



ENERGY VENTURE DAY & PITCH COMPETITION

MARCH 11-12, 2025 | ION & CERA WEEK - INNOVATION AGORA



ABOUT THE HOSTS

Rice Alliance for Technology and Entrepreneurship

Connecting global startups to capital, networks and success, the Rice Alliance for Technology and Entrepreneurship is a catalyst for building successful ventures through education, guidance and connections. Rice Alliance is Rice University's flagship initiative devoted to the support of technology commercialization, entrepreneurship education and the launch of technology companies. Since inception in 2000, more than 3,355 companies have participated in over 300 Rice Alliance programs and have raised more than \$25.88 billion in early stage capital. The Rice Alliance leads programming and activation at the Ion, the heart of Houston's innovation corridor in Midtown.

Houston Energy Transition Initiative (HETI)

The Greater Houston Partnership is dedicated to strengthening Houston's position as the Energy Capital of the World. The economic vitality and growth of our region's economy is inextricably tied to the energy industry. The Partnership's Houston Energy Transition Initiative (HETI) builds on the best of traditional energy skills and systems to leverage Houston's industry leadership to accelerate global solutions for an energy-abundant, low-carbon future. HETI is a coalition of industry, academic and community partners working together to ensure the long-term economic competitiveness and advancement of the Houston region as leaders of the global energy transition.

Texas Exchange for Energy and Climate Entrepreneurship (TEX-E)

TEX-E is a first-of-a-kind collaboration among The University of Texas at Austin, Texas A&M University, University of Houston, Rice University, and Prairie View A&M University—powered by Greentown Labs and MIT's Martin Trust Center for Entrepreneurship—to create a powerful, student-driven entrepreneurship ecosystem in Texas. TEX-E's mission is to train and empower the next generation of entrepreneurs, leaders, and innovators to lead the energy transition and address the dual challenge.

MARCH 11-12 AGENDA

DAY 1 | ENERGY VENTURE DAY PITCH PREVIEW | ION

8:00 am	Registration
9:00 am	Welcome Brad Burke , Associate Vice President, Rice Innovation, Ion Rice Alliance for Technology & Entrepreneurship
9:10 am	Company Presentations Hydrogen, Fuel Cells & Other Power Solutions
9:45 am	Company Presentations Energy Efficiency and Carbon Management
10:45 am	Company Presentations Building Technologies
10:55 am	Company Presentations Advanced Manufacturing & Materials
11:30 am	Rice Alliance Clean Energy Accelerator Kerri Smith , Associate Managing Director - Rice Alliance Executive Director - Rice Alliance Clean Energy Accelerator
11:35 am	Lunch and Networking
12:35 pm	Welcome Back
12:40 PM	Company Presentations Electricity & Grid
12:55 PM	Company Presentations Industrial Efficiency & Decarbonization
1:50 pm	TEX-E University Companies David Pruner , Executive Director, TEX-E
2:15 pm	Closing Remarks Brad Burke , Associate Vice President, Rice Innovation, Ion Rice Alliance for Technology & Entrepreneurship

DAY 2 | ENERGY VENTURE DAY PITCH COMPETITION | CERAWEEK - INNOVATION AGORA

Noon	Company Registration
1:00 pm	Welcome Jane Stricker , Sr. Vice President, Energy Transition & Executive Director, HETI, Greater Houston Partnership Startup World Cup Justin Jackson , Partner, Pegasus Tech Ventures Jenna Tabatznik , Energy Transition Investor, Pegasus Tech Ventures Announcing the Companies Noah Fons , Senior Manager for Regional Economic Development, Greater Houston Partnership
1:10 pm	Company Presentations A Hydrogen, Fuel Cells, Buildings, Water, & Other Energy Solutions
2:00 pm	Company Presentations B Advanced Manufacturing, Materials, Fossil Energy, & Carbon Management
2:45 pm	Break
3:00 pm	Company Presentations C Industrial Efficiency, Decarbonization, Electricity, & the Grid
3:50 pm	TEX-E University Companies David Pruner , Executive Director, TEX-E
4:30 pm	Closing Remarks Jane Stricker , Sr. Vice President, Energy Transition & Executive Director, HETI, Greater Houston Partnership



THANK YOU JUDGES



Abdalla Osman, Investment Analyst, bp Ventures

Abdalla Osman is an Investment Analyst at bp Ventures, specializing in oil & gas, hydrogen, energy storage, and renewables. Previously, he served as an Innovation Specialist at Ørsted and an Energy Technology Analyst at Dominion Energy, where he evaluated cleantech startups and developed pilot projects to assess emerging technologies. Abdalla holds a B.S. in Mechanical Engineering from MIT, with a minor in Energy Studies.



Amrit Jalan, Investment Director, ENI Next

Amrit is Technology Principal at Eni Next with responsibilities spanning deal origination, diligence and execution, as well as post-investment portfolio engagement. Amrit is a chemical engineer by training with over a decade of technology development and commercialization experience in the climate-tech space. Prior to business school, he held positions of increasing responsibility at ExxonMobil deploying novel energy technologies and building key elements of the corporation's low-carbon technology portfolio. Amrit holds an MBA from Harvard Business School, MS/PhD in Chemical Engineering from MIT and BS in Chemical Engineering from IIT Bombay (India).



Chad Zamarin, Executive Vice President of Corporate Strategic Development, Williams

Chad Zamarin became Executive Vice President of Corporate Strategic Development for Williams in January 2023. He joined the company as Senior Vice President of Corporate Strategic Development in 2017. He oversees enterprise-level strategy, business development and customer-relationship management and is responsible for commodity marketing, upstream joint ventures, new energy ventures, communications and corporate social responsibility. Prior to joining Williams, Zamarin served as Senior Vice President and President, Pipeline and Midstream at Cheniere Energy, Inc. Before joining Cheniere Energy, Zamarin served in various executive roles at NiSource/Columbia Pipeline Group, including Chief Operating Officer at NiSource Midstream, LLC and NiSource Energy Ventures, LLC, as well as President of Pennant Midstream, LLC. Zamarin graduated with a bachelor's degree in materials engineering from Purdue University and holds a Master of Business Administration from the University of Houston. Zamarin serves on the Board of Directors of the Interstate Natural Gas Association of America and on the Department of Transportation's Gas Pipeline Advisory Committee. Mechanical Engineering from MIT, with a minor in Energy Studies.



David Baldwin, Partner, SCF Partners

David Baldwin joined SCF Partners in 1991 and currently is responsible for the firm's energy transition initiatives. In this role, he is responsible for SCF's energy transition strategy, including identifying new platform investments, and helping SCF's existing companies develop exposure to new energy growth markets. Previously, he was Co-President of the firm, and led SCF's efforts financing and helping to build North American focused companies. During his time at SCF, David has supported the creation and development of public companies National Oilwell Varco, Oil States International, Complete Production Services, Forum Energy Technologies, Select Energy Services, and Nine Energy Services. David earned his degree in Petroleum Engineering and his MBA from the University of Texas at Austin. During his previous career as an engineer with Union Pacific Resources, David was involved in developing and commercializing the horizontal drilling techniques that ultimately led to the US "shale revolution". While in graduate school he worked for General Atlantic Partners, a global venture capital firm and early investor in SCF. David's civic activities include Greentown Labs, The Center for Pursuit, and Baylor College of Medicine, including serving as the Chairman of their Board of Trustees. In 2016, he and his wife Maire created "Pursuit for Those with Disabilities", where they led 300 volunteers in a cross-country bicycle ride that raised \$13 mm to help build a new state of the art campus for The Center for Pursuit. In 2018, he was awarded the Hoover Medal of Honor for his 30+ years of work supporting persons with disabilities. He also is the co-founder of OpenMinds, a coalition of 70+ entrepreneurs, business leaders, scientists, and politicians focused on creating an equitable solution to the "Dual Energy + Climate Challenge". He also helped create TexE, a partnership amongst 5 Texas universities and MIT and Greentown Labs to help inspire and train future entrepreneurs and leaders focused on energy and climate innovation.



Eve Hanson, Senior Vice President, Research & Innovation, Energy Impact Partners

Dr. Eve Hanson is a Senior Vice President on the Research & Innovation team, focusing on carbon management and clean fuels. She has over a decade of experience across industrial, climate, and analytic technologies. Prior to joining Energy Impact Partners, she was the Industry and Carbon Lead at Third Derivative, the climate tech accelerator arm of RMI. She launched the First Gigaton Captured initiative to catalyze the durable Carbon Dioxide Removal ecosystem and drive towards gigaton-scale CDR deployment. Previously, she founded, built, and led the customer engagement team at AI startup Citrine Informatics, partnering with C-suite global industrial executives to accelerate their R&D efforts. Eve started her career as a business consultant at Applied Predictive Technologies, an analytics startup acquired by Mastercard for \$600 million. Eve holds a Ph.D. in Materials Science and Engineering from Northwestern University and a B.A. in Chemistry from Princeton University, magna cum laude. Eve lives in Chicago with her husband and daughter.

THANK YOU JUDGES



Gabe Cuadra, Principal, Powerhouse Ventures

Gabe Cuadra is a Principal at Powerhouse Ventures, where he sources, diligences, and provides portfolio company support for pre-seed- and seed stage companies using software to facilitate decarbonization. Prior to joining Powerhouse Ventures, Gabe held various roles at E Source where he helped utilities optimize their demand-side management and electrification programs. He also served as a US Peace Corp volunteer in Costa Rica. Gabe lives with his family in Houston, TX.



Georgina Campbell Flatter, CEO, Greentown Labs

Georgina Campbell Flatter is Chief Executive Officer of Greentown Labs, the largest climatetech startup incubator in North America. She has an exceptional blend of nonprofit executive leadership, entrepreneurial experience in the climate and energy industries, and a strong technical background. Most recently, Flatter was Co-founder and Executive Director of TomorrowNow.org, a global nonprofit pioneering innovative approaches to connect next-generation weather and climate technologies with vulnerable communities on the frontlines of climate change. Prior to founding TomorrowNow.org, Flatter spent a decade at the Massachusetts Institute of Technology (MIT), where she was a senior lecturer and led global initiatives at the intersection of technology and social impact. Flatter earned a Master of Engineering in Materials Science from the University of Oxford and an SM in Technology and Policy from MIT.



Hitoshi Kaguchi, Mitsubishi Heavy Industries

Hitoshi Kaguchi is Senior EVP, Assistant to the President and CEO, and Head of GX (Green Transformation) Solutions at Mitsubishi Heavy Industries. Based in Tokyo, he leads MHI Group's Growth Strategy Office, where he focuses on exploring new business opportunities and integrating existing businesses that can help leverage technological innovation to address social issues. He also leads MHI's GX Solutions team in consolidating various energy transition solutions – which leverage hydrogen, ammonia, CO2 capture, transportation and more – to provide integrated solutions for MHI's customers' decarbonization journeys. He has over 30 years of experience and expertise in engineering from both domestic and international power plant projects. In 1984, he joined MHI Group as a reactor vessel designer in the advanced nuclear plant design unit, where he spent 17 years developing a prototype fast breeder reactor. Following this, he held various roles at MHI Group, including a project director role in the United States, where he spent 5 years focusing on nuclear energy projects.



Ionel Nechiti, Investment Director, Aramco Ventures

Ionel Nechiti is an Investment Director at Aramco Ventures, based in Houston. He specializes in driving value creation through venture capital investing and portfolio management in the downstream/upstream oil and gas, energy eZiciency, advanced carbon materials, and renewable energy, specifically in the Western Hemisphere, targeting the identification and execution of global sourcing opportunities. With over 28 years of hands-on experience in the energy and technology sectors, Nechiti has spent twelve years in venture capital and equity investing, including eight years focused on roll-up acquisitions. He provides strong leadership in managing global business investments by promoting innovation, science, and sustainable growth.



James Clarke, Director of Business Development, Renewables and Emerging Technologies, Marathon Petroleum

Mr. Clarke is the Director of Business Development - Renewables and Emerging Technologies at Marathon Petroleum, where he leads investment and engagement strategies for low-carbon and emerging energy technologies. His role includes identifying and executing partnership opportunities with early-stage companies and integrating new technologies into MPC's business. Prior to this role, Mr. Clarke held various leadership positions in Corporate Strategy, Investor Relations, Business Development, and Finance. Before joining Marathon, he worked at Intel in the semiconductor industry, first as a process engineer across multiple fabs and later as a financial analyst. Mr. Clarke holds a bachelor's degree in chemical engineering from the University of Cincinnati and a master's degree in business administration from Babson College.



James Diaz-Sokoloff, Senior Investment Manager, AP Ventures

James is a Senior Investment Manager responsible for deal origination, structuring and execution, as well as supporting research into the hydrogen value chain. Since joining AP Ventures, James has led multiple initial and follow-on investments on behalf of the Fund and across key verticals that include; Sustainable Aviation Fuels (SAF), blue hydrogen, advanced alkaline electrolysis, and hydrogen separation. Prior to joining AP Ventures in 2019, James spent five years with BP Upstream Exploration where he specialised in technical and project management engineering of subsea well system projects, predominantly in the Caspian Sea region. James holds an MEng in Mechanical Engineering from the University of Bristol and an MBA from London Business School with a concentration in private equity. During his studies, James interned with AB InBev's procurement division executing corporate power purchase agreements for Caribbean breweries and in BP's Upstream Portfolio Team where he modeled deep decarbonisation scenarios for the oil and gas group. Outside of work James enjoys cycling, rowing and skiing.

THANK YOU JUDGES



Jenny Johnson, Head of International Partnerships, Technology & Innovation, Woodside Energy

Jenny Johnson, Head of Innovation Ecosystems at Woodside Energy oversees Woodside's global portfolio of innovation, research and technology development partners to support the team's chartered purpose to "deliver sustainable solutions through technical capability and innovation." Providing connectivity into these emerging capabilities and technologies pioneers the solutions needed for the future of Woodside. Prior to joining Woodside in 2022, Jenny was an Emerging Technologies Incubation Manger at Anadarko and also held positions of increasing responsibility as a Management Consultant and Project Management Professional supporting the energy, retail, and government sectors. Jenny holds a Masters of Engineering in Project Management from the University of Maryland and a Bachelors in Industrial and Systems Engineering from Ohio State. In her free time Jenny enjoys chasing her toddler, cheering on the Buckeyes, and exploring her adopted hometown of Houston.



John Willis, Vice President of Technology Ventures, Oxy

John Willis is Vice President of Technology Ventures in Houston. Previously, he was Vice President of Drilling and Completions for US Land, and has had assignments in Drilling and Completions in the US, Oman, and Libya. Earlier in his career, he started a software business. He is a Chemical Engineering graduate of Texas A&M and a registered professional engineer in Texas.



Keriann Pederson, Hydrogen Technology Scout, ExxonMobil



Lovely Sharma, Investment Associate, Aramco Ventures

Lovely is an Investment Associate at Aramco Ventures, focusing on cleantech and sustainability investments, driving capital to support innovation in energy. She has broad experience as an advisor, investor, and corporate executive in the energy, utilities, and industrial sectors. Lovely began her career in 2014 as a Field Engineer at SLB, earning four promotions in six years to become a Client Engagement Coordinator. During her tenure, she authored eight papers published by the Society of Petroleum Engineers. In 2020, she joined Pristyn Care as General Manager, building a new business line and contributing to a \$95 million fundraising round at a \$1.4 billion valuation with investors like Sequoia and Tiger Global. She later served as Vice President at The Sterling Group, a private equity firm investing in middle-market companies in energy, industrials, and utilities. She led deal origination, developed investment theses, managed new platform investments, and supported portfolio growth. Lovely earned her MBA in Finance from The Wharton School, University of Pennsylvania (2022–2024), and a Bachelor of Technology in Petroleum Engineering from the Indian Institute of Technology (ISM) Dhanbad (2010–2014).



Luis Alcoser, GM Future Energy, Chevron Technology Ventures

Luis Alcoser is GM of Future Energy within for Chevron Technology Ventures where he leads the Future Energy Fund investment activities in the areas of hydrogen, CCUS, mobility, energy storage, distributed power, energy efficiency, carbon markets/offsets and circular economy. During his 13 years working in venture capital & innovation, Luis has led origination, evaluation, piloting/qualification, scale-up and spin-out of novel technologies & investment opportunities in the energy, digital and hard tech spaces. Prior to joining Chevron, Luis spent 20 years holding various upstream engineering, operations, business development and venture capital leadership roles with BP, Shell, Noble Energy and Schlumberger where he led upstream projects in conventional and unconventional plays across the continental U.S., deepwater Gulf of Mexico, Israel, Russia, Malaysia, Equatorial Guinea and Angola. Luis holds a B.S. degree in Natural Gas Engineering and an M.E. degree in Petroleum Engineering from Texas A&M University, an MBA and Master of Finance degrees from Tulane University as well as a Law degree (J.D.) from the University of Houston.

THANK YOU JUDGES



Luke Meredith, Director Ventures & Strategy, TC Energy

Luke Meredith leads the Ventures & Strategy team in TC Energy's Energy Solutions business. In his current role, he is accountable for overseeing the organizations venture investing activities as well as strategic and financial oversight of the energy solutions portfolio. During his tenure at TC Energy, Luke has worked in various functions including strategy, business development and commercial roles. Prior to joining TC Energy in 2015, Luke worked for CP Rail in the marketing team where he led the development of the emerging crude by rail portfolio. Luke holds a B.A. in Economics from the University of Calgary.



Mike Berckenhoff, Sustainability Partnership Manager, Puffer Sweiven



Mona E. Dajani, Partner & Global Co-Chair of the Energy, Infrastructure and Hydrogen Teams and Co-Chair, Baker Botts Energy Sector

Mona Dajani is a partner and the Global Co-Chair of the Energy, Infrastructure and Hydrogen teams and Co-Chair of the Baker Botts Energy Sector worldwide. She focuses on project finance and development, corporate finance, mergers & acquisitions, sustainable finance and tax equity matters along with advising government and private clients in energy and infrastructure projects with a special emphasis on hydrogen projects worldwide. In her over 25 years of practice, Mona has led numerous financing and acquisition/disposition and project development/financing transactions involving solar, wind, hydrogen, hydroelectric, geothermal, biomass, waste to energy and net-zero disruptive technologies such as connectivity, autonomous driving and e-mobility as well as gasification, transmission lines, and oil & gas pipelines. She has substantial experience managing syndicated loan and debt capital markets transactions, Islamic finance, equity and debt transactions, sustainable finance, ESG, syndicated commercial bank debt, commercial paper programs and arranging capital for new and established energy and infrastructure companies.



Paul Sheng, Co-founder & Managing Partner, Fathom Fund

Paul is a co-founder and managing partner at Fathom Fund, a deep tech venture capital fund based out of Houston. He is Senior Partner emeritus at McKinsey and Company, where he previously led its Global Energy and Materials and Oil & Gas Practices with a 25 year global career. Prior to McKinsey, Paul was an Associate Professor of Mechanical Engineering at UC Berkeley. He is a Founders' Advisor for The Engine, serves on advisory boards for UC Berkeley, is a member of Goose Capital, and advises several start-ups. Paul received his SB, SM and PhD degrees in mechanical engineering from MIT.



Rachel Slaybaugh, Partner, DCVC

Rachel is focused on climate, sustainability, and energy investments. Before joining DCVC, Rachel was a tenured Associate Professor of Nuclear Engineering at the University of California, Berkeley, where she held leadership roles in several data science and entrepreneurship efforts. Concurrent to being a professor, Rachel was a Division Director at Lawrence Berkeley National Laboratory, where she ran the Cyclotron Road Division. She served as a Program Director at the Department of Energy's ARPA E, where she created the nuclear fission program and managed the agriculture portfolio as well as solar and virtual reality teams. Rachel received a bachelor's degree in nuclear engineering from Pennsylvania State University, where she served as a licensed nuclear reactor operator, and a master's degree and PhD in nuclear engineering and engineering physics from the University of Wisconsin-Madison. Outside of DCVC, Rachel co-founded the Good Energy Collective and currently serves on its board. She also participates in various review activities and independent studies such as the SCSP Commission on the Scaling of Fusion Energy.



Sharief Moghazy, Business Development & Implementation Manager, Resources, Renewable Power & Heating, Shell Ventures

Sharief Moghazy is a Business Development Manager at Shell Ventures. He focuses on helping portfolio companies scale through partnerships, contracts, and proofs-of-concept with the Shell Business. His current focus area is renewable power and heat, and he has eight years of well design and execution experience. He holds an MBA from the Wharton School and a BS in Mechanical Engineering from the University of Texas at Austin.

COMPANY DIRECTORY



360 Energy | Austin, Texas

360 Energy is an oilfield technology company that deploys modular data centers in the oil field. These data centers allow oil and gas producers to earn more money on their natural gas production and reduce flaring. Generators convert natural gas into electricity that powers the data centers. 360 Energy has developed this technology for 3 years and has deployed it for numerous clients across Texas.

Sean Milmoie: sean@360energyco.com

<https://www.360energyco.com/>



400C Energy | Denver, Colorado

We produce and sell 24/7 dispatchable, carbon-free electricity at a projected FOAK LCOE of 49 USD/MWh using next-generation enhanced geothermal technologies developed in the shale industry, including a proprietary super-hot capable stimulation technology that is projected to drastically increase the power output of our geothermal powerplants over current best-in-class methodologies. This FOAK LCOE represents a technological breakthrough when compared to current power generation technologies.

Blake Wood: bwood@400cenergy.com

400C Energy



ACT-ion Battery Technologies | Dallas, Texas

ACT-ion has scaled its high-throughput continuous manufacturing process for doped/coated single crystal cathode active materials using earth-abundant raw materials. Recognized as an R&D100 2024 Winner, our technology offers high energy, longer cycle life, and fast charging/discharging capabilities, all at a lower cost with reduced waste and emissions. Incubated and spun out from Hunt Energy, ACT-ion has secured Pre-Series A investments from BASF, Mirae Asset, Arosa, and LG. ACT-ion is working on a >20x scale-up and product qualification process with leading industry partners.

Jin Lim: JLim@ACT-ion.com

ACT-ion.com



Aquanta Vision | Houston, Texas

Founded in 2023, Aquanta Vision is a 2-person software app startup focused on making finding industrial methane leaks easy. Based on a patent pending computer vision breakthrough in optical gas imaging, Aquanta released the alpha version of its app in 2023, beta in 2024, and in Apr'25 will release v.1. Company secured its first purchase order and a sizable grant in 1Q25, and will raise a pre-seed round in 2Q25. Aquanta's investors are Chevron Technology Ventures, Ecosphere Ventures and Odyssey Energy Advisors, and the company is in Chevron Studio, Shell GameChanger, Rose Rock Bridge, and CDL-Rockies Energy accelerator programs.

Babur Ozden: babur@aquanta.vision

<https://www.linkedin.com/company/aquanta-vision/>



Arculus Solutions | Newark, New Jersey

At Arculus we want to help the World reach net zero. To do this, we developed a hydrogen-barrier coating that enables retrofitting natural gas transmission pipelines to safely transport hydrogen. Current natural gas transmission pipelines get embrittled by hydrogen, but with our coating applied on the internal surface, it is possible to use them to transport a mix of hydrogen and natural gas or even pure hydrogen, without embrittling the steel. We are currently developing an autonomous robot able to travel inside natural gas pipelines while applying the coating to make this retrofitting process effortless for pipe owner companies and gas utility companies, while (i) extending the lifetime of their assets, and (ii) enabling their expansion into the new market of hydrogen transportation.

Gianluca Roscioli: roscioli@arculus-solutions.com

Arculus Solutions, Inc.



AtmoSpark Technologies | Houston, Texas

AtmoSpark has developed a breakthrough dehumidification technology that addresses the growing challenge of moisture management in industrial facilities and modern buildings. Our patented Air Separation Unit efficiently extracts water from air using electric fields, consuming a fraction of the energy required by traditional systems while producing high-quality water as a valuable by-product. Initially targeting the \$2B industrial dehumidification market, specifically data centers and pharmaceutical facilities, AtmoSpark has secured pilot projects with major industry partners. With five issued patents and a manufacturing launch planned for Q3 2025, AtmoSpark is positioned to transform how industries manage humidity and water resources.

Tejus Mane: tmane@atmosparktech.com

www.atmospark.info

COMPANY DIRECTORY



AtmosZero | Fort Collins, Colorado

AtmosZero manufactures high temperature steam generating heat pumps for industrial and commercial applications. AtmosZero's Boiler 2.0 solution is plug-and-play, enabled by its air-sourced nature, steam-generating heat pump that draws heat from ambient air, which allows customers to install the compact module wherever they need steam within their existing system without complex facility integration. The modular and scalable nature allows for the system to deploy in large numbers and install quickly, leading to cost-effective immediate Scope 1 decarbonization of industrial processes. It eliminates on-site boiler carbon, NOx, and PM emissions, leading to cleaner local air quality and reduced ozone formation.

Ashwin Salvi: ashwin@atmoszero.energy
atmoszero.energy



C-Power® | Charlottesville, Virginia

C-Power is an ocean power company, tapping the world's largest battery – our oceans – to help our customers reduce their costs, operational complexity and carbon-intensity, while enabling new services not possible today. Our two products – SeaRAY™ and StingRAY™ – cover a range of power needs and have applications in nearly every energy market from offshore sectors like energy, defense, research, and communications to grid applications. Building on our four pilot deployments and tens of thousands of hours of testing, we are currently entering the \$15B offshore market and partnering with industry leaders like Subsea7 and Onesubsea to demonstrate the next generation of offshore alternative power and data solutions.

Kristi Terrasa: kterrasa@cpower.co
cpower.co



Capwell Services | Houston, Texas

Capwell serves the under-addressed segment of low and intermittent flow vents, eliminating methane at half the cost of incumbent solutions. Gas is currently vented in the standard operation of oil and gas facilities, and existing solutions (e.g., VRUs, combustors) are either technically infeasible or too costly to operate in low flow scenarios. This represents a \$17B+ SAM, and we are currently a first mover in the space. Our value prop is cost effective methane abatement to help operators comply with regulations and improve their profitability by returning gas captured to sale. We have proven the technology with 4 successful field tests and have two pilots beginning in 1Q25.

Andrew Lane: andrew@capwell.org
www.capwell.org



Carbon Negative Solutions | Somerville, Massachusetts

Carbon Negative Solutions transforms industrial waste and CO₂ into high-value, carbon-negative cement supplements (SCMs) using proprietary machine learning mineral carbonation technology. Our technology enables heavy industry to monetize unusable industrial waste while delivering 2x revenue and 2x the CO₂ reduction compared to conventional carbon mineralization technologies —driving both profitability and sustainability.

Keith Crossland: kc@carboneyativesolutions.com
www.carboneyativesolutions.com



Carbonova | Calgary, Alberta Canada

Carbonova has pioneered a cutting-edge chemical process using novel catalysts to produce high-purity Carbon Nanofiber (CNF) through advanced catalytic reactions. This breakthrough technology is not only flexible and scalable but also significantly reduces energy demand and costs compared to traditional methods. Our process stands out for its efficiency, driven by an exothermic reaction, innovative catalyst design, and an integrated waste heat recovery system, resulting in an energy requirement far lower than that of our competitors. Moreover, our CNF actively sequesters carbon during its use phase, making it an ideal solution for industries looking to reduce their carbon footprint while benefiting from the superior performance of advanced materials.

Mina Zarabian: mzarabian@carbonova.com
carbonova.com



CORROLYTICS | Cleveland, Ohio

Corrolytics is a pioneering clean-tech company revolutionizing corrosion detection in industrial assets through advanced, real-time monitoring technologies. Leveraging patented electrochemical techniques, Corrolytics offers unique on-site test kits and innovative in-line sensor systems designed to detect microbial-induced corrosion and other corrosion types efficiently and accurately. These solutions help industries such as oil and gas reduce maintenance costs, extend asset life, and enhance operational safety and environmental compliance. With a focus on innovation and sustainability, Corrolytics is set to deploy its cutting-edge technologies in key global markets, transforming how industries tackle the persistent challenge of corrosion.

Anwar Sadek: a.sadek@corrolytics.com
<https://www.corrolytics.com>

COMPANY DIRECTORY



CruxOCM | San Francisco, California

Our platform enables control room operators to maximize throughput while reducing manual errors, delivering an additional 2-7% top line revenue. We transform complex industrial processes into seamless, optimized operations that minimize environmental impact and maximize operational excellence.

Vicki Knott: vicki@cruxocm.com

www.cruxocm.com



Deep Sky | Montreal, Quebec Canada

Deep Sky is the world's first technology-agnostic project developer for direct air capture (DAC) and carbon removal. Our mission is to build gigaton-scale carbon removal infrastructure in Canada by bringing together the best carbon capture technologies, leading global innovators, and world-class engineering. Having raised over \$100M to date - we build, own, and operate commercial projects to provide the largest supply of high-quality carbon credits to the market. We act as the bridge between breakthrough DAC technologies and large-scale deployment, de-risking and scaling the solutions needed to remove CO₂ from the atmosphere at an unprecedented scale.

Phil De Luna: phil@deepskyclimate.com

www.deepskyclimate.com



Disa Technologies | Mills, Wyoming

Disa has developed its High-Pressure Slurry Ablation (HPSA) mineral processing technology from concept to early commercial deployment. This success has attracted more than \$35 million in private investment. Utilizing high-velocity slurry jets to fracture minerals, Disa is particularly effective in lowering costs and improving mineral recoveries for critical materials processing. It is also revolutionary for uranium mine waste remediation thanks to its low cost and ability to recover saleable uranium and vanadium. Based on the performance of its demonstration-scale units, Disa has built a robust global customer pipeline. It is now focused on commercial-scale product development, validation, and manufacturing.

Greyson Buckingham: greyson@disausa.com

www.disausa.com



Drishya AI Labs | Calgary, Alberta Canada

Drishya AI based in Calgary, is a pioneering deep-tech industrial AI company. Founded in 2020, we are in the business of creating computable contextual models of assets by integrating engineering documents with real-time data. Our technology integrates AI with digital twins to convert complex industrial assets into computable assets. These models enable brownfield and greenfield parity, enhancing decarbonization, energy efficiency, and sustainability efforts across sectors. Drishya drives innovation with enterprise contextual graphs, Generative AI for data-centric engineering, asset intelligence, and digitization of complex industrial assets. Our technology streamlines these initiatives and establishes a replicable framework for assets of the future that are required for a low carbon economy.

Amardeep Sibia: amardeep.sibia@drishya.ai

<https://www.drishya.ai/>



Dynami Battery | Binghamton, New York

The prevailing battery production paradigm forces a trade-off: high capacity (range) vs. high power (fast charging). Dynami's patented electrode production platform crafts lithium-ion superhighways that create batteries that don't compromise, delivering both high power and high capacity. Dynami's chemistry-agnostic technology uses less active materials and is additive to most other battery technologies, including solid-state and sodium batteries. We de-risked the technology at Stan Whittingham's laboratory, demonstrating 5X faster charging while using 7% less critical minerals. We have signed 3 clients including: a top-3 automotive OEM, the lithium battery manufacturing pioneer and a startup with military contracts.

Sergio Baron: sergio@dynami-battery.com

www.dynami-battery.com



ECHO | Houston, Texas

We have developed an electrochemical technology that simultaneously generates low-carbon hydrogen and removes CO₂ using seawater. Our membrane-less reactor processes seawater to produce hydrogen and increase water alkalinity, enabling natural CO₂ absorption. Targeting facilities with existing seawater intake infrastructure, such as LNG terminals, desalination plants, and coastal power plants, we offer a dual solution for clean energy production and carbon reduction. Validated by a DOE Phase 1 grant, our modular system provides industrial partners with fuel decarbonization and compliance solutions, leveraging existing infrastructure to minimize capital costs.

Prince Aleta: paleta@uh.edu

<https://www.echosoln.com/>

COMPANY DIRECTORY



eDNAtec | St. John's, Newfoundland Canada

Nature impacts are notoriously difficult to measure and manage. Dated manual 'look and count' methods can't deliver at scale. Market is seeking solutions for emerging regulations, energy transition and stakeholders. All organisms shed DNA into their environments. From small samples of water, soil, sediment we can detect 100's to thousands of organisms – from bacteria to marine mammals – for a complete biodiversity picture. We then generate data with statistical power to back operational decisions. Results backed by ISO; defensible in court. Products: biodiversity baselines, invasive/commercial species, remediation. Customers: energy, aquaculture, fisheries, regulators, renewables, mining. Sectors: CCUS, NBS, Environmental Assessment.

Steve Barrett: steve@ednatec.com

www.eDNAtec.com



Elementium Materials | Somerville, Massachusetts

Legacy batteries struggle with limited lifespans, high costs, slow charge rates, and low energy density. With our next-generation electrolyte, we're rewriting the rules of energy storage and setting a new standard for battery technology. Elementium was founded with a bold mission: to solve the critical energy storage challenges of our time. Powered by a cutting-edge technology licensed from MIT, Elementium's electrolyte replaces legacy materials to unlock unparalleled cell stability. Our advanced formulations revolutionize battery performance, making energy storage safer, more efficient, and longer lasting. We see a future with compact, affordable, "forever" batteries, powering a more sustainable and electrified society.

Matthew Dawson: info@elementium.io

<https://elementium.io/>



ENP Technologies

ENP Technologies | Houston, Texas

Industrial equipment lacks a standard way to store information. Unlike retail with barcodes for each item, industrial equipment has no one source of truth. This makes it difficult for every manufacturer & buyer /companies to find or share that information. UNIIEQ offers a solution as a decentralized, open master data management system, by aggregating equipment metadata as a global equipment catalogue. Its main objective is to standardize industrial equipment metadata, serving as the single source of truth across the entire value chain from manufacturing to retail. UNIIEQ Equipment catalogue provides product visibility for manufacturers, validated consistent metadata for buyers, engineers evaluating product specifications and benefits that makes sales cycle efficient with supporting evidence from DTWIN consuming metadata for comparing products. The need for high-quality and comprehensive Industrial Equipment metadata is essential to efficiently implement advanced AI solutions. UNIIEQ (Blockchain based Web3) easily integrates with systems such as ERP, EDMS.

Pranav Tiwari: pranav.tiwari@enptechnologies.com

www.enptechnologies.com



espiku | Bend, Oregon

Espiku's technologies extract water from high salinity brines and extractive (oil & gas) produced water while enabling the recovery of valuable minerals, including Lithium. Espiku's containerized and easily deployable systems leverage local energy sources (e.g. well gas) to generate clean water at under \$1/barrel (competitive with freshwater cost) and extract lithium salts from dilute sources at below \$3,500/ton (40% below today's average production cost). These technologies will help secure a domestic energy and mineral supply chain, foster a water-energy circular economy with minimal environmental impact, and enable mineral extraction while conserving water.

Saskia van Meer: Saskia@espiku.com

www.espiku.com



Galvanix | Cleveland, Ohio

Metal production contributes >5% of global greenhouse gas emissions. At the same time, many metals are deemed Critical Minerals on which the U.S. and other nations rely but have essentially no domestic supply. Galvanix is developing a carbon-free and highly efficient process for metal reduction that helps solve both these problems at once. The company is targeting initial market entry with the Rare Earth Element (REE) neodymium for which China controls >90% of the market today and is essential to magnets used in a wide range of modern technologies across defense and commercial applications (e.g., jets, drones, windmills, electric vehicles).

Alan Long: alan@glvnx.com

<https://galvanixmetals.com/>



GDI | Rochester, New York

GDI has developed a 100% silicon anode (27 patents) bonded directly to high strength copper foil. This is coated using mature high volume industrial coating equipment that is already used to coat skyscrapers and photovoltaics. It removes all graphite and inactive materials, to achieve the highest volumetric energy density possible for a lithium-ion anode. The anode has been 3rd party validated by customers. The Lithium-ion battery market is expected to reach >\$400B by YE2030. GDI anode sales will be driven by demand from cell producers for electric mobility, consumer electronics, defense tech, Medtech, utility, and broader markets. GDI will supply to Li-ion batteries companies in each vertical and tailor the anode to the performance needs and specifications needed for that vertical. In 2024, GDI signed 2 joint development agreements, reached \$3M in revenue from anode sampling, product development, and contracts with three Govt agencies and has secured an EIB financing agreement.

Robert Anstey: rob.anstey@graphnx.com

www.gdinrg.com

COMPANY DIRECTORY



Gemini Energy | Los Angeles, California

Gemini Energy is a energy startup pioneering a breakthrough electrochemical hydrogen pump (EHP) that delivers cost-effective, zero-loss compression and purification of hydrogen in a single, compact system, unlocking substantial efficiency gains for applications ranging from hydrogen refueling stations and industrial processes to ammonia production and carbon capture utilization (CCUS).

Mehdi Rafiee: mehdi@gemini.energy

<https://gemini.energy/>



Geolabe | Los Alamos, New Mexico

Methane has a greenhouse gas effect 80 times more potent than Co2 over short timeframes. Curbing methane emissions is a very hot topic right now, with fines being introduced in the US on emitted methane. However, instrumenting every single site is too costly, and large-area approaches including leveraging satellites are validated by human analysts and not really scalable. We are developing the first on-demand saas, fully automated and scalable methane monitoring system. With data available anywhere on Earth every few days, we help upstream and midstream companies monitor their operations and measure ESG performance.

Claudia Hulbert: claudiah@geolabe.com

Geolabe



H Quest | Pittsburgh, Pennsylvania

H Quest decarbonizes natural gas at the point of use by extracting carbon as a valuable material and producing a stream of clean hydrogen fuel. Our pioneering methane pyrolysis process, powered by microwave plasma, instantaneously heats natural gas, cracking it into hydrogen and high-value carbon materials with zero emissions. The modular, scalable system fits within a 40' CONEX container, enabling easy on-site deployment and producing 1 ton of hydrogen per day. With an energy requirement four times lower than water electrolysis, the process delivers the lowest-cost clean hydrogen wherever natural gas is available—eliminating delivery costs and safety risks. We successfully piloted operation with pipeline natural gas, de-risked key carbon material applications, and secured a JDA with a specialty carbon producer. Now, we are advancing strategic partnerships, including a manufacturing agreement with a leading O&G service company and a commercial contract with a West Coast utility.

George Skoptsov: gls@h-quest.com

www.h-quest.com

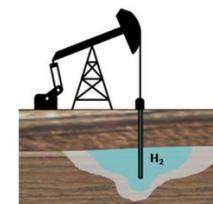


HEXAspec | Houston, Texas

To address the rising need for AI computing power, chips now stack hundreds of transistor layers. This generates significant heat. Outdated chip packaging exacerbates poor heat management, unchanged for 60 years. Data centers' energy-intensive cooling comprises 40% of their energy use, contributing to 2% of global energy consumption and 2.5% of greenhouse gas emissions. HEXAspec provides innovative inorganic fillers and molding compounds for next-gen chip packaging, enhancing chip protection, lowering cooling costs, and promoting sustainable practices.

Tianshu Zhai: tianshu.zhai@hexaspec.com

<https://www.hexaspec.com/>



HydroStor Analytics

HydroStor Analytics | College Station, Texas

HydroStor Analytics specializes in AI-driven site screening and underground hydrogen storage (UHS) optimization. Using our proprietary HUST tool, we analyze thousands of potential sites, ranking them based on geomechanical, geochemical, and microbial feasibility. Our in-house lab conducts core and fluid sample testing, ensuring hydrogen retention, reservoir stability, and minimal losses. We also develop customized injection and production strategies to maximize storage efficiency and economic viability. By integrating machine learning, numerical simulations, and experimental validation, HydroStor Analytics provides data-driven solutions that accelerate hydrogen adoption, de-risk investments, and support the clean energy transition.

Lokesh Kumar Sekar: lokesh_kumar_sekar@tamu.edu



Indrio Technologies | Riverside, California

Indrio is a Stanford spin-off company focused on bringing the lab-grade precision of laser-based spectroscopic sensors to mass-market applications. The chemical sensing total addressable market size of \$132 B has diverse applications from transportation and energy to health care and agriculture. Transportation is the most viable gateway market for Indrio where the problem of sensing NOx and ammonia for diesel truck On-Board Diagnostics (OBD) has not been solved. Indrio already has orders from OEMs because their sensors provide ten times better sensitivity than incumbents, no interference, and robustness that meet strict regulations from CARB and EPA coming later this decade.

Ritobrata Sur: rsur@indriotech.com

<https://www.indriotech.com/>

COMPANY DIRECTORY



Kinitics Automation | Vancouver, British Columbia Canada

Kinitics Automation is a pioneer in motion control solutions, leveraging the unique properties of Shape Memory Alloy (SMA) materials. The company produces the KVA38 spring-loaded electric valve actuator, a solution to methane venting pneumatics. Featuring exceptional reliability, the KVA38 reduces maintenance costs and increases facility uptime. Certified for use in North America, its mechanical spring design provides fail-safe functionality in the event of power or signal loss. As the energy sector transitions away from methane-venting pneumatics, the KVA38 emerges as the optimal all-electric solution.

Dean Pick: dean.pick@kiniticsautomation.com

www.kiniticsautomation.com



LAVA | Sdot Yam, Israel

LAVA addresses the key challenges of renewable energy: efficiency, intermittency, and financial viability. Our proprietary thermodynamic cycle operates at near-perfect efficiency (70-80% of Carnot), transforming the efficiency and economics of heat-to-electricity and electricity-to-heat conversion. Our first roadmap solution is an isothermal heat engine converting heat into zero-emission electricity; it will be followed by a high-efficiency industrial pump for heating and cooling and the Carnot Battery for long-duration storage, turning any solar or wind installation into dispatchable baseload power. The low CAPEX and high efficiency deliver strong ROI with short payback periods, making clean energy not only a responsible choice but also a sound financial decision.

Doron Tamir: doron@lavapower.com

lavapower.com



Litius | Calgary, Alberta Canada

Litius Inc. is pioneering lithium extraction with a breakthrough nanomaterial technology that recovers up to 99% of lithium from brine sources, far surpassing conventional methods. Our solution reduces operational costs by up to 35% compared to existing DLE methods per ton of lithium carbonate equivalent (LCE). Additionally, our process generates 80% less greenhouse gas emissions than traditional DLE, with a very low environmental footprint and minimal water and energy consumption. Litius delivers a scalable, eco-friendly extraction solution for the multibillion dollar EV and renewable energy markets eager for sustainable lithium.

Ghada Nafie: ghada@litus.ca

<https://litus.ca/>



Marel Power Solutions | Plymouth, Michigan

MAREL is transforming power conversion with the most cost-effective solutions in dollars per kilowatt and the highest power density in kilowatts per liter, using the fewest semiconductors. Targeting a \$100B+ market by 2030, its technology spans mobility, industrial automation, datacenters, grid infrastructure, charging, metering, renewables, and defense. The company holds five patents, has \$2.5M in revenue, raised \$7M in equity, and secured \$5M in non-dilutive funding. With a 2,500 sq. ft. Michigan lab and a pilot manufacturing line at an experienced North American Contract Manufacturer, MAREL is preparing for production and seeking \$1M to close its seed round.

Amrit Vivekanand: amrit.vivekanand@marel-power.com

marel-power.com



Membravo | Menlo Park, California

Membravo develops advanced polymer membranes that reduce waste and enhance industrial efficiency in the most demanding industrial applications by optimizing hydrogen recovery and other chemical separations. Our technology originated from research at SRI International, supported by funding from the U.S. Department of Energy (DOE), and has been refined over 15+ years. Field-tested and proven, our membranes provide a durable, high-performance alternative to traditional separation technologies. While serving industries like refining, chemicals, and hydrogen production, we are expanding into biofuels, semiconductor manufacturing, and critical metals, where our solutions deliver the same value: less waste and increased efficiency.

Joe Sawa: joe@membravo.com

www.membravo.com



MITICO | Pasadena, California

Mitico offers state-of-the-art services and equipment to capture and purify carbon dioxide (CO₂), enabling post-combustion emitters to mitigate over 95% of their CO₂ emissions at much lower cost than incumbent technologies. Originated and validated at Caltech, the Mitico process is scalable, applicable to small (1K CO₂ tonne/year) natural-gas and wood fired burners all the way to large (>100K CO₂ tonne/year) gas-fired power plants and hard-to-decarbonize industries. Two field pilots with support from 9 industry partners is planned to begin operation this winter.

Clement Cid: clement@mitico.tech

www.mitico.tech

COMPANY DIRECTORY



Nanoborne | Austin, Texas

Our product is an environmental nano-surfactant used to make a nano-emulsion for control of fluids flow subsurface. Our nano-emulsion technology is designed to solve flow-control tasks in geothermal, carbon utilization and storage, upstream oil and gas industries. Our value proposition is to solve critical problems related to excess water production, environment contamination, low hydrocarbons recovery factor. Lifting and treating the produced water drives up costs and generates major part of CO2 emission in the industry. Water encroachment is a key issue impacting hydrocarbons recovery factor. The synthetic polymers contaminate environment by non-degradable derivatives and pollute water sources.

Vitaly Sergeev: vitaly@utexas.edu

<https://nanoborne.com/>



NearStar Fusion | Chantilly, Virginia

NearStar Fusion is developing scalable and modular fusion energy power plants (50-100MW) using hypervelocity plasma railguns to generate tritium-free, clean, safe and affordable baseload electricity for on-/off-grid customers. Using a hybrid approach to both magnetize and compress deuterium (D-D) fuel capsules once per second, the NearStar Fusion design is able to leverage mostly existing COTS materials and technologies to lower costs and risks while improving rapid and mass production. A NearStar Fusion power plant is well-suited to retrofit coal-burning power plants or co-locate in urban areas.

Amit Singh: amit@nearstarfusion.com

<https://www.nearstarfusion.com>



NGT Energy | Deerfield, Illinois

Boost Oil Recovery & Cut Costs. Nano Gas Environmental transforms oilfield operations using Nitro Nano™ gas cavities to increase oil well production from .5X to 5X and cut water disposal costs by up to \$1.60 per barrel. Why it matters: More Oil, Less Waste – Extracts trapped oil through nanobubbles that make reservoirs more water-wet. Lower Costs – Reduces expenses on water disposal, freshwater purchases, maintenance, and chemical treatments. Fast & Effective – Delivers produced water results in 30 minutes and well results as soon as you reopen the well, improving both well output and profitability. Go Deeper: Watch: https://youtu.be/Yoj7ku-_aPO

Len Bland: len@ngtenergy.com

<https://nanogasenvironmental.com/>



OceanBit | Honolulu, Hawaii

OceanBit is set to capitalize on the energy transition with long-term reoccurring mid-market infrastructure revenue at the intersection of renewable energy and AI. OceanBit generates 24/7 carbon-free electricity using Ocean Thermal Energy. OceanBit's IP marries an Ocean Thermal plant with a collocated data center to supply baseload renewable energy and unlimited free cooling, reducing data center electricity consumption by ~40%! OceanBit has assembled an all-star team with over 100 years of experience across nearly every Ocean Thermal plant built in the last 50 years and has achieved engagement with two nation-state's.

Nathaniel Harmon: nathaniel@oceanbitenergy.com

oceanbitenergy.com



OCOchem | Richland, Washington

OCOchem converts CO2, water and electricity into organic molecules using proprietary CO2 Electrolysis technologies. Our process produces formate at a lower cost than the conventional fossil fuel based process. We are addressing an \$85 billion market for these products with a distinct cost advantage. OCOchem has developed the world's largest industrial-scale artificial photosynthesis process, with industrial-scale sized cells of 1.5m2 and are done with scale up. We are now scaling out. We have scaled our system 4 times by a factor of 6000x, have filed and own 18 patents, signed \$120M in customer purchase LOIs, and raised \$15M in dilutive and non-dilutive capital. OCOchem is now raising a \$20M Series A to build a 10,000 tpa production facility, further advance process performance and expand sales.

Todd Brix: toddbrix@ocochem.com

www.ocochem.com



Osperity | Houston, Texas

Osperity is an AI-driven visual monitoring and analytics company that helps businesses enhance operational efficiency, safety, and sustainability. Our platform enables remote monitoring of assets and infrastructure, reducing the need for on-site inspections (and watching screens) and lowering carbon emissions. Serving industries such as energy, utilities, and renewables, Osperity provides real-time insights to detect inefficiencies, prevent incidents, and optimize resource use. By promoting sustainable practices and improving operational resilience, we empower businesses to reduce their environmental impact, increase productivity, and transition toward a low-carbon future. Osperity is committed to driving innovation that benefits both industry and the environment.

Scott Crist: scrist@osperity.com

[Osperity.com](https://osperity.com)

COMPANY DIRECTORY



OXCCU | Oxford, United Kingdom

OXCCU's mission is to develop the world's lowest cost Power-to-Liquids pathway, enabling people to continue to fly and use hydrocarbon products but with a reduced climate impact.

Andrew Symes: andrew.symes@oxccu.com

<https://www.oxccu.com/>



Pattern Materials | Houston, Texas

Pattern Materials is built around the patented technology, technique, and product of laser-induced graphene, developed in James Tour's lab. This works by inserting a carbon membrane, such as polyimide plastic, into a commercial laser cutter or engraver, and using the laser to convert the plastic into laser-induced graphene. We then sell this graphene as a product. This laser-induced graphene is already being used in hundreds of academic laboratories throughout the world for sensors, antimicrobial membranes, battery electrodes, and many more. We are now bringing this technology to the market.

Lucas Eddy: Lje2@rice.edu



Petra Power | Solon, Ohio

Petra Power is transforming the commercial and recreational transport sector with its cutting-edge Solid Oxide Fuel Cell (SOFC) technology, delivering fuel-flexible, low-cost power solutions. Petra Power's SOFC systems are up to 90% more fuel-efficient than traditional combustion engines, cost-effective, and compatible with multiple fuels, including diesel, natural gas, and hydrogen. Our innovative technology slashes emissions and fuel costs without sacrificing reliability or convenience, positioning us to capture a significant share of the \$10B U.S. auxiliary power market. Petra Power is leading the charge in sustainable energy solutions with \$9M in DoD contracts, a strong IP portfolio, and high gross margins.

Aaron Goodman: goodman@petrapower.com

www.petrapower.com



Pike Robotics | Austin, Texas

Pike (Austin, TX) has developed Wall-Eye™, a wall-crawling robotic platform that can inspect critical infrastructure used in flammable and hazardous environments, prevalent in the process industries. Our technology substantially reduces asset inspection costs by eliminating the time and costs otherwise required to take the asset out of service to inspect. The data collected and analyzed by our proprietary software is vital to maintenance operations and environmental compliance at these facilities, including our beachhead market of petrochemical plants and oil refineries.

Connor Crawford: connor@pikerobotics.com

www.pikerobotics.com



Power to Hydrogen | Columbus, Ohio

Power to Hydrogen is revolutionizing clean energy with our advanced AEM electrolysis technology. We provide the sole low-cost solution to hydrogen production that integrates directly with variable, renewable energy, which will allow us to completely decarbonize the high-polluting industrial process. Our breakthrough reduces the electrolysis stack cost by ~65% by eliminating the need for expensive and supply chain constrained metals such as iridium, titanium, platinum, and gold. In addition to low-cost materials, the technology can produce hydrogen at 250 bar which can solve the cost challenges created from compressing and transporting hydrogen.

Alex Zorniger: alexz@power-h2.com

Power-h2.com



Prezerv Technologies | Saint Louis, Missouri

Prezerv has developed a pioneering AI technology that automatically maps what lies beneath the surface in 3D. Leveraging its extensive expertise in civil engineering, AI, and advanced 3D multi-frequency radar technology, Prezerv's technology provides accurate 3D maps of buried pipelines to utilities and energy companies 100X faster than current methods on a large scale such as an entire city.

Cam Raufi: cam@prezerv.ai

<https://prezerv.ai/>

COMPANY DIRECTORY



Quino Energy | San Leandro, California

The Organic Flow Battery (OFB) technology invented at Harvard University and exclusively licensed by the company is a promising alternative to lithium-ion batteries for large-scale energy storage, given OFB's inherent non-flammability, low-cost potential, and ease for manufacturing in the USA. Quino Energy's electrolyte functions in Vanadium flow battery systems, which is today a multiple-GW-per-year market. Because of this, company grow by using our proprietary electrolyte in commercial battery hardware from our industrial partners. This capital-efficient strategy allows Quino Energy to pursue utility-scale battery projects without owning or operating a battery factory, with greater speed to market.

Eugene Beh: eugene@quinoenergy.com

www.quinoenergy.com



ReSource | Oakland, California

Plastic production currently accounts for 8% of global oil and gas use and nearly 5% of GHG emissions, with projections for these numbers to double in the next 30 years. ReSource's proprietary technology will produce the first bioplastic that is made from truly sustainable feedstocks, does not accumulate in nature, and outperforms incumbents. We are commercializing an industrially scalable process for producing FDCA, which is a replacement for the petrochemical monomer used to make polyesters such as PET, the world's 2nd largest polymer by volume. Polyester represents a >\$100B industry, with applications spanning packaging, bottles and fibers. Polyesters made using FDCA have superior gas barrier, thermal, and mechanical properties, which translates into increased shelf life for perishable goods with less material. They are also 100% recyclable, and degrade much faster than conventional polyester if released into the environment. Bioplastic made using ReSource FDCA could eliminate >250 Mton yr⁻¹ GHG emissions

Aanindeeta Banerjee: ab@resourcechemicalcorp.com

<https://www.resourcechemicalcorp.com/>



Rheom Materials | Houston, Texas

Rheom Materials, formerly Bucha Bio, is a specialty biobased material compounder. Founded in 2020, it's our mission to empower a sustainable future by creating biobased materials that seamlessly replace fossil fuel-based plastics. We achieve this by combining Earth-derived ingredients with global melt extrusion technology, creating biobased materials at the pace of consumer demand. Leveraging the ubiquitous global plastics industry, our materials easily integrate into existing supply chains, seamlessly scaling. At Rheom Materials we produce materials in various form factors, including biobased sheets (such as Shorai™) and biopolymer resins (like Benree™). Our goal is to design materials that mimic the utility of their counterparts while eliminating their carbon impact. Welcome to Rheom Materials—change your impact, not your life.

Zimri Hinshaw: zimrithinshaw@rheom.com

www.rheom.com



Rushnu | Pleasanton, California

Revenue streams for traditional carbon capture and sequestration (CCS) are not well established, making business cases challenging and often reliant on unstable government subsidies. Rushnu addresses these issues by integrating carbon capture with efficient, scalable chemical production, making carbon capture profitable for host industries. Our proprietary, NSF-awarded CarbonCatalyze™ technology captures CO₂ and produces chlorine-based chemicals. This \$42 billion market covers water treatment, paper, steel, and battery industries. CarbonCatalyze™ replaces the outdated chlor-alkali process, a top decarbonization priority identified by the DOE. Our decentralized carbon capture units can be deployed at emission sites, producing carbon negative chemicals at low cost and reducing transportations. We have 2 signed customer agreements and our first unit scheduled be operational at Silicon Valley Clean Water by 2026.

Matin Hanifzadeh: matin@rushnu.com

<https://www.rushnu.com/>



Saher Flow Solutions | Thuwal, Makkah Saudi Arabia

Saher is a deep-tech startup delivering AI-enabled flow intelligence solutions to the oil and gas industry. Our cutting-edge products and services provide real-time insights into reservoir production, optimizing workover operations. Compared to conventional test separators, our solution boosts production efficiency by 3.5%, generating an additional \$165 million in revenue for a medium-sized oil field. Beyond financial benefits, our technology supports decarbonization efforts by significantly reducing gas venting (CO₂ and methane) and cutting emissions by up to 75%.

Muhammad Akram Karimi: muhammadakram.karimi@saherflow.com

<https://saherflow.com/>



SolidSky | Ann Arbor, Michigan

SolidSky is solving an emerging issue for chemicals manufacturers: carbon management. There is increasing pressure to abate emissions, but most CCUS technologies are too expensive to make economic sense and may not readily fit into current infrastructure. SolidSky develops catalysts and reactors that make zero- or negative-carbon reactions more economical than conventional methods through improved thermodynamics and efficiencies. Our core system, the ICXC reactor, is being developed as a retrofit option for legacy petrochemical facilities like ethane crackers to significantly reduce their CO₂ footprint while improving profitability and decreasing energy consumption. Converting CO₂ and Alkanes to CO and Alkenes, it creates a clear value add for current facilities and future-proofs operators' investments.

Aidan Mickleburgh: aidan@solid-sky.com

www.solid-sky.com

COMPANY DIRECTORY



Teknobuilt | Houston, Texas

Teknobuilt is transforming the Energy, Infrastructure, and Construction industries with its AI- and ML-powered platform, PACE OS. By accelerating project delivery through proactive insights and automation, Teknobuilt is reshaping how projects are built and operated. The platform's innovative approach integrates people, processes, and data, using AI predictive capabilities to mitigate risks, reduce cost overruns, minimize delivery time lags, and boost productivity and safety during construction execution. Proven to improve schedule timelines by 30% faster and 38.6% improvement in execution productivity over traditional methods. With Teknobuilt, owners, builders, and contractors can confidently navigate the complexities of modern construction projects, achieving greater efficiency, reduced costs, and enhanced outcomes. The platform's digital assurance and AI-driven approach are setting a new standard for project delivery across industries.

Abhishek Srivastava: abhishek@teknobuilt.com

<https://www.teknobuilt.com>



VIA BioFuels | Houston, Texas

VIA BioFuels has developed an innovative biological process to produce 3-methylanisole (3-MA), which can serve as a drop-in replacement for gasoline, a component in sustainable aviation fuel, or a precursor for producing plastics. VIA produces 3-MA from agricultural feedstocks using a proprietary, genetically modified industrial strain of *Saccharomyces cerevisiae*.

Patty Rohs: prohs@viabf.com

viabiofuels.com



Volexion | Evanston, Illinois

Volexion is commercializing a drop-in pristine graphene encapsulation solution, co-developed at Argonne National Laboratory and Northwestern University. The solution stabilizes and enhances all chemistries of Li-ion materials, with a current focus on Cathode Active Materials (CAM). By controlling the material/electrolyte interface thanks to a pinhole free conformal graphene composite, Volexion's end-to-end solution drives a multi-functional performance improvement in cycle life, gassing reduction & safety, rate capability, voltage range extension, and wide temperature range operability. Beyond improving current materials, Volexion is an enabling technology for next generation CAM including Mn-rich chemistries. As a powder approach, Volexion's technology is immediately usable in existing manufacturing lines.

Damien Despinoy: damien.despinoy@volexion-inc.com

www.volexion-inc.com



VulcanX Energy | Vancouver, British Columbia Canada

VulcanX is revolutionizing hydrogen production with its innovative methane pyrolysis technology. By leveraging the natural gas grid, VulcanX produces low-emission hydrogen while sequestering carbon as a solid byproduct. This solid carbon is repurposed for industrial applications, such as cement additives and steel manufacturing, further reducing emissions. With over 80% energy efficiency and current electricity requirements of 13 kWh/kg of hydrogen, with aims to lower this to 7 kWh/kg, offering a cost-effective and sustainable solution. Positioned at the forefront of clean energy innovation, VulcanX addresses global climate challenges while creating value for the energy and construction industries.

Omar Herrera: omar.herrera@vulcanx.ca

<https://vulcanx.ca>

ENERGY VENTURE DAY & PITCH COMPETITION: **ADDITIONAL PRIZES**



The winner of the competition is invited to compete in the Startup World Cup.

Powered by Pegasus Tech Ventures, Startup World Cup hosts over 100 regional events across 60+ countries. These events culminate into the Startup World Cup Grand Finale event, where winning startups from each regional event will compete for a \$1 Million investment prize! The 2025 Grand Finale is being held on October 17th in Silicon Valley.

ENERGY VENTURE DAY & PITCH COMPETITION: **ADDITIONAL PRIZES**



Venture Builder will offer a Golden Ticket to participate in the next batch of the NOV Supernova Accelerator program.

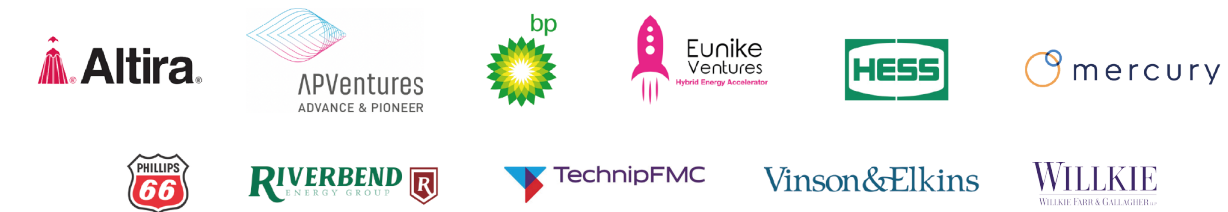
Selected startups get unparalleled access to the corporate R&D team and business unit leaders to test their solutions and develop long-term partnerships, beginning with paid pilot programs and a faster track to becoming an approved vendor. The five-month theme-specific program accelerates your relationship with NOV and is designed to match startups solving pressing needs that are aligned with corporate priorities.

THANK YOU
TEX-E SPONSORS



TEX-E.ORG

THANK YOU RICE ALLIANCE ENERGY SPONSORS



Community Supporters



ALLIANCE.RICE.EDU