ENERGY IMPACT PARTNERS™

2023 Impact & ESG Report Technical Appendix

Updated: 9/8/2023

1.0 Carbon Impact Measurements for Directly-Measurable Companies

Directly-measurable carbon savings are estimated as explained below. These estimates are gross savings from the material changes, especially during the operating phase, enabled by our portfolio companies compared to the business-as-usual or baseline scenario. Impact estimates (i.e., savings) do not include emissions from operations or facilities where there is not a known material difference compared to industry norms. Some of our estimates are based on the entire life cycle of the product compared to the baseline, including allocated energy used for capital goods needed to produce enabled savings. However, most of our estimates are gross operating-phase differences only.

Many of our portfolio companies have developed technologies that reduce consumption of electricity, in which case we estimate the electricity emission saved using grid emission factors provided by EPA's current eGRID database (eGRID 2022). Other companies enable savings of gasoline and other fossil fuels, which reduce combustion emissions as determined by the EPA's emission factor database (EPA 2022).

This appendix begins with general references that are useful for multiple companies, and then describes specific methodologies described for each company.

General References

1) EIA [United States Department of Energy, Energy Information Agency (EIA). 2022. "Electric Sales, Revenue, and Average Price"]

2) EPA eGRID [United States Environmental Protection Agency (EPA). 2023. "Emissions & Generation Resource Integrated Database (eGRID), 2021"]

3) EPA GHG Emission Factors [United States Environmental Protection Agency (EPA). 2023. “GHG Emission Factors Hub, 2023” Washington, DC]

4) GHG Protocol [Greenhouse Gas (GHG) Protocol, World Resources Institute (WRI), ghgprotocol.org]

5) GRI [Global Reporting Initiative, www.globalreporting.org]

6) IPCC AR5 [Intergovernmental Panel on Climate Change (IPCC). Fifth Assessment Report.]

7) NREL Solar Output by State [National Renewable Energy Laboratory (NREL). 2016. “Solar Photovoltaic Technical Potential in the United States: A Detailed Assessment”]

8) SASB [Sustainable Accounting Standards Board, www.sasb.org]

9) WattTime [WattTime. “Marginal Emission Factors for the U.S. Electricity System”]

1.1 Annual Carbon Savings Enabled

Annual carbon savings are measured using company activity data that includes sensitive and proprietary information. Our descriptions below refer to this data in general terms, as well as the methodology, references, and results of our calculations.

Flo Energy
Flo is a North American electric vehicle charging network operator and a provider of smart charging software and equipment. The company enables EV charging with high-quality charging stations deployed at public, commercial and residential installations.

Carbon savings for Flo were determined by comparing the company’s EV charging to the baseline of avoided internal combustion engine (ICE) vehicle travel. The company provided data for charging station energy transferred by Canadian province and U.S. state, which is assumed to yield 3.5 miles of EV travel per kilowatt-hour (kWh) and associated emissions from charging using grid emissions intensities from Environment and Climate Change Canada, “Fuel LCA Model” (2022). The avoided baseline of ICE cars is assumed to consume gasoline at an average rate of 25.0 miles per gallon (mpg) from the U.S. Federal Highway Administration. Net avoided emissions for 2022 were

estimated to be 176,000 metric tons of CO2e, the equivalent of taking 38,000 cars off the road for a year.

Aeroseal
Aeroseal provides air sealing technology for heating, ventilation, and air conditioning (HVAC) ducts and building envelopes, installed through a network of partners for residential and commercial buildings.

Carbon savings for Aeroseal were determined by comparing building energy savings after Aeroseal treatment to the baseline building energy consumption, with data from the company as well as performance data from the U.S. Department of Energy (DOE), EPA Energy Star, Energy Information Agency, and Lawrence Berkeley National Laboratory. Avoided emissions for 2022 were estimated to be 284,000 metric tons of CO2e, the equivalent of taking 62,000 cars off the road for a year.

Arcadia
Arcadia provides renewable energy attributes directly to retail utility customers in 50 states by purchasing renewable energy certificates (RECs) matched to the electricity use of each customer. It also offers shares in physical community solar projects. Under carbon accounting rules the purchase of RECs on a short-term basis does not meet the test of additionality. To adhere to these rules, we measure carbon savings from renewable energy displacing grid power only from the community solar projects, which clearly displace grid power.

Carbon savings for the community solar projects subscribed by Arcadia were determined by evaluating all projects subscribed by Arcadia in each state. Output of projects installed throughout 2022 was measured on a partial-year basis, with full-year operation for 2023 and onwards. For each project, Arcadia estimated the actual clean energy output of each kW of installed capacity, with a result of 272,000 MWh of clean energy generated in 2022 (enough to power 25,000 households). This clean energy is assumed to displace non-baseload grid energy, including assumed net transmission and distribution grid losses of 4.5%. Using eGRID emission factors for each project location, the resulting avoided emissions are 170,000 metric tons of CO2e, equivalent to planting 2.8 million tree saplings that grow for 10 years.

Cosmic Bliss
Cosmic Bliss produces coconut milk-based treats and grass-fed dairy ice creams that are more sustainable than conventional dairy-based ice creams.

Carbon savings for Cosmic Bliss were calculated by comparing the lifecycle analysis (LCA) of Cosmic Bliss products compared to conventional dairy alternatives. Based on ISO 14040 conformant LCA reports completed by an independent consulting firm, Good Company, Cosmic Bliss has 24-28% lower emissions (depending upon flavor and formulation) compared to conventional dairy equivalents. The scope of the analysis starts at the farm level, and also includes production, transportation, and packaging. The lower emissions are driven mostly by lower farm-level emissions. Based on Cosmic Bliss sales volumes for 2022, total avoided emissions are 520 metric tons of avoided CO_2e emissions in 2022.

Derive

Derive creates solutions to optimize vehicle performance, fuel efficiency, and safety. Carbon savings for Derive were estimated across Derive's active fleet customers. Customer case studies and third-party testing show 6-10% improved fuel efficiency; 6% savings was used as a conservative value. Baseline mileage assumptions from the company include 15 miles per gallon (mpg) for fleet vehicles, which include vans, light trucks, and passenger cars, traveling an average of 18,000 miles per year. Total savings for 2022 are estimated to be 4.8 million gallons of fuel and 42,000 metric tons of CO_2e.

Dragonfly Energy

Dragonfly Energy sells lithium-ion batteries (LIB) as an alternative to lead-acid batteries, especially absorbent glass mat (AGM) batteries, primarily for portable power use such as recreational vehicles (RVs), boats, and other applications.

LI batteries have a higher charging efficiency than AGM batteries (99% vs. 90%), which saves energy and reduces carbon emissions over the product's operating life. LI batteries provide more usable power and can be discharged up to 80% of their full capacity, whereas AGM batteries are slower to charge and discharge, and are commonly discharged to only 50% of their capacity. As a result, one LI battery provides similar power to two AGM batteries, and while a LI battery lasts more than 10 years (~7,000 cycles), an AGM battery may last only 3-5 years (600-1000 cycles). One Dragonfly LI battery, with higher usable power and longer lifetime may avoid the use and replacement of up to 10 AGM batteries over its lifetime.

Carbon savings for Dragonfly were calculated using a bespoke comparative lifecycle assessment prepared by EIP with the company for this report including energy savings during operation as well as reduced embodied energy during the useful lifecycle. This

analysis found a total of 5,100 MWh of energy saved and 15,200 metric tons of CO_2e emissions avoided.

Enchanted Rock
Enchanted Rock provides onsite backup power and distributed energy generation for commercial customers, primarily through natural gas-powered generators. These generators save carbon by displacing dirtier diesel gensets, as well as by selling cleaner energy back to the grid during peak periods, which often produce higher emissions.

Carbon savings for Enchanted Rock were calculated by evaluating periods of both backup power and distributed energy generation. During 2022, Enchanted Rock units generated natural gas-powered backup power in place of diesel generators. These diesel generators typically require routine testing under load, resulting in additional emissions to be avoided by Enchanted Rock. Using heat rate (Btu/kWh) data from the U.S. EIA as well as emission factors from the EPA, avoided emissions of nitrogen oxides (NOx) and CO2e were calculated.

Distributed energy generation provided additional savings, since Enchanted Rock's systems run often in this mode. This energy generation was compared to eGRID non-baseload emission factors for Texas (ERCOT) and MISO, the location of Enchanted Rock's customers, again using factors from the EIA and EPA. Total carbon emissions were reduced by 570 metric tons, as well as 1.1 metric tons of avoided NOx emissions.

ev.energy
ev.energy is a global provider of electric vehicle (EV) charging software to make EV charging greener, cheaper, and smarter for utilities and their customers. The software platform wirelessly connects to a range of electric vehicles and L2 chargers and intelligently manages EV charging in line with utility and network signals while keeping customers engaged and rewarded through a mobile app.

Carbon savings for ev.energy were determined by comparing the company's smart EV charging to the baseline of non-smart EV charging. The company's current scope of enabled carbon savings is based on ev.energy shifting charging to cleaner grid periods instead of the time of connection, which may be dirtier, resulting in incremental carbon savings from smart charging. Net avoided emissions for 2022 were estimated to be 261 metric tons of CO2e, the equivalent of planting 4,300 trees to grow for 10 years.

EVmo
EVmo is a leading technology-enabled fleet management and rental company, connecting gig drivers with electric, hybrid and delivery vehicles.

Carbon savings for EVmo were determined by comparing the fuel and energy consumption of the company's efficient fleet to the baseline fleet of average U.S cars. The company provided fleet data including vehicle model and time of service, with an average annual distance traveled of 16,400 miles. For each vehicle, fuel economy was sourced from the U.S. Department of Energy (www.fueleconomy.gov) compared to the avoided baseline of gasoline consumption at an average rate of 25.0 miles per gallon (mpg) from the U.S. Federal Highway Administration. Avoided emissions for 2022 were estimated to be 3,100 metric tons of CO2e, the equivalent of taking 672 cars off the road for a year.

Grover
Grover rents technology devices to consumers, offering low monthly costs, updated tech, and reduced waste by recirculating and refurbishing devices.

Carbon savings were calculated by comparing the circulation of Grover devices to the avoided purchase of new devices. Grover has circulated over 1,100,000 devices, with refurbishment of 300,000 devices. On average, each device is rented out three times, and based on historical performance, each device in Grover's portfolio substitutes for 1.4 new devices. The impact methodology has been examined by the Fraunhofer Institute (IZM) and further development is still underway. For 2022, using preliminary methodology, carbon savings were estimated at 6,700 metric tons CO_2e.

HopSkipDrive
HopSkipDrive is a youth transportation solution for schools, districts, government agencies and families. HopSkipDrive operates in 16 major markets across nine states and Washington, D.C. and has contracts with 300+ school districts and county government agencies.

Carbon savings for HopSkipDrive were evaluated by comparing the fuel and energy consumption of the company's efficient fleet to the baseline fleet of average U.S cars. The company provided fleet data including the mix of vehicle type, distance traveled, completed trips, and completed rides. For each vehicle, fuel economy was sourced from the U.S. Department of Energy (www.fueleconomy.gov) compared to the avoided baseline of gasoline consumption at an average rate of 25.0 mile per gallon (mpg) from the U.S. Federal Highway Administration. In some markets, HopSkipDrive also

substitutes for school buses that may be underutilized. Estimated carbon savings were not determined for 2022 due to uncertainties in comparable baseline data, although further pilot studies and analysis are planned.

Instagrid
Instagrid provides portable battery power systems in place of fuel-driven combustion generators for off-grid work like construction, events, and emergency response.

Carbon savings for Instagrid were estimated by comparing the lifecycle impact of Instagrid's battery power systems to combustion generators. Comparative carbon emissions from cradle to grave (from raw material acquisition through production, use, end-of-life (EOL) treatment, recycling and final disposal were normalized per unit of lifetime energy delivered (kWh). Usage patterns including 250 work days per year and 2 kWh daily were used to estimate avoided fuel consumption, partly offset by the charging electricity for Instagrid's batteries. Avoided emissions for 2022 were 20,600 metric tons of CO_2e with 2.1 million gallons of avoided fuel use.

ION Solar
ION Solar is a full-service provider of residential solar power systems. These solar power systems reduce carbon emissions by providing clean energy in place of grid power.

Carbon savings for ION's solar projects were evaluated on a state-by-state basis for all projects completed. Output of projects installed prior to 2022 were fully counted for the year, whereas projects installed during 2022 were prorated for a partial year of operation. For each state, solar capacity factors were applied to estimate the actual clean energy output of each kW of installed capacity, with a result of 330,000 MWh of clean energy generated (enough to power 30,000 households). This clean energy is assumed to displace non-baseload grid energy, while also avoiding transmission losses of approximately 4.5%. Using eGRID emission factors for each project location, the resulting avoided emissions are 200,000 metric tons of CO2e, equivalent to planting 3.4 million tree saplings that grow for 10 years.

Manus Bio
Manus Bio uses biotechnology to produce complex natural products used as flavors, fragrances, food ingredients, cosmetics, vitamins, pharmaceuticals and agricultural chemicals. Using its advanced fermentation technology, Manus Bio recreates natural processes for next-generation industrial biomanufacturing and provides sustainable and cost-effective sources of products for health, wellness, and nutrition.

Carbon savings for Manus Bio were determined by comparing the company's citrus oil produced through biotechnology which the company reports is powered by carbon-free nuclear energy to the baseline of traditional citrus oil extracted from citrus peels. Avoided impacts are estimated using company data together with published LCA data including: Teigiserova (2021). Circular bioeconomy: Life cycle assessment of scaled-up cascading production from orange peel waste under current and future electricity mixes. Avoided emissions for 2022 were estimated to be 3,700 metric tons of CO2e, the equivalent of taking 800 cars off the road for a year.

Mosaic

Mosaic offers financing for solar energy systems, enabling home improvement and solar companies to install more solar projects for homeowners. These solar power systems reduce carbon emissions by providing clean energy in place of grid power that is still dominated by fossil fuel-based generation. While Mosaic is one of many players in the supply chain, financing is a critical requirement of solar project development.

Carbon savings for the solar projects financed by Mosaic were determined by evaluating all projects financed by Mosaic by state and region. Output of projects installed prior to 2022 were considered fully operational, whereas projects installed during 2022 were prorated by month of installation. For each state and region, solar output factors were applied to estimate the actual clean energy output of each kW of installed capacity, with a result of 2.4 million MWh of clean energy generated (enough to power 220,000 households). This clean energy is assumed to displace non-baseload grid energy, while also avoiding transmission and distribution loss of 4.5%. Using eGRID emission factors for each project location, the resulting avoided emissions total 1.3 million metric tons of CO_2e, the equivalent of planting 22 million tree saplings that grow for 10 years.

Palmetto

Palmetto provides services to support the deployment of residential solar power systems. These solar power systems reduce carbon emissions by providing clean energy in place of grid power.

Carbon savings for Palmetto's solar projects were evaluated on a state-by-state basis for all projects completed. Output of projects installed prior to 2022 were fully counted for 2022, whereas projects installed during 2022 were prorated by month of installation. For each state, solar capacity factors were applied to estimate the actual clean energy output of each kW of installed capacity, with a result of 129,000 MWh of

clean energy generated (enough to power 12,000 households). This clean energy is assumed to displace non-baseload grid energy, while also avoiding transmission and distribution losses of 4.5%. Using eGRID emission factors for each project location, the resulting avoided emissions are 79,000 metric tons of CO2e, equivalent to planting 1.3 million tree saplings that grow for 10 years.

Particle

Particle provides an integrated IoT (Internet of Things) Platform-as-a-Service that helps businesses connect, manage, and deploy software applications to connected devices. Several applications of Particle's technology have been identified as key enablers of reduced GHG emissions. Particle's technology provides the data transfer, including sensors and control information, that allows these applications to function and therefore is has an important role in these carbon savings. Emissions monitoring systems at oil and gas wells allow methane leaks to be identified with Particle's real-time data transfer, and reduced by an estimated 56% on average. Light electric vehicle tracking and operating systems enable avoided fuel combustion. HVAC monitoring systems enable energy efficiency, and industrial applications further improve energy efficiency and fuel savings. Total carbon savings for 2022 are estimated to be 560,000 metric tons CO_2e.

Powin

Powin is a battery system integrator. Powin acquires battery cells from their primary manufacturers and designs and builds proprietary large-scale storage systems owned and operated by utilities and other large storage users.

Carbon savings for Powin were determined by comparing baseline grid emissions to the marginal effects of Powin's grid-connected energy storage technology.

Powin provided import (charge) and export (discharge) data (in kWh) by state and country in UTC time of day, averaged over calendar year 2022. Hourly data were converted from UTC to local times to match grid emission factors. Import and export kWh were then converted into GHG emissions (CO_2e) using hourly Open Grid Emissions factors ($kgCO_2e$ per MWh) from EIP portfolio company Singularity Energy, Inc. Emission factors were aggregated to match Powin dataset by time of day (averaged over the year). Import GHG emissions (tCO2e) were considered as the "footprint" of Powin's operational energy, and export GHG emissions (tCO2e) are considered the avoided emissions of Powin's operational energy. Total net avoided emissions are therefore calculated as Export minus Import GHG, for 2022 as 6,800 tCO_2e, which is 13% lower than baseline emissions.

Project Canary
Project Canary is a data analytics and environmental assessment company focused on methane emissions measurement and reduction, freshwater use, and community impacts for energy-intensive industries. Project Canary scores responsible operations, delivering independent emission profiles via high-fidelity continuous monitoring technology to provide actionable environmental performance data. The company's sensor portfolio includes high-fidelity spectroscopy-based methane detection and emissions quantification for the oil and gas sectors, plus laser-based gas analyzers covering other emissions.

Carbon savings for Project Canary were determined by comparing Canary-certified natural gas that has reduced methane emissions versus baseline average onshore natural gas production. The company provided data for volumes of certified gas in 2022, and a maximum methane leak rate of 0.20% compared to the U.S. onshore production average methane leak rate of 0.454% (National Energy Technology Laboratory, "Industry Partnerships & Their Role in Reducing natural Gas Supply Chain Greenhouse Gas Emissions"). Avoided methane emissions are converted to CO_2 equivalents using a 100-year global warming potential (GWP) factor of 29.8 (U.S. EPA). Avoided emissions for 2022 were estimated to be 5.3 million metric tons of CO2e, the equivalent of taking 2.4 million cars off the road for a year.

Rheaply
The Rheaply Platform is a cloud-based resource exchange technology application for connecting people and organizations with resources to those who need them, improving reuse outcomes, and catalyzing the circular economy. As a solution that combines an asset management system with an online marketplace, Rheaply's platform enables organizations to exchange materials and resources more effectively, eliminating unnecessary waste and expense.

Carbon savings for Rheaply are derived from the efficient repurposing of resources, which avoids waste and saves the embodied carbon that would otherwise be needed to produce new assets. These carbon savings can be estimated based on the weight of items diverted, with an estimated embodied carbon intensity per pound for each item category. While Rheaply has prepared estimates for these carbon savings, the results are not included in this report since the sources and methodology could not be verified. Rheaply is in the process of improving the data collection, analysis, and reporting of these impacts, which are anticipated to be included in future reports.

RS Technologies
RS Technologies designs, engineers, and manufactures composite utility structures including poles. RS poles are used in transmission, distribution, substation, and communication applications, and offer a lighter, more durable, and longer lasting solution over wood, steel, and concrete alternatives.

Carbon savings for RS poles are measured by comparing the lifecycle impacts of composite poles to the baseline mix of wood, steel, and concrete alternatives from cradle to grave, over the 80-year expected lifetime of a standard 45-foot composite pole. To account for differences in the lifespan of each material, the time periods are normalized for comparison purposes. For example, a wood pole with a 40-year lifespan would require two poles to last the full 80-year lifespan of a composite pole (including the production, transportation, installation, maintenance, and end of life impacts for each pole). Lifespan assumptions are 50 years for concrete poles and 60 years for steel poles. A full LCA analysis was commissioned by RS Technologies, and completed by EarthShift Global, LLC, together with an independent review panel.

Lifecycle impacts for a standard 45-foot pole were analyzed across the unit sales of the company, compared to a baseline mix of 90% wood, 3% concrete, and 7% steel. Lifecycle carbon savings for poles deployed in 2022 are estimated to be 450 metric tons of CO2e.

Sense
Sense provides tools for customers to track energy use and identify opportunities for energy savings. Based on a study done for Alliant Energy, this technology is assumed to reduce carbon emissions by saving an estimated 6% of energy usage, therefore reducing marginal grid power and emissions.

Carbon savings for Sense were estimated by analyzing all Sense devices by state or province of installation. For each location, average household energy consumption was collected (EIA 2022) and factored by the number of sense devices in each location. Savings were then calculated for each location using an average savings rate of 6%, determined from the pilot study described above. Energy savings for 2022 are estimated at 63,000 MWh, enough to power 5,800 households for a year. For each location carbon emission factors from eGRID were applied to calculate a carbon savings of 21,700 metric tons of CO_2e.

Smallhold
Smallhold is a network of organic mushroom farms that differs from the traditional farming model by operating urban farms close to the customer. Smallhold grows mushrooms on byproducts from other industries and uses only compostable cardboard packaging. Smallhold reduces overall food miles traveled, improves product quality, and extends shelf life, all while reducing carbon footprint, food waste, and plastic usage.

Carbon savings for Smallhold were estimated based on a lifecycle assessment prepared by Climate Positive Consulting (commissioned by Smallhold) that compares Smallhold mushrooms to comparable specialty mushrooms imported from Asia. Carbon savings for 2022 were estimated to be 700 metric tons of CO2e.

Sparkfund
Sparkfund provides energy services to commercial customers. These services include energy efficiency projects — such as lighting, heating, and cooling, and other projects — that reduce carbon emissions through avoided energy consumption.

Every Sparkfund project develops its own bespoke annual and lifetime energy savings estimate. Total energy savings, in kWh, were applied, along with non-baseload emission factors from the EPA eGRID database for each project location to determine estimated carbon savings.

Urbint
Urbint offers AI solutions for utilities, including gas distribution system safety and risk management. One of these solutions includes damage prevention technologies that reduce GHG emissions by decreasing damages to distribution lines and the resulting associated leaks. Since natural gas is primarily methane, which has 29.8 times the global warming potential (GWP-100) per ton compared to CO_2, avoided methane leaks have a significant benefit to GHG reduction.

Carbon savings from the application of Urbint's technologies were estimated through damage prevention rates reported from users of Urbint's solutions, compared to historical rates, with an average reduction of 15% of damages from a 1% intervention rate (Urbint). For each avoided damage incident, the average avoided emissions were 22 metric tons of CO2e, based on an analysis of leaks published by the EPA ("Inventory of U.S. Greenhouse Gas Emissions and Sinks," Chapter 3 Annex 36, 2021) and California Air Resources Board ("Analysis of the Utilities' June 16, 2017, Natural Gas Leak and Emission Reports"). Based on the implied average per customer,

damage-based leakage amount, the avoided emissions enabled are estimated at 152,000 metric tons of CO2e.

Zolar
Zolar offers easy access to solar energy for residential customers to lease or buy solar PV systems with online tools for planning, advice, and installation services.

Carbon savings for Zolar's solar projects were evaluated by location for all projects completed. Output of projects installed prior to 2022 were fully counted for 2022, whereas projects installed during 2022 were prorated by date of installation. For each location, solar capacity factors were applied to estimate the actual clean energy output of each kW of installed capacity, with a result of 20,000 MWh of clean energy generated (enough to power 1,800 households). This clean energy is assumed to displace non-baseload grid energy, while also avoiding transmission and distribution losses of approximately 4.5%. Using emission factors for each project location, the resulting avoided emissions are 8,760 metric tons of CO2e, equivalent to planting 145,000 tree saplings that grow for 10 years.

1.2 Lifetime Savings Enabled

All of the companies in our portfolio sell products that, once installed, reduce environmental impacts throughout their installed and operating lifespan. Accordingly, for carbon savings only, we have computed the emissions savings we help enable over the life of the installed measures. In calculating lifetime savings, we have assumed that grid carbon intensity declines linearly from current levels to zero by 2045. The assumed life span of each company's primary technology is shown in the table below:

Companies	Lifespan
Flo	10
Aeroseal	30
Arcadia	30
CIIMCON	20
Cosmic Bliss	1
Derive	7
Dragonfly Energy	10
ecobee	15
Enchanted Rock	20
ev.energy	5

EVMo	10
HopSkipDrive	5
Manus Bio	10
Mosaic	30
Opus One	10
Palmetto	30
Particle	5
Powin	5
Project Canary	5
Rheaply	1
RS Technologies	1
Sense	10
Smallhold	5
SmartRent	10
Sparkfund	10
Urbint	5
Viriciti	10
Volta	10
Zolar	30

1.3 Exited Company Estimates for Increased Lifetime Carbon Savings Enabled

When companies exit the portfolio we no longer claim any new attributable annual savings to them. (Updated annual information is also no longer provided by the companies.) However, we continue to claim weighted cumulative lifetime savings for technologies installed during our ownership period that continue to operate past that period until those technologies are replaced. As a result, cumulative lifetime savings continue past our holding period but do not increase for any exited company. For exited companies, cumulative lifetime savings remain constant for a few years following our exit and then decline to zero as technologies installing during our holding period wear out. The following paragraphs explain how annual savings were estimated for exited companies, but they do not mean that additional annual savings are added into our impact figures.

CIMCON

CIMCON provides smart city solutions including street lighting management that provides intelligent controls such as adaptive dimming. Carbon savings result through energy efficiency from dimming as well as from fuel savings due to reduced maintenance “truck rolls.”

Carbon savings for CIMCON were calculated by analyzing the energy consumption of the baseline of fully-on LED streetlights compared to CIMCON's adaptive dimming, with 50-60% dim rates for 5 hours nightly according to company sources. CIMCON saves 20% of the energy of already-efficient 45-55W LED fixtures, which equates to 34,000 MWh of energy savings. In addition, maintenance alerts cut truck rolls by 2/3 compared to traditional streetlights, which saves 60,000 gallons of fuel annually. Electricity and fuel savings yield a grand total of 22,000 metric tons of avoided CO_2e emissions in 2022.

ecobee

ecobee sells Wi-Fi enabled smart thermostats that save energy for heating and cooling. By automatically adjusting thermostat set-points, heating and cooling systems run for less time, directly saving on consumption of electricity, natural gas, and other fuels.

Carbon savings for ecobee were determined using actual company data on reduced runtime of heating and cooling systems for each location, based on company studies. The runtime savings were applied to the energy consumption rate of typical heating and cooling systems, including efficiency losses. For emissions calculations purposes, heating systems are assumed to use natural gas, although in some regions, fuel oil, electricity, and other energy sources are used. Cooling systems use electricity for typical air conditioners. To convert energy savings to carbon emissions avoided, EPA and eGRID emission factors for each state are applied based on the location of ecobee customers. The energy savings for 2022 are 2.2 million MWh of electricity (enough to power 210,000 U.S. households for a year), and for fuels such as natural gas, equivalent to the energy in 196 million gallons of gasoline.

Opus One

Opus One's GridOS Platform offers electric distribution utilities tools to optimize energy planning, operations, and market management. Opus One's technology enables many benefits for utilities, including reduced power grid losses.

Carbon savings were estimated on the basis of a study by the Bloom Centre for Sustainability ("Environmental Benefits Initial Report for Opus One Solutions' GridOS" 2017), which quantified potential environmental benefits. For 2022, Opus One served feeders in multiple locations with an average 10-MW peak load per feeder, with an assumed 50% load factor over the year. Based on the Bloom study, we assumed that energy savings averaged 1.5% from improved voltage management and power factor

correction. This resulted in 63,500 MWh in energy savings for 2022, with carbon savings of 14,800 metric tons of CO_{2e} using location-specific emission factors.

SmartRent

SmartRent is an enterprise smart home automation company developing software and hardware that empower property owners, managers, and homebuilders to effectively manage, protect, and automate daily operational processes.

Carbon savings were measured for the deployment of smart thermostats across SmartRent's portfolio. Baseline energy consumption for an average 900-square-foot apartment was estimated for each thermostat location (EIA Electric), with associated carbon emissions using EPA emission factors. Smart thermostat energy savings were assumed to be 10%, based on DOE estimates (www.energy.gov/energysaver/thermostats). Total energy savings for 2022 are estimated to be 55,000 MWh, 5.5 million gallons of gasoline equivalent (primarily in the form of natural gas for heating), with a net carbon savings of 69,000 metric tons of CO_{2e}.

ViriCiti

ViriCiti provides monitoring solutions for commercial electric bus and truck fleets. These services include smart charging, vehicle monitoring, smart driving, and maintenance status monitoring. The company enables carbon reductions by extending electric vehicle range and improving driving efficiency.

Carbon savings for ViriCiti were calculated using company-provided data, including distance travelled in each city for both electric and diesel vehicles. Additional electric bus travel was assumed to displace diesel vehicle travel, and ViriCiti was credited for a 40% increase in range (based on company studies). The diesel baseline was assessed at an average fuel efficiency of 5.3 mpg (NREL 2018) with a diesel emission factor of 10.21 kg CO2e per gallon (EPA 2022). By comparison, the electric vehicles have zero tailpipe emissions but do require grid energy for charging. Electric vehicle energy consumption was calculated using an average efficiency rate of 1.5 kWh per km (NREL 2018). For each fleet location, local grid emission factors (EU JRC, US eGRID) were applied to determine the carbon footprint of the charging energy for electric vehicles. The overall net benefits include fuel savings of 4.6 million gallons, with carbon savings of 21,000 metric tons of CO2e (which represents the net savings including the grid emissions for battery charging).

Volta
Volta delivers free electric charging stations to property owners and free power to electric vehicle drivers with advertising-supported services. The company enables carbon reductions by providing charging services across a network of stations.

Carbon savings for Volta were calculated using company provided data for distance traveled for electric cars in the U.S. Electric vehicle travel was assumed to displace gasoline vehicle travel. The gasoline baseline was assessed at an average fuel efficiency of 25.0 mpg (US FHA) with a gasoline emission factor of 8.8 kg CO2e per gallon (US EPA). By comparison, electric vehicles have zero tail pipe emissions but do require grid energy for charging. Electric vehicle energy consumption was calculated using an average efficiency rate of 0.3 kWh per mile (per Volta). Average U.S. grid emission factors (EPA eGRID) were applied to determine the carbon footprint of the charging energy for electric vehicles. The overall net benefits include fuel savings of 1.5 million gallons, with carbon savings of 10,000 metric tons of CO2e (which represents the net savings including the grid emissions for battery charging).

1.4 Five-Year Projected Carbon Savings

Five-year projected carbon savings are measured for pre-commercial companies using company activity data that includes sensitive and proprietary information. We have access to this data for our carbon calculations but have agreed to not disclose confidential information. Our descriptions below refer to this data in general terms, as well as the methodology, references, and results of our calculations.

6K
6k has developed a flexible, compact process for manufacturing of low-cost battery cathode materials with a scalable, low cost and sustainable process. This platform provides up to 50% lower conversion costs, 20-30% CAPEX reduction, and up to 30% reduction in energy costs.

Using company provided LCA data and assessing the comparison between state-of-the-art NMC production and the 6K unimelt process, a unit impact was determined. This is sensitive to energy sourcing and grid mix, as using renewables and green energy for the manufacturing process would result in large comparative reductions. We utilized multiple cases to determine the appropriate carbon unit impact, and did not assume renewable energy use. We then assess the production plant schedule, and utilized the total product produced to determine the projected emissions reduction.

AtmosZero

AtmosZero provides a novel solution for decarbonizing industrial heat production through electrification. It has created a modular electrified boiler that uses heat already in the air and transforms it into decarbonized steam. This would replace electric resistive boilers and natural gas boilers. The baseline technology was determined to be a 50-50 split between electric resistive boilers and natural gas boilers, a conservative assumption as we expect more natural gas boilers to be replaced. Replacing natural gas technology provides bigger emissions savings than electric resistive boilers. We also needed to assess the pump runtime, as we would expect that this could be used in both steady state, or near steady state, operations as well as batch operations. To account for this, we determined a standard pump run time for the boilers of 17.5 hours per day.

Two different carbon unit impact numbers were developed, one for electric boilers and one for natural gas units, with data from the EIA and EIP grid analysis for natural gas carbon intensity and rate of grid decarbonization. This was then combined with the expected AtmostZero coefficient of performance, and annual capacity forecasts to generate projected emissions savings.

Carbon America

Carbon America provides turnkey carbon capture and sequestration (CCS) across the entire capture-transport-storage value chain. CCS allows emissions from large point sources to be captured, which allows existing technologies to decrease their emissions footprint.

Carbon America has developed a detailed LCA, which forms the basis of this analysis. The three major elements associated with Carbon America's projects are: building infrastructure to capture and sequester the embedded emissions, operating the CCS facility, operations, and the emissions sequestered geologically. These three elements were then assessed across the top five project types: ethanol, cement, steel, natural gas combined cycle power plants, and coal power plants.

Detailed analysis of embedded emissions was done for each project type, and with analysis for adjustments by application. Total operating energy emissions were captured, but did not include minor emission from sequestration operations like seismic data acquisition, sample collection and other logistics due to uncertainty in data. This was then combined with the intensity of the emissions captured for each type of application, resulting in a net unit carbon saved calculation per project type.

Each unit carbon savings calculation for each project type was then combined with deployment expectations over five years post commercialization to generate a measurement for the planned impact of the technology.

Boston Metal

Boston Metal makes steel from iron ore and electricity via molten oxide electrolysis ("MOE"). The baseline is current steelmaking, which is approximately two-thirds from the Blast Furnace/Basic Oxygen Furnace ("BF/BOF") or integrated steelmaking method. The remaining one third is primarily electric arc furnace ("EAF").[1] Under the IEA's 2050 BAU scenario BF/BOF steel is 50% of production. Furthermore, it is unlikely that MOE would displace EAFs, which are already electric – at least for the foreseeable future.

Boston Metal has assembled a wide variety of sources on the current carbon intensity of steelmaking and these sources agree with the World Steel Association ("WSA") which reports 1.85MT CO_2/MT steel.[2] This number is a conservative estimate because the average includes EAF steel which has a CO_2 intensity that will decline as the grid decarbonizes. In addition, the WSA average CO_2 intensity and steel manufacturing company POSCO's steel's data show that average industry CO_2 intensity has flattened out in the last five years, so we assumed a static baseline over time.

Both MOE and BF-BOF steel use approximately the same iron ore input, resulting in similar embodied energy inputs between the two processes. MOE does not use coking coal, but the baseline BF/BOF does, so CO_2 emitted by coking coal is included in the baseline. Therefore, the difference in emissions between the two processes is in the energy needed for MOE less the emissions associated with the BF-BOF process.

Boston Metal provided data that shows the current and future MOE steel energy requirements, as we expect the energy to decline over time. To complete the carbon savings calculation, we estimated:

a) the amount of BM MOE steel expected to be sold in each region of the world (I) in each year (t) or MOE(I,t)
b) the average emissions intensity of the grid in each region and year in MT per kWh, or EI(I,t)

Mill

Mill offers a membership-based service to divert food waste from landfills and repurpose it into usable materials. Each member receives a Mill kitchen bin that dries and grinds kitchen scraps overnight. Once the bin is full – which takes a few weeks –

members schedule a pickup for the food grounds in the Mill app to be returned to the company. Food grounds are then converted into a chicken feed ingredient.

Mill prepared a preliminary life cycle assessment, with input and review by EIP and other experts, that compares the lifecycle impacts of Mill's service to the baseline end-of-life for kitchen scraps. Five-year planned carbon savings are based on impacts per average member, scaled by membership forecasts.

Electric Hydrogen

This impact calculation compares Scope 1 and 2 carbon emissions differences between Electric Hydrogen and baseline H_2 production technology. Scope 3 emissions differences are unlikely to be material (or for many Scope 3 categories, nonexistent), with the possible exception of energy for manufacturing capital goods for Electric Hydrogen and baseline technologies. Electric Hydrogen's electrolyzers make hydrogen from electricity; they are designed specifically to make 100% green hydrogen from 100% wind or solar energy, operating intermittently (unfirmed) and therefore generally at a low overall capacity factor.

Electric Hydrogen estimates that its initial addressable market will be the replacement of hydrogen produced by steam methane reformers (SMR). SMR is the predominant method for making hydrogen today for industrial uses, including the two largest use cases, ammonia production and oil refining.

We choose SMR H_2 production as the baseline technology. H_2 produced by the Electric Hydrogen process and SMR is identical and used identically in all further processing. Therefore, the only differences in emissions involve the production of the H_2 itself, i.e., SMR process versus Electric Hydrogen production process. There is no need to assess the downstream processes, as they are identical.

The upstream difference in the two production processes for H_2 come from inputs – capital, labor, and consumed/changed material inputs. We don't have the data to measure differences in life cycle capital goods, which would be part of Scope 3 or an LCA, nor labor inputs. In general, these differences should not be material for long-lived capital devices and low-labor processes. The input differences are significant; one process uses only water and the other natural gas. There is some embodied energy in water, but a much larger amount in the natural gas.

Literature review provided a range of 8-12 kg CO_2e/kg H_2 from SMR. Unpublished data from Electric Hydrogen indicates that consideration of the life cycle impacts of H_2

production (e.g., methane leaks in production and delivery to the reformer) add 2-3.9 kg CO_2e/kg H_2. In this case, life cycle should mean largely upstream carbon emissions related to SMR, which will differ from Electric Hydrogen upstream carbon, so we include them.

Electric Hydrogen provided data to build a calculation model to show the MW capacity of Electric Hydrogen production over time. Since the GHG footprint of Electric Hydrogen is zero,[3] the GHG savings/impact figure for Electric Hydrogen is the product of the H_2 created by Electric Hydrogen electrolyzers multiplied by its carbon intensity.

Form Energy

Form manufactures units that provide multi-day electricity storage (MDS). We assumed that the baseline that natural gas generation would be the marginal resource displaced by multiday storage (MDS.) Therefore, we utilized an emissions factor of 0.412 MT CO_2/Mwh from EIA

Form calculated the total CO_2 emissions reductions associated with their iron-air technology over the five-year period post commercialization. We assumed a total number of megawatts of multi-day storage in each year of the analysis period based on their projected manufacturing schedule. These volumes of battery storage are assumed to charge from surplus zero-carbon renewable energy that would have otherwise been curtailed. The number of megawatt-hours of electricity discharge in each year from the iron-air batteries was calculated using a capacity factor of approximately 11%, which is the average capacity factor that has resulted from other analyses done in Formware™, Form's proprietary optimization and production cost tool. Total annual MDS discharge was multiplied by an emissions factor of 0.412 metric tons per megawatt-hour, the average for the US grid in 2022.

Moxion Power

Moxion Power is a vertically integrated manufacturer of all-electric mobile power and energy storage solutions. Moxion has developed commercial-scale, powerful, silent, and emissions-free mobile battery stations that are designed to replace traditional diesel generators.

Carbon savings for Moxion are based on typical usage for a 30 kilowatt (kW) electric generator compared to a baseline diesel generator. Avoided diesel emissions are calculated with inputs from Moxion's management, including 8 hours of daily use, 256 days per year, at a 25% average load factor for representative generators (e.g., Generac). The grid charging emissions of Moxion's battery stations are deducted, including 20%

of charging from solar energy designed into the system planning for Moxion's rental fleets. Five-year planned carbon savings are based on impacts per typical generator, scaled by unit sales forecasts.

Nitricity

Globally nitrogen fertilizers support much of the agriculture industry, and fertilizer production is powered by the Haber-Bosch process. The Haber-Bosch process utilizes hydrogen and nitrogen to produce ammonia, which can then be used to produce multiple fertilizer compounds. Depending on the source of the fossil fuels that are used to generate the hydrogen, this can result a range of carbon intensity for the Haber-Bosch process. In addition to production emissions, current fertilizers also volatilize N_2O emissions.

Nitricity manufactures fixed nitrogen with comparatively much lower associated CO_2 emissions and volatilized N_2O emissions per pound of nitrogen than comparative fertilizers. Nitricity provided growth projections which enabled estimates of their future market share of the global nitrogen fertilizer market.

Using these assumptions and conservative estimates, which included assuming the maximum carbon emissions from the Nitricity process and minimum Haber-Bosch carbon intensity per pound of nitrogen, a unit carbon measurement was completed. This was combined with company forecasts over five years to generate a planned impact measurement.

Rondo

Rondo Heat Batteries (RHB) use electric heating elements, like those in a toaster or oven, to transform low-cost intermittent electricity into high temperature heat. When power is available from renewable sources bricks are heated directly by thermal radiation and store energy for hours or days, delivering heat as superheated air or steam for use in industrial processes.

It is difficult to utilize renewables for industrial heating under the status quo, as renewables are intermittent in nature. RHBs replace baseline natural gas steam boilers, once-through heat recovery steam generators, or electric boilers for use for heat, power, or combined heat and power (CHP). Scope 1 and 2 CO_2 reductions between the baseline, with data sourced from EPA and CA Greet databases, along with heater/boiler combustion efficiencies of 60-99%, and storage size in MWh assessed over 15+ data sets across multiple use cases allowed an average carbon emissions reduction per unit to be determined. Using company provided installation plans, separate from sales plans

to account for lags between sales cycles and implementation, an annual and cumulative carbon emissions reduction calculation was generated over five years.

SMTI

SMTI (Stone Mountain Technologies, Inc.) is a manufacturing and technology development firm that provides customers with high comfort, cost-effective, low carbon heating and cooling with gas absorption thermal heat pumps and thermal compressors.

Carbon savings for SMTI are based on thermal heat pumps used for residential space heating and water heating, and commercial water heating, compared to traditional gas heating systems. SMTI performance assumptions for thermal heat pump systems are 140% efficiency for residential space heating, 125% efficiency residential water heating, and 140% efficiency for commercial water heating. Baseline assumptions for traditional gas heating systems are 90% efficiency for residential space heating, 65% efficiency residential water heating, and 90% efficiency for commercial water heating. Five-year planned carbon savings are based on impacts per heating application, scaled by unit sales forecasts.

Sublime Systems

Sublime systems is commercializing a process to make low-carbon cement that can be a drop-in replacement for ready-mix. We used ordinary Portland cement (OPC), the most common type of cement in general use, as the baseline technology. OPC plants produce cement with a range of .73-.85 tons CO_2 / ton product.[4] The CO_2 reduction will increase from 50% in demo to 95% as OPC is backed out as a component of the product.

We then utilized company provided construction and production plant forecasts, incorporating the delta between construction of a plant and full production of product as the basis for emissions reductions over five years.

Transaera

Transaera is developing a range of affordable, energy-efficient, sustainable cooling systems. This is incredibly important as demand for cooling systems is expected to increase rapidly as the world warms. To conduct this analysis, baseline technologies that were assessed were portable AC, PTAC, window AC, and RTU cooling units.

Transaera technology uses a novel sponge-like material that grabs moisture from the atmosphere enabling their air conditioner to cool the air more efficiently. Then the heat generated by the air conditioner is used to dry the material for the next cycle. This avoids

that heat being wasted, which increases the efficiency of the technology. Additionally, Transaera technology is particularly efficient under humid conditions, where traditional AC consumes much more energy. It is quite difficult to model expected future humidity, as it varies widely regionally and due to increasing global warming effects in the future.

A conservative approach was taken to assessing the comparative improvements especially under humid conditions, using company provided data across the four use cases. Cooling capacity, average energy efficiency rating, hours of operation, grid emission factors, and refrigerant GWP differences were utilized to determine unit carbon impact. We combined this unit carbon impact with production forecasts to generate total emissions reductions over five years.

Zap Energy

The baseline for this calculation is the electric power systems of the US and EU expanding and operating without Zap Energy's reactors. Our baseline assumes that the US power system has carbon emissions that decline linearly to zero between now and 2050.

As Zap Energy provides small amounts of baseload power and is presumed to sit at the bottom of the dispatch order, it will displace power that would otherwise be provided by other baseload sources. The major options and comments on them are shown in the table below.[5]

Baseload Fuel Type	2020 % U.S. Baseload-power	Comment
Coal without CCS	24.6%	We project that coal plants will be steadily displaced by carbon-free fuels. Zap Energy replacing coal energy would be the most impactful and beneficial.
Natural gas plants without CCS	43.5%	Natural gas plants are likely to remain more expensive as baseload options than coal plants and therefore are on the dispatch margin, with or without CCS
Wind and solar firmed by batteries	0	This option will become the equivalent of baseload energy only when seasonal storage is widely available at approximately a 100x cost reduction.
Current nuclear plants	21.3%	Current nuclear plants will retire on fixed schedules. It is unlikely that Zap's tech will replace

		all 1000 MW nuclear plants, either from the size or timing standpoint, but it is possible.
Gas or coal with CCS	0	Gas or coal with CCS will compete directly with Zap Energy and almost certainly be the marginally dispatched (most expensive to operate) baseload plant.

Note this table does not include hydro (7%), which we do not think will be displaced, nor biomass and geothermal (3.5%) because they are too small.

The company's own internal product timeline has 50 MW pilot plants starting operation in 2030 consistent with the 2030 market entry scenarios in Spangher, Vitter, and Umstattd, *Energy Strategy Reviews* 26 100404 (Nov 2019), which show zero to 1221 MW installed in 2030-2035 under the 10% to 50% market penetration scenarios.

Among fossil-generated power choices it is more conservative and probably more realistic to assume that Zap Energy displaces baseload natural gas generation than coal. Gas is the largest fraction of baseload power today, and we believe coal will be phased out regardless of Zap Energy's market entry. In addition, gas plants are far more numerous, tend to be smaller, and need not operate in baseload mode and therefore may be partially displaced rather than eliminated entirely. For all these reasons, we assume Zap Energy additions displace gas combined-cycle power generators. In terms of the GHG protocols, this is equivalent to assuming that Zap Energy affects both the build and operating margins, but in both cases the generation that is eliminated comes from average gas combined cycle plants.

2.0 Measuring Carbon Footprints

2.1 EIP Internal Footprint

Corporate Emissions – Scope 1 & 2
In 2022, EIP had office spaces in New York City, Palm Beach, San Francisco, Washington D.C., London, and Cologne, Germany. A location-based approach was used to calculate emissions for each space using average commercial energy utilization per square foot, assuming all buildings used electricity and natural gas for their respective locations, except for Washington D.C., which was based on actual consumption. For buildings in the United States, average utilization figures for electricity and natural gas were from the EIA Commercial Building Energy Consumption Survey (CBECS)[6]. For buildings in Europe, utilization was assumed to be

the average of all U.S.-based offices due to lack of specific location-based data. Electricity and natural gas emissions factors for buildings in the United States were found using the EPA GHG Emission Factors Hub. For European locations, electricity emissions factors were calculated using data from the European Environment Agency[7] and the same natural gas emissions factor was used for Europe as was used for the United States.

Office Location	Average Electricity Usage (kWh/sqft)	Source	Average Natural Gas (NG) Usage (CF/sqft)	Source
New York City	15.3	EIA CBECS	43.0	EIA CBECS
San Francisco	13.3	EIA CBECS	35.7	EIA CBECS
Washington D.C.	13.6	Actual consumption	36.2	Average of other US office spaces
Palm Beach	16.3	EIA CBECS	29.8	EIA CBECS
Cologne	15	Avg of US location-based factors	36	Avg of US location-based factors
London	15	Avg of US location-based factors	36	Avg of US location-based factors

Office Location	Total Electricity Consumption (MWh)	Emission Factor (gCO2e/MWh) EPA GHG Emissions Factors Hub (2022)	Total Electricity Emission (kgCO2e)	Total NG Consumption (MMbtu)	Emission Factor (kgCO2e/MMbtu) EPA GHG Emissions Factors Hub (2023)	Total NG Emission (kgCO2e)
New York City	206.55	251.20	51,885	601.98	53.06	31,941
San Francisco	43.59	205.57	8,961	121.34	53.06	6,438
Washington D.C.	31.21	315.25	9,840	86.03*	53.06	4,565
Palm Beach	30.56	390.54	11,936	57.94	53.06	3,074
Cologne	3.96	250.00	990	9.86	53.06	523
London	4.29	250.00	1,073	10.68	53.06	567
Totals			84,685			47,108**

*Based on above natural gas usage obtained from average of other US office spaces.

**This figure deviates from the figure initially published in the 2023 Impact & ESG Performance Report as a result of a correction made to the Natural Gas consumption in EIP's Washington D.C. office space.

Corporate Emissions – Scope 3 Except Category 15

In 2022, EIP utilized Greenly to calculate Scope 3 emissions other than financed emissions (Category 15) using an expense-based approach. Nine months of expense data for EIP L.P. were extrapolated to represent total expenditures through 2022 and per-dollar-spent emissions factors were assigned to each expense category. Using the total spend for each category and the corresponding emissions intensities, EIP's partial scope 3 (excluding financed emission) were aggregated to a total of 2,193 mtCO2e.

Category	Category Name	Included
1	Purchased goods and services	Yes
2	Capital goods	Yes
3	Fuel- and energy-related activities	Yes
4	Upstream transportation and distribution	n/a
5	Waste generated in operations	Yes
6	Business travel	Yes
7	Employee commuting	Yes
8	Upstream leased assets	n/a
9	Downstream transportation and distribution	n/a
10	Processing of sold products	n/a
11	Use of sold products	n/a
12	End-of-life treatment of sold products	n/a
13	Downstream leased assets	n/a
14	Franchises	n/a
15	Investments	Included Below

Category	Emissions (tCO2e)
Travel and Commute	886.2
Food and drinks	460.9
Energy (not extrapolated)	38.2
Services purchase	319.2
Product purchase	216
Digital	107.6
Activities and events	93.1
Assets	64.4
Freight	5
Waste (not extrapolated)	2.3
Total	**2192.9**

2.2 Financed Emissions

Financed Emissions (Category 15)

Greenly was also utilized to assess EIP's financed emissions in 2022. To do this, a compilation of methods was used and a table summarizing the methodology used for each company is included below.

1. **Direct Assessments** – For 23 portfolio companies, individual GHG emissions assessments were conducted using an expense-based approach. Using the Greenly platform, 2022 expenses were categorized and multiplied by corresponding emissions intensities taken from the sources in the table below. The assessment utilizes a baseline determined through company size, sector, and revenue, and in some cases accounts for individual employee behaviors such as commuting or meal purchases.

2. **Revenue-Based and Employee-Based Estimates** – For 55 portfolio companies, emissions were estimated using either company revenue or full-time headcount and sector of operation at year-end 2022 and industry-average coefficients provided by Greenly.
3. **Attribution Factor** – Regardless of calculation method, each portfolio company's absolute emissions were multiplied by an attribution factor to assign the proper portion of total financed emissions to Energy Impact Partners. To determine these factors, a compilation of methods was used:
    a. For active equity investments, EIP's invested equity was divided by the total amount of equity invested in the company to determine an ownership share.
    b. For active credit investments, EIP's total debt was divided by the company's total enterprise value to determine an ownership share.
    c. For exited investments, the most recent available EIP ownership share was used.

Database	External link
ecoinvent	https://ecoinvent.org/
IEA emission factors	https://www.iea.org/data-and-statistics/data-product/emissions-factors-2022
CDP	https://www.cdp.net/en
UK - Greenhouse gas reporting: conversion factors	https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting
EPA GHG Emission Factors Hub	https://www.epa.gov/climateleadership/ghg-emission-factors-hub
Base Carbone ADEME	https://bilans-ges.ademe.fr/en/accueil
Schneider Electric LCA database	https://www.se.com/ww/en/work/support/green-premium/
EXIOBASE	https://www.exiobase.eu/
Base IMPACTS ADEME	https://base-impacts.ademe.fr/
Boavizta	https://www.boavizta.org/
Agribalyse	https://agribalyse.ademe.fr/app
International EPD System	https://www.environdec.com/home
Useeio	https://www.epa.gov/land-research/us-environmentally-extended-input-output-useeio-technical-content
EPA - Automotive Trends Data	https://www.epa.gov/automotive-trends/explore-automotive-trends-data
US Bureau of Transport Statistics	https://www.bts.gov/browse-statistical-products-and-data
Car Labelling ADEME	https://carlabelling.ademe.fr/
SNCF Open Data	https://ressources.data.sncf.com/pages/accueil/

EEA Aviation Master emissions calculator 2019	*https://www.eea.europa.eu/publications/emep-eea-guidebook-2019/part-b-sectoral-guidance-chapters/1-energy/1-a-combustion/1-a-3-a-aviation-1/view*
Inies	*https://www.inies.fr/*
ElectricityMap	*https://app.electricitymaps.com/map*
Carboncloud Climatehub	*https://apps.carboncloud.com/climatehub/*
Cycleco - Semi-specific data for clothing LCA	
HBEFA	*https://www.hbefa.net/e/index.html*
IPE	*http://wwwen.ipe.org.cn/IndustryRecord/Regulatory.aspx?index=4*

The level of detail in company assessments varied between a single emission factor multiplied by a company's revenue or per-employee emissions to 235 unique emission factors applied to a company's aggregated annual expense information.

Company	Fund	Absolute Emissions (tCO2e)	Attribution Factor (%)	Financed Emissions (tCO2e)	Method
42Crunch	Europe	486	26.20%	127.3	Direct Assessment
6K	Frontier	5,137	2.00%	102.7	Revenue-Based Estimate
Aeroseal	Fund II	12,070	5.50%	663.9	Revenue-Based Estimate
Arcadia	Fund I	4,262	17.80%	758.6	Revenue-Based Estimate
AtmosZero	Frontier	873	9.40%	82.1	Employee-Based Estimate
Audette	Elevate	20	6.70%	1.4	Revenue-Based Estimate
Boston Metal	Frontier	1,329	1.20%	16.0	Revenue-Based Estimate
Carbon America	Frontier	2,786	6.10%	169.9	Direct Assessment
Celerity	Credit	391	37.30%	146.0	Revenue-Based Estimate
ChargerHelp!	Elevate	215	9.10%	19.6	Revenue-Based Estimate
Mill	Fund II	0	4.60%	0.0	Revenue-Based Estimate
Cosmic Bliss	Credit	6,050	84.80%	5,130.6	Revenue-Based Estimate
Community Tree Service	Credit	5,626	41.60%	2,340.4	Revenue-Based Estimate
Corelight	Fund II	11,634	4.80%	558.5	Direct Assessment
Derive Systems	Credit	14,879	61.20%	9,106.1	Employee-Based Estimate
Dragonfly Energy	Credit	29,803	19.00%	5,662.5	Revenue-Based Estimate
Dragos	Fund I	49,598	12.50%	6,199.7	Employee-Based Estimate
Electric Hydrogen	Frontier	3,855	5.60%	215.9	Employee-Based Estimate
Enchanted Rock	Fund I	19,845	15.60%	3,095.8	Revenue-Based Estimate
ESG Book	Europe	654	13.20%	86.3	Revenue-Based Estimate
eSmart	Fund I	1,124	16.80%	188.8	Revenue-Based Estimate
ev.energy	Europe	486	14.20%	69.0	Direct Assessment
EVMo	Credit	3,256	68.60%	2,233.4	Revenue-Based Estimate
Finite State	Fund II	1,430	25.80%	369.0	Direct Assessment
Flo	Fund II	20,054	13.60%	2,727.4	Revenue-Based Estimate
Form Energy	Frontier	193	2.20%	4.3	Revenue-Based Estimate
GridX	Fund II	1,059	38.90%	411.8	Revenue-Based Estimate

Grover	Europe	22,687	2.40%	544.5	Revenue-Based Estimate
Hippo Harvest	Fund II	1,318	7.30%	96.2	Direct Assessment
HopSkipDrive	Elevate	5,981	26.00%	1,555.0	Revenue-Based Estimate
Innowatts	Credit	301	26.15%	78.8	Revenue-Based Estimate
Instagrid	Europe	11,268	10.40%	1,171.9	Direct Assessment
Ion Solar	Fund II	66,854	6.30%	4,211.8	Revenue-Based Estimate
Koloma	Frontier	474	9.70%	45.9	Direct Assessment
Lightlytics	Fund II	41	18.70%	7.6	Revenue-Based Estimate
Manus Bio	Credit	12,073	78.90%	9,525.9	Revenue-Based Estimate
Marketing Evolution	Fund I	660	22.10%	146.0	Direct Assessment
Measurabl	Fund II	1,808	12.60%	227.8	Direct Assessment
Mimeo	Credit	28,161	37.60%	10,588.7	Revenue-Based Estimate
Mosaic	Fund I	9,353	2.00%	187.1	Revenue-Based Estimate
Moxion Power	Fund II	2,829	13.90%	393.3	Direct Assessment
Network Perception	Fund I	362	63.40%	229.7	Revenue-Based Estimate
Nitricity	Frontier	859	12.50%	107.4	Direct Assessment
Noetic	Fund II	194	21.70%	42.2	Revenue-Based Estimate
NS1	Fund II	4,022	8.70%	349.9	Revenue-Based Estimate
Greenly	Europe	422	9.20%	38.8	Direct Assessment
Oort	Fund II	16	19.90%	3.2	Revenue-Based Estimate
Palmetto	Credit	2,733	1.10%	30.1	Revenue-Based Estimate
Particle	Fund I	1,287	8.70%	112.0	Revenue-Based Estimate
Picnic	Fund II	237	12.70%	30.0	Direct Assessment
Power Factors	Fund II	5,616	3.30%	185.3	Revenue-Based Estimate
Powin Energy	Fund II	85,385	13.70%	11,697.8	Revenue-Based Estimate

Project Canary	Elevate	2,710	6.00%	162.6	Direct Assessment
Quantela	Fund I	5,214	13.40%	698.7	Revenue-Based Estimate
RangeForce	Europe	36	25.40%	9.2	Direct Assessment
RapidSOS	Fund I	3,323	5.00%	166.2	Direct Assessment
Rheaply	Elevate	124	1.20%	1.5	Revenue-Based Estimate
Rondo Energy	Frontier	491	10.10%	49.6	Revenue-Based Estimate
RS Technologies	Fund II	21,882	28.20%	6,170.8	Revenue-Based Estimate
SCYTHE	Credit	81	3.08%	2.5	Revenue-Based Estimate
Sense	Fund I	842	6.10%	51.4	Revenue-Based Estimate
Sibros	Fund II	736	13.00%	95.7	Direct Assessment
Singularity	Fund II	65	12.10%	7.8	Direct Assessment
Sitetracker	Credit	4,642	9.60%	445.7	Revenue-Based Estimate
Smallhold	Fund II	2,950	5.00%	147.5	Revenue-Based Estimate
Sparkfund	Fund I	5,318	39.20%	2,084.7	Direct Assessment
Spire	Credit	94,286	9.10%	8,580.0	Revenue-Based Estimate
SMTI	Fund II	208	42.90%	89.1	Revenue-Based Estimate
StudyTube	Europe	1,173	11.90%	139.6	Revenue-Based Estimate
Sublime Systems	Frontier	1,279	9.40%	120.3	Employee-Based Estimate
Swimlane	Fund I	3,319	48.90%	1,622.8	Direct Assessment
TESCO	Credit	13,392	58.60%	7,847.6	Revenue-Based Estimate
Transaera	Frontier	31	19.40%	6.0	Direct Assessment
Urbint	Fund I	876	22.70%	198.9	Revenue-Based Estimate
Williams	Credit	105,307	22.70%	23,904.6	Revenue-Based Estimate
Zap Energy	Frontier	9,043	2.50%	226.1	Direct Assessment
Zitara	Fund II	61	20.10%	12.3	Revenue-Based Estimate

Zolar	Europe	50,106	11.80%	5,912.6	Revenue-Based Estimate
Total				**140,847**	

[1] Global crude steel production by process route and scenario, 2019-2050, International Energy Agency, October 2020. https://www.iea.org/data-and-statistics/charts/global-crude-steel-production-by-process-route-and-scenario-2019-2050

[2] Climate change and the production of iron and steel, World Steel Association, 2021. https://worldsteel.org/publications/policy-papers/climate-change-policy-paper/

[3] Excluding the manufacturing energy and energy embodied in input water, as noted.

[4] He, Zhijun & Zhu, Xiaodong & Wang, Junjie & Mu, Mulan & Wang, Yuli. (2019). Comparison of CO 2 emissions from OPC and recycled cement production. Construction and Building Materials. 211. 965-973.

[5] Energy Information Administration and Ella Chao, National Renewable Energy Laboratory, April, 2022.

[6] https://www.eia.gov/consumption/commercial/data/2012/index.php?view=consumption#c13-c22

[7] https://www.eea.europa.eu/data-and-maps