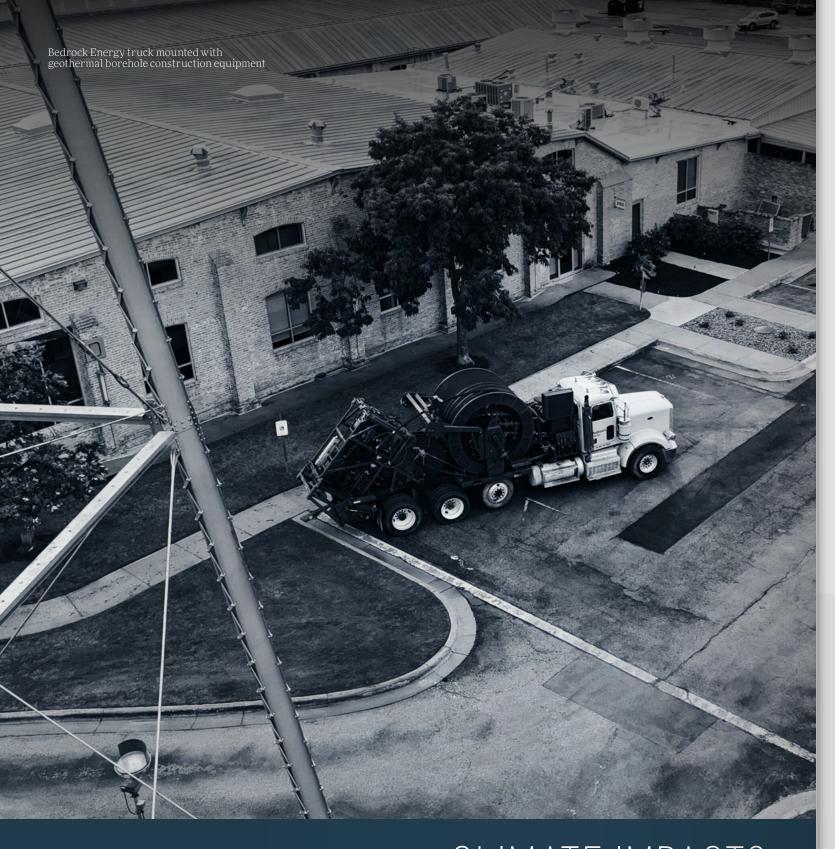
nysnø Climate Investments

Lene Hodge is an Investment Manager at Nysno Climate Investments and Board Member at Metizoft AS and Tise. Lene has served at Nysno Climate Investments for the past four years and led strategies on integrating ESG and sustainability into their investment process and portfolio companies. Her prior experience includes being an adviser to The Norwegian Water Resources and Energy Directorate and having worked with startups and nonprofits in the energy and environmental spaces.





Matteo Millone is a Senior Responsible Investment Portfolio Manager in the Global Private Equity and Direct Venture team at APG Asset Management, specializing in climate, ESG risk, and impact investing. He previously worked in banking supervision at De Nederlandsche Bank and the European Central Bank, focusing on credit risk, internal models, and business model risk. Earlier in his career, Matteo was an Assistant Professor at Vrije Universiteit Amsterdam, where he led research on sustainable banking, credit risk, and alternative finance. He holds a PhD in Banking and Finance from Maastricht University.



# CLIMATE IMPACTS

# IMPACT PATHWAYS

Energy systems are highly complex. Transformation requires investing in technologies that directly reduce emissions and foundational systems to support them.

Impact pathways are the specific routes through which investments lead to measurable outcomes in reducing greenhouse gas (GHG) emissions or improved resilience, reliability and/or climate adaptation. These pathways help track and categorize the contributions that different technologies make towards achieving a decarbonized energy future.

EIP invests across two impact pathways:



### **Directly Avoided GHG Emissions Impacts** (Direct)

These solutions lower or eliminate emissions by replacing higher-emission incumbents, reducing the GHG intensity of existing processes, and avoiding future emissions. Companies are assessed through rigorous modeling of baseline versus investment scenario emissions.



### **Foundational Energy Transition Impacts** (Foundational)

These solutions are measured against KPIs for improved resilience, reliability, and climate adaptation on the energy system. Foundational companies can enhance GHG avoided emissions in the larger value chain, but their impact cannot be directly quantified in tons of GHG emissions directly avoided.

# CLIMATE IMPACTS KEY TAKEAWAYS

### DIRECTLY AVOIDED GHG EMISSIONS IMPACTS

CUMULATIVE EIP PORTFOLIO AVOIDED EMISSIONS ENABLED SINCE 2018

# 53.7 million

metric tons CO<sub>2</sub>e

Ownership-Weighted: 3.7 million metric tons CO<sub>2</sub>e

2050 POTENTIAL AVOIDED EMISSIONS

# 5-10 billion

metric tons CO<sub>2</sub>e

based on companies in the EIP portfolio in 2024

Equivalent to 1-2% of necessary global avoided emissions by 2050 to meet the 2°C threshold<sup>9</sup>

#### 2024 ANNUAL AVOIDED EMISSIONS ENABLED

11.3 million metric tons CO<sub>2</sub>e

2.5 million cars off the road for a year equivalent 1 million metric tons CO<sub>2</sub>e ownership-weighted

#### PLANNED 5-YR AVOIDED EMISSIONS ENABLED

247 million metric tons CO<sub>2</sub>e 53.5 million cars off the road for a year equivalent 21 million metric tons CO<sub>2</sub>e ownership-weighted

#### OWNERSHIP-WEIGHTED ENVIRONMENTAL IMPACTS



29.3 million gallons of gasoline equivalent 671,000 MWh of electricity 210 metric tons of NOx 125 metric tons of S0x

### FOUNDATIONAL ENERGY TRANSITION IMPACTS

The **Impact Pathway** as a framework to contextualize the foundational impacts of our portfolio



Investee size or capital invested by EIP

#### ACTIVITIES

Things that our portfolio companies do and that are core to their business model

#### OUTPUTS

Planned and direct results of the product, service or operating model of EIP's portfolio companies

#### OUTCOMES

Change

experienced by stakeholders that is plausibly associated with the operations of or product or service provided by portfolio companies, achieved with less direct control by the portfolio companies

#### **IMPACT**

Ultimate improvements that tie to major goals of the stakeholders marked by portfolio companies as well as multiple other external drivers and actors

#### IMPACT METRICS FROM OUR FOUNDATIONAL PORTFOLIO

Audette
450 M
sqft of investment property under management, provided with decarbonization plans

eSmart
11,000+
Of overhead
line inspections
conducted with
drones as opposed to

helicopters

TRC
67%
Of revenue derived from climate solutions

160M+ Critical messages sent on behalf of utilities during emergency events

Convey

ChargerHelp!

1,400+
EV assets (ports and stations) brought to operational state

41

# OUR APPROACH TO MEASURING AVOIDED GHG EMISSIONS

Avoided emissions—also often called, Scope 4, carbon savings, or mitigated emissions—are calculated relative to emissions of a baseline scenario.





All impact measurement frameworks agree that avoided emissions should be measured by comparing a baseline or business-as-usual scenario to a scenario with the technology in question. As described in **Project** Frame's 2024 Methodology, investments that directly avoid GHG emissions are investments where "positive GHG impact would not occur without them". In alignment with Project Frame's methodology, we report three types of avoided emission impacts: Realized, Planned, and Potential. 10 This report provides: Realized impacts for 2024 and prior years for companies that are commercial, Planned five-year impacts

for pre-commercial companies, and *Potential* impacts out to 2050.

Project Frame's guidance for calculating avoided emissions aligns with our measurement approach and methodology. More details about our methodology for Realized and Planned impacts are found in our white paper, Know Your Impact. We have included an overview of our methodology for Potential impacts in the following page. The appendix contains further detail, and later this year we will be releasing a dedicated whitepaper.

### Methodology notes beyond Project Frame's

"An attribute of impact requiring an investor or company's thoughtful and reasonable articulation of the degree to which its support causes a change in an outcome that would have not otherwise happened (in a no-intervention or business as usual baseline scenario)." <sup>11</sup>

#### Additionality

We do not claim our investments are strictly additional nor that we are the sole actors affecting change. Our impacts are enabled. Our role is to finance companies whose solutions affect change on high-emission value chains. Our companies implement loweremissions products and processes, eliminating waste, increasing customer uptake of cleaner alternatives, and creating efficiencies and opportunities that would not exist otherwise. This cannot be done alone and requires other participants across the value chain, including companies who manufacture, install, service, support and finance. All these actors help enable the avoided emissions we measure.

#### Attribution

Regarding allocation among contributors to each stage of the value chain stage, including investors, we follow GHG Protocol and Partnership for Carbon Accounting Fundamentals (PCAF) guidance.<sup>12</sup> We claim only the portion of a company's avoided emissions that we are responsible for financing. For example, if we provide 20% of a company's invested capital this year we claim only 20% of the avoided emissions we calculate. EIP's attribution is communicated as ownership-weighted avoided emissions throughout this report.

# MEASURES FOR AVOIDED GHG EMISSIONS

We have a diverse portfolio of companies at different stages of maturity that aim to influence energy systems in the near- and long-term.

We have three distinct measures to accurately measure and report on the enabled avoided emissions of our portfolio companies in different stages of their lifecycle and provide a full perspective of their impact beyond EIP:

Higher certainty

#### Higher uncertainty

# ANNUAL ENABLED ACTUAL AVOIDED EMISSIONS



These are actual GHG emissions avoided in 2024 by our companies' commercial products and services that were active throughout the year. There is little uncertainty around these avoided emissions as the baseline scenario is the observable state of the market today. These figures utilize actual sales and service data rather than projections.

# PLANNED 5-YEAR ENABLED AVOIDED EMISSIONS



We calculate planned enabled avoided emissions across a company's first five years of commercial availability for companies that are still under development and/or are not yet commercial. We work with the portfolio company to project a date of market entry, annual sales from this date through the end of the fifth year in the commercial market, and estimate enabled annual avoided emissions from these projected sales.13 We incorporate any clear potential shifts in the baseline over the five-year forecast period, but these changes are not usually significant. Most investments for which we calculate planned fiveyear enabled avoided emissions are early-stage technologies still under development with large decarbonization potential in our Frontier Strategy.

## 2050 POTENTIAL AVOIDED EMISSIONS



Decarbonization efforts and avoided emissions are typically contextualized to 2050 net zero targets. This year we have implemented a new measure that explores our portfolio's longerterm potential for avoided emissions, beyond our holding period. The motivation for this is to demonstrate how critical our portfolio of solutions is to the global decarbonization effort throughout the next 25 years. We utilized two distinct methodological approaches based on a company's stage of commercialization. These methodologies account for dynamic baselines, lifetime enabled avoided emissions of solutions, historical avoided emissions where available. anticipated market shares, failure rates, and other relevant factors. For more details refer to Appendix -2050 Potential Avoided Emissions **Methodology** 

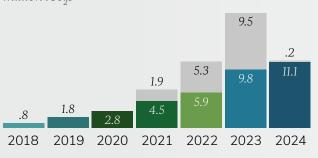
■ Based on historic data

Based on forward-looking data

Box size reflects time-frame of each measure

# ENABLED AVOIDED EMISSIONS RESULTS

## ANNUAL ENABLED AVOIDED EMISSIONS million tCo<sub>2</sub>e

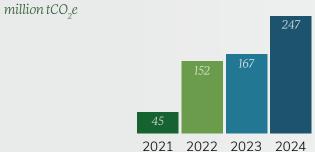


Ownership-Weighted *million tCo<sub>2</sub>e* 

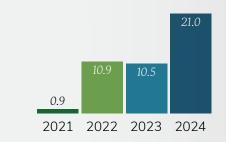


gray portions represent Project Canary data

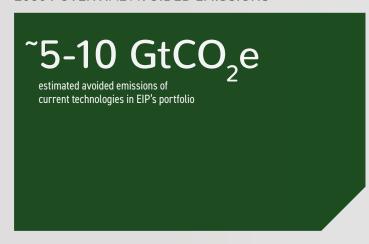
#### PLANNED FIVE-YEAR AVOIDED EMISSIONS



Ownership-Weighted *million tCO<sub>2</sub>e* 



#### 2050 POTENTIAL AVOIDED EMISSIONS



#### OWNERSHIP-WEIGHTED ENVIRONMENTAL SAVINGS



NAVELCUITED ENVIRONMENTAL CAVINICO

125 metric tons of SOx Our avoided emissions assessment provides immediate, planned, and long-term insights into the climate impacts of our portfolio.

In 2024, the absolute avoided emissions (without ownership allocation) of our portfolio were:

#### 11.3 million

metric tons CO<sub>2</sub>e annual avoided emissions, or the equivalent of taking 2.5 million cars off the road for a year. This is an increase of 13% from 2023, when excluding Project Canary data.

#### 247 million

metric tons CO<sub>2</sub>e planned 5-yr avoided emissions, or the equivalent of taking 53.5 million cars off the road for a year. This is an increase of 48% from 2023.

#### ~5-10 billion

metric tons CO<sub>2</sub>e 2050 potential avoided emissions based on current technologies in EIP's portfolio, or the equivalent of 1-2% of necessary global avoided emissions by 2050 to meet the 2°C threshold.<sup>15</sup> EIP's avoided emissions assessment strategy is unique as it provides immediate, planned, and long-term insights into the climate impacts of our portfolio. This strategy ensures that our portfolio is designed to affect change both immediately and well into the future.

The significant change in annual avoided emissions this year is directly attributable to the business change of Project Canary. Project Canary has been responsible for a significant share of annual avoided emissions since 2021. In 2024, Project Canary discontinued its gas certification product line to focus on its software solutions, developing an emissions data management system in a single platform for energy companies. The company's impact is now better classified as foundational rather than direct with this new business model. We separated Project Canary's results from the rest to allow for clearer analysis. All year-over-year comparisons have leveraged historical data of the portfolio, excluding Project Canary data.

Beyond this, EIP's growing portfolio is the largest contributor to yearly changes to our avoided emissions. We have invested in 11 new companies in this reporting cycle<sup>14</sup> that directly avoid GHG emissions, four of which are pre-commercial under the Frontier Strategy. Companies that directly avoid GHG emissions now account for 65% of our active portfolio. Our existing portfolio companies enable more GHG avoided emissions on an annual basis as they develop.

Our ownership-adjusted annual enabled avoided emissions increased by 48%. The difference in percentage increases before and after ownership adjustment are driven by the range of ownership shares we hold across the portfolio.

Our ownership-adjusted planned five-year avoided emissions increased by 100%. The addition of four new pre-commercial investments was the main factor in this increase, despite changes in commercialization plans across several companies. This measure is dependent on a company's commercialization plans and strategies. We adjust the approach, timeframe and magnitude of our five-year assessments as commercialization plans and strategies change.

We do not adjust our portfolio's estimated 2050 potential avoided emissions by ownership share as the nature of this measure is to look beyond our holding period. This estimate demonstrates that EIP's portfolio of energy transition solutions has the potential to play a significant and critical role in global decarbonization.

EIP's portfolio also drives impacts in other areas of environmental sustainability. In 2024 our ownershipweighted environmental impacts were: 671,000 megawatt-hours (MWh) of electricity avoided, enough power for 62,000 households; 29.3 million gallons of gasoline equivalent avoided, enough to drive 740 million miles; and 420 million gallons of water avoided, equal to the water used by 5,000 average U.S. households.

### AVOIDED EMISSIONS BY STRATEGY

In 2024, 38 companies in our portfolio were post commercial market entry and actively selling solutions that directly avoid GHG emissions. Another 19 companies were pre-commercial and actively developing solutions that directly avoid GHG emissions. The figures below show how avoided emissions continue to grow across each of our investment strategies.

Our Flagship Strategy saw an increase of 62% annual enabled avoided emissions from 430,000 tCO<sub>2</sub>e to 700,000 tCO<sub>2</sub>e. We expect the annual enabled avoided emissions from this Strategy to vary in the coming years as we exit from older companies and continue to invest in new companies. Our Flagship Europe fund—part of our Flagship Strategy—saw an increase

In 2024, 38 companies in our portfolio were post commercial market entry and actively selling solutions that directly avoid GHG emissions. Another of 189% from 8,500 tCO $_2$ e to 25,000 tCO $_2$ e. This increase is mainly due to three new investments in the fund that directly avoid GHG emissions.

Our Credit Strategy saw an increase of 25% in annual enabled avoided emissions from 266,000 tCO<sub>2</sub>e to 333,000 tCO<sub>2</sub>e. The largest contributor to avoided emissions in this Strategy continues to be Rubicon Global—a software platform providing full-service waste management, recycling, and smart city technology solutions.

The Elevate Future Strategy saw an overall decrease of 98% in annual enabled avoided emissions from 576,000 tCO<sub>2</sub>e to 13,000 tCO<sub>2</sub>e when considering Project Canary data. This

decrease is due to the company's discontinuation of gas certification. The rest of the Elevate Future Strategy's annual enabled avoided emissions increased of 76% from 22 tCO<sub>2</sub>e to 38 tCO<sub>2</sub>e.

All our pre-commercial companies are in our Frontier Strategy. The increase of 100% in planned five-year enabled avoided emissions comes from new companies and company changes to their commercial plans.

### AVOIDED EMISSIONS BY IMPACT THEME

We align our portfolio companies to one of seven impact themes that best reflect their role in the energy transition. The figures below show how avoided emissions are distributed across impact themes, except for Just Transition which focuses on foundational energy transition impacts.

There are impact themes that inherently include more companies that directly avoid GHG emissions given their focus. Generation & Storage, Materials & Circularity, and Efficiency & Management are the impact themes with the highest number of companies that directly avoid GHG emissions. Measurement & Planning, Delivery & Optimization, and Asset Resiliency have limited companies that directly avoid GHG

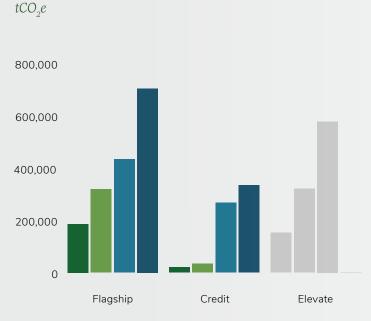
emissions, 22%, 28%, and 30% respectively.

Project Canary's previously large avoided GHG emission impacts had made Measurement & Planning the impact theme with the highest avoided GHG emissions. The avoided emissions from the rest of the companies in this impact theme increased 40% compared to 2023.

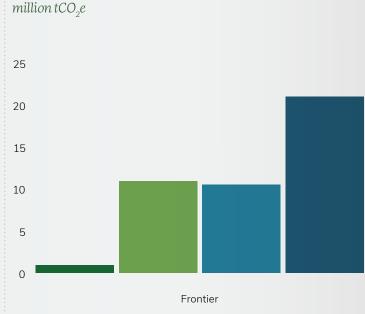
Fluctuations in planned five-year avoided emissions for pre-commercial companies are largely a result of changing commercialization plans or the commercialization of products. Once a company is in the market we calculate their annual enabled avoided emissions rather than their planned five-year avoided emissions. This

explains the decrease in Efficiency & Management avoided emissions as Stone Mountain Technology began commercial operations in 2024.

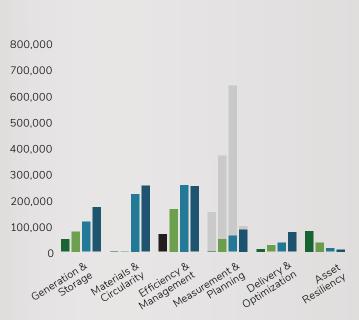
## OWNERSHIP-WEIGHTED ANNUAL ENABLED AVOIDED EMISSIONS BY STRATEGY



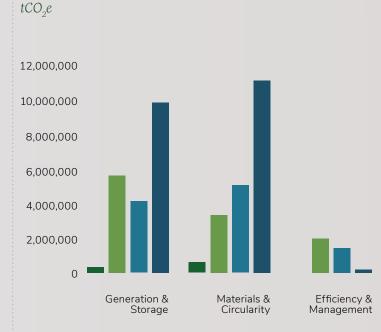
# OWNERSHIP-WEIGHTED PLANNED FIVE-YEAR AVOIDED EMISSIONS BY STRATEGY



# OWNERSHIP-WEIGHTED ANNUAL ENABLED AVOIDED EMISSIONS BY IMPACT THEME $tCO_{2}e$



# OWNERSHIP-WEIGHTED PLANNED FIVE-YEAR AVOIDED EMISSIONS BY IMPACT THEME



■ 2021 ■ 2022 ■ 2023 ■ 2024 ■ gray portions represent Project Canary data

# FOUNDATIONAL ENERGY TRANSITION IMPACTS

Foundational companies enable impacts critical to the energy transition.

At EIP, we are continually striving to enhance our impact measurement and management processes.

This endeavor presents both a challenge and an opportunity, given that approximately one-third of our portfolio enables foundational impacts crucial for the energy transition that cannot be measured through direct carbon savings or avoided emissions. These investments, however, remain pivotal to the energy transition, because they enable climate adaptation, resilience, and reliability, all of which are integral to the energy transition. Despite their importance, these ultimate goals still lack systematic frameworks to fully understand and measure their impact at scale.

To systematically capture the impacts of our foundational portfolio, from

2021 to 2024, we meticulously tracked and reported the number of energy and EIP's strategic coalition customers served by our portfolio companies. Metrics such as "number of customer impacts" served as an indicator of our portfolio's presence within the our coalition and the broader ecosystem but did not sufficiently capture the magnitude of our companies' impact, such as unit sales, nor the significance to these customers relative to other suppliers.

Recognizing the limitations of this approach, we adopted a more refined methodology that speaks more specifically to the contributions of each of these companies to the energy transition.

In 2024, we embarked on a systematic effort to document and track the

individual foundational outputs, outcomes, and impacts of our portfolio companies. This comprehensive new approach encompasses areas such as mitigation, adaptation, resilience, and others. It adds value by understanding and correctly sizing the individual contributions of each portfolio company and their downstream impacts, which are typically combined with a broader suite of solutions and exogenous drivers.

This new methodology is aligned with leading industry reporting norms, primarily the **Impact Performance** Reporting Norms by Impact Frontiers. It follows the so-called Impact Pathway, often equated to or referred to as the theory of change, logic model, or system map. As defined by the Impact Performance Reporting Norms, the Impact Pathway is "the sequence

that links organizations' actions with their effects on people and the natural environment."

There are five elements in the new approach based on the causal chain of an entity: inputs, activities, outputs, outcomes, and ultimate impacts.

Inputs: Resources needed for business activities

**Activities:** What organizations do

Outputs: The direct result (products, services) of a business' activities

Outcomes: The result or effect of the output (causal link)

**Impact:** The ultimate change in the conditions, caused by the above as well as external factors (indirect link)

As an investor committed to understanding, measuring, documenting, and managing the impacts enabled by our portfolio, we constantly aim to map our portfolio's outputs to ultimate impacts and outcomes. However, it is important to note that the most commonly available metrics today are outputs, as these are what our portfolio companies measure themselves. We acknowledge that this framework has key limitations such as the scalability and ability to compare these metrics across, but believe that it remains a strong framework to assess the strength of the contributions of a company to the energy transition.

The following page illustrates the Impact Pathway in practice for a sample of foundational companies within our 2024 portfolio.

#### The elements of the Impact Pathway



# **OUTPUTS** Planned and direct results of the product, service or operating model

Change experienced by stakeholders that is plausibly associated with the operations of or product or service provided by portfolio companies, achieved with less direct control by

the portfolio companies

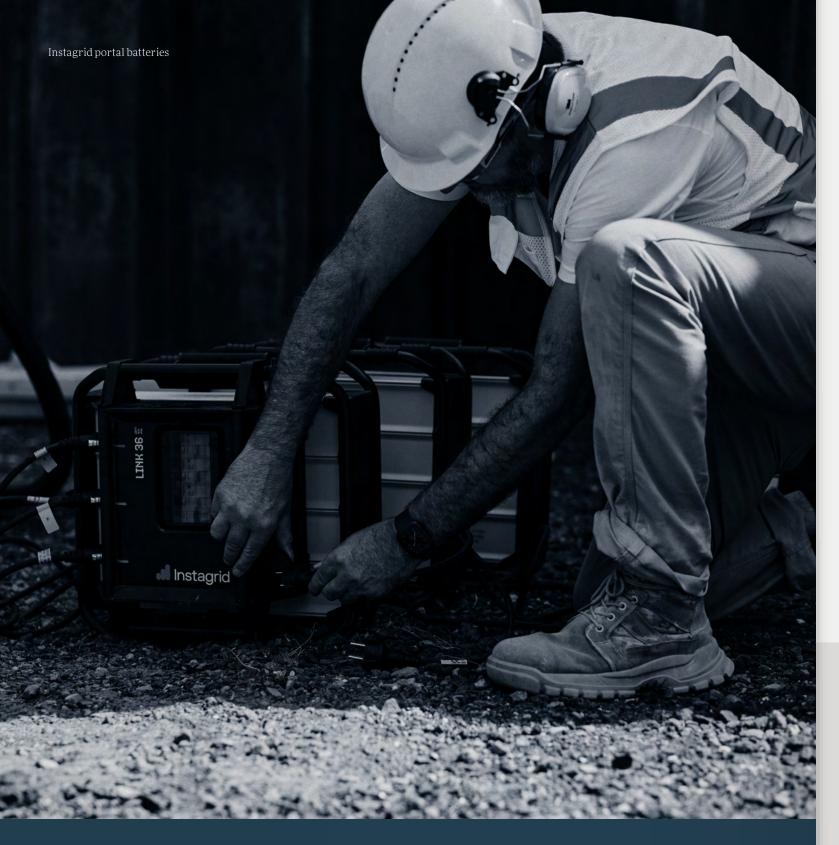
OUTCOMES



Ultimate improvements that tie to major goals of the stakeholders marked by portfolio companies as well as multiple other external drivers and actors

EIP Portfolio Companies: ChargerHelp!, eSmart, Infravision, Site2020, Zitara

The Impact Pathway of a selection of our foundational portfolio companies			EIP's portfolio companies' indirect influence	
	EIP's portfolio companies' direct influence			
	ACTIVITIES	OUTPUTS KPI assessed	OUTCOMES benefits to EIP strategic coalition & other customers	IMPACT Energy transition impacts
Companies focused on GHG management and accounting are crucial for decarbonization. They enable emissions reductions in the value chain through accounting, management and planning. They play a key role in target setting and impact assessments, and fit into a broader space of incentives and drivers for decarbonization (availability of solutions, regulatory drivers, voluntary commitments, etc.) that ultimately drive global decarbonization.  EIP Portfolio Companies: Audette, Greenly, Measurabl, Singularity	Develop GHG management and accounting systems	Number of tCO <sub>2</sub> under management	Accurate GHG results  Less reporting time  Insights into reduction strategies  Reduction of emissions within a specific entity	Overall reduction of emissions derived from actions taken thanks to GHG accounting and management (climate mitigation)
Companies that deliver engineering and environmental solutions to utilities and energy related are key to increase resilience and accelerate decarbonization. They support their clients to achieve benefits for their own business models but very often also extend to broader society and the environment (reduced pollution, cost savings for end customers, reduced emissions, etc.).  EIP Portfolio Companies: Celerity Consulting Group, Innowatts, TRC Companies	Strategic and advisory support, implementation of projects and programs for resiliency and decarbonization	Number of projects conducted for utilities and energy-related agencies	Increased energy efficiency per project  Number of people trained or engaged  Energy savings  Reduced pollution from implementation of electric solutions  Reduced wildfire risk	Overall reduction of emissions and increased grid resiliency derived from implementation of energy projects and solutions (climate mitigation and adaptation)
Companies that deliver software solutions for increased cybersecurity are key for grid stability. Focusing on detecting and responding to risk, mitigating them, or accelerating time to resolution helps utilities prevent negative impact events such as power outages or disruptions, as well as expand the grid while keeping it safe and functioning.  EIP Portfolio Companies: Dragos, Network perception, Vanish ID, Scythe, Swimlane, Xona	Develop software solutions and platforms that ensure OT and/or IT cybersecurity for utilities	Number of assets protected on behalf of utilities	Reduced cyberattacks Faster threat response Automated asset management	Reduced and shorter outages and outage risk (resilience and reliability)
Companies innovating on how we build out and inspect the grid and its interconnected assets are essential for grid modernization, expansion and repair. These companies implement new technologies such as drones to conduct power lines inspection and installation, or artificial intelligence systems to monitor status and predict failures. With these technologies, grid expansion and broader electrification, indispensable to the energy transition, are reached faster and more efficiently.	Development of hardware and/or software solutions for the inspection of the grid and interconnected assets	Number of km of power lines serviced  Number of assets serviced (EV stations and ports, MWh of battery assets, etc)	Reduced wildfire risk  Secure and reliable power delivery  Reduced emissions, noise, and need for vegetation management  Increased uptime	Reduced friction and faster expansion of electrification and renewables (climate mitigation, resilience and reliability)



# EIP'S GREENHOUSE GAS FOOTPRINT Section 3

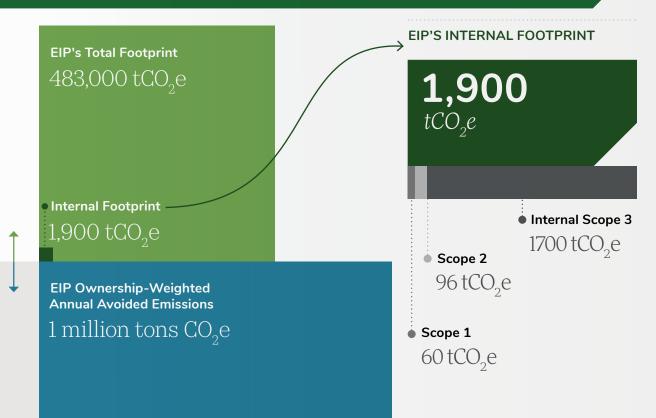
# EIP'S GHG FOOTPRINT KEY TAKEAWAYS

EIP Portfolio Avoided Emissions to Footprint Ratio

2.2X

**Emissions** 

Avoided Emissions



# EIP'S SCOPE 1, 2 & 3 INTERNAL EMISSIONS

We are constantly working to improve the accuracy and transparency of our GHG emissions measurement and reporting.

In 2024 our Scope 1 emissions totaled  $59.3~\text{tCO}_2\text{e}$  and accounted for 3.2% of our internal footprint. These were primarily from building heat and decreased from 2023 largely due to decreased heating gas demand from EIP's Washington D.C. office.

In 2024 our Scope 2 emissions totaled  $96.1 \text{ tCO}_2\text{e}$  and accounted for 5.2% of our internal footprint. These were primarily from purchased electricity and increased from 2023 due to an increase in electricity consumption from growing headcount and increased electrical heating in EIP's Washington D.C. office.

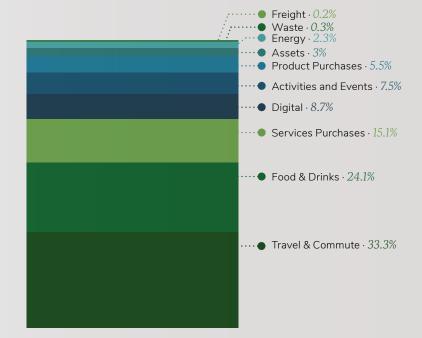
These fluctuations in Scope 1 and 2 emissions align with changes in building operations, increased tracking of EIP's energy consumption across offices, and our company's increasing headcount. Overall, our Scope 1 and 2 emissions increased 1.15% since 2023.<sup>16</sup>

We also calculate our complete Scope 3 emissions for all applicable categories using a mainly spendbased analysis. We define our Internal Scope 3 emissions as all applicable Scope 3 categories except financed emissions (Category 15), which we report separately. In 2024 our Internal Scope 3 emissions grew 9.7% from  $2023^{17}$  to 1,700 tCO $_2$ e and accounted for 91.6% of our internal footprint. This increase was due to our global expansion, most notably impacting travel, food, digital, and activities & events.

In 2024 we transitioned from a spendbased approach to an activity-based approach for IT equipment which resulted in an increase in emissions. The emissions category of services purchases decreased as we moved to hire talent in-house and reduced our dependence on external service providers.



NTERNAL SCOPE 3 EMISSIONS BY CATEGORY Metric Tons CO.,e



# FINANCED EMISSIONS

Understanding the environmental impacts of our investments is incredibly important as it is the largest portion of our footprint.

EIP's financed emissions represent over 99% of our total footprint. While we invest in companies whose enabled avoided emissions significantly outweigh the emissions generated by our portfolio, it is important to recognize that greenhouse gases emitted today will continue to have an adverse impact on the environment for years to come.

In 2024 our financed emissions totaled  $480,000 \, \text{tCO}_2\text{e}$ , a 63% increase from 2023. This increase is primarily driven by the 19 new investments we made through the reporting cycle, <sup>18</sup> the continued growth of existing investments, and the enhanced methodology used for the analysis.

We utilize the equity share approach, as outlined in the Principles for Carbon Accounting Financials (PCAF) guidance on financed emissions.<sup>19</sup> We measure and report our ownershipallocated share of portfolio companies' Scope 1, 2, and 3 emissions.

To assist our portfolio companies in their decarbonization journeys and to meet our own obligations, we offer every portfolio company with a complimentary GHG footprint analysis via Greenly. Greenly uses companyreported data on office energy and fuel consumption, operations locations, workforce, and company size to generate Scope 1 & 2 activitybased emissions and financial data to generate Scope 3 spend-based emissions. In cases where data was not available we used revenue, headcount, and location proxies to estimate emissions.

# MORE ON EIP'S GHG FOOTPRINT

### **METHODOLOGY**

We measure and report our full GHG footprint every year consistent with our mission and commitments to the Venture Climate Alliance (VCA), an affiliate of the Glasgow Financial Alliance for Net Zero (GFANZ). We measure our GHG emissions with support from Greenly, a GHG accounting platform and EIP portfolio company. We measure Scope 1 and 2 emissions using an activity-based approach and Scope 3 emissions using a spend-based approach.

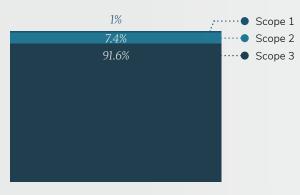
This is the third consecutive year we have used Greenly to support us with the calculation of our GHG footprint. We utilize the same platform and process to ensure consistency in methodology; reduce data gaps and data quality issues; have more accurate comparisons of footprint trends throughout the years; and facilitate development of the process.

#### TOTAL PORTFOLIO FOOTPRINT



#### PORTFOLIO GHG FOOTPRINT BY SCOPE

% of portfolio GHG emissions

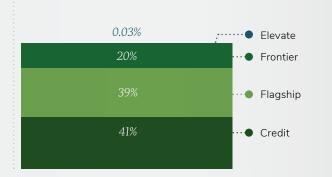


#### **EIP'S SCOPE 3 CATEGORY 15 FINANCED EMISSIONS**



#### FINANCED EMISSIONS BY INVESTMENT STRATEGY

% of total financed emissions



### greenly

**Greenly** is a GHG footprint measurement platform designed to be both accurate and user friendly for small- and medium-sized companies. Greenly uses a combination of spend-based and activity-based approaches to measure a company's complete footprint. Greenly's platform also provides useful engagement and benchmarking tools to help enable the transition to Net Zero.

# NET ENABLED IMPACTS

It's imperative that the avoided emissions we enable through our investments far outweigh our own emissions and overall footprint—including financed emissions.

In 2024 our ownership-weighted annual enabled avoided emissions of 1.0 million tCO2e exceeded our total footprint of 483,000 tCO2e including financed emissions—by 2.2x as seen on the illustration on the right. This is the most conservative approach to understanding our net enabled impact via avoided emissions to footprint ratios. Our ownershipweighted planned five-year enabled avoided emissions of 21 million tCO2e exceeds an approximated five-year GHG footprint by 8.7x, assuming EIP's 2024 footprint is constant for five years.<sup>20</sup> We also consider our portfolio's enabled avoided emissions

to GHG footprint ratios, utilizing their total 2024 footprint of 3.06 million tCO2e. Our portfolio's annual enabled avoided emissions of 11.3 million tCO2e exceeds their GHG footprint by 3.7x. Our portfolio's planned five-year enabled avoided emissions of 247 million tCO2e exceeds an approximated five-year GHG footprint by 3.7x, assuming a constant footprint for five years.<sup>21</sup> Our current portfolio has the potential to cumulatively avoid 5-10 GtCO2e by 2050 which exceeds an approximated cumulative 2050 GHG footprint by 65-130x, assuming a constant footprint until 2050.22

EIP's Total Footprint  $483,000~\mathrm{tCO_2}\mathrm{e}$ 

• Internal Footprint 1,900 tCO<sub>2</sub>e

Avoided Emissions

**Emissions** 

EIP Ownership-Weighted Annual Avoided Emissions 1 million tons CO<sub>2</sub>e

### EIP ENABLED AVOIDED EMISSIONS TO FOOTPRINT RATIO

Ownership-Weighted Annual Enabled Avoided Emissions

2.2x

Visually represented on the next page.

Ownership-Weighted 5-Year Planned Enabled Avoided Emissions

8.7x

### PORTFOLIO ENABLED AVOIDED EMISSIONS TO GHG FOOTPRINT RATIOS

Annual Enabled Avoided Emissions

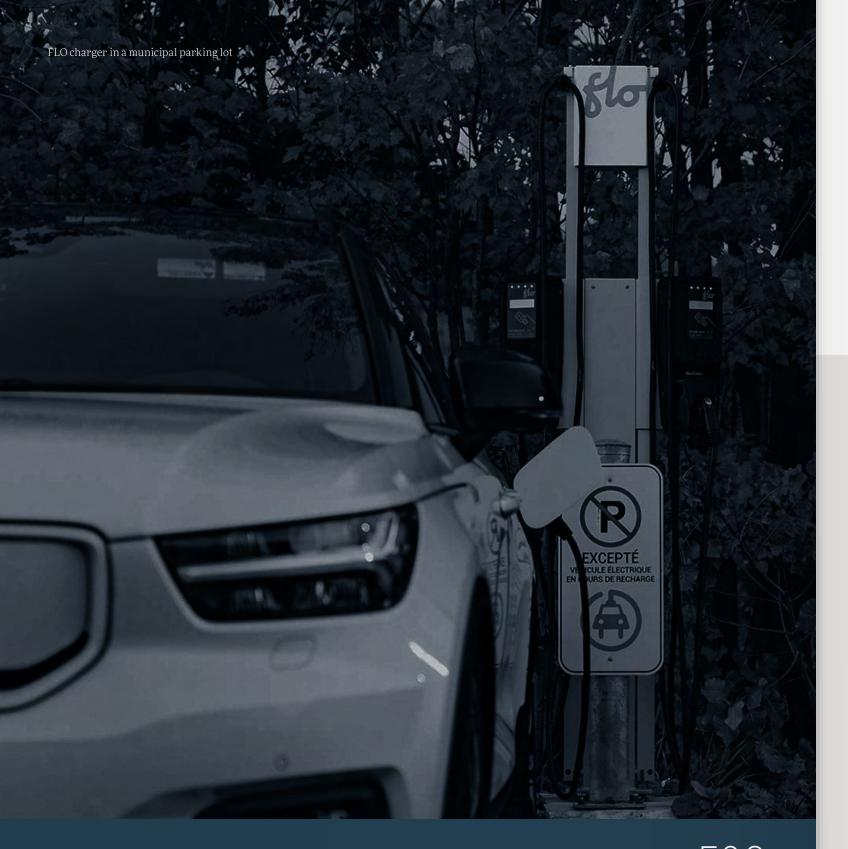
Avoided Emissions 3.7x

5-Year Planned Enabled Avoided Emissions

16x

2050 Potential Enabled Avoided Emissions

65-130x



ESG Section 4

# ESG KEY TAKEAWAYS

Gathering and reporting data on both impact and other sustainability metrics allows us to grow a portfolio that not only has material positive impacts on the environment, but also ensures that companies achieve these with good environmental, social and governance practices in place.

Key highlights



90+ Environmental, social and governance metrics assessed 90 Number of portfolio companies reporting

86% Percentage of portfolio companies reporting

Key diversity metrics



28% Women FTEs within our portfolio 37% URM FTEs at EIP

27%
URM FTEs within our portfolio

Key SDGs with which our portfolio aligns the most



60 portfolio companies aligned with Industry, Innovation & Infrastructure



25 portfolio companies aligned with Sustainable Cities & Communities



37 portfolio companies aligned with Affordable & Clean Energy



17 portfolio companies aligned with Responsible Consumption & Production

Key ESG guiding frameworks and guidelines





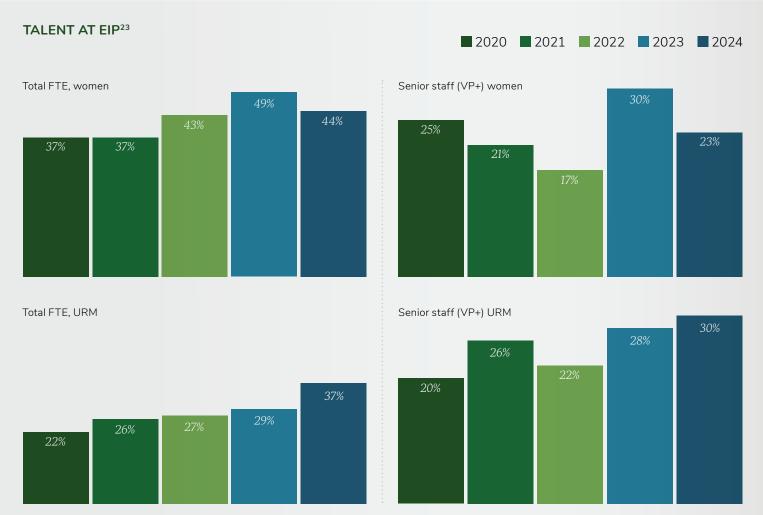


# TALENT AT EIP

People are one of the most critical assets for the energy transition.

At EIP, we uphold programs and initiatives that contribute to support our diverse talent pool within the footprint of our firm and portfolio and believe a wide range of views and backgrounds are critical to accelerating the energy transition.

We are proud of our internship program, which offers skill-building and professional development opportunities for college and high school students, and of our staff volunteering programs with local organizations that support underserved communities. EIP also supports employee-driven initiatives, facilitates trainings and conducts annual pay equity assessments.



# TALENT WITHIN OUR PORTFOLIC

EIP's portfolio companies accelerate the energy transition and attract and promote diverse talent. We track major gender and racial diversity KPIs across our portfolio companies, with traditionally higher response rates for gender than URM. In 2024, almost three out of ten employees in our portfolio companies were women and/or from an underrepresented group.

We expect these metrics to increase over time, as 75% of reporting companies stated that they have a specific policy aimed at fostering and promote a diverse and inclusive workplace; around 40% of reporting companies have a strategy aimed at increasing or improving their efforts in this domain and over a third of reporting companies have Employee Resource Groups to facilitate thematic engagements among their talent groups.

We acknowledge the efforts taken by our portfolio companies in this domain. Notable initiatives include:

#### Recruitment and hiring practices:

Keep job postings open for longer to enable a larger pool of applicants to apply

Use inclusive language in job descriptions

Keep structured interviews and scorecards

Targeted recruitment from educational institutions or workforce development organizations

#### **Training and Development:**

Offer mentorship programs within the firm and with outside mentors

Provide training around unconscious bias or broader talent development programs

# Keeping track of metrics and establishing accountability mechanisms:

Tying executive compensation to talent diversity metrics

Measuring equitable pay and narrowing down the gender pay gap

63

MAJOR GENDER & RACIAL METRICS FOR EIP REPORTING PORTFOLIO



27% URM-All Employees<sup>25</sup>

14% Women-Board of Directors<sup>26</sup> 23% URM-Board of Directors<sup>27</sup>

# JOBS & JOB CREATION

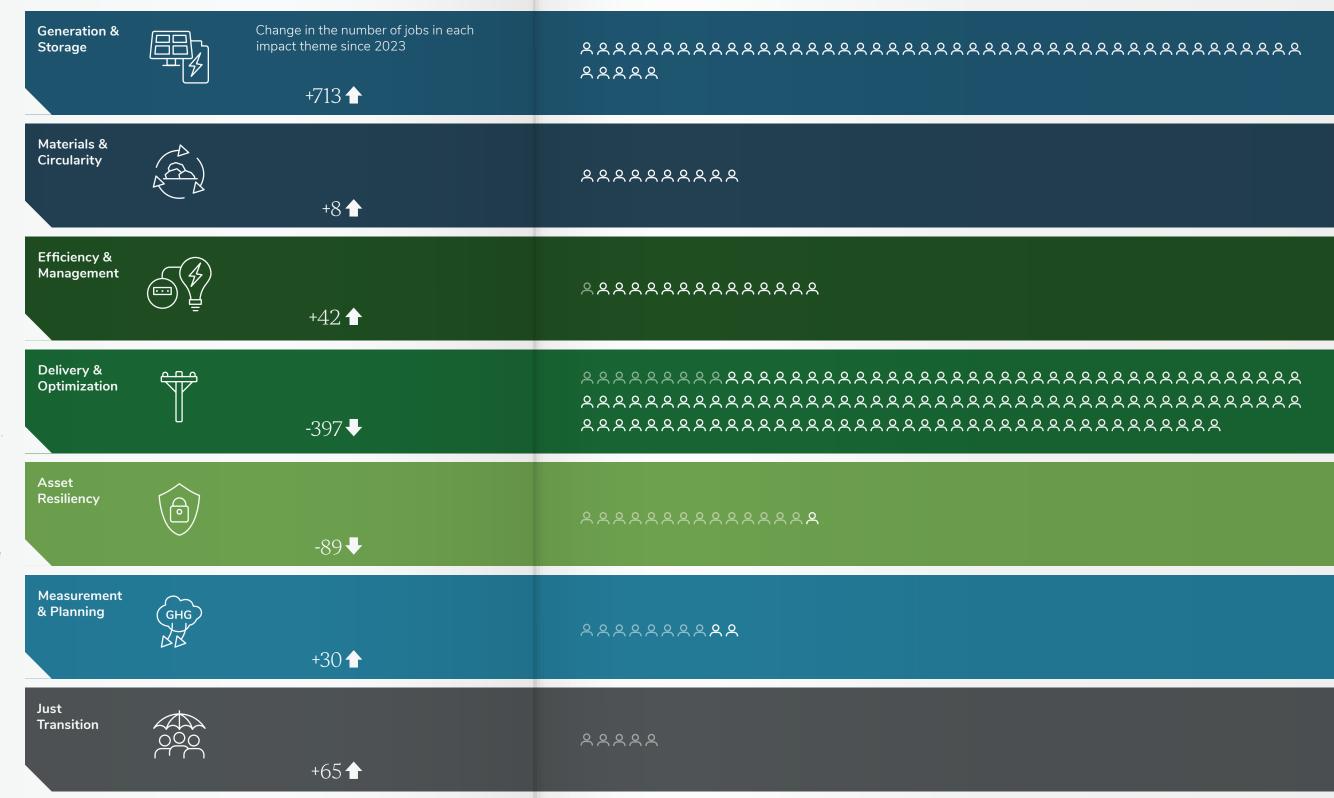
EIP Portfolio companies collectively employed over 22,600 full time employees, an increase of 10% since the previous year.

Companies in the impact theme of delivery and optimization are the ones with the largest employee bases, mostly driven by large companies such as Site2020, focused on traffic control and road safety key for utility work, and TRC Companies, a leading consulting, engineering and construction firm. In 2024, we observed growth and job creation for companies in impact pathways that are directly contributing to avoided GHG emissions, such as Generation & Storage and Efficiency & Management.



Each brighter-white figure represents 100 full-time employees or jobs at portfolio companies that develop solutions that directly avoid greenhouse gas emissions

Each light-colored figure represents 100 full-time employees or jobs at foundational portfolio companies that develop solutions that contribute to key impacts for the energy transition





Zap Energy nuclear fusion system

# SUSTAINABLE DEVELOPMENT GOALS

The world is severely off track to achieve the Sustainable Development Goals by 2030.<sup>28</sup>

The United Nations Sustainable
Development Goals (SDGs), a set of
17 interconnected goals adopted by
the United Nations in 2015 to guide
global efforts toward sustainable
development by 2030, offer investors
an aspirational and holistic view of
sustainability across its different
dimensions, such as a social, economic,
natural, and collaboration one.

sub-target
thematic for companies
with SDGs
innovation
infrastruct
shows the
portfolio of
each goal.

At EIP, we follow a careful framework to map every one of our investments to the SDG's 17 parent goals by utilizing the 169 underlying sub-targets. Consistent with our thematic focus, EIP's 2024 portfolio companies most frequently aligned with SDGs related to clean energy, innovation, and sustainable cities and infrastructure. The following page shows the aggregated number of portfolio companies contributing to each goal.

For a more detailed view of individual portfolio companies and their mapping to specific goals, please refer to the **Appendix** of this report.



1 portfolio companies aligned with **Zero Hunger** 



37 portfolio companies aligned with Affordable & Clean Energy



25 portfolio companies aligned with Sustainable Cities & Communities



3 portfolio companies aligned with Good Health & Well-being



13 portfolio companies aligned with Decent Work & Economic Growth



17 portfolio companies aligned with Responsible Consumption & Production



2 portfolio companies aligned with **Quality Education** 



60 portfolio companies aligned with Industry, Innovation & Infrastructure



10 portfolio companies aligned with Climate Action



3 portfolio companies aligned with Clean Water & Sanitation



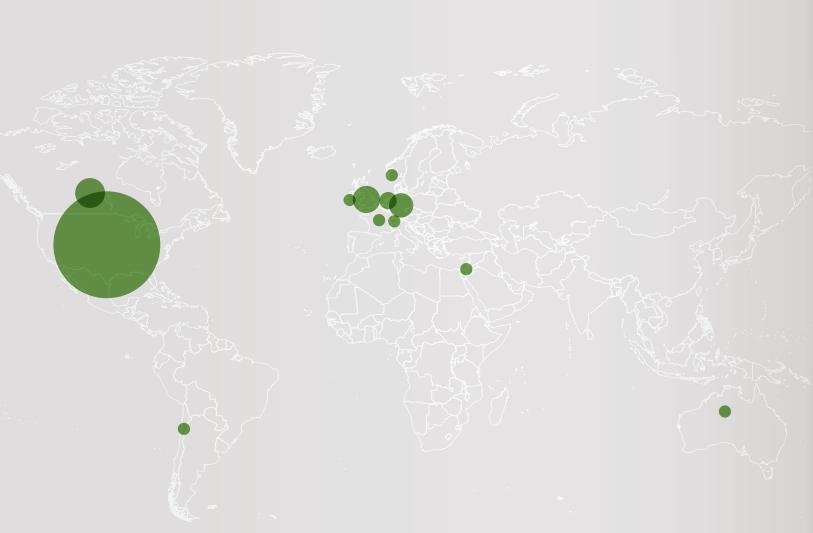
2 portfolio companies aligned with Reduced Inequality



1 portfolio companies aligned with Partnerships for the Goals

# A PORTFOLIO ACROSS GEOGRAPHIES

EIP's portfolio is mainly focused on early and venture-stage companies across North America and Europe but also includes companies in later stages and other geographies. The map below highlights the primary countries where our portfolio companies operate, with over 75% based in the United States and approximately 20% across EMEA.



# PORTFOLIO ACHIEVEMENTS

ESG highlights from our portfolio companies

Aside from the impacts and benefits highlighted across this report, we also recognize and share other impact achievements from our portfolio companies.







## MYENERGI AWARDED ECOVADIS BRONZE MEDAL FOR SUSTAINABILITY<sup>29</sup>

The prestigious accolade places the myenergi within the top 35% of companies assessed by EcoVadis within the past 12 months.

"Being recognized by EcoVadis is a clear demonstration of our commitment to embracing sustainable best practice across the business. It affirms the robustness of our management systems and performance of our production processes."

# INSTAGRID PUBLISHED THEIR STANDOUT ANNUAL IMPACT REPORT, "INSTANT POWER, L ASTING IMPACT"<sup>30</sup>

"At Instagrid, impact is not just a fuzzy, high-level goal; it's woven into every aspect of our work."

## HOPSKIPDRIVE EXCEEDED CALIFORNIA'S CLEAN MILES STANDARD GOALS<sup>31</sup>

EVs drove 8% of all miles travelled by HopSkipDrive's network in CA, 400% more than the 2% target set by California's Air Resources Board (CARB).

HopSkipDrives' network's GHG emissions in California totaled 240 g CO2 per passenger mile, comfortably under the 252 g CO2 per mile benchmark.

# ENCHANTED ROCK: POWERING INDUSTRY WITH CLEAN & RELIABLE POWER

According to the North American Electric Reliability Corporation's (NERC) 2024 Long-Term Reliability Assessment (LTRA)<sup>32</sup> over half of U.S. power regions face an elevated to high risk of energy shortfalls over the next 10 years under normal and extreme weather conditions.



These challenges are largely due to increasing extreme weather events, escalating energy demand growth, accelerating generator retirements, and limited dispatchable generation resources.<sup>33</sup> The surge in energy demand is largely driven by the rapid growth in data centers. In fact, U.S. data center electricity consumption is projected to more than double by 2030, rising from 4% to 9% of total U.S. power use.<sup>34</sup>

Amid increasing strain on the electric grid, reliable backup power is more critical than ever —especially for data centers. Historically, backup power during grid outages has come from diesel-powered generators. However, diesel systems have major environmental and operational drawbacks: local emissions of toxic air pollutants like NO,, CO, and particulate matter; CÔ<sub>2</sub> emissions from testing and operations; uneven maintenance practices; and logistical risks of transporting and storing onsite fuel. Diesel-powered backup system limitations are especially acute for data centers. Reliability, uptime, sustainability goals, and increasingly tight air permitting regulations make diesel fuel a less viable solution.

Enchanted Rock provides a cleaner, more scalable solution. Their natural gas generators with ultra-low emissions, connected to existing underground fuel infrastructure, eliminate the need for onsite diesel storage, minimize air quality impacts, and ensure fuel reliability even during prolonged outages. This approach simplifies operations and significantly reduces environmental risk.

Grid operators are also facing growing challenges keeping the balance between supply and demand—especially as renewable energy grows and extreme weather becomes more frequent. Flexible capacity has become essential to balance the grid. Enchanted Rock's dispatchable onsite generation turns data centers from passive consumers into active grid partners. During supply shortfalls or emergency conditions, sites can shift

load to onsite generation, relieving strain on the grid and improving community-wide reliability.

Since 2006, Enchanted Rock has been a leader in providing electrical resiliency-as-a service solutions via their natural gas-powered generators and microgrids. These systems match or surpass performance of traditional diesel generators, in key areas such as start-up time, capacity, cost, and physical footprint with additional advantages including lower emissions, quitter operation, and more reliable fuel supply. Enchanted Rock safeguards critical operations from unexpected power outages and enhance grid stability by exporting power to the grid during peak demand.

The company's fully managed end-to-end solutions include 24/7/365 real-time system monitoring, operation and optimization, including forecasting and participation in electricity markets. By combining cutting-edge technology, expert operational support, and data-driven optimization, Enchanted Rock delivers worry-free power that enables customers to stay focused on their mission, not on their generators.



Community Microgrids



City of Houston Northeast Water Purification Plant

384 operational microgrids 99.999% combined reliability

25,000+ hours of utility outages covered **4,100**metric tons of CO<sub>2</sub>e emissions avoided since 2018

# GRIDBEYOND: UNLOCKING ENERGY FLEXIBILITY

As global electricity demand continues to grow, expected to about double by 2050,<sup>35</sup> and renewable energy resources increasingly make up the electricity generation mix, expected to be about 80% by 2050,<sup>36</sup> grid systems globally will need to adapt.

The variable energy generation from renewable sources increases the need for grid balancing and flexibility in global power systems. This requires scalable and real-time solutions to manage a rapidly changing energy system.

GridBeyond has developed a technology platform that manages distributed and flexible energy resources across the energy system to bridge the gap between distributed energy resources and electricity markets. By intelligently dispatching flexibility into the optimal electricity

markets at the right time, asset owners and energy consumers can unlock new revenues and savings, enhance resilience, manage price volatility, and support the integration of renewable energy sources.

Since its inception in 2010, GridBeyond has demonstrated that their platform not only unlocks the potential of energy assets but also the sustainability, resiliency, affordability, and adaptability of energy networks. GridBeyond's technology unlocks the latent power within every connected asset, whether its renewable generation, battery storage, or industrial load, to ensure each piece can play a vital role in balancing the grid and achieving net zero. In 2024, GridBeyond has a load portfolio of 2.6+ GW, 1.9+ GW of managed load, 500+ MW of battery storage, and 900+ client sites across the UK, Europe, North America, Japan, and Australia.

GridBeyond's technical knowledge across a wide range of industry sectors allows it to unlock energy flexibility across the energy sector, from front of the meter to behind the meter:

**Asset Owner Front of the Meter (FTM):** Maximize value and system lifetime of utility-scale energy storage and distributed generation assets.

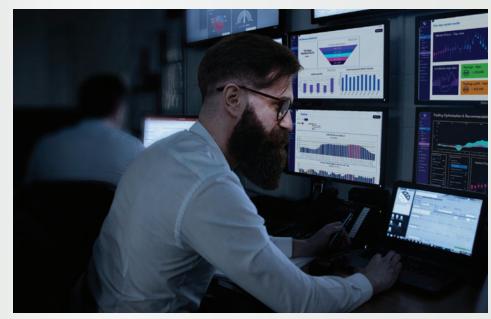
Energy User Behind the Meter (BTM): Optimizing demand side assets of all sizes, to transform energy demand into opportunity.

GridBeyond Point, GridBeyond's Alpowered platform, connects operational, generation, and storage assets to readily manage energy flexibility automatically. The GridBeyond platform is split into three distinct areas:

**TouchPoint** is proprietary hardware that is directly connected to assets on-site, either physically or wirelessly. The system sends and receives data, enabling real-time control of assets.

CentrePoint is a cloud-based platform that sits at the heart of their system's artificial intelligence and machine learning. The platform analyses over 100 data sources to forecast energy market prices, site demand, and process schedules to then automatically dispatch flexibility into the energy programs that generate the most revenues without impacting production constraints and battery warranties.

**ViewPoint** is the customer facing interface to view energy activity. The system provides data on each asset, such as relevant programs, revenues, savings and trades while it also tracks and maintains asset health and availability.



Viewpoint hedging and trading dashboard at the NOC.



Carrey-Glass Site.



MacBook dashboard Ai. trading optimisation.

"GridBeyond is on a path to increase the reach of our intelligent energy platform and deliver world leading AI and powerful automation capabilities to smart grid and energy markets across the world. This supports our ambition to advance the transition of the global energy networks towards digitalization, decarbonization, and decentralization. All while enhancing commercial and operational benefits for market participants through fast-acting automation and optimization of flexible demand, storage and distributed generation."

> MICHAEL PHELAN, Chief Executive Officer and Co-founder of GridBeyond



900+ clients

2.6+GW Load portfolio 500+MW Battery storage

46,000 metric tons of CO<sub>2</sub>e emissions avoided in 2024



Quilt's indoor unit and dial

# QUILT: THE FUTURE OF HOME CLIMATE CONTROL

Residential energy use is responsible for about 20% of the total greenhouse gas emissions in the United States.<sup>37</sup>

Space heating and air conditioning systems ("HVAC") are on average responsible for about half of energy usage within the home.<sup>38</sup> These conventional systems are less efficient than alternatives already widely available in the market. The road to the home energy transition has heat pumps at the core.

Heat pumps are an energy-efficient alternative to furnaces powered by natural gas and are suitable for all climates. They transfer heat rather than generating it, and prove to be more efficient at dehumidifying, relative to standard central air conditioners, resulting in even less energy usage and even more comfort.<sup>39</sup> As such, this technology is key to achieve multiple benefits, ranging from decarbonization to energy efficiency and cost reduction.

Quilt, a California-based company that entered the EIP portfolio in 2023, is developing a heat pump system to make residential heating and cooling more efficient, smart and desirable. Quilt is building the future of home climate control with hardware and software solutions that go hand in hand

Their system includes an indoor heat pump unit, a dial for room-by-room control, an outdoor unit and a modern app. One of its standout features is room-by-room control, a key improvement over traditional HVAC systems, which often heat or cool an entire house at once, wasting energy on unused spaces. Beyond room-by-room temperature control, another Quilt key innovation is smart occupancy sensing, which learns occupancy patterns within a household and adjusts schedules and temperature accordingly.

In addition to being the most efficient heat pump of its kind,<sup>40</sup> Quilt's system uses R32 refrigerant which has a global warming potential three times lower than current alternatives, further maximizing the positive climate impacts of their offering.

Quilt closed 2024 sold out in the Bay Area and with reservations in 32 US states and two Canadian provinces, and their website has identified \$3.7M of potential rebates and credits for California residents.<sup>41</sup> Throughout the year, Quilt's heat pumps avoided over 60 tCO<sub>2</sub>e,<sup>42</sup> an impact that we expect to increase exponentially as Quilt expands to new markets and continues to transform and improve how we heat and cool our homes.

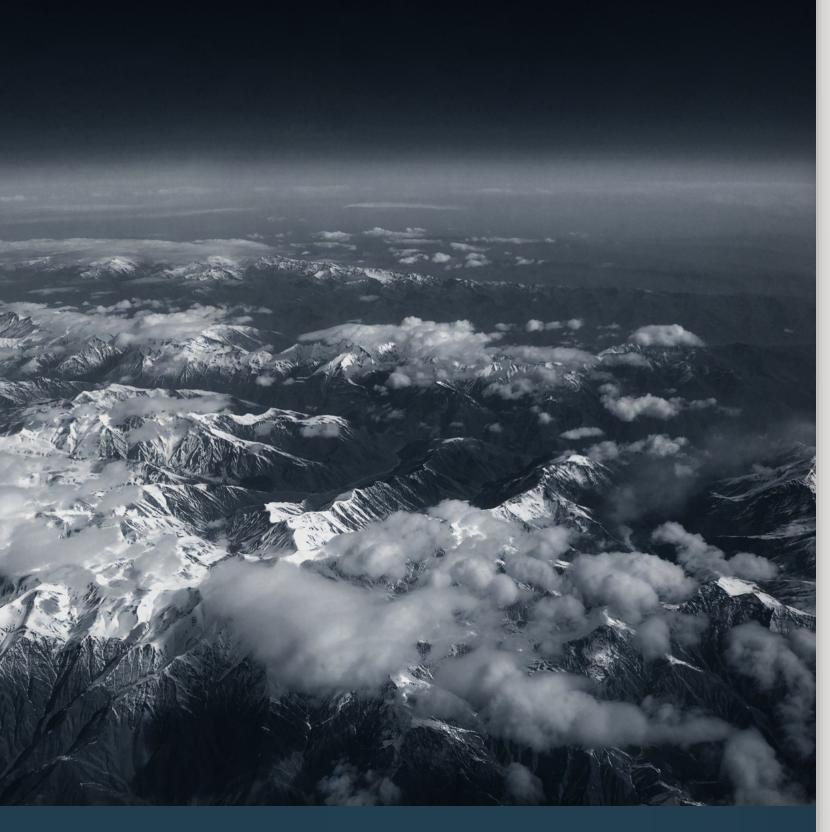


Quilt outdoor unit.

"One of our core beliefs for decarbonization is making the right thing for the planet also the easy thing to do. Quilt's integrated hardware and smart technology strikes the perfect balance of customer comfort, energy costs, and demand flexibility, enabling rapid residential electrification while still ensuring electric grid reliability."

SAMEER REDDY, Managing Partner of EIP

Quilt



# THOUGHT LEADERSHIP, COMMUNITY ENGAGEMENT, AWARDS & RECOGNITION

Section 5

# ENGAGED WITH OUR ECOSYSTEM

Our latest thinking on the state of the energy transition:



"We're also increasingly confident that AI itself can deliver some of the answers to the energy infrastructure challenges that data center growth is creating. To be clear, EIP has invested in solutions leveraging various breeds of AI since our founding, but we're now seeing advances in AI enabling systems which are capable of even more autonomous interaction with the physical world."

ANDY LUBERSHANE



"We know we need negative emissions technologies to meet our global climate goals. However, the path forward for scaling these technologies remains unclear as voluntary procurements have been bearing the burden of supporting market growth and technical de-risking."

**EVE HANSON and KIRSTEN SMITH** 



"The potential of artificial intelligence to disrupt every aspect of our economy has led data center developers to invest a lot more capital in larger and larger projects to capture this opportunity. North American data center developers set yet another record in 2024, bringing total operational data center capacity up to 20 GW. That trend is unlikely to slow down anytime soon."

JAKE ELDER and KEVAL PATEL

In 2024, we continued our collaborations and engagements with the climate solutions and impact measurement and management (IMM) ecosystem:



PROJECT **FRAME** 



And we continued to engage with the clean energy ecosystem and various communities to further expand our impact.







# AI NECESSITY, AI INVENTION



By ANDY LUBERSHANE, Partner and Head of Research

"Necessity is the mother of invention", they say.

Today, as we pass the first quarter of the 21st century, the rapid advancement of AI is demonstrating the truth of this maxim for the energy industry. Whether your rallying cry is "energy dominance" or "net zero", the urgency of innovation in the energy sector has never been more clear.

The scale of Al's impact on global energy demand is now widely recognized. In particular, the electric power sector now faces the necessity of keeping up with surging demand while managing a range of bottlenecks on building new supply & delivery infrastructure. One of the biggest questions of our time is whether the energy industry – which spans energy producers, infrastructure operators, and even consumers – can be inventive enough to navigate this gauntlet.

Many of our partners and portfolio companies are already bringing great creativity to bear. To cite just a few examples...



**GE Vernova** is investing in additional gas turbine manufacturing capacity to address the power supply crunch, alongside ongoing R&D in lower-carbon retrofit options such as hydrogen blending and carbon capture.



Duke Energy launched a new "Accelerating Clean Energy" tariff in collaboration with Microsoft, Google, and Amazon – which lays the groundwork for closer partnerships between the utility and large energy consumers on advancing low-carbon supply options.



Enchanted Rock is collaborating with a number of large data center developers on distributed microgrid projects which can take the edge off the need for centralized generation capacity and transmission system expansion.



Elementl Power is partnering with one of the largest data center hyperscalers on a portfolio of up to 1.8 GW of small modular nuclear projects, in preparation for longer-term, low-carbon growth.

We're also increasingly confident that Al itself can deliver some of the answers to the energy infrastructure challenges that data center growth is creating. To be clear, EIP has invested in solutions leveraging various breeds of Al since our founding – for example, in Sense, which uses Al to pick out signals from the current flowing through a home's meter or circuit breaker in real-time; and in **Urbint**, which uses AI to analyze the risk to utility assets and optimize storm response. But we're now seeing advances in AI enabling systems which are capable of even more autonomous interaction with the physical world.

The field of robotics, for example, has become an increasingly promising wellspring of solutions for accelerating deployment of energy infrastructure. At EIP, our portfolio of robotics solutions continues to expand, and now spans autonomous solar project installation (Charge Robotics), aerial conductor stringing (Infravision), greenhouse harvesting (Hippo Harvest), and commercial lawnmowing (Scythe Robotics). Beyond these glaring examples of physical process automation, we also see companies embedding Al into all kinds of other solutions – such as whole-home heating & cooling optimization (Quilt), and geothermal drilling (Bedrock).

We're also cautiously optimistic about potential applications for the highest-profile advances in AI – in the field of large language and multi-modal models which operate primarily in the realm of "knowledge work". In addition to well-publicized applications which are common across nearly all

enterprises – such as coding and internet research – we're beginning to see software companies emerging with highly targeted energy sector use cases – for example, in compliance functions which suffer from heavy burdens of data aggregation & reporting. We're hopeful that cost savings from these type of productivity boosts can free up capital and human resources for other critical investments.

So, overall, we see this quartercentury milestone as a period of necessity, but also a period of invention. We're excited about the investment opportunities this presents.

# THE DATA CENTER BOOM: SIFTING THROUGH ALL THE NOISE





By JAKE ELDER, Vice President, Built Environment, and KEVAL PATEL, Associate, Research & Innovation

Over the last two years, a transformation has been afoot in the data center development industry. A business largely driven by real estate fundamentals and technology expertise has reoriented itself around a singular pursuit: the procurement of electrons.

The potential of artificial intelligence to disrupt every aspect of our economy has led data center developers to invest a lot more capital in larger and larger projects to capture this opportunity. North American data center developers set yet another record in 2024, bringing total operational data center capacity up to 20 GW. That trend is unlikely to slow down anytime soon; hyperscalers and blue-chip financial institutions made \$100b+ in commitments in 2024 for new data center investments.

The rush for power to bring these new facilities online has quickly reversed two decades of flat electricity improvements in computing and Al consumption in the U.S., driving stock prices for many of the largest power producers – and equipment manufacturers - through the roof. Lead times for new service have expanded as a result: new utility interconnections for large projects are now in the **3-7 year range**. These lead times contrast sharply with the

planning and development timelines from data center developers, leading some to move their sites to be fully offgrid and others to install bridge power ahead of a utility interconnection. For example, xAl's Memphis data center deployed 100 MW of onsite gas generation to their first AI computing cluster and had it up and running in less than four months. However, even this strategy seems to be reaching its limit; large turbine manufacturers like GE Vernova are now signing supply agreements out into the 2030s.

This rush to power – combined with uncertainty about the pace of model efficiency – has many utility (and broader supply-side) leaders in a bit of a pickle. On the one hand, there is a tremendous growth opportunity to be captured by those who can move quickly to serve these new customers. On the other, seizing that opportunity requires the rapid scale-up of energy infrastructure, often times ahead of

new customers actually coming online. While there is tremendous uncertainty regarding future data center build-out, narrowing in on specific applications can help shine a light on where the industry is going.

Even if the energy intensity of AI computing does slow down, existing projects and cloud computing growth means the data center boom should continue. Data center development timelines mean that growth through 2027 is essentially locked in. Hyperscalers deployed \$200b+ in capital last year and data center announcements from January 2023 to June 2024 totaled ~40 GW. Critically, however, all new data center development is not solely for Al applications. Credible forecasts from groups like SemiAnalysis and Goldman Sachs suggest ~50% of data center growth through 2030 will come from traditional, cloud-focused facilities. While these projects could be delayed or paused, delays to date seem to

primarily be driven by strategic repositioning across a portfolio of data centers (e.g., preparing for more inference vs training) rather than a meaningful reduction in growth expectations.

It's ultimately going to be an **inference game.** Most of the conversations about AI energy demand to date have been focused on the development, or training, of large Al models. However, the bigger demand for electricity arises when we start to actually use these models out in the field. In fact, just one of the first months of running inference with ChatGPT consumed 3x more energy than it took to train GPT-3. Even if we find faster and more efficient ways of training and operating these models, that doesn't necessarily mean a reduction in overall energy demand. Instead, lower Al model costs would likely open up a wider range of economically viable use cases, accelerating the pace at which we start to get useful Al applications out in the field and increasing the industry's energy needs, a phenomenon known as Jevon's Paradox.

Still, we're entering a wildly uncertain future. The data center and Al industry more generally is rapidly evolving and there will likely be many surprises as Al develops.

Given the uncertainty, investors in the underlying infrastructure need to prepare for unknown unknowns. Savvy utilities are not shying away during this moment but instead putting safeguards in place to mitigate downside risk. We've seen three types of models emerging:



Isolating infrastructure costs from the rest of the rate base through new regulatory frameworks or bilateral agreements (e.g., AEP's data center rate case in Ohio, Entergy's agreement with Meta for a Northeast Louisiana data center)

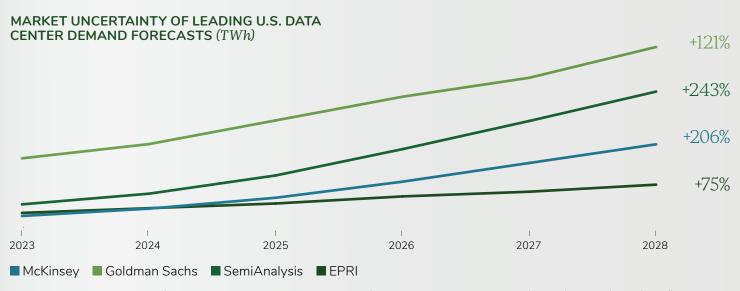


Creating pathways that enable hyperscalers and other ambitious corporates to share in the risk and cost premium associated with developing next-generation carbon-free energy resources (e.g., Duke's Accelerating Clean Energy tariffs, NV Energy's Clean Transition Tariff)

3

Leveraging onsite generation as a resiliency and capacity resource to interconnect large loads faster and minimize the risk associated with building out additional large-scale power generation facilities (e.g., Entergy's Power Through program)

Solving the data center energy conundrum is ultimately going to require a shared effort from utilities, power infrastructure suppliers, and data center developers. All parties have a shared economic incentive to work together to stand up new programs that deploy new generation quickly while balancing risk. At EIP, we'll continue to monitor the emerging business models and technologies that will come from such collaboration.



Source: Goldman Sachs, Generational Growth AI, Data Centers, and the Coming US Power Demand Surge, April 2024 (base case); McKinsey "How data centers and the energy sector can sate AI's hunger for power", September 2024 (medium scenario); SemiAnalysis "AI Datacenter Energy Dilemma – Race for AI Datacenter Space", March 2024; EPRI, "Powering Intelligence", May 2024 (midpoint of high growth case)

# GREEN SHOOTS FROM THE ASHES OF THE VOLUNTARY CARBON MARKET





By DR. EVE HANSON, Senior Vice President, Research & Innovation, KIRSTEN SMITH, Senior Associate, Research & Innovation,

The voluntary carbon market (VCM) has been on a wild ride – from a peak of ~\$2 billion in 2021, through a crisis of confidence that collapsed trading value by more than half by the end of 2023.

After a series of public controversies highlighting at best, greenwashing, and at-worst, the downright fraud of some offset projects, the VCM has now began showing signs of bifurcation. The two markets emerging are dividing based on one fundamental credit characteristic – permanence – with avoidance-based projects and short-duration removals on one side and durable (+100 year) removals on the other.

Buyers are zeroing in on this latter subset of underlying technologies known as carbon dioxide removal (CDR). In 2024, Microsoft grabbed headlines with three major CDR prepurchase agreements totaling almost 7.5 million tons of carbon dioxide worth between \$1-2 billion.44 These durable removals are fetching much higher prices, with some of the larger purchase commitments commanding as much as 30-40x the average price of avoidance-based offsets. This emerging CDR offtake and forward purchase market is a lifeline for project developers, helping them demonstrate revenue potential when seeking critical sources of financing

to demonstrate and pilot emerging technologies.

We know we need negative emissions technologies to meet our global climate goals. The scaled deployment of carbon removal solutions such as direct air capture (DAC) and storage, biomass with carbon removal and storage and geochemical carbon removal are key to limiting global temperature increases reached by climate overshoot. However, the path forward for scaling these technologies remains unclear as voluntary procurements have been bearing the burden of supporting market growth and technical de-risking. Here at EIP, we believe access to compliance markets – or the requirement by governments to reduce or remove emissions – is critical to unlocking the potential of carbon dioxide removal at scale. We also observe the following trends and dynamics:



CDR is taking off but it's a shallow market with only a few big buyers. The CDR market is tiny in terms of tons today – 8 million tons were pre-

purchased in 2024 (for context, the US emitted 6.3 billion tons in 2022). Microsoft is the dominant buyer of CDR, accounting for 63% of all purchases from 2020-2024 while the next two largest purchasers – the Frontier Coalition and Google - bring this total up to 72%. Technology and professional/financial services companies with ambitious climate goals and sizeable budgets have clearly emerged as the driving force behind demand growth. While these larger purchasers dominate demand today, a longer tail of smaller buyers has also been dipping their toes in the market, mostly making small purchases of less than 100 tons apiece.



Securing a contract from a prominent buyer is a critical signal to investors about the potential of the underlying technology for early financing rounds. These buyers such as Microsoft, Google and the Frontier Coalition – have the resources and technical knowledge to thoroughly vet the early-stage technologies underlying these projects. As a result, both the revenue from the contract itself (typically structured as a prepurchase agreement for future offset delivery over multiple years) and the positive signal it provides in capital markets allow these startups to continue scaling from round to round.



#### CDR delivery is still lacking today.

Although total tons sold have grown from 18k tons in 2020 to 8 million tons in 2024, only 4.4% of these tons have been delivered (or realized) over the 5-year period. Most carbon removal technologies are in the pre-deployment stage or only now piloting outside the lab. While growth in pre-purchases is encouraging, these projects will need to be able to scale through future

deployment phases to achieve any real carbon removal savings.

CDR suppliers are learning from first-of-a-kind deployments. On the progress front, the past 24 months have been an important period for DAC developers to begin proving their technology in real world deployments. Even some of the most promising, advanced companies have encountered typical first-of-akind learning curves. For example, Climeworks, has been transparent about the challenges the startup has encountered in the first full year of operation at its DAC Orca facility in Iceland. A few other DAC projects have also made commercial progress in the US recently:

**Carbon Engineering's Stratos facility is under construction** to capture ~500,000 tCO<sub>2</sub> per year in 2025.

Heimdal and CapturePoint launched their first facility in Oklahoma in August 2024, designed to capture about 5000 tCO<sub>2</sub> per year.

#### **Heirloom Carbon Technologies**

announced in June 2024 that it was moving forward with the first phase of investment, \$475 million, to establish two DAC facilities in Louisiana to create a hub in the state. Heirloom also began operations at its first commercial DAC facility in California in late 2023 after signing CDR prepurchase agreements with Microsoft and Frontier.



We see early signals that government-enforced, compliance-driven carbon markets could start accepting high-quality CDR. This could be transformational. We are beginning to see governments take action to accept or even incentivize CDR as a means of satisfying

mandatory carbon emissions targets. For example:

Alberta's compliance market created a **sequestration offset** back in January 2023, amending its existing Technology Innovation and Emissions Reduction regulation, which can be retired to meet compliance obligations.

The Japanese government, similarly, said it would accept the use of durable CDR in its national emissions trading system in June 2024 – a voluntary market that will transition to a compliance market after 2026.

The UK government proposed including CDR in its emissions trading scheme (ETS) and the European Union published a provisional agreement to include engineered carbon removals in its compliance ETS.

At EIP, we believe it's unlikely that the CDR market will see significant growth at high price points without a transition to compliance markets. Scaling these solutions entirely on the back of a few large buyers with the ability and willingness to catalyze the market, without the requirement to reduce or remove emissions, is a challenging path to large-scale buyer uptake. Without the fertile soil of obligation, the market may wilt on the vine.



## GFANZ

"The transition to net zero presents financial institutions with unprecedented opportunities to scale Transition Finance across all sectors of the economy. Decarbonization efforts by the real economy, supported by government policy and private finance all play a role in driving Transition Finance".



EIP was honored to be showcased in the Glasgow Financial Alliance for Net Zero (GFANZ)'s report, "Case Studies on Transition Finance and Decarbonization Contribution Methodologies," released in September 2024. This report illustrates how financial institutions have independently developed and implemented approaches that support the GFANZ four key transition financing strategies:

**Climate solutions:** Entities and activities that develop and scale climate solutions

**Aligned:** Entities that are already aligned to a 1.5 degrees C pathway

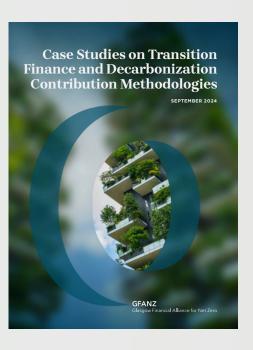
**Aligning:** Entities committed to transitioning in line with 1.5 degrees C-aligned pathway

**Managed Phaseout:** The accelerated managed phaseout of high-emitting physical assets.

Our contribution to the report showcased our investment approach on climate solutions through our impact assessment of Metafuels, a portfolio company within our Frontier Strategy that is developing Sustainable Aviation Fuel. We are proud to be among the leading climate transition financial organizations chosen as case studies in this new best practices summary.

We look forward to continuing our collaboration with our unique clean energy partner coalition and our GFANZ colleagues to advance progress towards a net zero world.

The full report can be read **here**.



## PROJECT FRAME

Scaling best practices for impact measurement and management



EIP is a co-founder and serves on the steering committee of Project Frame. Convened by Prime Coalition, Project Frame is a free, nonprofit initiative purpose-built to organize investors around forward-looking emissions impact methodology and reporting best practices.

As of March 2025, the Frame community has reached a significant milestone, with 1,300 observing members representing over 400 investment firms and an additional 300 organizations globally. The yearon-year increase in engaged members and users of the methodologies put forward by Frame demonstrates the rising adoption of forward-looking GHG impact methodologies.

The financial industry plays a pivotal role in the transition of the global economy. Initiatives like Project Frame support the financial industry and private sector with rigorous yet voluntary accountability and transparency measures.

At EIP, we have been diligently assessing the GHG impacts of our portfolio and making these assessments available in our impact reports. We continue to refine our methodologies, particularly as we navigate the challenges posed by artificial intelligence and the

complexity of assessing unintended consequences or rebound effects. We believe that impact assessments are crucial for evaluating the impacts enabled by our portfolio against business-as-usual scenarios or current baselines. These assessments not only help us understand the realized and potential impact pre-investment but also identify how our portfolio drives impact during our ownership periods.

This year we participated in the Partnership for Carbon Accounting Financials (PCAF) consultation for new guidance and methods for the financial industry together with other members of Project Frame. Our efforts were aimed at ensuring a clear distinction between carbon accounting and avoided emissions. While these distinct practices are essential for a well-functioning and informed financial industry, we acknowledge that they require distinct skillsets and serve complementary yet distinct purposes. More details can be found in the **Appendix - GHG emissions** accounting and impact estimates.

We are proud to be part of a community that strives for rigor and accelerates progress in the field, while bringing others along as the financial industry globally continues to invest in the transition of the global economy.

# VENTURE CLIMATE ALLIANCE

Managing risk, creating value



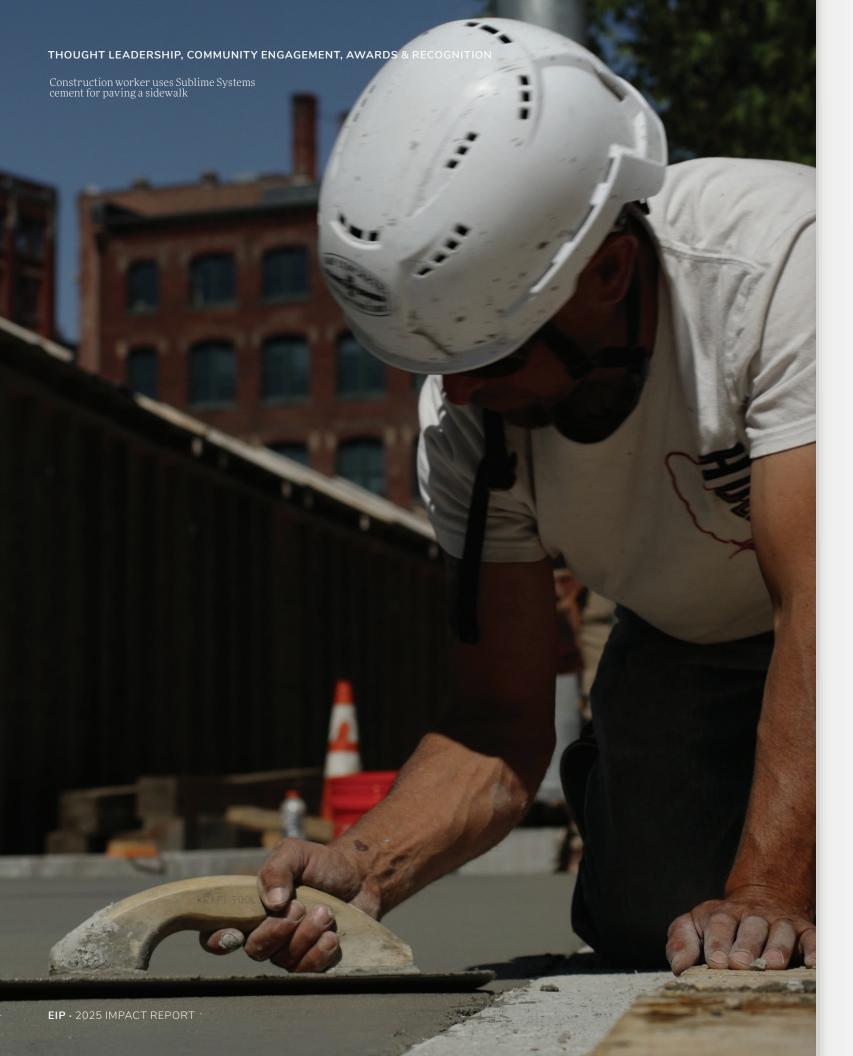
In 2024, we continued our involvement with the Venture Climate Alliance (VCA), a voluntary group of venture capital (VC) and private equity (PE) firms dedicated to guiding their portfolio companies and their own operations towards net zero carbon emissions.

EIP is a co-founder and steering committee of the alliance, which, since its official launch in April 2023, has expanded to a membership of over 80 funds across the U.S. and Europe. This affiliate of the Glasgow Financial Alliance for Net Zero (GFANZ) provides general partners (GPs) with voluntary, practitioner-developed tools, resources, and support to capitalize on the opportunities and manage the risks inherent in the global climate transition. These efforts are aimed at preparing tomorrow's market-leading companies to create durable long-term of best sustainability practices within value for stakeholders.

Our impact team at EIP supported the Climate Solutions Working Group and the Portfolio Alignment Framework. The Portfolio Alignment Framework

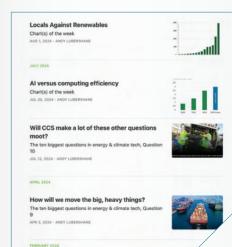
represents the first fit-for-purpose approach to net zero alignment specifically tailored for the venture industry. This framework provides a structured pathway for VC and PE firms to align their portfolios with net zero targets, ensuring that investments are directed towards sustainable and climate-resilient ventures.

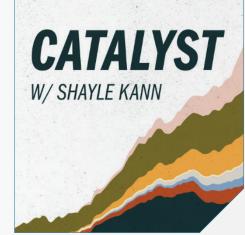
Released a few months later, the Climate Solutions Framework is expected to be instrumental in helping climate general partners (GPs) align around stage-based and best-inclass actions for their portfolios. This framework enables climate startups to integrate and measure their impact effectively, whether through 'scope 4' emissions or broader economic metrics that encompass risk and resiliency. By adopting these frameworks, we are fostering a culture our portfolio companies and setting a benchmark for the broader climate capital stack.



# ADVANCING COLLECTIVE KNOWLEDGE

In addition to our collective presence at events, 2024 was also a year of strong commitment to advancing collective knowledge within our space.







### STEEL FOR FUEL

Andy Lubershane, Partner, continued his Steel for Fuel Substack blog, completing his series around the ten biggest questions in energy and climate tech. This series spans topics such as electric transmission, nuclear energy, the EV supply chain, wind turbine self-replication, natural gas, winter heating, clean hydrogen, waste biomass, heavy logistics, and carbon capture and storage (CCS), making it a key reference for those wanting to dive deep or enter into the space.

### CATALYST

Shayle Kann's **Catalyst** podcast continued its weekly cadence, with enlightening conversations about climate solutions of all kind: rare earths, storage, carbon and methane capture, heat pumps, refrigerants, data centers, and many more. In a highlighted episode of 2024, Shayle covered geologic hydrogen with Pete Johnson, CEO of Koloma. Their conversation explores the opportunity for this clean fuel if some major challenges are solved, like finding economically viable reserves, managing leakage, and building infrastructure.

### **NET ZERO**

Natalia Costa i Coromina, Senior Associate, was recognized for having made the most important contribution to management education through an academic case study published in 2023 around net zero climate commitments. The case study was published as part of the Berkeley Haas Case Series and distributed through Harvard Business Review.

To further support academic efforts around net zero, Peter Fox-Penner and Natalia have partnered with Marine Kohler, PhD Candidate at CentraleSupélec and Greenly, for a paper focused on carbon accounting and effective target setting.



## OUR TRADITION OF STRONG ENGAGEMENT WITH THE CLEAN ENFRGY COMMUNITY

Evan Pittman, Partner, discussing demand growth at the EEI Annual Convention, joined by Chris Colbert (CEO, Elementl Power), Thomas McAndrew (CEO, Enchanted Rock), Chris Womack (Chairman, Southern Company), Chad Williams (Chairman and CEO, QTS Data Centers) and Carla Frisch (Acting Executive Director and Principal Deputy Director for the Office of Policy, DOE). Las Vegas, June 2024.

We recognize that a key contribution to accelerate the energy transition is the engagement with a variety of stakeholder groups that play important roles adjacent to our unique ecosystem. Our 2024 public activities covered a broad span of verticals and geographies. January started with our Founder's presence at the World Economic Forum in Davos to contribute to shaping international, regional, and industry agendas through collaboration and dialogue. The rest of the year was followed by several appearances related to our domain expertise, with highlights as CERA Week and EEI's events throughout the year, including executive meetings, sustainability gatherings and the Annual Convention.

Overall, we presented or spoke at around 60 events, including Bank of America's Sustainability Conference, Brown University's Future of Sustainable Investing Conference, DOE's Energy Transition Summit, Microsoft's Climate Innovation Fund Partner and Portfolio Summit, several of PEI's Forums, and Verge.



Hans Kobler, Founder, speaks in a panel about the global energy transition at HSBC Global Investment Summit. *Hong Kong, April* 2024.



Ashwin Shashindranath, Partner, with Kourtney Nelson, Senior Director of Global renewable energy procurement at Microsoft, during the Microsoft Climate Innovation Fund's Partner and Portfolio Summit. Redmond, October 2024.



Antony Oni, Partner, speaks in a panel about inclusion and diversity at the PEI Responsible Investment Forum. New York, February 2024.



# ENGAGING WITH OUR ECOSYSTEM

EIP's role in advancing the energy transition and addressing climate change is amplified by the involvement of our employees in related causes, demonstrating our collective commitment within our ecosystem.

EIP's employees voluntarily support initiatives in the climate and energy space. In 2024, Dr. Melissa Ball and Kirsten Smith served as industry partners to lead engagement with students for the Spring semester cohort of The Columbia Climate Tech course at the Columbia Business School led by David Kirkpatrick and Bruce Usher. This course brings together MBAs and graduate engineering students to partner with climate tech venture funds on industry research. To support students throughout their earlier careers, Alex Young was a volunteer director for the Out for Undergrad (O4U) Engineering Conference, aimed at inspiring diverse undergraduates to pursue ambitious professional journeys. Also within the domain of education, Natalia Costa continued teaching climate change mitigation and adaptation for the Napa Valley Farmworker Foundation.

Swapnil Shah and Adam James served at the board of organizations supporting the energy transition:

## the Alliance for Climate Transition (ACT), an organization that unites

business leaders and key stakeholders for impactful policy discussions and innovative business initiatives, and the Clean Energy Leadership Institute (CELI), an organization focused on equipping change-makers within the clean energy ecosystem, respectively.

Incubators and accelerators were also a focus of support, with Eddie Gillow as a Venture Fellow and mentor for **Zinc**, a venture capital fund and incubator that backs exceptional talent to build new solutions that solve the most pressing environmental and social issues, and Swapnil Shah as a judge for Cleantech Open Northeast, a leading clean energy accelerator. Finally, within the domain of the built environment, Jake Elder has been serving as a senior advisor to the team at Cradle to Commerce, a public-private partnership seeking to seed American entrepreneurship with national lab IP.



Alex Young during the Out for Undergrad (O4U) Engineering Conference. St. Paul, September 2024.



Dr. Melissa Bell and Kirsten Smith at the EIP New York office, for the final presentation of students from The Columbia Climate Tech course New York, May 2024



Natalia Costa during Napa Valley Farmworker Foundation's Cultivar Conference. Yountville, November 2024.

# AN AWARD-WINNING

This year several companies in the EIP portfolio were featured across multiple awards recognizing their innovation, employee satisfaction, and overall success.

### WORLD'S TOP GREENTECH **COMPANIES OF 2025**













TIME and Statista named the top 250 companies working to reduce negative environmental impacts around the globe. The analysis considered the positive impact, financial strength, and innovation of more than 8,000 companies developing products, services, or technologies aimed at stopping the effect of climate change. Eight of EIP's portfolio companies were featured in this list:

Rondo, Zap Energy, Boston Metal, Zolar, Arcadia, Sublime, Electric Hydrogen, and Form Energy

"The analysis illustrates the breadth of business leaders of the young greentech industry, sprung from a global effort to better sustain the planet."45

JARED LINDZON

### FORBES BEST STARTUP **EMPLOYERS**









Forbes partnered with market research firm Statista to assess 3,000 privately-held, independent companies headquartered in the United States, with 50+ employees, and founded between 2015 and 2022. The three primary areas of evaluation were: company reputation, employee satisfaction, and growth. Four of EIP's portfolio companies were featured in this list:

Mill, Sibros, Form Energy, and Electric Hydrogen

"Smart startups know that keeping employees happy is good for both the workers and the business."46

**FORBES** 

### **BNEF PIONEERS 2025**







Bloomberg New Energy Finance's (BNEF) Pioneers program annually identifies a group of gamechanging technologies or innovations with significant decarbonization potential. In 2025 from 700+ applicants only 12 winners were identified as they proved they offer a novel, substantial, scalable and competitive solution. Three of EIP's portfolio companies were featured in this list under two distinct categories:

#### Making light industry more sustainable: Rondo and AtmosZero

Innovations in energy storage:

Instagrid

"Winners of BNEF Pioneers have an excellent track record of going on to affect change in their industries and becoming major players in the global energy transition."47

**BLOOMBERGNEF** 

### FAST COMPANY: THE WORLD'S 50 MOST INNOVATIVE **COMPANIES OF 2025**





Every year Fast Company looks for the most groundbreaking companies in every industry around the world. Beyond the overall top 50, they also highlight noteworthy, forward-looking organizations across different sectors and regions. Two of EIP's portfolio companies were featured for their work in specific sectors and region:

Most innovative companies for energy: Form Energy

Most innovative companies in North America: Cyclic Materials

"With the pace of change accelerating, businesses have to prepare for both the challenges of today and ones they've vet to identify. It's a daunting task."48

**FASTCOMPANY** 

# AUTHORS & ACKNOWLEDGEMENTS

This report was written by Adam James, Peter Fox-Penner, Javier Luna and Natàlia Costa i Coromina of Energy Impact Partners, and Cliff Brown of ESG Capital Group. The essays featured in Section Five of this report are written by members of EIP's Research & Innovation Team: Andy Lubershane, Dr. Eve Hanson, Jake Elder, Keval Patel and Kirsten Smith. Question or comments are welcome at impact@energyimpactpartners.com.











The authors would like to extend their gratitude to EIP's investment partners, portfolio companies, and employees, many of whom have devoted significant time and resources to make this report possible. We recognize that each of our portfolio companies and members of our investment teams, devote considerable time to the reporting reflected in this report, as well as other impact and ESG activities throughout the year. We are very grateful for their assistance and expertise.

Finally, we thank the members of our ESG and Impact Advisory Board: Anja Gräf, Ann Klee, Brandon Middaugh, Jeff Lyng, Lene Hodge and Matteo Millone.

Within EIP, we would particularly like to thank Albert Abaunza, Steven Simone, Charlotte Guyette, Joshua Feldman, Katherine Lovell, Kyle Wool, Doug Norfleet, Luke Emanuel, Faiza Hussain, Juliana Cimini, Emilia Emcke, Dhana Warnecke, Hany Zerbib, and the Research and Innovation team authors who contributed to the essays on EIP's Perspectives on Climate Technologies within Section Five.

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Recipients should be aware that sustainability impact measurement is a developing discipline, and the sustainability impact of companies in the EIP portfolio is ultimately a matter of interpretation. Certain companies within EIP's portfolio may have provided a limited information set as part of EIP's measurement process which requires EIP to make estimates related to certain metrics to determine the impact outcomes of such companies. EIP commissioned ESG Capital Group LLC ("ECG"), an independent research provider, to conduct the sustainability impact assessments for the portfolio companies held in the EIP portfolio as of December 31, 2024. ECG has received or will receive a fee from EIP in

connection with the preparation of the environmental impact assessments contained in this report. EIP believes ECG was objective in preparation of the sustainability impact assessments and was not influenced, either directly or indirectly, in assessing the impacts generated during the 2024 calendar year by the portfolio companies in the EIP portfolio as of December 31, 2024.

The information contained in this report is based on the current beliefs of EIP. as well as data obtained from third parties and applicable portfolio companies. However, it is not necessarily reported according to established standards or protocols, is not guaranteed as to accuracy, is subject to change, does not purport to be complete, and should not be relied upon. Any projected carbon savings or impact figures presented herein are forward-looking in nature and based on a number of assumptions and estimates. Actual results may vary materially due to changes in operational practices, regulatory frameworks, market dynamics, or other factors beyond the company's control. EIP makes no representation or warranty, express or implied, with respect to the accuracy, reasonableness or completeness of the information contained herein. EIP undertakes no duty or obligation to update or revise the information contained herein as a result of new information.

The case studies included in this report represent a subset of investments made by EIP and have been selected as a representative example of certain sustainability, environmental, social, governance or impact-related themes, projects, activities and/or ventures. Such examples may be ongoing investments, and are not intended to be, and should not be construed as, investment advice or a recommendation to purchase or sell any particular security. It should not be assumed that the investments described herein will achieve their objectives. While the investments referenced in the case study examples were selected based on non-performance related criteria, they may ultimately generate positive or negative returns and other similar investments not referenced in any case study examples may also generate positive or negative returns. Certain portfolio companies identified in this report may have been partially or fully exited by EIP. The inclusion of such companies in this report does not represent a full list of portfolio companies that were partially or fully exited by EIP and is meant to represent those portfolio companies engaged in certain sustainability, environmental, social,

governance or impact-related themes, projects, activities and/or ventures applicable to this report. It should not be assumed that any portfolio companies discussed in this report were or will be profitable. A full list of EIP's investments is available upon request and can also be viewed at <a href="https://www.energyimpactpartners.com/">https://www.energyimpactpartners.com/</a>\_portfolio/.

# PORTFOLIO OVERVIEW

COMPANY NAME	DESCRIPTION	EIP IMPACT THEME	EIP IMPACT PATHWAY	PRIMARY STRATEGY	SDGs ALIGNMENT
42Crunch	API Security platform, addressing the development, testing, and deployment security requirements of API infrastructure	Outside Thesis	-	Flagship	9
6K	Materials design and production company for Li-ion batteries	Materials & Circularity	D	Frontier	9 12 00
Aeroseal	Duct and air sealing technology for residential and commercial buildings to increase energy efficiency while improving comfort and indoor air quality	Efficiency & Management	D	Flagship	7 \$\frac{9}{4}
Arcadia	Customer-facing software technology that powers the next generation of climate solutions through providing choices around acquiring renewable energy.	Generation & Storage	D	Flagship	7 11 A A
AtmosZero	Industrial-scale heat pumps for decarbonizing industrial steam	Efficiency & Management	D	Frontier	9
Atomic Data	Provider of IT management services to enterprises and SMBs, including network monitoring, data hosting, IT support, data center solutions and cybersecurity services	Outside Thesis	-	Credit	9
Audette	Analytics platform and marketplace designed to accelerate carbon reduction investment in commercial buildings	Measurement & Planning	F	Elevate	9 12 00
Bedrock Energy	Bedrock designs and installs geo- fields for geothermal heat pumps for commercial, multi-family and industrial buildings	Generation & Storage	D	Elevate	9
Boston Metal	Boston Metal is developing a molten oxide electrolysis (MOE) process to revolutionize and electrify steelmaking	Materials & Circularity	D	Frontier	9 12 00
Carbon America	Carbon America is a carbon capture and sequestration "Super Developer" – vertically integrating the capture, transportation, and sequestration components	Generation & Storage	D	Frontier	13
Ceibo	Developer of advanced leaching technology for copper extraction	Materials & Circularity	D	Frontier	9 12 00
Celerity Consulting Group	Risk management consulting firm for electric and gas utilities to optimize information and maximize results	Delivery & Optimization	F	Credit	9
Charge Robotics	Developer of modular robots that automate the most labor-intensive parts of solar construction	Delivery & Optimization	F	Frontier	7 <b>%</b>

## APPENDIX

COMPANY NAME	DESCRIPTION		EIP IMPACT PATHWAY		SDGs ALIGNMENT	COMPANY NAME		EIP IMPACT THEME	EIP IMPACT PATHWAY		SDGs ALIGNMENT
ChargerHelp!	EV charging station maintenance and services company	Delivery & Optimization	F	Elevate	* ***	EV.Energy	Smart charging software platform which connects utilities, auto OEMs and end customers in order to optimize residential EV charging	Delivery & Optimization	D	Flagship	<sup>7</sup> *   <sup>9</sup> * *
Community Tree Service, Inc.	Leading provider of highly recurring, nondiscretionary, mandated vegetation management and emergency response services	Asset Resiliency	F	Credit	11 12 CO	Finite State	Software company that provides greater visibility and security to IoT devices through automated firmware analysis,	Outside Thesis	-	Flagship	8 9 8
Convey	Utility-focused communications platform that enables large enterprises in regulated industries to reach customers across several mission-critical use cases	Asset Resiliency	F	Flagship	7 9 S	Flo	network visibility and monitoring and threat detection and response  Vertically integrated provider and operator of EV charging solutions	Delivery &	D	Flagship	7 11 11
Corelight	Corelight is a cybersecurity company focused on Network Detection & Response (NDR)	Outside Thesis	-	Flagship	8 S	Form Energy	Form Energy is developing a novel battery storage technology that is low	Optimization  Generation & Storage	D	Frontier	
Coronet Cybersecurity	Provider of security solutions for SMEs, to defend against malware, ransomware, phishing, and bots across devices, and	Outside Thesis	-	Flagship	8 1	Greenly	cost, safe, scalable and with a focus on long duration capabilities.  Carbon accounting and management	Measurement &	F	Flagship	12 13
Cyclic Materials	Advanced metals recycling company focused on producing rare earths and other materials critical to electrification	Materials & Circularity	D	Frontier	9 12 00	GridBeyond	GridBeyond offers a broad range of services within flexibility markets. It is	Planning  Efficiency & Management	D	Flagship	7 II
Derive Systems	Automotive technology company whose solutions optimize vehicle performance and fleet profitability	Efficiency & Management	D	Credit	3 -W*		a leading demand response aggregator, offers battery trading services and software, and corporate energy management and PPAs				AV NOOTE
Dragonfly Energy	Lithium ion battery technology company	Generation & Storage	D	Credit	9 12	GridX	Big Data applications company that enables utilities to develop, promote and implement better products, tariffs and business models	Measurement & Planning	F	Flagship	7 9 S
Dragos	Industrial Control System cybersecurity company that offers threat detection software, a threat operations center and a global intelligence platform	Asset Resiliency	F	Flagship	***************************************	Grover	Subscription-based rental platform for consumer electronics which enables reusability. Grover also refurbishes and	Materials & Circularity	D	Flagship	12 CO
Electric Hydrogen	Hydrogen electrolysis technology company building a next generation polymer electrolyte membrane (PEM) system to create green, renewable H2	Generation & Storage	D	Frontier	* * * * * * * * * * * * * * * * * * *	HeatTransformers	resuses consumer electronics  Platform that enables the scalability of heat pumps through a fully digitalised sale and technical and installation advice	Efficiency & Management	D	Flagship	7 13 <b>(a)</b>
Elementl Power	Nuclear project development company	Generation & Storage	D	Frontier	" <b>※</b>	Hippo Harvest	High tech greenhouse designer leveraging a unique mix of Dutch technology, off the shelf robotics, deep ML and software engineering to produce	Efficiency & Management	D	Flagship	² <sup>6</sup> 👿
Enchanted Rock	Developer of natural gas-powered backup generation systems located at key demand locations within the Electric Reliability Council of Texas ("ERCOT") and beyond	Asset Resiliency	D	Flagship		Hometree	leafy greens  Technology-enabled home services company specialising in boiler and home	Efficiency & Management	D	Flagship	9 11
ES Solar	Leading solar company and contractor in Utah providing residential and commercial solar panel installations	Generation & Storage	D	Credit	7 9 <b>3</b>	HopSkipDrive	emergency cover  HopSkipDrive offers safe, dependable transportation solutions for schools and families	Efficiency & Management	D	Flagship	4 <b>10 1 1 1 1 1 1 1 1 1 1</b>
ESG Book	Sustainability data, ratings and analytics provider covering the largest public equities	Measurement & Planning	F	Flagship	12	Infravision	Infravision builds scalable power grid modernization technologies, such as drones, to support global grid	Delivery & Optimization	F	Flagship	" <b>* *</b>
eSmart	Provider of Al-based analytics for infrastructure inspection and asset health monitoring, focusing on power grid infrastructure and grid anomalies	Delivery & Optimization	F	Flagship	7 All	Innowatts	Provider of meter level predictive analytics for load forecasting, risk management, and customer	Delivery & Optimization	F	Credit	7 11 A 1
							engagement use cases				

COM	MPANY NAME	DESCRIPTION	EIP IMPACT THEME	EIP IMPACT PATHWAY		SDGs ALIGNMENT	COMPANY NAME	DESCRIPTION	EIP IMPACT THEME		PRIMARY STRATEGY	SDGs ALIGNMENT
Inst	agrid	Developer of battery-based portable power systems for the professional market, replacing carbon-intensive diesel generators	Generation & Storage	D	Flagship	7 13	Particle	Hardware and software solution provider for IoT connectivity across many energy devices, including HVAC systems, hot tubs, heating systems, and EV chargers	Measurement & Planning	D	Flagship	* ************************************
ION	Solar	Vertically-integrated residential solar platform providing full-service solar installation for residential customers	Generation & Storage	D	Flagship	7 A III	Patio Consolidation	Rollup of five different business entities focused on multi-product outdoor patio	Outside Thesis	-	Credit	12 CO
Kolo	oma	Geologic hydrogen company that leverages its technology, proprietary data, and human capital advantages to identify and commercialize these resources on a global scale	Generation & Storage	D	Frontier		Power Factors	Software developer that empowers owners and operators of renewable energy to collaborate, automate critical workflows and make the best decisions	Delivery & Optimization	F	Flagship	9
Man	nus Bio	Bioalternatives scale-up platform that replaces existing ingredients, materials, and chemicals with bioalternatives, increasing supply security while reducing environmental impacts	Materials & Circularity	D	Credit	<sup>2</sup> 12 CO	Project Canary	to maximize asset returns  Environmental data and software company that collects, analyzes, quantifies, and visualizes asset-level environmental risk assessments and emission profiles for energy companies	Measurement & Planning	D	Elevate	<sup>6</sup> 🔯 <sup>7</sup> 🔆
	keting Iution	Developer of marketing planning, measurement and optimization solutions	Outside Thesis	-	Flagship	12	Quantela (acq. Cimcon)	Smart outdoor lighting provider with network, communications, and SW to enable Smart City applications	Efficiency & Management	D	Flagship	11 Allen
Mea	surabl	ESG data platform for the real estate industry, whose solutions incorporate features such as automated utility data collection, building and portfolio performance, and climate risk	Measurement & Planning	F	Flagship	9 A III	Quilt	Developer of a premium ductless mini split heat pump	Efficiency & Management	D	Flagship	9
Meta	afuels	Developer of a proprietary process that converts green methanol to jet fuel with high selectivity	Materials & Circularity	D	Frontier	9 12	Rangeforce	Cybersecurity company that provides hands-on, immersive and realistic environments for remote cyber training	Outside Thesis	-	Flagship	* *** **** ***************************
Mill		Developer of food waste management solutions with user-centered designs and technology	Materials & Circularity	D	Flagship	11 12 CO	RapidSOS	Intelligent safety platform that securely links life-saving data from connected devices, apps and sensors to 9-1-1 and first responders globally	Outside Thesis	-	Flagship	3 —₩• AEII
Mim	neo	Printing solutions company for companies, schools and individuals	Outside Thesis	-	Credit	12 CO	Rayleigh Solar Tech	Rayleigh has designed a proprietary flexible perovskite solar cell and stack that has demonstrated intrinsic stability in both flexible and rigid architectures.	Generation & Storage	D	Frontier	7 <b>※</b>
	sser Biomass & od Products	Producer of premium dried hardwood fiver and converted products such as pellets and briquettes	Materials & Circularity	D	Credit	9	Reverion	Modular power plants based on solid- oxide fuel cell technology, offering 80% power conversion efficiency, reversibility,	Generation & Storage	D	Frontier	<sup>7</sup> 🎉 🔒
mye	energi	Provider of residential EV charging, smart home batteries and energy management solutions	Delivery & Optimization	D	Flagship	7 9 8	Rheaply	and integrated carbon capture  B2B Software as a service company	Materials &	D	Elevate	12
Nitri	icity	Nitricity electrifies and distributes the production of nitrogen fertilizer in a climate-smart way	Materials & Circularity	D	Frontier	• <b>V</b>	титецију	that specializes in enterprise asset management technology for the circular economy	Circularity			00
Oxfo	ord Flow	Oxford Flow designs, manufactures and sells industrial flow control valves, with product lines for gas and liquid regulators and control and isolation	Delivery & Optimization	D	Flagship	9	Robust AI	Robotics company that combines AI and human-centered design to make robots broadly useful and effortless to adopt for manufacturing and logistics	Outside Thesis	-	Elevate	9
Paln	netto Solar	Designer, developer and manufacturer of technology products that enable customers to understand the benefits of clean technology	Generation & Storage	D	Credit	7   11   A   A   A   A   A   A   A   A	Rock Rabbit	Al-powered software platform that unlocks the installation of more energy efficient devices through easing the paperwork burden that contractors and homeowners face when accessing energy rebates	Measurement & Planning	F	Elevate	7 9 <b>&amp;</b>

COMPANY NAME	DESCRIPTION		EIP IMPACT PATHWAY			COMPANY NAME					
Rondo	Rondo delivers zero-carbon industrial heat through the Rondo Heat Battery, which powers industrial processes with renewable electricity, cutting energy costs and eliminating emissions	Generation & Storage	D	Frontier	9 13 <b>(a)</b>	Sublime Systems	Sublime uses an electrochemical process to produce cost-competitive zero-carbon cement using renewable electricity	Materials & Circularity	D	Frontier	9 12
RS Technologies	RS designs, engineers and builds environmentally sustainable, high performance composite based utility poles, which offer superior functionality and longevity compared to traditional alternatives	Asset Resiliency	D	Flagship	9 11 11 11 11 11 11 11 11 11 11 11 11 11	Swimlane	Software company that unifies security operations in-and-beyond the SOC into a single system of record to reduce process and data fatigue while quantifying business value and security effectiveness	Asset Resiliency	F	Flagship	* *** ********************************
Rubicon	Rubicon is a software platform providing fullservice waste management, recycling, and smart city technology solutions with the end goal of ending waste	Materials & Circularity	D	Credit	9 12 00	TechPro Power Group	TechPro Power Group is a family of companies providing electrical, instrumentation and control testing and start-up and commissioning services, as well as electrical test equipment rental, sales, calibration and repair	Delivery & Optimization	F	Credit	7 <b>※</b>
Scythe	Cybersecurity risk management company that empowers organizations to attack, detect, and respond efficiently	Asset Resiliency	F	Credit	8 9 8	Terragia	Developer of the next generation of biofuels from cellulosic biomass	Materials & Circularity	D	Frontier	9 11 A A A A
Scythe Robotics	Provider of advanced and sustainable autonomous technology for maintaining offroad environments safely, effectively, and responsibly	Efficiency & Management	D	Flagship	9 11 A	TESCO	Company that sources meter testing instruments and accessories for utility customers.	Delivery & Optimization	F	Credit	9
Sense	Seller of an integrated hardware and software platform providing residential home owners with broad home intelligence through non-intrusive load disaggregation	Efficiency & Management	D	Flagship	13	TMC	Engineering company, specializing in transportation planning and traffic engineering, that conducts studies and prepares plans for private clients and governmental agencies	Outside Thesis	-	Credit	9
Sibros	Connected vehicle platform delivering OTA software updates with deep data collection and diagnostics	Efficiency & Management	F	Flagship	9 11	Transaera	Developer of a novel air conditioner providing energy-efficient dehumidification, saving energy and improving thermal comfort	Efficiency & Management	D	Frontier	<sup>7</sup> 🎉   <sup>9</sup>
Singularity	Carbon intelligence platform that provides a suite of innovative products, developer APIs, and intelligent tools for companies to build data-driven decarbonization solutions.	Measurement & Planning	F	Flagship	9 11 A	TRC Companies	Engineering, consulting and environmental services firm serving utilities, governments, and commercial and industrial end markets	Delivery & Optimization	F	Flagship	13 <b>(A)</b>
Site 20/20	Provider of roadside flagging and traffic control services, as well as automated flagger assistance devices	Delivery & Optimization	F	Flagship	8	Urbint	Data intelligence company that applies artificial intelligence to urban data sets to help make urban infrastructure more resilient	Asset Resiliency	D	Flagship	
Sitetracker	Global software company committed to helping organizations build, deploy, and maintain the next generation of critical	Delivery & Optimization	F	Credit	9 17	VanishID	Cybersecurity firm providing enterprise- wide protection from social engineering	Asset Resiliency	F	Flagship	9
SMTI	infrastructure faster and more profitably  Developer and manufacturer of high- temperature gas absorption heat pumps	Efficiency & Management	D	Flagship	9 11 1	Verinext	Enterprise technology solutions provider, whose product categories include application development, infrastructure services, mobility, cybersecurity, and cloud services	Outside Thesis	-	Credit	8 9 8
Sparkfund	Energy transition partner providing program management, project implementation, and financing services for utilities and building owners	Efficiency & Management	D	Flagship		Via (acq. Remix)	Cloud-based smart city transportation planning platform	Efficiency & Management	D	Flagship	11 All 11
Stream Security	Cloud management platform that allows enterprises to simulate the impact of code changes and configurations across their cloud environments	Outside Thesis	D	Flagship	* ***   *****   ****   *****   ****   *****   ****   ****   ****   *****	VIE Technologies	VIE Technologies has developed a fully autonomous and non-invasive predictive solution that minimizes maintenance losses, saves energy, reduces downtime for electrical transformers and other	Delivery & Optimization	D	Flagship	9
Studytube	Integrated corporate eLearning software provider with a marketplace of third-party training content	Outside Thesis	-	Flagship	4		industrial equipment				

COMPANY NAME	DESCRIPTION	EIP IMPACT THEME	EIP IMPACT PATHWAY		SDGs ALIGNMENT
VisTech	Comprehensive, vertically integrated manufacturing organization serving the automotive industry	Outside Thesis	-	Credit	9 (\$\disp\)
XONA	XONA has developed a purpose-built solution to provide secure remote access to critical infrastructure and operational technology assets	Asset Resiliency	F	Flagship	<sup>1</sup> <del>※</del>
Zap Energy	Fusion technology company working to commercialize a z-pinch fusion reactor	Generation & Storage	D	Frontier	7 9 <b>&amp;</b>
Zitara	Provider of lithium battery analytics that enables enterprises to simulate and plan their deployments in advance and continuously optimize the safety and profitability of their real time operations	Delivery & Optimization	F	Flagship	9
Zolar	Technology led company which digitizes and automates the marketing and sales, the design and sourcing, the payment and the helpdesk for the residential PV and storage market	Generation & Storage	D	Flagship	<sup>1</sup>

"D" refers to directly avoided GHG emissions and has been assigned to those companies which have direct GHG avoidance impacts that can be concretely modeled using a baseline versus investment, two-scenario approach. Frefers to Foundational energy transition impacts, and has been assigned to companies that have impacts on the energy transition that cannot reasonably measured in tons of GHG emissions avoided or other traditional energy and environmental metrics. Rather, their impact is assessed with resiliency, reliability, magnitude, or related KPIs. For those companies whose products and services are not directly linked to the clean energy transition (labeled as "Outside Thesis"), no impact pathway is assessed.

# 2050 POTENTIAL AVOIDED EMISSIONS METHODOLOGY

We have estimated the potential impact of our existing portfolio through 2050.

Long timeframe estimated potentials inherently involve uncertainties and variables beyond EIP's control (i.e., changes in market dynamics, regulatory landscapes, technological advancements, macroeconomic conditions, company performance). The largest challenge is limited availability of data for companies across various stages of development. We referred to Project Frame's guidance on potential avoided emissions and developed two approaches to calculate 2050 potential avoided GHG emissions. Within these approaches we have also incorporated scenario analyses to consider more conservative and optimistic situations that could impact the overall impact of EIP's portfolio.

## S-Curve Growth Model for Commercially Deployed Companies

For companies that are commercially deployed with annual enabled avoided emissions we develop a range of portfolio-wide S-curve growth models that integrate historical performance as follows:

Law of Large Numbers: We utilize historical avoided emissions data for the entire portfolio since 2018 to avoid false precision from individual company analyses and to integrate exits and failure rates of companies in the dataset.

**S-curve Development:** We use three key points to develop an S-curve growth rate:

Historic exponential growth of portfolio avoided emissions since 2018

A point of inflection in the coming years as EIP reaches a growth and portfolio size equilibrium

A projected target growth rate by 2050 developed based on EIP outlooks and historic performance

#### Application of S-curve to Portfolio:

We normalize the S-curve to the most recent annual enabled avoided emissions data and apply the normalized curve to each applicable company's realized avoided emissions for that year.

Outlier Analysis: We review results of S-curve application and identify outliers to avoid unrealistic enabled avoided emissions. For these cases we incorporate a maximum to their avoided emissions based on a top-down market analysis and realistic market share and growth expectations for the company.

## Top-Down Market Analysis for Pre-Commercialization Companies

Early-stage companies do not have annual enabled avoided emissions yet so an S-curve of avoided emissions potential would not be an appropriate approach. For early-stage companies that are pre-commercialization we conduct top-down market analyses as follows:

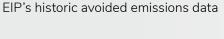
#### **Industry and Market Outlooks:**

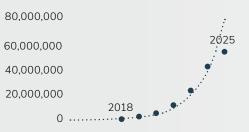
We leverage outlooks as they have already conducted extensive market, economic, and scenario analysis that focus on the energy sector and reflect potential changes in the coming 25 years. The primary outlooks used are IEA's World Energy Outlook 2024, IRENA's World Energy Transitions Outlook 2024, and DNV's Energy Transition Outlook 2024

Potential Avoided Emissions
Methodology: We follow Project
Frame's potential emissions
methodology by applying the unit
impact and the market share expected
from the company by 2050, developed
in coordination with deal teams, to
determine a serviceable addressable
market and avoided emissions

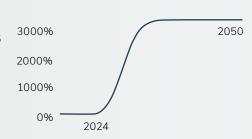
**Risk Factor:** Unlike the S-curve analysis, this methodology does not include exits or failure rates of these companies. Therefore, we apply a typical venture capital failure rate of 75% to the cumulative top-down potential avoided emissions.

#### **EXAMPLE S-CURVE GROWTH CURVE DEVELOPMENT AND APPLICATION**

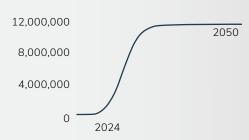




### Normalized S-curve based on EIP portfolio



### Sample 2050 Potential Avoided Emissions Growth Curve (tCO<sub>2</sub>e)



#### TOP-DOWN MARKET ANALYSIS PROCESS OVERVIEW



# GHG EMISSIONS ACCOUNTING & IMPACT ESTIMATES

It is crucial for financial institutions and markets to understand the difference and complementarity between GHG emissions accounting and avoided emissions impact assessments. The table below summarizes the contribution that we made alongside our colleagues and peers to help advance the industry's domain expertise of climate solutions.<sup>51</sup>

#### neutral

#### intentionality towards overall emissions reductions

#### **Greenhouse Gas Footprint**

Greenhouse gas footprinting is the exercise of accounting and reporting on the six greenhouse gases covered by the Kyoto Protocol (carbon dioxide ( $CO_2$ ), methane (CH4), nitrous oxide ( $N_2O$ ), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF6)) with the purpose of preparing a GHG inventory that represents a true and fair account of a company's emissions through the use of standardized approaches and principles.<sup>49</sup>

#### **Avoided Emissions**

Avoided emissions, distinct and methodologically independent from greenhouse gas footprint, are the reduction in systemic emissions resulting from a project, product, or service (also referred to collectively as "climate solution") compared to a counterfactual scenario, or put simply, emissions reductions that would not occur should the project, product, or service in question not exist.<sup>50</sup> Avoided emissions give an estimated emissions reduction in society due to the use of the solution and can occur both within the solution provider's value chain as well as outside it.

#### **CATEGORY**

**DESCRIPTION** 

### REALIZED GHG CORPORATE FOOTPRINT (Scopes 1, 2 and 3)

This category encompasses the emissions from the operations, as well as products and services purchased or owned by a company or a financial institution.

In the realm of financial institutions, operational emissions usually represent 1% or less of a financial institution's GHG footprint, with financed emissions (Scope 3 Category 15) usually making up the remaining 99% of the total footprint. Financed emissions encompass the GHG footprint of the organization's lending and investment activities (covers the following asset classes: listed equities, corporate bonds, business loans, unlisted equities, project finance, commercial real estate, mortgages and motor vehicle loans).

### SCOPE 1, 2 OR 3 REDUCTION (Realized reduction, forward looking reduction)

Taking a company's point of view, emissions reductions in Scopes 1, 2 and 3 occur only when the same company's emissions see a decrease in the same scope relative to previous years.

This category also applies to financial institutions, either due to a decrease in operational emissions or financed emissions.

A reduction in these scopes of emissions can be realized (achieved over a period of time) or forward looking (through modelling the impact of specific actions taken to reduce a company's footprint).

### REALIZED AVOIDED EMISSIONS (Realized GHG impact)

Realized avoided emissions or realized GHG Impact is intended to serve as the most accurate representation or metric of a company's positive GHG impact within a designated market and historical timeframe. The solution and incumbent unit emissions should be validated with real-world data.

## FORWARD LOOKING EMISSIONS ASSESSMENT (Planned impact, potential impact)

Both Planned Impact and Potential Impact estimate the future positive GHG impact or avoided emissions of a project, product

The first estimates what could realistically be achieved, considering unit impacts alongside detailed forecasts and/or installed base, and usually spans into a period of 5 to 10 years.

The second is based on a standardized growth trajectory that assumes the proposed solution takes over the Serviceable Obtainable Market (SOM), and usually covers a longer time frame (i.e., "through 2050").

#### PURPOSE

**Inventory:** A GHG corporate footprint helps organizations understand and develop an inventory of emissions through the use of standardized approaches and principles. Organizations can also leverage the realized GHG corporate footprint data to indicate which levers exist and are most impactful towards achieving emission reduction goals.

**Understand realized improvements:** Data on Scope 1, 2 or 3 reductions help organizations understand their reduction trajectory within the value chain through the use of standardized approaches and principles that allow for direct comparison. This metric proves useful to assess the progress of "brown to green" transitions of hard to abate sectors but can also be used in other contexts.

**Model future improvements:** Organizations with reduction targets or objectives may conduct forward looking reduction assessments to understand the impact that certain actions will have on the reduction of their GHG footprint.

Understand the achieved GHG impact to society of a product or service: Organizations and investors can recur to this metric to assess the realized impact of projects, products or services (may also be referred to as "climate solutions") for several purposes, including but not limited to reporting, comparing realized results to predictions, or setting targets.

Understand the potential impacts of a climate solution to society to inform financial decisions: Investors should use this practice to assess the impact potential of a solution beyond an asset's direct footprint and examine the prospect of investing in them as a deliberate contribution to decarbonization.

### WEAKNESS

GHG footprints take an accounting approach, conveying a picture of the past. Additionally, Scope 3 has inherent uncertainties associated with indirect emissions, which exacerbates with the accounting of financed emissions given a higher degree of separation or data availability and consolidation issues.

The blurred lines between a footprint reduction and avoided emissions make the distinction of these categories challenging. Another layer of difficulty emerges when it comes to factoring in elements such as the use of proceeds, natural technological advance, national decarbonization trends, or boundary conditions, among other.

There are inherent limitations to the accurate measurement of avoided emissions, such as methodological subjectivities, limited comprehensive or LCA data, or the selection of counterfactuals from which avoided emissions are assessed. All the above may limit the validity of these results, making it difficult or almost impossible to draw apples-to-apples comparisons. Third party verification is needed; however, the market for these services is nascent.

In addition to the weaknesses outlined for realized avoided emissions, forward looking avoided emissions (both planned and potential) have an additional degree of uncertainty since they are the result of scenario analysis that may be realized in a different scale than the one initially intended or not realized at all. Investors should revisit unit impact and incumbent scenario impact on a regular cadence.

## ENDNOTES

- 1 Based on the International Renewable Energy Agency's (IRENA) "Global Energy Transformation: A Roadmap to 2050", Figure ES1, which claims that a cumulative  $\sim$ 470 Gt CO $_2$  emissions need to be avoided by 2050 to meet the global warming 2°C threshold.
- 2 Several strategic coalition members not shown on this chart at their request. Each strategic investor may be invested in one or more funds.
- 3 For the purpose of measuring impacts and reporting ESG performance, we include all companies in this report in which we had equity or loan investments as of December 31, 2024, unlike previous editions in which the reporting list was considered until September 30.
- 4 https://www.energyimpactpartners. com/wp-content/uploads/2022/12/Know-Your-Impact-Our-Approach-to-Emissions-Reductions-Measurement-Energy-Impact-Partners-2022.pdf
- 5 Percentages of emissions adapted from **Our World in Data**
- 6 This visual is for illustrative purposes only and does not represent the full scope of the EIP portfolio. It provides a simplified depiction of the primary product or service individual portfolio companies.
- 7 The icons in the Sourcing & Due Diligence section represent how EIP's process is closely aligned to IMP's Five Dimensions of Impact
- 8 The graph only includes partners that have more than six ecosystem contracts. There are 31 partners not included in the graph that account for 80 total ecosystem contracts.
- 9 Based on the International Renewable Energy Agency's (IRENA) "Global Energy Transformation: A Roadmap to 2050", Figure ES1, which claims that a cumulative  $\sim$ 470 Gt CO $_2$  emissions need to be avoided by 2050 to meet the global warming 2°C threshold.
- 10 As members of an affiliate of the Glasgow Financial Alliance for Net Zero (GFANZ), our measurement methods also fall within the classification of Expected Emissions Reduction for Climate Solutions.
- 11 https://projectframe.how/methodology, Chapter IV. Additionality
- 12 We recognize that the IMM field is evolving toward a better approach to determine attribution and define its

- boundary conditions. Our teams remain committed to helping the industry advance in this domain, but continue to use the ownership-weighted approach.
- 13 This results in a mixture of time frames across companies for this category of avoided emissions. As we look at the first five years of commercialization, our calculations do not change if the first years of commercial operation shift, aside from baseline considerations that are time dependent (i.e., emissions intensity of the electric grid).
- 14 Investments made between October 1st 2023 and December 31, 2024.
- 15 Based on the International Renewable Energy Agency's (IRENA) "Global Energy Transformation: A Roadmap to 2050", Figure ES1, which claims that a cumulative  $\sim$ 470 Gt CO<sub>2</sub> emissions need to be avoided by 2050 to meet the global warming 2°C threshold.
- 16 Last year we estimated our Scope 1 and 2 emissions based on the weighted-average consumption of electricity and natural gas from our Washington D.C. office on a persquare-foot basis. This year we improved the methodology by leveraging Greenly to calculate our activity-based Scope 1 and Scope 2 emissions using actual electricity and heating data from our office spaces. We have recalculated our 2023 Scope 1 and 2 emissions with Greenly to allow for an appropriate year-over-year comparison of emissions, resulting in 2023 Scope 1 emissions of 63.4 tCO<sub>2</sub>e and Scope 2 emissions of 90.3 tCO<sub>2</sub>e
- 17 Greenly has updated their database of emissions factors used to calculate GHG emissions as part of their ongoing practice to continuously align with the most updated GHG accounting data and standards. These changes to emissions factors were material and require a restatement of our 2023 Internal Scope 3, which excludes Category 15 financed emissions, to allow for a year-over-year comparison of emissions. Our restated 2023 Internal Scope 3 emissions decreased by 19% from 1,917 to 1,549 tCO<sub>2</sub>e.
- 18 19 new investments between October 1st 2023 and December 31, 2024. The period for financed emissions remains January 1st, 2024 to December 2024, but investments incurred between October 1st, 2023 and December 31st 2023 were not included in the 2024 Impact & ESG performance report
- 19 https://carbonaccountingfinancials.com/standard

- 20 Assuming a total EIP five-year footprint of 2.4 million  $tCO_2e$ . This assumption is only made for illustrative purposes.
- 21 Assuming a total portfolio five-year footprint of 15 million  $tCO_2e$ . This assumption is only made for illustrative purposes.
- 22 Assuming a total portfolio 2050 footprint of 77 million  $tCO_2e$ . This assumption is only made for illustrative purposes.
- 23 Percentages as of 12/31/2024. Add as a fifth bar to the previously existing data.
- 24 Data based on 76 reporting portfolio companies.
- 25 Data based on 45 reporting portfolio companies.
- 26 Data based on 72 reporting portfolio companies.
- 27 Data based on 52 reporting portfolio companies.
- 28 https://desapublications.un.org/publications/financing-sustainable-development-report-2024.
- 29 https://www.myenergi.com/news/myenergi-awarded-ecovadis-bronze-medal-for-sustainability/
- 30 https://instagrid.com/us/impact
- 31 https://www.hopskipdrive.com/blog/hopskipdrive-exceeds-californias-2023-clean-miles-standard-goals/ and https://techcrunch.com/2024/02/14/hopskipdrive-beats-new-california-ridesharing-emissions-targets/
- 32 https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC\_Long%20Term%20Reliability%20Assessment\_2024.pdf
- 33 https://www.nerc.com/pa/RAPA/ ra/Reliability%20Assessments%20DL/ NERC\_LTRA\_Infographic\_2024.pdf
- 34 https://www.epri.com/research/products/000000003002028905
- 35 IEA presents three distinct scenarios in their World Energy Outlook 2024 each with distinct projections for electricity demand for 2050. By 2050 electricity demand: nearly doubles in the STEPS scenario, more than doubles in the APS scenario, and increases 2.5 times in the NZE scenario.
- 36 IEA presents three distinct scenarios in their **World Energy Outlook 2024** each with distinct projections for clean energy meeting

- energy demand for 2050. By 2050 clean energy: grows significantly in the STEPS scenario (no specific share provided), meets 75% of global energy demand in the APS scenario, and meets 90% of global energy demand in the NZE scenario.
- 37 Goldstein (2020), The Carbon footprint of household energy use in the United States. Available at: https://doi.org/10.1073/pnas.1922205117
- 38 EIA (2023) Use of energy explained: energy use in homes. https://www.eia.gov/energyexplained/use-of-energy/electricity-use-in-homes.php
- 39 https://www.energy.gov/energysaver/heat-pump-systems
- 40 Quilt has an Industry Steer2 rating of 25. For more information, refer to: https://www.quilt.com/news/quilt-seer2-ratings
- 41 Rebates identified through Quilt's rebate calculator at Quilt.com/rebates
- 42 Impact assessments for Quilt commence following the installation date. 2024 avoided emissions results do not reflect a full year of impact.
- 43 https://www.quilt.com/news/quilt-raises-33m-to-launch-the-smartest-way-to-heat-and-cool-your-home
- 44 Assumes \$300-430/t for direct air capture and \$200/300t for bioenergy carbon capture and storage. Pre-purchases are delivered over a term of four to ten years.
- 45 https://time.com/collection/worlds-top-greentech-companies-of-2025/
- 46 https://www.forbes.com/lists/americas-best-startup-employers/
- 47 https://about.bnef.com/bnefpioneers/
- 48 https://www.fastcompany.com/most-innovative-companies/list
- 49 https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf
- 50 Project Frame, https://projectframe.how/preinvestment-ghg-assessment
- 51 We are grateful for the support and collaboration of Deen Granoff, Ilmi Granoff, Jeanne-Mey Sun, and Keri Bowder to put together this table, which was attached in response to PCAF's consultation for new guidance and methods for the financial industry in March 2025.