



Greentown Labs

2022 Impact Report

CLIMATE ACTION AT WORK

[GREENTOWNLABS.COM](https://greentownlabs.com)

Dear Friends of Greentown Labs,

2022 was a transformative year for our industry, our entrepreneurs, and our organization.

Climate change—and even better, climate action—has a permanent position in federal legislation, in venture capital, across mainstream media’s headlines, and very likely around your family’s dinner table. We’ve hit a new inflection point in the climate community, and we at Greentown Labs are so proud to be part of it.

History was made when Congress passed the largest, most ambitious climate legislation ever through the Inflation Reduction Act. More than 60 new climate-focused funds launched in 2022, bringing with them more than \$37B of capital to deploy into much-needed climatetech solutions. Most major media outlets have created dedicated climate news desks. And more people are making climate-conscious decisions in their everyday lives, from the food they eat and the clothes they buy to their modes of transportation and annual travel plans. Climate is embedded in every aspect of people’s lives, and Greentown is thrilled about this momentum.

Amid all these climate tailwinds, we have the pleasure of introducing Greentown Labs’ first-ever annual impact report: a celebration of climate action at work.

In the following pages, you’ll see the transformation of our communities and ecosystems. You’ll learn about our member companies’ accomplishments, team growth and development, technology deployment, and critical work serving underserved communities while inspiring future generations of entrepreneurs. You’ll note how our ecosystems collaborated, expanded, and connected with each other while also engaging new communities we had yet to work with until 2022.

We could never truly summarize all the work our team did this year in one impact report. Their tireless efforts to deliver on our mission to build an inclusive community that convenes, connects, and inspires entrepreneurs and ecosystems to advance climate solutions deserves recognition and celebration. We hope you’ll see this report as a reflection of their commitment to our work.

Greentown Labs was proud to welcome many new team members in 2022, as well as a number of new Board members who will help us reach new heights in the years to come. Please see the next page to meet our Board of Directors. We also celebrated the culmination of Dr. Emily Reichert’s incredible 10-year tenure as Greentown Labs’ CEO. Now our CEO Emeritus, we will continue to honor her work and leadership as we forge the next chapter of Greentown’s growth.

We hope you enjoy reading this report and learning about the many milestones and achievements of 2022 across our community and ecosystems. When you finish reading, we hope you join us in looking ahead to 2023 with optimism, courage, and more urgency for climate action than ever before.

If you’re reading this, you likely played a role in the transformations we listed above, and for that we thank you. If you have yet to engage with our community, please don’t hesitate to reach out—we’d love to hear from you and work together to advance our climate goals.

Onward,

Alicia Barton
Greentown Labs Board Chair
CEO, Firstlight Power

Kevin T. Taylor
Interim CEO; CFO
Greentown Labs



Greentown Labs Board of Directors

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RWE RENEWABLES

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OF THE NORTHEAST CLEAN ENERGY COUNCIL

Greentown by the Numbers

OUR STARTUPS’ ALL-TIME IMPACT



Climate Solutions for a Decarbonized, Resilient Future

At Greentown Labs, we define **climatetech** as technological solutions that mitigate the impacts of climate change and build resilient communities.

Mitigation technologies capture or reduce greenhouse gas (GHG) emissions, and our startup members are innovating to decarbonize the five key GHG-emitting sectors: agriculture, buildings, electricity, manufacturing, and transportation.

Resilience technologies prepare people, communities, and infrastructure for the impacts of climate change, with a focus on equity.

AGRICULTURE 22 STARTUPS



Tender Food

Meat is responsible for about 60 percent of food production's GHG emissions—something that Tender's on a mission to change. The startup is making meat without the animal, creating meat products using the building-blocks of life: proteins. Tender makes these alternative meats with the right taste and texture, all at an affordable cost.



Promethean Power Systems

Promethean Power Systems's thermal storage technology offers instant cooling and backup cooling power to rural dairy farmers. It serves 60,000 farmers throughout India, and has replaced roughly 3 million liters of diesel fuel.

BUILDINGS 20 STARTUPS



Dandelion Energy

Dandelion Energy addresses the biggest obstacles preventing geothermal heat pumps from scaling: they can be costly upfront (despite saving homeowners money in the long-term), their installation process requires coordinating many different parties, and not many homeowners are aware geothermal heating is an option for them. A Dandelion geothermal heating and cooling system reduces a home's carbon emissions by about 80 percent per year when switching from fuel oil.



AeroShield

AeroShield's glass-based aerogel technology offers 50 percent more insulation than typical double-pane windows and is far thinner, lighter, and less expensive than traditional triple-pane windows. These advantages are significant, as energy transfer through windows is responsible for 25 to 30 percent of residential heating and cooling use.



ELECTRICITY 76 STARTUPS



Form Energy

Form Energy is transforming how we power our world with a new class of cost-effective, multi-day energy storage systems that will enable a reliable, fully renewable electric grid year-round.



LineVision

LineVision, a transmission-line-monitoring company, tackles three major challenges with existing grid infrastructure: capacity, safety, and reliability. Its technology can increase capacity on existing lines by up to 40 percent, which is critical to adding more renewables to the grid.

TRANSPORTATION 21 STARTUPS



SparkCharge

SparkCharge is creating a more efficient and connected world of transportation by eliminating range anxiety with its ultra-fast, portable, and modular charging station for electric vehicles.



Blackburn Energy

Blackburn Energy's RelGen system turns any truck into a mobile platform for the creation, storage, and delivery of renewable energy by converting the kinetic energy lost during braking and gliding into clean, low-cost electricity.

MANUFACTURING 46 STARTUPS



Sublime Systems

Sublime Systems is developing technology to decarbonize cement-making, which is currently responsible for eight percent of global CO₂ emissions. This tech reduces a cement kiln's emissions by 50 percent, without changing the properties or chemistry of the cement.



Radical Plastics

Radical Plastics is commercializing a patented technology for producing economical, biodegradable plastics that are a drop-in replacement for conventional, persistent plastics.

RESILIENCY + ADAPTATION 50 STARTUPS



QuantAQ

Today, we don't have the extensive air quality information we need to reduce pollution—and that's in part because of challenges with existing air quality sensors. QuantAQ's air quality sensors are smaller than a microwave, cost a fraction of traditional pollution measurements, offer continuous rather than hourly data, and are simple to install and operate.



Cleartrace

Cleartrace leverages blockchain technology to track, trace, and manage renewable energy and decarbonization data tied to corporate sustainability and ESG goals.

Convening Ecosystems Around Climatetech Entrepreneurship

Accelerating the Energy Transition in the Energy Capital of the World

Greentown believes the City of Houston has a critical role to play in helping solve the climate crisis. If we are successful in our efforts to make Houston the energy transition capital of the world, if the global corporations headquartered in Houston can incorporate climatetech solutions into their operations at scale, we have the potential to decarbonize not just one city, but create a model for similar cities across the globe—and build a diverse and inclusive energy workforce in the process.

Greentown Houston opened on Earth Day 2021, and throughout 2022, we worked to scale our impact in the region, support our community of 75+ Houston startups, and bolster the city's energy transition efforts.



MEET SOME OF OUR MEMBERS WORKING ON ENERGY TRANSITION TECHNOLOGIES:



Cemvita Factory

Cemvita Factory applies synthetic biology to decarbonize and reduce the environmental footprint of heavy industries in three ways: capturing CO₂ or methane for use as a feedstock, reducing emissions from energy-intensive chemical reactions, and replacing processes that use harmful chemicals. The company's subsurface biomanufacturing vertical repurposes aging oil reservoirs into "subsurface chemical plants" that use CO₂ as a feedstock to create useful chemicals. This process gives these refineries a new, climatetech life without adding significant capital investment.



CeraPhi Energy

CeraPhi develops proprietary technology to significantly de-risk the delivery of geothermal projects, enabling geothermal production through the reuse of existing oil and gas wells or the development of new wells to provide baseload heat and energy services.



Renewell

Renewell is working to convert the millions of stranded inactive oil and gas wells, along with their supporting infrastructure, into low-cost, high-GHG-abating, profoundly flexible energy storage devices.



TEXAS ENTREPRENEURSHIP EXCHANGE FOR ENERGY

In 2022, Greentown launched the Texas Entrepreneurship Exchange for Energy (TEX-E), a first-of-a-kind collaboration with MIT's Martin Trust Center for Entrepreneurship and universities across Texas to create a powerful, student-driven entrepreneurship ecosystem in Houston, focused on energy innovation and implementing lessons learned from building a successful ecosystem in Boston.

TEX-E's mission is to train and empower the next generation of entrepreneurs to

lead the energy transition and to share in the massive economic opportunity it entails, while also addressing the existential threat of climate change. As part of the program, participating students have access to mentorship with Greentown's climatetech entrepreneurs, networking events, career opportunities, and cross-learning with MIT.

The founding institutions of TEX-E are Rice University, Texas A&M University, Prairie View A&M University, University of Houston, and the University of Texas at Austin. Over time, the collaboration may expand to include other universities.



LEARN MORE
ABOUT GREENTOWN GO ON PAGE 13

THE LOW-CARBON HYDROGEN ACCELERATOR

Our Greentown Go Energize 2022 program—the Low-Carbon Hydrogen Accelerator (LCHA)—brought together seven startups, the Electric Power Research Institute (EPRI), Shell, the City of Houston, and the Urban Future Lab at the NYU Tandon School of Engineering to build partnerships to accelerate low-carbon hydrogen solutions.

Through six months of programming, LCHA offered startup participants collaboration and engagement opportunities with EPRI, its member utilities, and Shell on technology validation, feasibility studies, paid pilot demonstrations, and other development and commercial partnerships.

Meet the startups:

- Clean Power is developing a novel, low-cost, highly durable hydrogen polymer electrolyte membrane fuel cell delivering zero-emission electricity.

- Advanced Ionics is enabling green hydrogen production without the green premium.
- Arco Technologies is developing a proprietary Anion Exchange Membrane electrolyzer with the lowest capital expenditures and operating expenses possible today.
- Element Resources is enabling compressed hydrogen storage tank technology.
- Smartpipe Technologies is developing a robust, self-monitored, repurposed pipeline system for hydrogen with minimal environmental disruption.
- SPEC Sensors is creating a robust and reliable meshed sensor network for hydrogen leak detection and line-monitoring systems.
- RUNWITHIT Synthetics is creating a live, digital twin modeling platform that generates decision-support data for regional hydrogen-demand scenarios.

Events

Greentown Labs prides itself on being a convener of the climatetech ecosystem, both within and across the cities we call home. One of the primary ways we bring key ecosystem players—from our entrepreneurs, to corporate executives, to investors, to policymakers, and beyond—together is through events that foster connections, showcase our startups' innovations, and champion collaborative climate action.



Here are just a few examples of events we hosted in 2022:

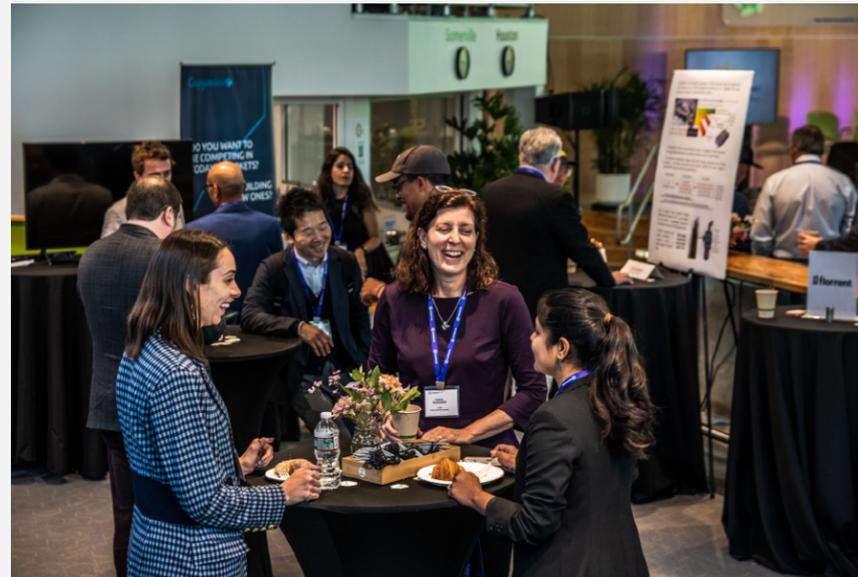
- **Investor Speaker Series: Access to Success**
Part of Greentown's Investor Program, our Investor Speaker Series brings together prominent climatetech investors and entrepreneurs to discuss trends in the industry, tips for both founders and investors on forming partnerships, and more.
- **EnergyBar: Climatetech Career Fair**
EnergyBars, Greentown Boston's signature networking event, regularly convene the area's climatetech ecosystem.
- **Transition On Tap: Reflections and Lessons from the Texas Freeze**
Greentown Houston's recurring networking event, Transition On Tap, focuses on relevant topics within the energy transition and forges connections throughout the region.
- **Greentown Houston's First Anniversary**
Our Houston incubator opened on Earth Day 2021, and in 2022 we celebrated the Greentown Houston community's first year of growth!
- **The Healthy Buildings Challenge Final Showcase**
Each Greentown Go program (see more on page 13) concludes with a showcase that highlights how startups and corporates have worked together to advance climate solutions.

CLIMATETECH SUMMIT

Our annual Climatedech Summit brings the climatedech ecosystem together for hands-on exploration with our 200+ startups and their climatedech solutions; keynotes and sessions featuring leaders across climatedech, finance, policy, and justice; and networking with key climate action trailblazers.

The 2022 summit focused on catalyzing commercialization—highlighting the momentum our startups, corporate partners, and ecosystem champions have been building together, how these collaborations will chart the course for climatedech deployment, and how everyone can play a role in commercializing climate technologies.

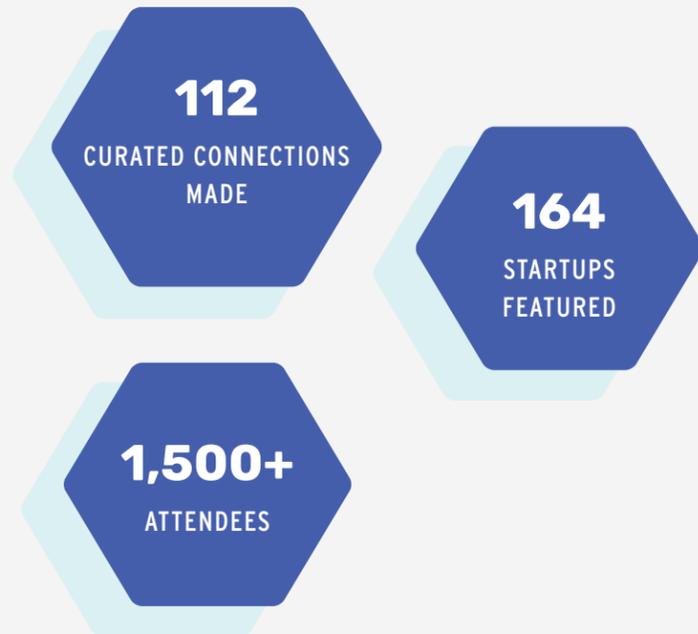
Sessions included a startup showcase, a panel on what the Inflation Reduction Act means for climatedech commercialization, perspectives from startups and corporates that have worked together, and much more.



SECTOR PITCH DAYS

Decarbonizing the key greenhouse-gas-emitting sectors will require collaboration across the climatedech ecosystem, with climate finance, policy, and justice leaders working in concert with technology entrepreneurs to scale solutions.

That's why we convene our startups, partners, and investor network four times a year for our Sector Pitch Day series, each time exploring innovation areas and opportunities present in a particular sector. In 2022, we held Sector Pitch Days focused on buildings, manufacturing, agriculture, and transportation.



Connecting Key Climate Champions

Startup-Corporate Partnerships

Large, established private sector players—corporates—have a critical role to play in climatetech innovation. Through their domain expertise and financial scale, corporates can contribute specialized resources and capital to accelerate technology development. Their position as incumbents in a largely B2B space also means corporates can unlock key commercialization pathways for innovation. And when it comes to achieving worldwide deployment, corporations' global footprints can serve as springboards for climatetech innovation to jump borders for sweeping transformation.

Greentown Labs' **Incubator Partnerships Program** helps our 200+ startups engage with our full roster of corporate partners. Our **Greentown Go Accelerator Programs** zero in on a particular technology area within one of the key greenhouse-gas-emitting sectors, connecting one or two corporates with a small cohort of startups through a structured accelerator that speeds up successful collaborations.

INCUBATOR PARTNERSHIPS PROGRAM

Our Incubator Partnerships Program engages corporates in industries from energy to consumer packaged goods and invites them into dialogue with our community of climatetech startups through private pitch events, topic roundtables, industry deep dives, and more. These partners become advisors, mentors, investors, and pilot customers for our startups, and our startups, in turn, help them to advance their own innovation and sustainability priorities.



Here are just a few ways Greentown startups worked with our partners in 2022:

- **Energy Web** launched a crowdfunding platform for solar energy deployment in Sub-Saharan Africa with our partner ENGIE's Energy Access.
- **Syzygy Plasmonics** announced plans to test a fully electric clean hydrogen chemical reactor with companies including Greentown partner Sumitomo Corporation of Americas.
- **Cleartrace** announced a \$20M financing round from several strategic investors, including Greentown partner EDF Energy North America.
- **Sol Clarity** raised a \$920K Seed I round, led by Greentown partner Equinor Ventures, to use electrodynamic screens instead of water to clean solar panels.
- **Blackburn Energy** and Greentown partner University of Massachusetts Lowell completed a research collaboration on Blackburn's fuel savings, financial benefits, and CO₂ reduction.
- **Revterra** raised a \$6M Series A for its grid-stabilizing kinetic battery from Greentown partners Equinor and SCF Partners' venturing arms.
- **Verne** received a seed investment from Amazon's Climate Pledge Fund—a Greentown partner.



AT A GLANCE: GREENTOWN GO IN 2022

3	4	20	81
PROGRAMS CONCLUDED	PROGRAMS KICKED OFF	STARTUP GRADUATES	MENTORSHIP RELATIONSHIPS FORMED

With a mission of decarbonizing the key greenhouse-gas-emitting sectors, Greentown Go programs inject momentum and traction into startup-corporate collaborations, unlocking the power of climate solutions at scale.

Each track—Go Build, Go Energize, Go Grow, Go Make, and Go Move—leverages the same proven, year-long Greentown Go framework that has delivered dozens of partnership outcomes to date.

Through Greentown Go in 2022, 20 startups participated in market discovery and technical diligence activities with corporate partners. Together, these activities resulted in ongoing momentum toward:

- 3 corporate investments
- 2 demand-side partnerships (e.g., licensing deals, joint development agreements, go-to-market partnerships)
- 6 pilots, demonstrations, and feasibility studies (including DOE FOA collaboration)

Other progress included:

- 3 technical validation/feasibility studies/proof of concept projects during the programs
- 1 formal technical assessment testing completed during the program
- 1 international company expanded to the U.S.
- 1 international company used the program to explore future U.S. expansion
- 1 company hired a CEO from the Greentown Labs network

Thank you to our 2022-2023 Go program partners!

BASF, Fluor Corporation and the Carbontech Leadership Council members (via the Carbon to Value Initiative), Magna, Mitsubishi Corporation (Americas), Saint-Gobain, Shell, The City of Houston, The Electric Power Research Institute, The M-Lab Companies, and The Massachusetts Clean Energy Center.

Investor Program

Our investor program's mission is simple: to connect our startups with the capital they need to scale and succeed. From curating investor-startup matches to facilitating pitch practice and feedback, we're committed to helping our startups navigate the fundraising process. Members can:

- Get direct introductions and access to investors through our curated investor network
- Connect with key investors in their industries at Sector Pitch Days and other invite-only investor networking sessions
- Be featured in Deal Flow Digests, our regular content distribution exclusively for accredited investors that highlights our startups that are actively raising

2,000+

INVESTORS IN NETWORK

121

STARTUPS FEATURED IN DEAL FLOW DIGESTS

480

CURATED CONNECTIONS

- Meet one-on-one with investors and partners via office hours
- Receive fundraising coaching and support
- Source peer-driven pitch feedback at biweekly Fundraising Forums
- Learn from and network with industry-leading investors through Greentown's Investor Speaker Series



Providers of resources + equipment



From hardware equipment to software tools to legal services, we connect startups with equipment and resource providers to supply the tools they need to thrive. All together, our members gain access to more than \$1M in member resources.

\$1M+

WORTH OF EQUIPMENT

50

STARTUPS USE LABS & EQUIPMENT

\$1M+

WORTH OF OTHER MEMBER RESOURCES

120

STARTUPS USE OTHER MEMBER RESOURCES

SOFTWARE

- **Prototyping Software**
 - Altium
 - Ansys
 - Aspentech
 - Keysight Advanced Design System
 - MathWorks
 - SOLIDWORKS
- **Business Software**
 - Amazon Web Services
 - Carta
 - CodeValue
 - Doodle
 - Hubspot
 - Pitchbook

LAB RESOURCES

Our labs are where the magic happens. Here, our members take their technologies from initial R&D to rapid prototyping while preparing for manufacturing and commercial development.

- **Prototyping labs**
- **BSL-2 wet lab (Boston only)**
- **Machine shops**
- **Keysight electronics labs**
- **Stanley Black & Decker tool shops**

UNIVERSITY RESOURCES

- **University of Massachusetts Lowell**
- **Olin College of Engineering**
- **Center for Nanoscale Systems at Harvard University**

Gexa Energy, Microsoft, Mitsubishi Corporation (Americas), Mitsubishi Heavy Industries, Naturgy, NRG, Rice Management Company, Saint-Gobain, SCF Partners, Shell, Sunnova, Tudor, Pickering, Holt & Co., Wells Fargo, White Deer Energy, Williams, Woodside Energy, and Vinson & Elkins.

PROFESSIONAL SERVICES

- **Business Development + Technology**
 - Lux Research
 - University of Massachusetts Lowell
- **Capital**
 - AngelSpan
 - Greentown Labs' non-dilutive funding tracker
 - LTSE Equity
 - MassVentures grant support
 - PwC
 - StartEngine Crowdfunding
 - Shoobx
 - Visible
- **HR + Hiring**
 - A3HR
 - Cognoscentio
 - Olin College of Engineering recruitment
 - Reimaginz
 - Root & Leaf
- **Legal**
 - Chubb & Hilb Group
 - Foley Hoag
 - Vinson & Elkins
 - Wolf Greenfield
- **Professional Development Coaching**
 - Habitus Incorporated
- **Manufacturing**
 - FORGE
 - SPEC Process Engineering + Construction

Entrepreneur <=> Entrepreneur Collaborations

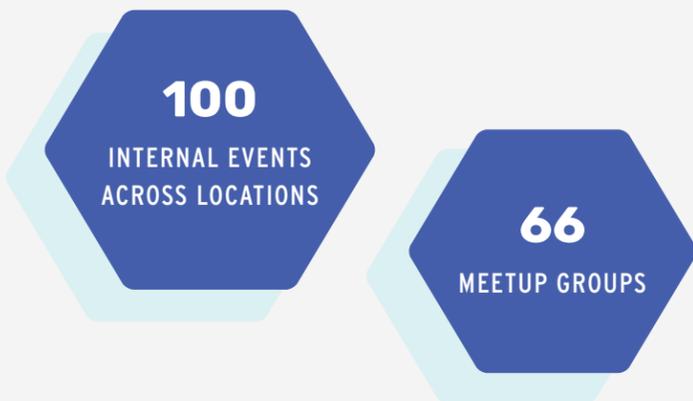
The heart of Greentown is a thriving community of climatetech entrepreneurs who are always willing to lend expertise, support, and connections to their fellow members. Here are some of the ways we help them engage with each other:

- CEO/founder roundtables
- CTO and technical lead roundtables
- Investor Program featuring peer-driven pitch practice sessions
- Industry-focused meetup groups
- Affinity meetup groups including Pride, BIPOC, Veterans, and more
- Women of Greentown initiative
- Social events, including Town Halls and member networking
- Greentown Resources + Information Directory (GRID) —our LinkedIn-style intranet
- Community-wide Slack workspace



The Advancing Climatetech and Clean Energy Leaders (ACCEL) Program, a collaboration from Greentown Labs and Browning the Green Space, supports BIPOC founders as they develop critical climatetech solutions by offering access to funding, networking connections, resources, and opportunities that structural inequities regularly put out of reach. This year-long program combines acceleration, incubation, and extensive mentorship, with the aim of putting founders of color in the position to lead technology-driven companies that address climate change, support the development of diverse workforces, and fiercely advocate for the deployment of clean technologies in underserved communities.

We opened applications for ACCEL in November 2022 and began the first iteration of the program in early 2023!



Inspiring Climate Action

Future Climate Leaders

At Greentown Labs, we firmly believe that building a thriving, diverse, and just climatetech workforce is key to deploying climate solutions. Green job opportunities are increasing faster globally than any other job category, according to LinkedIn, and in about five years, we likely won't have enough climate workers to meet the industry's demand.

That means we need more people, inclusive of all backgrounds and experiences, to put their skills to work on climate.

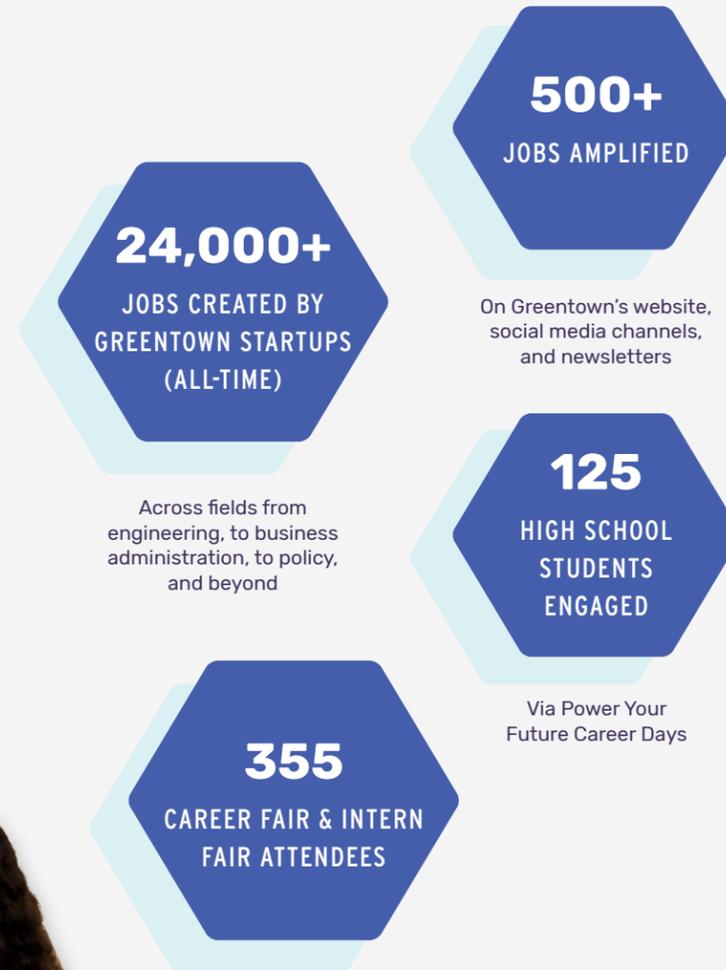
FROM AN INTERN FAIR TO A CLIMATETECH CAREER

"I started out with, 'Hi, my name is Danielle Nasser, and I'm not an engineer.'"

That's how Danielle, now Operations Manager at Greentown member Applied Bioplastics, first introduced herself to the startup at a Greentown intern fair. To her surprise, she was exactly the kind of person Applied Bioplastics was looking for.

Nasser, a recent graduate of the University of Houston, jump-started her career in climatetech by interning at Applied Bioplastics, and now works there full time.

"To me, that shows that in this industry, everybody has a part, and there's value behind everybody's position," she says.



Inspirational Entrepreneurs

Our 200+ startups never fail to impress us with their hard work and commitment to scaling their climatetech solutions! Check out just a handful of their biggest accomplishments from 2022:

- **SparkCharge** partnered with Kia to bring on-demand EV charging to Kia customers and expanded its charging delivery to cities throughout California.
- **LineVision** announced major projects with National Grid that will create enough additional capacity to power 600,000 households while saving hundreds of MW in curtailments.
- **Cemvita Factory** partnered with Fluor to scale sustainable bio-solutions to extract critical minerals, and also completed a successful field pilot of its gold-hydrogen-production tech.
- **Energy Toolbase** deployed an industry-leading commercial microgrid project with Tantalus Systems that includes solar panels and battery storage in Riverdale, CA.
- **Advent Technologies** announced an \$821M project to develop fuel cells and electrolyzers in Greece over six years.
- **Energy Dome** launched its first CO₂ battery long-duration energy storage plant.
- **Stash Energy and Beacon Climate Innovations**, both members, partnered to install a thermal-energy-storage heat pump network for about 25 low-income homes.
- **Peak Power** received a \$765K investment from Natural Resources Canada's Zero Emission Vehicle Infrastructure Program to install 117 V1G chargers—and partnered with fellow Greentown member SWTCH Energy on the installations.
- **Fervo Energy** executed a PPA to provide 24/7 carbon-free geothermal electricity to 3 million customers in Southern California, and also announced a 20 MW power purchase agreement to provide power to a group of nine California-based community choice aggregators.
- **CeraPhi Energy** announced a joint venture with UK Oil & Gas PLC to develop part of UK Oil and Gas's Horse Hill site near Gatwick Airport into a green geothermal energy hub.



COI ENERGY CUTS BUILDINGS' POWER CONSUMPTION, DRIVEN BY PHILOSOPHY OF MUTUAL RESPONSIBILITY



From her childhood experiences to her company's technology, SaLisa Berrien's life has a consistent throughline: our lives are shaped by the people around us, and collaboration is key to success.

Berrien is from a small Pennsylvania town, where her family experienced energy poverty. As an adult, she went into the energy industry—a decision, she explains, that she didn't realize was fueled by her previous experiences with energy.

Berrien founded COI Energy in 2016 to create a “win-win-win-win for businesses, the environment, disadvantaged communities, and the electric grid.” The company answers a persistent climate issue: the fact that commercial buildings waste up to 30 percent of the energy they consume.

COI Energy works with businesses to reduce and monetize their buildings' energy use, offering highly customizable capabilities. The startup uses a year of historical information plus real-time data to determine where a customer is wasting energy and then collaborates with them to set parameters that can be used to reduce their intake when they're approaching high levels, such as adjusting the building temperature or production flexibility.

If this technology was utilized at scale, by 2026 it could reduce power consumption in business buildings from 87,600 GWh/year to 43,800 GWh/year, according to Berrien, which would mean avoiding 26.3 million metric tons of carbon dioxide equivalent.

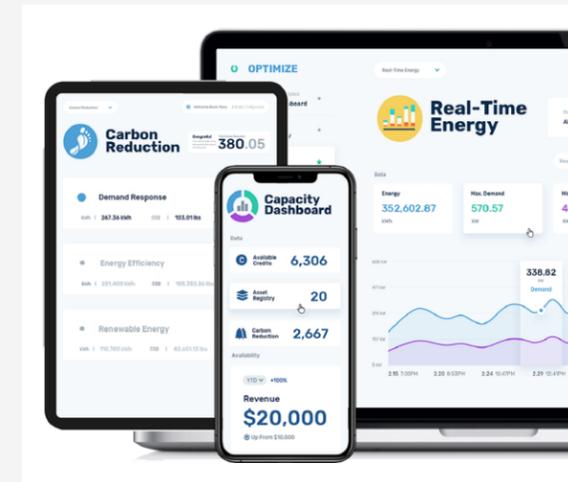
Here's why reducing usage peaks is good for the grid: once utilities see their customers using a certain amount of energy, they have to make sure that quantity is available at any given time. Minimizing peaks means that less capacity has to be on hand, which makes it easier for the grid to rely on cleaner energy sources.

By reducing their energy use during peak times, businesses can actually make money. Under COI Energy's model, part of this profit goes to the customer, and another portion goes to NGOs that are supporting clean energy projects in disadvantaged communities. These projects include community solar, assistance with electric bills, weatherization, and more.

“What we've developed and deployed is a digital energy-management platform that detects, prevents, and eliminates energy waste,” Berrien says. “And then we convert that waste to support the electric grid, improve efficiency in buildings, and support disadvantaged communities that are most negatively impacted by climate change. Climate is at the forefront of everything we do.”

Berrien and her team have been active in the Greentown community since joining in September 2020. Berrien says she finds the workshops and various community groups valuable, and she even helped launch a battery and smart grid community group where members can share advice, ideas, and connections.

“It was really important for us to be in a circle of founders, partners, and thought leaders in a space where we're trying to change the face of the industry,” Berrien says. “There's no better place for that than being in the Greentown community. That's the message that I have for any founders that are in the green, clean, carbontech space.”



PETROLEUM ENGINEER TURNED CLIMATETECH FOUNDER'S TAKE ON THE ENERGY TRANSITION: 'ALL I SEE IS OPPORTUNITY'

In college, Patricia Vega's professors told her the same thing again and again: as a woman and a mother, there was no place for her in petroleum engineering.

That repeated discouragement, Vega says, only made her more determined to “be part of the change.” She persevered through college while running a chocolate business to support her family, and went on to spend 25 years in the energy industry.

Vega also became a champion for diversity and inclusion, founding Baker Hughes' Women's Network—for which she received the company's chairman award in 2006—and serving as a mentor and advisor for professionals and organizations. And in 2018, she took all that she'd learned in traditional energy and became the founder and CEO of a climatetech startup.

Quantum New Energy aims to empower everyone to take climate action by providing data-driven insights into individuals' and organizations' energy use, alongside personalized carbon-reduction recommendations.

Vega became inspired to start Quantum New Energy while she was on a work trip to India, where she saw inequitable access to electricity that reminded her of dynamics she'd observed in her home country of Colombia.

She grew determined to empower energy consumers, while prioritizing customer inclusion and intentionally eliminating barriers to access.

Quantum New Energy's carbon-reduction platform, EnerWisely, utilizes existing infrastructure—including the roughly 1.2 billion smart meters that are already deployed, which generate peoples' bills but don't typically provide consumers actionable insights. EnerWisely can also integrate and analyze other data sources, including driving, flying, and operational data. Users receive energy usage and carbon footprint profiles alongside customized plans to reduce costs and cut emissions, with the goal of empowering people to harness their own data, transforming carbon into value and benefiting from the low-carbon economy.

As a solution that allows individuals and businesses to prevent greenhouse gas emissions, rather than offsetting them after the fact, EnerWisely not only helps users achieve their emissions-reduction goals, but also mitigate their associated costs.

Having worked across the entire energy value chain, Vega doesn't see traditional energy and climatetech as being in conflict: helping the oil and gas industries decarbonize is a key component of the energy transition, she says, and with so many transferable skills, oil and gas workers have a clear, bright future in advancing climatetech.

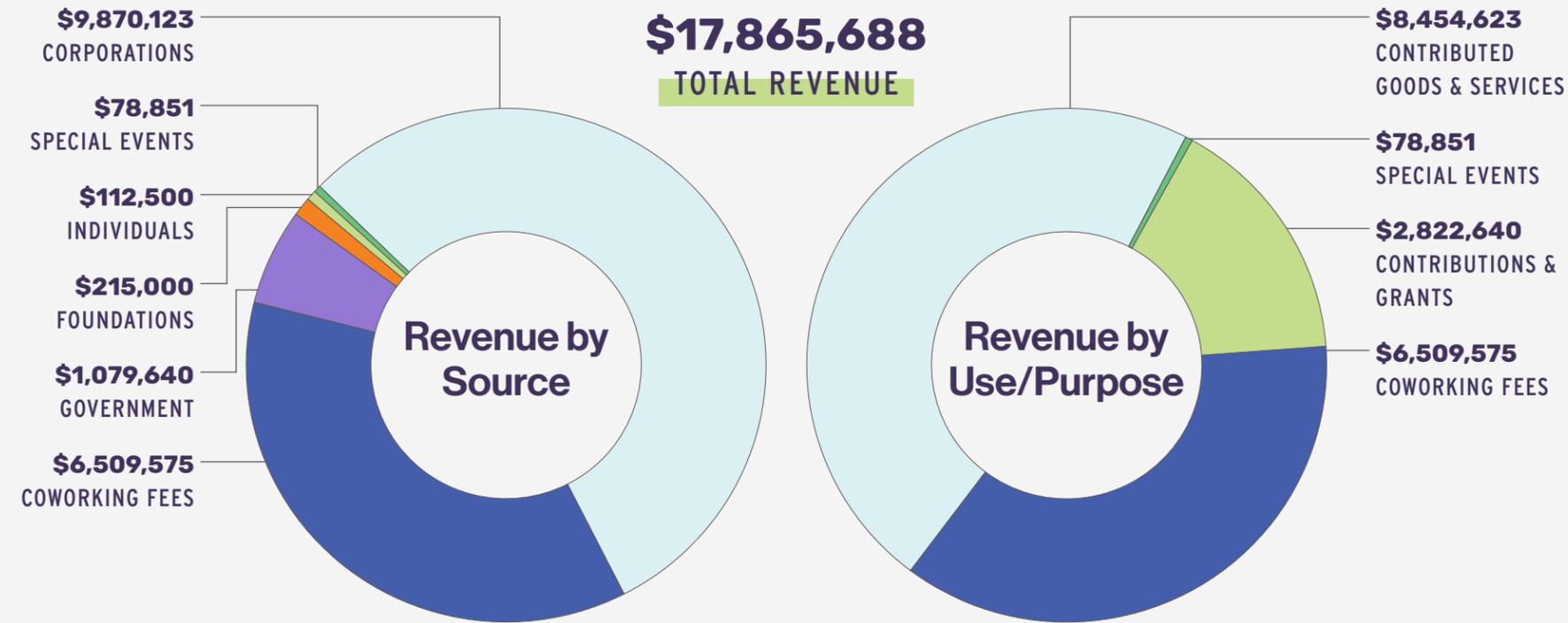


“Every time there's change, there's fear, but all the experiences that we have gained in the industry are super applicable and super needed as we look at this transition,” she says. “We're going to need people with skills in project management, safety, operations, analytics, evaluation, and optimization. All I see is opportunity.”

Quantum New Energy joined Greentown Houston in fall 2020, and Vega says being part of the incubator and its startup community has helped ease the solitude of entrepreneurship.

“Kudos and thanks to Greentown and every member of the entrepreneurial ecosystem, because we really need you,” Vega says. “The advice I give to friends who tell me they're considering the entrepreneurial route is it might feel very lonely, but you don't have to do it alone. You can develop relationships with other entrepreneurs and incubators like Greentown Labs to create an effective support network.”

Financials



Financial data is not yet audited and is subject to change. These financials are representative of both Greentown Collaborative, Inc. and Greentown Labs, Inc.

Thank You to Our Partners

To solve the climate crisis, it is vital to have large-scale incumbents that can help co-develop, de-risk, scale, and deploy our members' climatetech innovations. To all our corporate partners, thank you for your dedication, commitment, and collaboration as you engaged with Greentown startups in 2022. We can't wait to see what we do together in 2023!

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Let's work together!



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