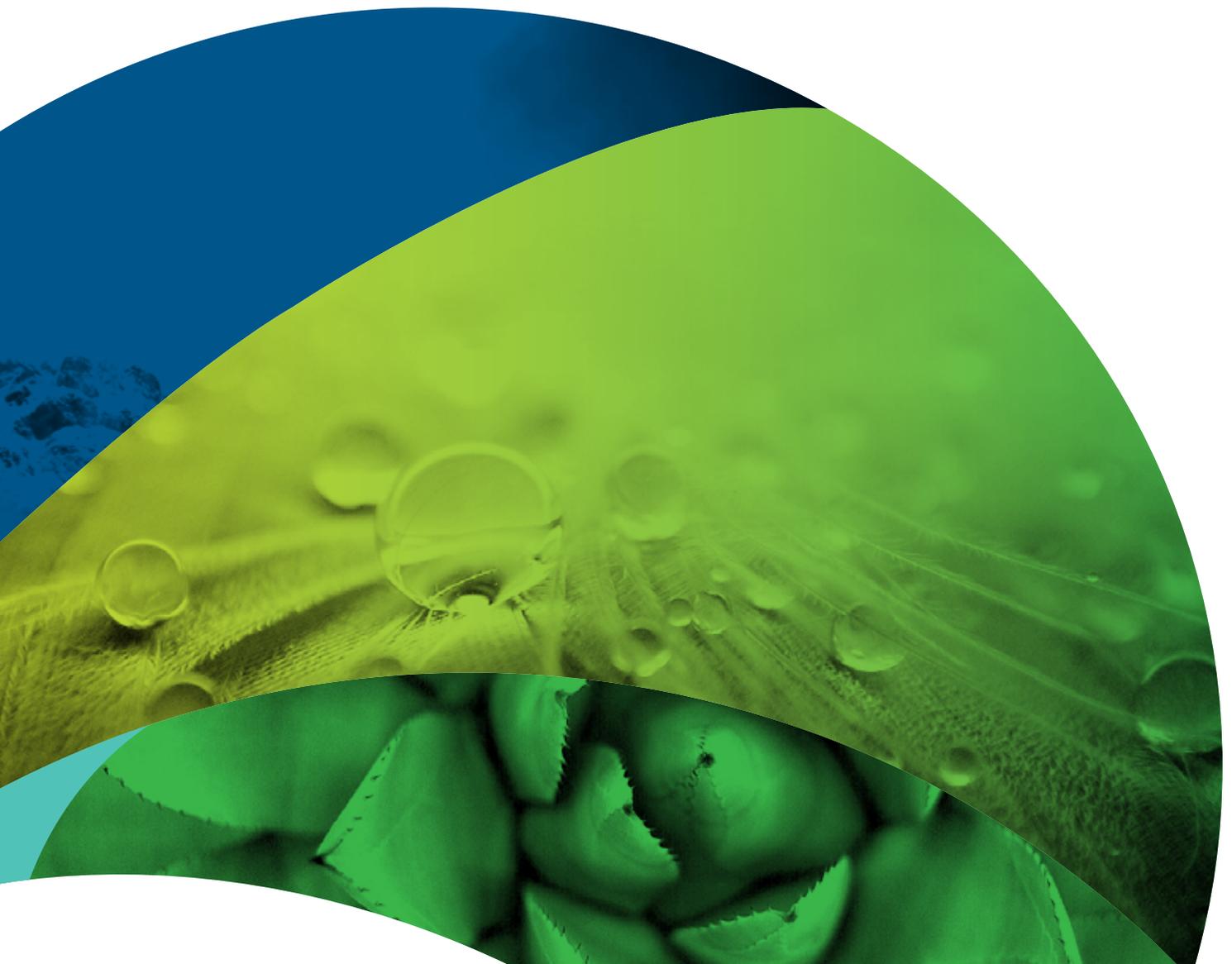


IMPACT REPORT

2020



Welcome to our first Impact Report

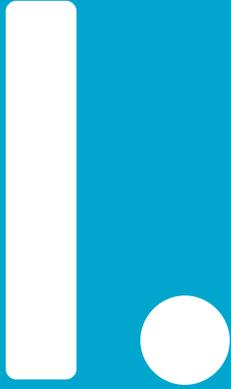
We hope this report provides some insight and perspective for our community about Clean Energy Ventures' accomplishments in 2020 and what we hope for in the years ahead.

At Clean Energy Ventures, we know climate change is a global threat. To solve this challenge, we only invest in early-stage climate tech startups that can reduce greenhouse gases (GHGs) by 2.5 billion tons of CO₂e between the year we invest and 2050. Our focus is also on returning top-decile venture capital returns for our investors. We believe that the companies who can significantly reduce GHGs over the coming decades are also the companies that will succeed financially, and that financially successful companies in turn have greater impact. In 2020, we found and invested in more promising startups than any year prior.

We've also spent a great deal of time over the past year taking action on diversity, equity and inclusion. At Clean Energy Ventures we sit at the intersection of two dominantly white and male industries – clean energy and venture capital – and that does not sit well with us. We acknowledge that we ourselves are almost entirely white and male. Throughout this report you'll see some of the steps we've already taken to address this inequity. If we're going to tackle climate change, we need to attract the very best people to clean energy innovation, and that means building stronger diversity and fostering communities that embrace that diversity.

We hope what follows is informative, and encourage you to follow along with us all year by subscribing to our quarterly newsletter and following us on LinkedIn.

Enjoy the report,
Dave, Dan & Temple



Addressing Climate Change through Venture Capital

2020 Overview

13

PORTFOLIO COMPANIES
Six new companies in 2020

\$110M

EARLY-STAGE FUND
(investing commenced in 2018)

~\$14.5M

IN INVESTMENTS MADE
IN 2020

8

TEAM MEMBERS
19 Venture Partners, and 4 Advisors

19

INTERNS
from 9 schools

100%

TRANSITION
to effective remote work environment

2020 Dealflow

As part of our mission and investment thesis, financial returns are inextricably tied to reducing greenhouse gas emissions. We believe that technologies capable of having a material impact on greenhouse gas emissions reductions will grow rapidly and offer attractive investment opportunities. This deal flow summary characterizes the sub-sectors of startups we saw apply for funding in 2020, many of which could have massive impact on the climate crisis.

The number of applications we received for funding in 2020 grew 10.7% year-over-year.

Applications for Funding by Sector, 2020

8.16%	1 - Advanced Materials
6.04%	2 - Clean Energy Financing, Business Models and IT
22.05%	3 - Clean Energy Production: Other
8.76%	4 - Clean Energy Production: Solar
4.53%	5 - Clean Energy Production: Wind
9.06%	6 - Clean Transportation
5.74%	7 - Energy Delivery and Management
3.63%	8 - Energy Efficiency: Building Efficiency
4.53%	9 - Energy Efficiency: Heating and Cooling
2.11%	10 - Energy Efficiency: Other
6.65%	11 - Energy Storage: Batteries
3.63%	12 - Energy Storage: Other
4.83%	13 - Recycling/Re-use
7.55%	14 - Critical Technologies in CE Adoption
2.27%	15 - Water/Ag Energy Nexus



As investors in early-stage companies, our application trends tend to lead the ‘hot topic’ in the market by 18 to 24 months. As such, here’s some industries where we saw more than a 10% increase in the number of applicants year-over-year in 2020. Expect to hear more about these topics in 2021 and 2022.

10%

increase in the number of applicants in 2020

- Advanced Materials - Applicants
- Clean Energy Production: Wind - Applicants
- Energy Delivery and Management - Applicants
- Energy Efficiency: Heating and Cooling - Applicants
- Energy Storage: Batteries - Applicants
- Recycling/ Re-use - Applicants





Advancing the Clean Energy Industry

The Simple Emissions Reduction Calculator

The startups and entrepreneurs we encounter frequently have large and meaningful ambitions for mitigating greenhouse gases (GHGs). Yet, they often struggle to effectively quantify their potential climate impact. The broad range of factors and possible assumptions often make this task overwhelming. Entrepreneurs then choose to focus their time on more immediate concerns traditionally associated with raising capital.

In late 2020, in response to the varied approaches to estimating GHG emissions reduction we saw in our dealflow, we created the Simple Emissions Reduction Calculator (SERC). SERC is our screening tool used to calculate emissions reduction potential for startups seeking funding. SERC provides us with a quick, high-level understanding of emissions reduction potential for climate tech startups, new technologies and business models. The calculator is deliberately simple; it's only six questions. Most entrepreneurs can complete it with information they already have on-hand.

In 2020, 98 startups completed SERC as an integrated component of our screening process. In May 2021, we launched SERC as a free, stand-alone tool for entrepreneurs, incubators and investors across our ecosystem. We're proud to have **Cleantech Open, Cleantech Scandinavia and several other climate tech investors currently using SERC within their ecosystems**. Ultimately, establishing a standard for the industry will help all investors evaluate the potential GHG impact of their startup investments and enhance the association between this metric and dollars invested.

As each company in our portfolio scales from early stage to growth stage, we will track the evolution of their projected GHG emissions outlook, and evaluate how it compares to our assessment with SERC at the time of investment. This “look forward, look back” will provide guidance for our future screening of companies and help fine tune our diligence as it relates to climate objectives.

We look forward to reporting on industry trends in startup emissions reductions next year. Visit cleanenergyventures.com/simple-emissions-reduction-calculator to learn more.



Advancing Climate Tech on the Virtual Stage

In 2020, we attended a few events in person, and many events virtually. Here's some highlights:



Venture Summit Virtual Connect
Peter Sopher, Manager, Investments and Portfolio Support



Investing for Impact, The Economist
Temple Fennell, Managing Director & Co-founder



Energy Transition North America, Reuters
Dave Miller, Managing Director & Co-founder



Cleantech Forum San Francisco, Cleantech Group
Daniel Goldman, Managing Director & Co-founder

Sharing our Perspective in the Press

In 2020 we helped advance the climate tech conversation across media outlets, with articles and quotes in many prominent publications.

Forbes

“What Lessons Have we Learned From COVID-19 That Can we Apply to Clean Energy?”

GreenBiz

“This is Climate Tech”

TechCrunch

“Biden’s Infrastructure Plans Could Boost Startups”

Crunchbase News

“What a Biden Presidency Means for Cleantech and Energy Startup Funding”

Forbes

Bloomberg

**BUSINESS
INSIDER**

AXIOS

VentureBeat

GreenBiz

**crunchbase
news**

TC TechCrunch

PitchBook

greentechmedia:

Leading the Clean Energy Ecosystem

Every year we focus on helping grow the clean energy and climate tech ecosystem, working with industry associations, accelerators, incubators, and investment groups to develop and advance the clean energy ecosystem.

Here's a few examples of programs we help lead:



Daniel Goldman — serves as Chairman of the Board at the Northeast Clean Energy Council, bringing together industry leaders in the to advance the clean energy economy.

CREO

Temple Fennell — is a highly active member and advisor to the Cleantech, Renewable Energy and Environmental Opportunities (CREO) Syndicate of family offices seeking to invest in climate change solutions.



David Miller — is an Advisory Board member of the MIT Sloan Sustainability Initiative and an EN-ROADS facilitator, helping to use MIT's models to educate legislators, policymakers, and community leaders on the dynamics of solving climate change.



Louis Schick — serves on the board of the newly formed Venture for Climate Tech, a non-profit global venture studio and accelerator program sourcing the most promising climate tech innovators from around the world.

We actively participated as members and sponsors of the following groups in 2020:

NET ZERO ASSET MANAGERS INITIATIVE

IMPACT CAPITAL MANAGERS

Intentional Endowments Network





Impacting the Frontier of Decarbonization

All of our portfolio companies can have a material impact on reducing climate change and building strong financial returns. Here are three examples of how our portfolio companies are providing critical solutions on the path to decarbonization.



Advancing Solutions in Hard-to-Decarbonize Sectors

2020 was an inflection point for electric vehicle commitments in consumer automotive, with major manufacturers making pledges to produce only electric vehicles within the next decade. However, hard-to-decarbonize subsectors of transportation such as long-haul trucking, agriculture, construction, mining and marine are still far away from serious electrification based on carbon intensity of the electric grid, performance criteria and infrastructure requirements. We simply need to move faster to meet climate goals.

On this basis, we invested in ClearFlame Engine Technologies. They are embracing an ecosystem approach to swift decarbonization of heavy-duty industry by taking the diesel fuel out of the diesel engine. Ethanol infrastructure already exists in the U.S. and offers a 40 percent, or better, reduction in GHG emissions versus diesel fuel on a lifecycle basis. Ethanol is well on its way to net-zero carbon emissions and then even negative lifecycle carbon emissions. Liquid fueling infrastructure is already well established across markets globally. ClearFlame is bringing together existing fueling infrastructure, suppliers and OEMs to commercialize their decarbonization technology.

ClearFlame's applications for long-haul trucking, agriculture, mining, marine and stationary backup generation provide a compelling sustainability proposition in both developed and emerging markets at a lifecycle cost that is lower than diesel and favorable to electric vehicle and hydrogen-based alternatives. The technology also complements electric long-haul trucking as a cost-effective range extender.

Since our investment, ClearFlame has demonstrated its low-emissions technology on a Cummins truck engine and is on track for road trials and customer testing in 2021 followed by scaled deployment thereafter. We are excited by the sustainability, GHG emissions reduction potential, and cost-effectiveness of their solution.



Providing Verified Data To Drive Decarbonization

More than 1,500 major companies and 120 governments have pledged to decarbonize by 2050. This will lead to trillions of dollars of investment (\$50 trillion by Morgan Stanley's estimate) in clean energy and climate tech, much of which will be from companies moving to net zero. However, most of these companies have no baseline awareness of their carbon footprint today or how to track reductions in the future.

Enter ClearTrace, a carbon accounting platform in a form that has never been implemented before. ClearTrace measures and digitizes clean energy production at the source, monitors its

delivery to customers, and evaluates carbon mitigation based on grid carbon intensity. Their technology then reports results to its customers in real time. The company is working with customers in a range of market segments including leading financial services and asset management companies. These companies are demonstrating the importance of accounting for, verifying, and reporting clear data on carbon accounting, analogous to the same transparency expected for financial reporting.

We expect our 2020 investment in ClearTrace to be a significant enabler for large companies to accelerate their decarbonization and assure regulators like the City of New York (Local Law 97 requires a 40 percent reduction in building GHG emissions) and the Securities and Exchange Commission (as well as other critical stakeholders such as investors, employees and customers) that they know their carbon footprint and how it's changing over time.



Creating Demand for Residential Energy Efficiency

Updating energy inefficient homes could avoid eight percent of U.S. residential electricity usage annually. Yet, most homeowners are more likely to invest in new kitchen countertops than energy efficiency upgrades if given the choice. Motivating homeowners to turn their inefficient homes into high-performing homes (energy efficient homes with great air quality, too) is tricky business. Many states and municipalities have turned to costly incentives or given up on trying to improve residential energy efficiency.

We invested in Pearl Certification because we believe they have a unique, market-driven approach to upgrading

home energy efficiency in the U.S. by bringing together homeowners, home improvement contractors, and real estate agents. Pearl works by making the value of energy efficiency improvements tangible for homeowners. Based on research, homes with a Pearl Certification sell for a five percent premium. Home contractors pay to become Pearl-certified and use their certification as a differentiator when competing for work. A Pearl Certification validates the quality of their work, incentivizes more aggressive energy efficiency investment, and documents the energy efficiency improvements for resale value. Better insulation in your walls isn't Tik-Tok worthy, but it's certainly valuable. And, addressing efficiency in millions of homes will have a material impact on GHG emissions.

By the end of 2020, Pearl certified over 45,000 homes in the U.S. We're looking forward to their national expansion in 2021 as they work to become the standard for energy efficient homes.

IV.

Diversity, Equity & Inclusion

At Clean Energy Ventures, we recognize and acknowledge that inequality and bias exist within our communities of venture capital, clean energy and climate tech. For example, venture capital firms, including our own, are dominated by white males. Data shows that this results in implicit bias which drives funding away from startups led by women and people of color. This does not sit well with us.

As an organization, we're committed to positively impacting Diversity, Equity and Inclusion (DEI) in our community. We make this commitment because we believe it is the right thing to do – that every individual across our country is given equal opportunity to succeed and contribute to the success of the communities they wish to be a part of. We also make this commitment because we know, from data, that diverse and inclusive teams outperform their homogenous peers. Companies in the top quartile for ethnic diversity are 33 percent more likely to have industry-leading profitability.

To save the planet from the effects of climate change we need the strongest teams possible positioned for global success.

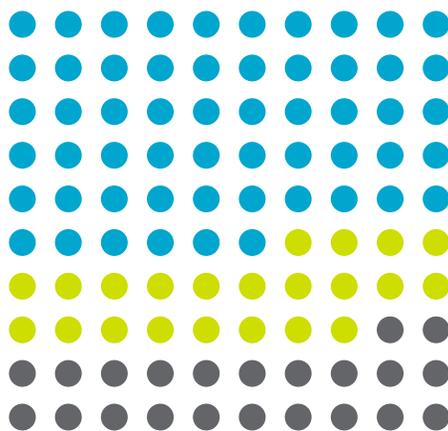


Diversity In Our Investment Pipeline

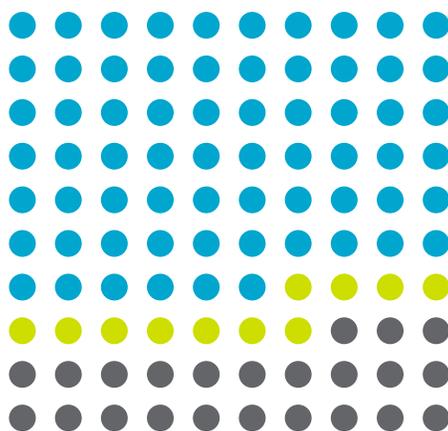
In 2020 we implemented new, voluntary tracking within our pipeline to better understand the diversity of startup founders and leaders applying for funding from Clean Energy Ventures. Our aim was first to understand the level of diversity in our pipeline, and then implement new measures to reduce bias in our evaluations and provide additional mentorship to historically underserve teams, building equality into our diligence process. We're excited to continue refine these first steps in 2021.

Our main focus for 2021 is to expand our dealflow to include more gender and ethnically diverse leaders by networking with groups and VC funds focused on underrepresented founders and leaders. We have established a team to lead our outreach and are working to build systems to further enhance climate tech dealflow from underrepresented groups.

Founder Gender Diversity (for applicant companies, Q4 2020)

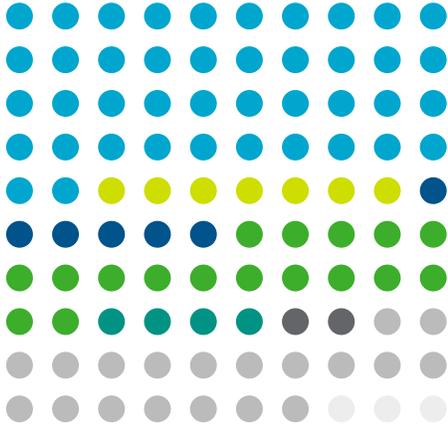


Leadership Gender Diversity (for applicant companies, Q4 2020)



Founder Ethnic Diversity

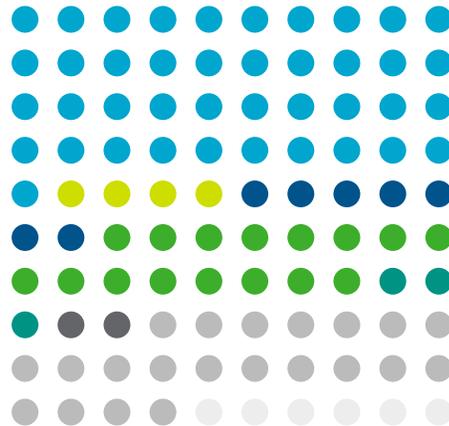
(for applicant companies, Q4 2020)



- 41.9% Caucasian
- 6.7% Hispanic or Latino
- 5.7% Black or African American
- 17.1% Asian
- 3.8% American Indian or Alaskan Native
- 1.9% Native Hawaiian or other Pacific Islander
- 19% Prefer Not to Say
- 3.8% Other

Leadership Ethnic Diversity

(for applicant companies, Q4 2020)



- 40.6% Caucasian
- 4% Hispanic or Latino
- 7% Black or African American
- 15.8% Asian
- 3.6% American Indian or Alaskan Native
- 1.9% Native Hawaiian or other Pacific Islander
- 21.8% Prefer Not to Say
- 5.9% Other



Advancing Diversity within Our Portfolio Companies

As significant investors in our portfolio companies, we're in a unique position to help our promising portfolio of startups build diversity and inclusion into their foundational business practices.

In 2020 we began dialogue with all our portfolio companies through our DEI Survey, designed to help each company understand where they are on building diversity, equity and inclusion. The survey included 15 participating startups, with the survey fielded to each team member at each company.

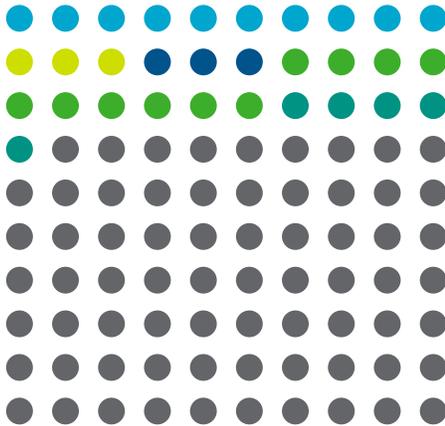
Here's a selection of results from the DEI Survey; you can see more reporting on our website.

This survey is helping us support our portfolio companies in their DEI journey. As part of our DEI work and as a result of this survey, we've created and disseminated a collection of tools for portfolio companies such as board reporting templates, a DEI playbook, example policies, and required term sheet language.

68%

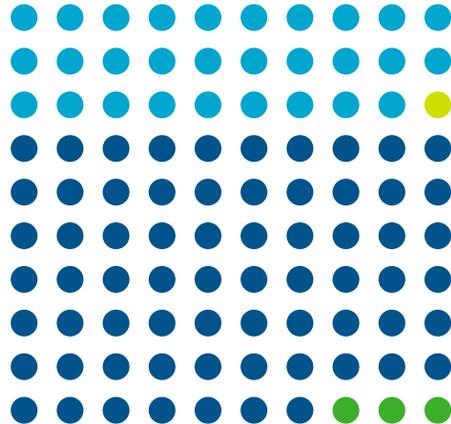
of survey respondents believe their company has made a DEI commitment.

Survey Participants by Race/Ethnicity



- 10% Asian
- 3% Black
- 3% Latino
- 10% Other Non-White
- 5% Prefer Not to Answer
- 69% White

Survey Participants by Gender



- 29% Female
- <1% Genderqueer/ Nonbinary/ Nonconforming/ Agender
- 68% Male
- 3% Prefer Not to Say

82%

are unsure or believe their company does not have an action plan for addressing DEI.

43%

of board member respondents believe the company actively looks to address underrepresented groups with their products.

33%

of board member respondents believe their company's board reflects the gender and ethnic diversity of the U.S.

Engaging Within our Community



In 2019, our Managing Director Dan Goldman joined forces with Kerry Bowie of Msaada Partners to found Browning the Green Space, which was officially launched in 2020. This non-profit initiative, now with over 70 members, is focused on advancing the clean energy economy in the Northeast for black, brown and indigenous people of color. Browning the Green Space has five focus areas—Companies, Careers, Contracts, Capital and Community—all centered on advancing diversity, equity and inclusion in clean energy.



In 2020, CEV engaged in dialogue with our sister organization of angel investors, Clean Energy Venture Group, to undertake a learning action journey lead by the team at Civic Salon. This experience helped educate our team and advisors on the importance of DEI, understand our priorities, and set a plan for action. We're excited to implement this plan in 2021.



Portfolio Impact

Much of the impact we have on the world is through the companies we invest in and provide guidance to. Our portfolio companies provide impact through emissions reduction, economic development, improved human health, increased energy access, and engagement with multinational strategics looking to innovate and build solutions to address climate change.

Potential GHG Emissions Impact

Each company we invest in must have the potential to reduce 2.5 billion tons of CO₂e cumulatively between our investment and 2050.

While many of our investments are still too early to drive measurable year-over-year emissions reductions globally, their potential impact by 2050 is massive. In assessing climate impact, we also consider factors such as timeframe to materially reduce GHG emissions and how hard a particular sector is to decarbonize.

Portfolio Company	GHG Emissions Reduction Potential from Investment through 2050 (GT CO ₂ e)
Aqua Membranes	2.7
Boston Materials	8.2
ClearFlame Engine Technologies	5.5
ClearTrace	6.0
ConnectDER	2.7
LineVision	0.9*
Leading Edge Equipment Technologies	>25
Nth Cycle	7.3
Pearl Certification	2.7
Rebound Technologies	3.6
SparkMeter	0.80 annually at scale*
SunDensity	2.9
Volexion	24.3

*pre-SERC portfolio company with potential to exceed target

Corporations Served

Some of the biggest impacts our portfolio companies have is in how they help multinational strategics disrupt their own technology value chains. Here's just a few of the multinationals our startups are actively engaged with as investors, partners, or customers.



JPMORGAN CHASE & CO.



Brookfield



vimson



AVISTA



Lineage



nationalgrid



Vision for 2021

2020 was an extraordinary year in many ways, one of much suffering across the world but also one that brought the climate crisis to the forefront with extraordinary corporate and public attention. We look forward to more adventures and progress in 2021. As we invest in our 15th portfolio company as of April 2021, with over 75 percent of our capital deployed or reserved, we are looking toward Clean Energy Ventures Fund II where we hope to have even greater impact across a larger geography. Sign up for our newsletter and follow us on social media to stay up-to-date on all the extraordinary founders we are fortunate to support along their journey to create scalable businesses that can have a material impact on our climate.

Twitter: twitter.com/CEVteam

LinkedIn: linkedin.com/company/clean-energy-ventures

Website: cleanenergyventures.com

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