

GCxN

Shell + NREL:
A Global Energy GameChanger

Founded by:



*YEAR IN
REVIEW*
2023

From the GCxN Program Managers

For the Shell GameChanger Accelerator™ Powered by NREL (GCxN), 2023 was an active year with graduations, onboarding of a new cohort and the start of a new phase. As managers of the program, we are excited about this inflection point and opportunity to share our enthusiasm for this unprecedented year in GCxN history.

In 2023, Shell graduated five portfolio companies—**AIR COMPANY, Electrified Thermal Solutions, Jolt Energy Storage, Ionomr Innovations, and Versogen**—after rigorously reviewing National Renewable Energy Laboratory (NREL) researchers' diligent testing and derisking of their technologies, bringing the total number of GCxN graduates to 15. These graduations mark the accomplishments of the first iteration of this industry-leading collaborative accelerator model while an improved and expanded version emerges from the program's demonstrated and consistent track record of successful outcomes.

Just as several companies graduated from GCxN, others joined in 2023. After a competitive down-selection process, the program selected four companies in its sixth cohort. Cohort 6 encompasses two technology areas previously untouched by the program: energy and chemical products via biology (**Hexas Biomass** and **Invizyne Technologies**), and carbon-negative building and infrastructure materials (**DTE Materials** and **Zila BioWorks**). With our active portfolio freshly renewed, we are now entering a new phase of GCxN that builds upon the core program.

Since its launch in 2018, GCxN has continued to accelerate top climate technologies to market, and this year marked a new agreement between NREL and Shell to extend and

expand this work at an elevated level. The new iteration allows for as many as **30 startups** in up to **six cohorts** over **five years**, representing dramatic growth of the basic GCxN model. We are also introducing new program features, including strategic awards and an internationally focused innovation network. Strategic awards allow for our Channel Partners to compete for and secure monetary awards to encourage initiatives that advance partner and program priorities. The international effort will convene entrepreneurial support organizations from around the globe to help startups raise capital, make connections, and enter new markets—regardless of location—in a rapidly changing world.

As we optimize the program with both internal and external best practices, our focus has shifted from executing the basics of the original program to building and growing a stronger, more efficient, and expanded one, rooted in the stable foundation established with tireless effort since GCxN's creation. We have made significant progress in accelerating innovation and GCxN's new phase will give us the opportunity to grow our program's impact exponentially. We hope you will follow us as we navigate this inflection point and enter this exciting new phase!



Yesim Jonsson
Shell GCxN Program Manager



Johanna Jamison
NREL GCxN Program Manager



Rachelle Ihly, Ph.D.
*NREL GCxN Technical
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Representatives of GCxN's Cohort 6 companies at NREL during onboarding in May 2023

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\$96:\$1

LEVERAGE RATIO FOR SHELL
PROJECT FUNDING

\$551M+

RAISED BY COHORT COMPANIES
SINCE JOINING GCxN

529

NEW STARTUP HIRES MADE
SINCE THEY JOINED GCxN

(283% growth since 2022)

3.9

AVERAGE TECHNOLOGY
READINESS LEVEL (TRL)
UPON JOINING GCxN

6.3

AVERAGE TRL AS OF
DECEMBER 2023

About GCxN

GCxN is a multimillion-dollar, multiyear program focused on discovering and advancing emerging clean technologies with the potential to dramatically alter the future energy landscape. GCxN identifies promising startup companies through its Channel Partners, an extensive ecosystem of cleantech business incubators, accelerators, and universities. Invited companies receive access to up to \$250,000 in non dilutive funding in the form of technical experts and access to facilities to develop and demonstrate new energy technologies.

GCxN seeks companies operating in the new energy space with rotating technology focus areas that span the energy continuum from

generation to transmission and distribution. GCxN's goal is to help early-stage companies with technology at technology readiness levels (TRL) II through V meet critical milestones to advance to the next stage of development, accelerating their time to market while minimizing the risks associated with commercializing next-generation technology. Over the course of 18–24 months, participating GCxN companies gain access to NREL's world-class facilities and top-tier researchers from both Shell and NREL, who help develop, validate, and incubate companies' technologies.

About Shell

Shell's purpose is to power progress together with more and cleaner energy solutions. We believe that rising standards of living for a growing global population are likely to continue to drive demand for energy for years to come. At the same time, the need to mitigate climate change means there are transitions underway to a lower-carbon, multisource energy system. Shell's technological capacity, customer-mindset, operational experience and market knowledge mean we are at the forefront of innovative and collaborative approaches to help build a sustainable energy future.

In addition to GCxN, which harnesses the power of Shell's collaboration with NREL for greater and faster innovations, Shell GameChanger works with startups and businesses on unproven early-stage ideas that have the potential to impact the future of energy. The program's team provides support, expertise and seed funding while the startups keep the independence to make their own decisions. Founded in 1996, GameChanger has worked with more than 5,000 innovators from around the world and turned more than 150 ideas related to the energy transition, digital transformation, and a broad spectrum of energy technologies into productive reality.

About NREL

NREL is one of 17 U.S. Department of Energy national laboratories. NREL's more than 3,500 employees focus on research, development, and deployment of next-generation renewable energy technologies.

With its internationally renowned scientists and world-class facilities, NREL is a perfect partner for Shell GameChanger in supporting passionate cleantech entrepreneurs. NREL provides GCxN with unbiased, third-party technology development, validation, and demonstration capabilities to advance and de-risk early-stage technologies.

Diversity, Equity, Inclusion and Accessibility Efforts

The GCxN program team continues to extend its reach for a broader pool of applicants, underscoring diversity in thought, which leads to better outcomes. Specifically, the Cohort 6 call for solutions took intentional action to recruit a more diverse applicant pool by including language in application materials that encouraged referrals for and applications by startups led by women and people from other underrepresented groups. When analyzing the diversity of the resulting Cohort 6 applicant pool and selected companies, the program managers found more diversity than in all previous cohort candidates. There was also significantly more diversity in the Cohort 6 applicant pool compared to industry statistics.^{1,2}

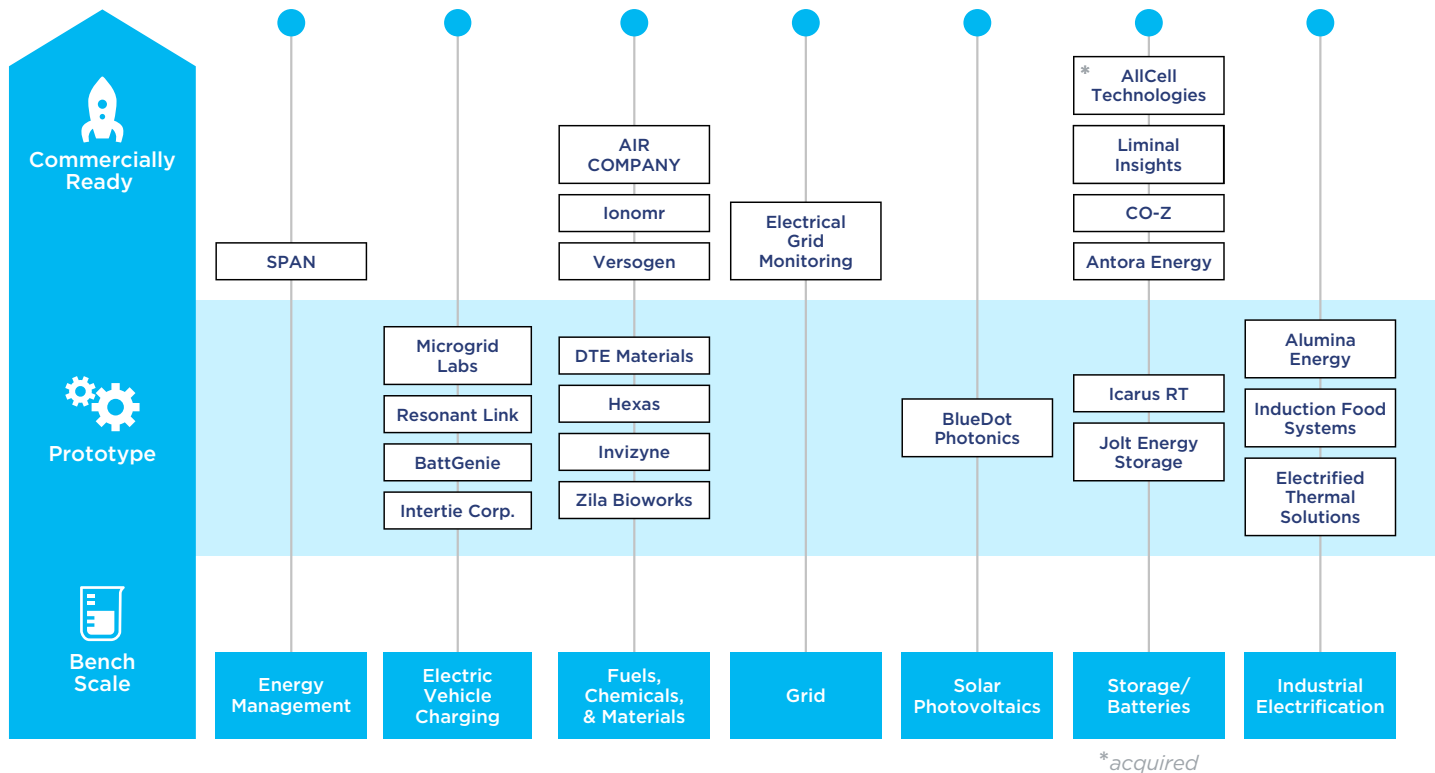
For example, among Cohort 6 applicants, the percentage of CEOs that identified as belonging to a racial and/or ethnic minority group was slightly more than 50%. And 11% of Cohort 6 applicant CEOs are Black, whereas public data shows less than 6% of all chief executives in the United States are Black.¹

Compared to Cohort 5, about 10% more women-owned businesses and 15% more LBTQIA+-owned businesses applied. Out of Cohort 6 applicant CEOs, 29% were women, whereas public data shows roughly 8% of CEOs are women.²

¹Constantino, Annika Kim. 2022. "When Companies Appoint Black CEOs, Their Market Caps Jump by 3.1%--Here's Why, New Study Says." CNBC.com. Accessed Jan. 6, 2023. <https://www.cnbc.com/2022/11/04/when-companies-appoint-black-ceos-their-market-caps-jump-study.html#:~:text=But%20only%205.9%25%20of%20all,the%20Bureau%20of%20Labor%20Statistics>.

²Kaplan, Lindsay. 2022. "This Women's History Month, Here's a Radical Idea: Let Women Lead." Fortune.com. Accessed Jan. 6, 2023. <https://fortune.com/2022/03/01/it-is-past-time-for-women-to-lead/>.

23 GCxN Companies Across Technology Sector and Stage



GCxN Portfolio Companies

Transforming Power Generation and Grid Technology



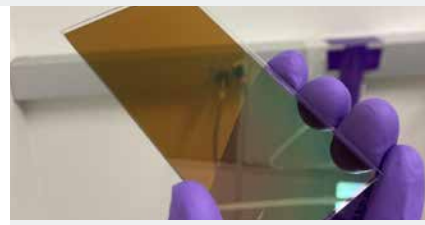
Alumina Energy

Alumina Energy develops heat exchanger and thermal energy reservoirs (HEATERS), a cogeneration solution for industrial customers that is economical, flexible, and has overall net zero carbon emissions. The company and its technology were featured during a visit to NREL by the advisory board at Halliburton Labs (which shares Alumina with GCxN as a portfolio company) in 2023. It is also actively pursuing relevant funding opportunity announcements in collaboration with NREL.



Antora Energy

Antora Energy created groundbreaking, low-cost thermal batteries for grid-scale, long-duration energy storage. Current technology, such as lithium-ion batteries, can store a few hours' worth of power, whereas Antora Energy's technology can store multiple days' worth of energy. In 2023, Antora Energy made significant strides in the clean energy sector, securing over \$4 million in funding, earning recognition from *Time* magazine for their breakthrough thermal battery as a "Best Invention of 2023", and garnering media attention for the deployment of their innovative technology in various applications.



BlueDot Photonics

BlueDot Photonics works to develop the next generation of solar panels made of perovskite materials, with the goal of increasing output by at least 10%. In 2023, the company's cofounder and CEO Jared Silva was a 2023 "40 Under 40" honoree by the *Puget Sound Business Journal*.



CO-Z

CO-Z by Hygge Power offers reliable energy through its in-home network of small storage devices. CO-Z enables users to manage their power through outage, price, and carbon alerts through a smartphone application. CO-Z provides custom information through real-time inputs to create unique outage risk profiles for homes, apartments, and businesses. In 2023, the company was selected by Rocky Mountain Institute's Third Derivative accelerator program and made improvements to their engineering, design, and manufacturing. The company also began working with new business partners on distribution strategy and capital in anticipation of a successful product launch in 2024.



Electrical Grid Monitoring

Electrical Grid Monitoring (EGM) mitigates major grid challenges by effectively integrating distributed renewable energy with the U.S. electric grid, enhancing reliability, improving security levels, and reducing the cost of ownership. In 2023, EGM showcased its leadership in grid technology, collaborating with Jabil to modernize utility grids and furthering innovative Meta-Alert™ solutions to address transmission and distribution challenges.



Electrified Thermal Solutions

Electrified Thermal Solutions (ETS) focuses on developing the Joule Hive™, a new energy storage technology that converts surplus zero-carbon electricity into heat. In 2023, ETS graduated from the GCxN program and made notable strides in the startup ecosystem by participating in TechCrunch Disrupt's Startup Battlefield and receiving a \$100,000 grant from MassVentures as part of its START grant program.



Icarus RT

Icarus' product, Quartet, extracts, collects, and stores waste heat from solar panels to increase power output and lower system cost per kilowatt. Quartet then converts the stored heat to hot water and/or power on demand. In 2023, Icarus RT joined the Upward Labs Net Zero Program, enabling it to further its clean energy mission. The Rice Alliance for Technology and Entrepreneurship's Clean Energy Accelerator selected Icarus as part of Class 3, and Icarus received a Product Design of the Year award from mHub.



Induction Food Systems

Induction Food Systems (IFS) heats flowing fluids from the middle-out instead of the outside-in. This breaks fluid-heating bottlenecks for industry, improving productivity and helping to decarbonize operations. In addition to nearing completion of its GCxN project, IFS shipped its first unit in 2023. The company also entered into a partnership to accelerate sales activity.



Jolt

Using organic compounds, Jolt makes organic redox-flow batteries that have the same large-scale storage capabilities as lithium-ion batteries but are safer, more efficient, and less expensive. Jolt's multielectron, higher-voltage capabilities enable utilities to capture energy from intermittent energy sources, such as solar panels or wind turbines, and reliably deliver that energy on demand. In addition to graduating from the GCxN program in 2023, Jolt strengthened its team by adding a head of business development role, published an article describing breakthroughs in all-organic energy storage in the scientific journal *Nature Chemistry*, and received coverage from media outlets, such as *Crain's Detroit Business*.



Liminal Insights (formerly Feasible Inc.)

Liminal Insights pioneered a battery intelligence platform that combines ultrasound and data analytics to deliver unique insights across the value chain. Liminal Insights' technology, known as EchoStat, uses ultrasounds to probe the physical condition of batteries in ways that are not currently possible at commercial scale. This patented technology enables customers to build dependable, safe batteries and deliver premier performance at a lower cost. In 2023, Liminal Insights achieved funding success, raising \$17.5 million in series A funding and receiving a \$2.75 million grant from the California Energy Commission. Forbes also featured their breakthrough technology.



SPAN

SPAN aims to dramatically accelerate renewable energy adoption with its smart electric panel that provides data insights to allow homeowners to control their home energy via a smartphone application. SPAN also automatically adjusts power levels to ensure the energy in a home is properly balanced based on specific preferences. In 2023, SPAN garnered significant financial backing, raising \$96.5 million in series B funding, gaining attention as one of Forbes' *America's Best Startup Employers*, and receiving coverage from Axios and Business Wire.

Advancing Transportation Technologies



AllCell Technologies

AllCell Technologies introduced revolutionary lithium-ion battery packs that incorporate its patented phase-change composite (PCC) passive thermal management technology. PCC keeps the cells at optimal temperatures during operation, enabling a cost-effective energy storage solution with an improved cycle life, advanced performance, and enhanced safety. Autonomous shuttles, electric planes, robotics, lightweight EVs, and commercial drones can use AllCell Technologies' batteries. AllCell's acquirer, Beam Global, was issued patents for this battery thermal management technology in India and China in 2023.



BattGenie

BattGenie provides software solutions for battery management systems to enable faster charging and a longer battery life cycle for EV and grid storage battery applications. In 2023, BattGenie positioned itself as a vital player in climate technology, was selected as part of the Google for Startups Accelerator: Climate Change cohort, contributed to the discourse on solutions for fleet electrification, and attended The Battery Show.



Intertie

Intertie developed a battery-boosted charging station known as the EV ChargePod. The EV ChargePod uses a DC microgrid and battery buried underground with a charging station above ground that promotes a low-cost, user-friendly experience. Intertie's technology combines fast charging capabilities, intelligent storage, and integrated solar power. In 2023, the company achieved the major milestone of reaching profitability. By the year's end, they grew revenues by 67% to \$3.63 million. The company also expanded microgrid operations throughout California and established relationships with many important strategic partners.



Microgrid Labs

Microgrid Labs (MGL) is a consulting and software company dedicated to supporting the electrification of fleet vehicles. The technology determines optimal sizing of batteries and chargers through its modeling, simulation, and optimization tools. MGL also offers fleet electrification and microgrid planning services. In 2023, the company played a vital role in the conversation around fleet electrification, participating in webinars to discuss strategies for streamlining their planning and design. MGL also joined the Web Summit at Shell's invitation as a representative of the GCxN portfolio, speaking and pitching to a global innovation audience.



Resonant Link

Resonant Link powers electric vehicle fleets while they work by charging wirelessly during short stops that already exist during operation. In 2023, Resonant Link earned recognition in *Fast Company* for its wireless lift truck charger, secured a spot in the prestigious Inc. 5000 Energy List for rapid growth, and forged partnerships with leading companies in the medical device and bioelectronic sectors.

▼ New Ways To Make Fuels, Chemicals and Materials



AIR COMPANY

AIR COMPANY patented a process that mimics photosynthesis in a way that is more efficient and faster at purifying air. This technology transforms carbon dioxide captured from the air into impurity-free alcohols that can be used in spirits, fragrances, sanitizers, and a variety of consumer industries. In 2023, AIR COMPANY continued pioneering sustainable aviation fuel technology, signing a \$65 million deal with the U.S. Air Force, collaborating with JetBlue to scale sustainability in air travel, and becoming a key player in NASA's efforts to design future astronaut food. The company also graduated from the GCxN program.



DTE Materials

DTE Materials developed a technology that converts agricultural and forest waste into sustainable, carbon-negative construction materials. GCxN will assist DTE Materials with a thorough life cycle analysis, considering procurement, conversion of biomass, manufacturing, implementation, and disposal, as well as using NREL's steam explosion reactor to produce bio-aggregates using DTE's feedstock materials. In 2023, the company was selected into the sixth cohort of the GCxN program, an announcement featured in *The Business Journal* covering Fresno, California, and surrounding areas. DTE Materials also began working with a partner who supplies inputs, as well as performed two additional scaled manufacturing trials to help them optimize various aspects of their blocks, yielding promising performance testing results.



Hexas Biomass

Hexas Biomass created a nature-based alternative for wood, food crop, and fossil-fuel-based feedstocks for biofuel production. GCxN will support Hexas Biomass with feedstock treatment and conversion to sugars and lipids leveraging NREL's Integrated Biorefinery Facility and fermentation systems. In 2023, Hexas Biomass joined GCxN's Cohort 6, and CEO Wendy Owens also received prestigious accolades, winning the first prize for North America in the Cartier Women's Initiative.



Invizyne

Invizyne is a cell-free enzyme platform that enhances biomass conversions, vastly improving the economics of bio-based chemical production. GCxN will enable researchers to evaluate various separations approaches to enhance product throughput as well as conduct techno-economic and life cycle analysis modeling of Invizyne's production process. In addition to joining GCxN's sixth cohort in 2023, Invizyne was awarded a grant for almost \$5 million through the U.S. Department of Energy's Bioenergy Technologies Office to further develop their technology. The company also built an initial small-scale prototype that will be tested for its ability to provide a lower-cost, more energy-efficient solution compared to alternatives.



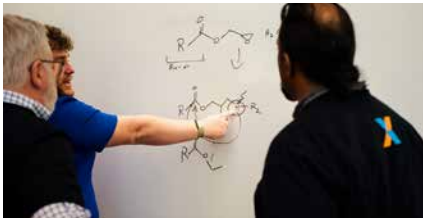
Ionomr Innovations

Ionomr Innovations is a clean technology company that develops ion-exchange membranes for fuel cell systems, green hydrogen production and carbon capture, and carbon-neutral green fuels. Its membranes and polymers come from a hydrocarbon base, making them fully recyclable, recoverable, and bioaccumulative. In 2023, Ionomr closed a \$20 million series A financing round. In addition to its graduation from the GCxN program, it was recognized as one of Canada's Future 50—fastest-growing sustainable companies—and signed two key collaboration agreements.



Versogen

Versogen develops a breakthrough electrolyzer technology that uses water and renewable energy to produce green hydrogen at scale in a reliable and affordable way. Versogen's systems are built around its patented anion exchange membranes and earth-abundant materials. In addition to graduating from GCxN, Versogen's electrolyzer achieved a membrane production capacity of 1 gigawatt per year in 2023, garnering positive press coverage in several outlets. The company also added key roles, including a highly experienced director of sales and development.



ZILA BioWorks

ZILA Bioworks developed a bio-epoxy resin from hemp seed oil that has a 60% smaller carbon footprint in comparison to petroleum-based epoxies. GCxN will help ZILA BioWorks determine the suitability of formulations for thicker and larger sections of wind turbine blades and perform mechanical, load-frame testing to characterize the strength of ZILA BioWorks' bioresin relative to existing industry resins. In 2023, the company joined GCxN's sixth cohort and completed a grant-funded floor coating demonstration project at the Green Building Technologies Lab, yielding impressive performance testing results. ZILA BioWorks' emphasis on advancing scale-up efforts for producing resin at commercial volumes positions the company for additional optimization and R&D work.



Retrospective of GCxN Cohort Technology Themes

Across the six cohorts awarded to date, GCxN has covered many emerging energy technologies. As the program embarks into 2024, it is important to reflect on past technology themes as GCxN explores cohort themes on the horizon.

Bold italic = company graduated
Bold = active project

Transforming Power Generation and Grid Technology

GCxN has explored various facets of advancing the power grid. First up, the focus that cohorts 1 and 3 had on long-duration energy storage enables electricity to

be reliably stored much longer (8–24+ hours) than what is achievable with current lithium-ion technology (up to 4 hours, typically). This provides an operational buffer for the grid, especially with increased addition of intermittent renewables. **Antora's** thermophotovoltaic solution affords 24/7 heat and power storage on demand. **Jolt's** novel electrochemical organic flow battery enhances existing state-of-the-art vanadium oxide flow battery for extended storage on the grid and at a low levelized cost of storage, less than \$0.05 per kilowatt-hour. **Icarus'** hybrid solar-thermal photovoltaic system captures waste heat from solar panels to generate power on demand.

To support increased renewable asset installation on the power grid, startups in cohorts 1 and 2 pioneered novel grid technologies that enable more flexible control and operation. **EGM's** grid fault-detection technology allows installation of more solar and wind power on the grid. **SPAN's** revamped electrical panel makes it easier for homes to add solar power or energy storage and manage household energy use. Key to an electrified future, the grid will require enhanced battery management and inspection systems (**CO-Z**, **Liminal Insights**) as grid-connected storage systems power homes and EV charging.

Cohort 3 sought startups capable of bringing an emerging technology on the power grid: solar cells made with novel perovskites as an alternative to traditional silicon. Through GCxN, **BlueDot Photonics** was able to produce perovskite solar absorber thin films as large as 6 inches by 6 inches, an important milestone for achieving affordable and scalable perovskite manufacturing.

Finally, the industrial sector requires the grid to deliver uninterrupted and large capacities of power or heat—and in some instances both—which pose a challenge for many electrification approaches. To address this challenge, Cohort 5 focused on industrial electrification. **IFS** utilizes electrified heating via inductive heating of industrial-scale fluids. **Alumina Energy** is developing a solution capable of cogeneration of heat and power, and **ETS'** technology can transform zero-carbon electricity into heat.

Advancing Transportation Technologies

Cohort 2 emphasized fast (under 15 minutes or less) EV charging. **Intertie's** EV charge pod enables fast charging via an intermediary battery energy storage system that is supplied with local solar generation. Fast EV charging may also be accomplished through software and monitoring solutions that enable EV fleets (e.g., buses, shuttles) to more appropriately route based on weather and route conditions (**MGL**). To round out Cohort 2, **AllCell's** passive thermal management technology keeps battery packs cool while fast charging. Cohort 5 startups **BattGenie** and **Resonant Link** both improve charging efficiency at the charger level. BattGenie's charging algorithms extend range, whereas Resonant Link's technology affords more efficient wireless EV charging, accelerating toward a future where EVs will not need to plug-in to charge.

New Ways to Make Fuels, Chemicals and Materials

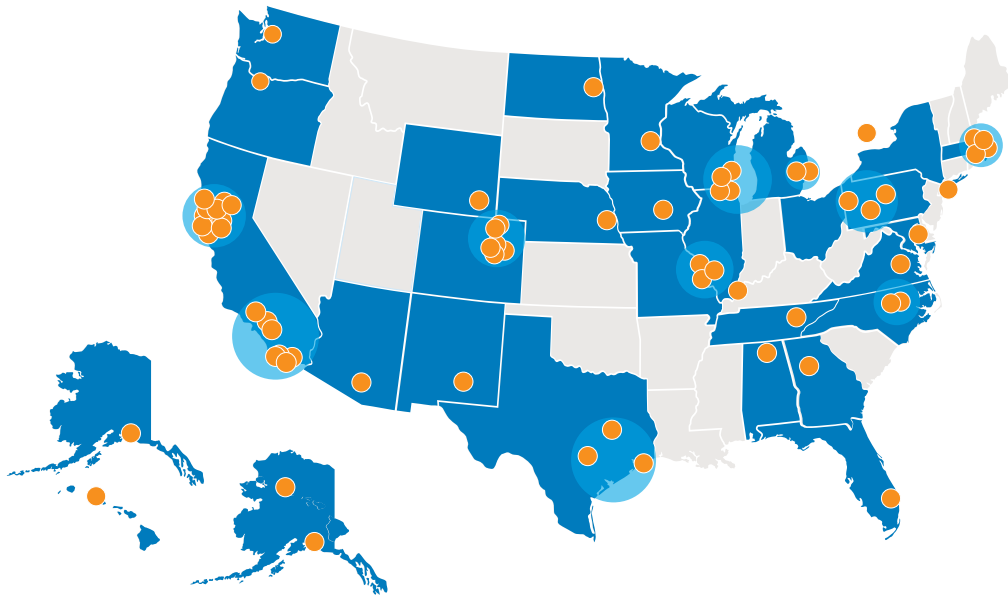
In cohorts 4, 5 and 6, GCxN looked at new ways of making fuels, chemicals, and materials. Leveraging renewable energy assets, Cohort 4 startups evaluated ways to make fuels and chemicals electrochemically. **Versogen** and **Ionomr** bring their unique electrolyzer and membrane technologies for clean hydrogen production using fuel cells powered with solar or wind. **Air Company** combines renewable feedstocks electrochemically to make alcohols and sustainable aviation fuel. Cohort 6 startups focused on ways to use renewable, bio-based feedstocks and scalable biological processes to produce low-carbon products. **DTE Materials** uses agricultural and forest waste to make sustainable, carbon-negative construction materials. **ZILA BioWorks'** novel bio-based epoxy offers a low-carbon alternative relative to petroleum-based epoxies and can be used in wind turbine blades and other energy infrastructure. Both **Hexas** and **Invizyne** aim to make fuels and chemicals through their innovative bio-based feedstocks and cell-free enzyme platform respectively, which hold significant potential for overall carbon intensity reductions.

Looking Ahead

In future cohorts, GCxN looks to expand into new and emerging areas where NREL's capabilities, Shell's goals, and the potential to dramatically alter the future global energy landscape intersect.

GCxN Ecosystem

During each call for companies, an ecosystem of cleantech business incubators, accelerators, funds, and universities, known as Channel Partners, refer GCxN applicants to the program. These partners represent the leading edge in academia, research, and industry, each providing unique insights into cleantech. This map shows the geographic distribution of the Channel Partners.



GCxN Steering Committee

Executive Sponsors Members



Sonya Vial
Shell General Manager
Process Development



Marwa Al-Ansary
Shell General Manager
Next Generation Breakthrough Research



Akilah LeBlanc
Shell General Manager
Commercial Innovation Partnerships



Haibin Xu
General Manager
Shell Research Alliance



Bill Farris
NREL Associate Laboratory Director
Innovation, Partnering, and Outreach



Brian Panoff
Partner
Shell Ventures



Trish Cozart
NREL Center Director
Innovation and Entrepreneurship



Ron Schoon
NREL Executive Manager
Partnership Development

GCxN Events

The program management team attended several events in 2023 alongside many GCxN startups, including South by Southwest, where Shell sponsored a venue, NREL's iconic Industry Growth Forum (IGF), Rice Alliance Energy Tech Venture Forum, and the massive global tech gathering Web Summit in Lisbon, Portugal. At South by Southwest, NREL Program Manager Johanna Jamison spoke on the panel Everybody Forward: Inclusive Leadership in Tech & Innovation moderated by Shell GM of Commercial Innovation Partnerships (and GCxN Advisory Board member) Akilah LeBlanc. Shell Program Manager Yesim Jonsson, alongside her Shell Ventures colleagues, met with scores of actively raising startups during the IGF and Rice's Energy Tech Venture Forum. At Web Summit, Jamison judged a startup pitch competition and sat on a panel (moderated by LeBlanc) that shared perspectives of U.S.-based accelerator programs.





“Working with the team at NREL and GCxN helped develop our core technology and clarify our product roadmap. We plan to leverage the digital model that NREL developed with us for future product iterations.”

— IFS

“While the work plan of GCxN is still in the initial stages, being selected for the current cohort after deep technical review by NREL and Shell has provided additional confidence to the ZILA team that the technology we are commercializing has value in the marketplace.”

— ZILA BioWorks

“The GCxN program helped us kick off our first national lab collaboration, and many more are following from it. This is helping us become a part of, and contribute to, the Department of Energy’s innovation ecosystem.”

— AIR COMPANY

“Receiving a grant from Shell in conjunction with NREL brought an additional layer of validation to DTE Materials’ technology and business. Investors are more eager because their dollars are leveraged alongside a pending life cycle analysis, which is very important to most of our early investors.”

— DTE Materials





“

Our collaboration with Resonant Link through the GCxN program revolutionized the way we approach electric vehicle charging systems. This project has not only expanded our research horizons but also brought to light new possibilities in wireless power transfer, setting a new benchmark in the field.”

— Rasel Mahmud, NREL



“NREL engineers and scientists that work with us on this project are a wonderful complement to the work we do at ETS and have been thoughtful and insightful in the work that they’ve done. As an early-stage startup, this experience has been invaluable to us, and we highly recommend to others starting out in the area of clean energy. The work is hard, and collaboration is key. Few in the world are better equipped than NREL to answer the call.”

— ETS

“Even though we graduated, we continue to receive valuable industry insight and support from the team.”

— Intertie



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A Global Energy GameChanger

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 gcxn@nrel.gov

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