



NREL

INDUSTRY GROWTH FORUM

WHERE INVESTMENT MEETS INNOVATION

INNOVATION AND ENTREPRENEURSHIP CENTER 2025 STARTUP SPOTLIGHT



The Innovation and Entrepreneurship Center (IEC) at the National Renewable Energy Laboratory (NREL) is dedicated to fostering innovation and accelerating the commercialization of advanced technologies. We bring together researchers, entrepreneurs, investors, and industry stakeholders to move innovative solutions to market.

Since our inception, the IEC portfolio has supported more than 650 companies and entrepreneurial teams by leveraging the capabilities of the national lab system while meeting the business goals of our industry partners. Startups in NREL's incubation programs have collectively raised more than \$3.33 billion in follow-on venture capital funding, demonstrating the impact of our support.

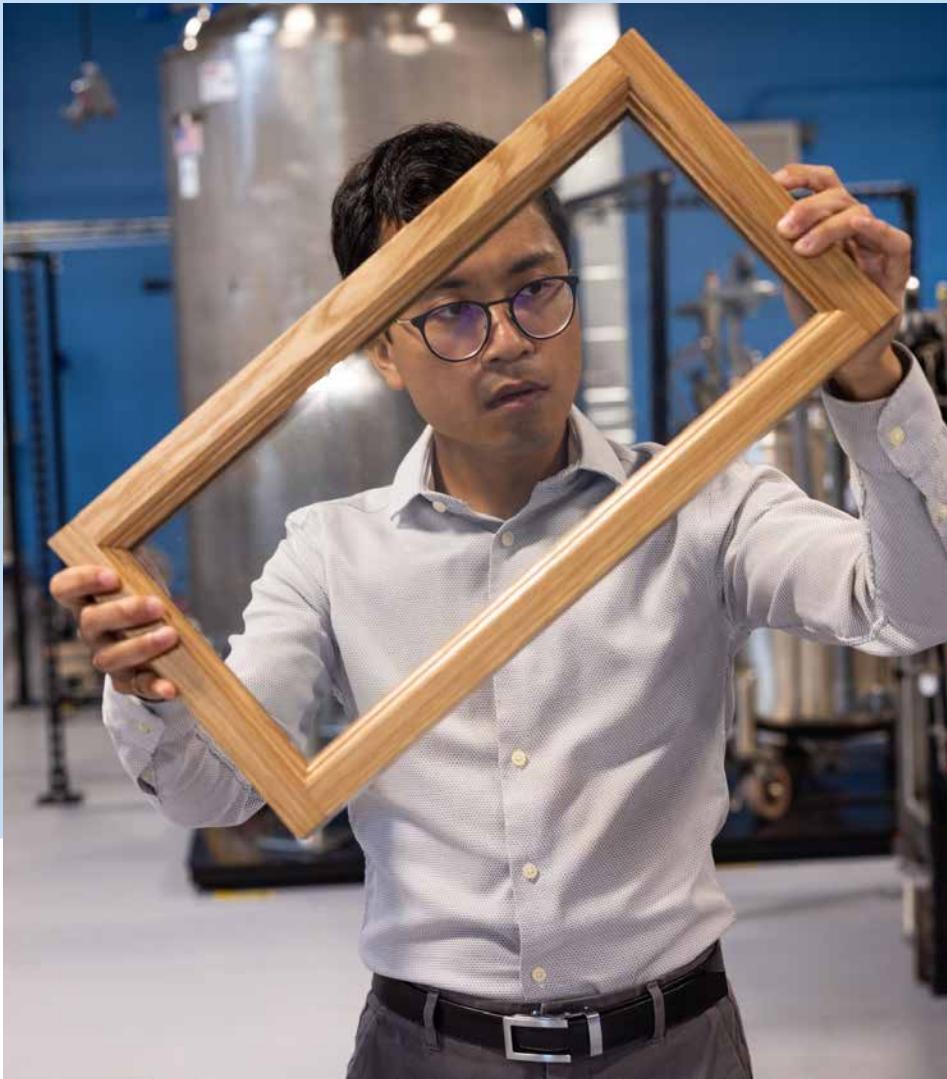
The ten startups featured in the 2025 IEC Spotlight represent some of the best and brightest our ecosystem has to offer. Each company, propelled by NREL's resources and expertise, is making significant strides toward transforming their technologies into scalable solutions. From breakthrough advancements to real-world applications, these startups exemplify the power of collaboration.



TRISH COZART

Director, NREL Innovation and Entrepreneurship Center





AeroShield Materials

The clear choice for window insulation



HEADQUARTERS
Waltham, MA

YEAR FOUNDED
2019

CONTACT

Website: aeroshield.tech
Email: abb@aeroshield.tech
Social Media: linkedin.com/company/aeroshield-materials

AeroShield has developed the world's most transparent super-insulating silica aerogels, enabling them to improve the energy efficiency of windows, freezers, and more by up to 65%. They have achieved entry and patio door sizes and will be launching their first products by the end of 2026 with partners.

FOUNDING TEAM

Dr. Elise Strobach, *CEO & Co-Founder*
Dr. Kyle Wilke, *CTO & Co-Founder*
Aaron Baskerville-Bridges, *VP Ops & Co-Founder*

FUNDRAISING

Total Raised: \$9.4M (dilutive),
\$19M (grants)

Currently Raising: Series A

Investors: MassMutual Ventures, Good Ventures, MassVentures

KEY MILESTONES

- Won \$14.5M ARPA-E SCALEUP grant in June '24
- Secured \$1M+ customer commitment to co-develop and launch first products
- Made first entry door-sized transparent aerogels in Dec. '24

IEC PROGRAM

INN
INNOVATION
INCUBATOR



Aquanta Vision

We Make Finding Methane Leaks Easy



HEADQUARTERS
Houston, TX



YEAR FOUNDED
2023

IEC PROGRAM



Aquanta Visions NETxTEN app accurately detects methane leaks using optical gas imaging. It identifies methane emissions without the need for human intervention or existing camera models and reduces leaks that go undetected at inspection by 50%.

FOUNDING TEAM

Babur Ozden, *Founder*

Marcus Martinez, *Inventor*

FUNDRAISING

Total Raised: \$1.04M

Investors: Chevron Technology Ventures, Ecosphere Ventures, Odyssey Energy Advisors

KEY MILESTONES

- National Science Foundation Colorado-Wyoming Climate Resilience Engine grant, Feb. '25
- First purchase order, Jan. '25
- Product early v.1 release, Dec. '24
- 4,000+ beta version test runs, '24



Blip Energy

Power Dynamics Reimagined: Smart batteries
leveraging everyday energy use



HEADQUARTERS
Chicago, IL



YEAR FOUNDED
2021

Blip's plug-and-play smart battery doesn't require permitting, professional installation, or access to the breaker box. A distributed energy resource designed for any built environment to mitigate surging peak energy demand, optimize electricity costs for users, and lower operating expenses for utilities.

FOUNDING TEAM

Sophia Wennstedt, CEO (Co-founder)

Chance Cobb, COO (Co-founder)

FUNDRAISING

Total Raised: \$3.2M

Currently Raising: Pre-Seed

Investors: LongJump, Southern Company, Morgan Stanley Inclusive Ventures Lab.

KEY MILESTONES

- Completed two pilot projects in '24:
 - Brooklyn Navy Yard
 - Minnesota Power
- Secured \$1.1M Department of Energy nondilutive EERE Grant Award
- Selected for Morgan Stanley Inclusive Venture Lab
- Designated for JLL Foundation Program-Related Investment

IEC PROGRAM

INNOVATION
INCUBATOR

CONTACT

Website: www.blipenergy.com

Email: chance@blipenergy.com

Social Media: linkedin.com/company/blip-energy

instagram.com/blipenergy



Blue Frontier

Rethinking Air



HEADQUARTERS
Boca Raton, FL

YEAR FOUNDED
2017

Blue Frontier's vision is to transform air conditioning from an environmental problem to a sustainability solution that is widely accessible and improves people's lives.

Blue Frontier is disrupting the \$100B air conditioning market with revolutionary technology that's 3x more efficient and seamlessly integrates with renewable energy. Their smart AC systems with built-in energy storage—developed with NREL and recognized by MIT and Bloomberg—are poised to transform cooling from an environmental problem into a climate solution as global demand skyrockets.

FOUNDING TEAM

Dr. Daniel Betts, *CEO (Co-founder)*
Matt Graham, *EVP Product Dev (Co-founder)*
Dr. Matt Tilghman, *CTO (Co-founder)*
Gregory Tropsa, *EVP Biz Dev (Co-founder)*

FUNDRAISING

Total Raised: \$47.8M
Currently Raising: Series B
Investors: Breakthrough Energy Ventures, 2150.VC, VoLo Earth Ventures, Florida Opportunity Fund

KEY MILESTONES

- Customer-led product field trials, '24 and '25
- Demonstrated 3x efficiency of conventional systems in field trials, '24 and '25
- Demonstrated 6 to 12 hours of air conditioning operation with energy storage in field trials, '24 and '25
- Established utility partnerships, '23 to '25
- Achieved 75% reduction in manufactured cost, '23 to '24

IEC PROGRAM

IN² INNOVATION INCUBATOR

CONTACT

Website: bluefrontierac.com
Email: daniel.betts@bluefrontierac.com
Social Media: linkedin.com/company/blue-frontier-ac



LiquidCool Solutions (LCS)

LCS technology, the endgame for cooling
IT electronics



HEADQUARTERS
Rochester, MN

YEAR FOUNDED
2006

CONTACT

Website: liquidcoolsolutions.com
Email: herb.zien@liquidcoolsolutions
Social Media: linkedin.com/company/liquidcool-solutions

LiquidCool Solutions develops rack servers that combine total liquid immersion with forced convection to cool hot processors. LiquidCool's patented technology provides the most sustainable and energy efficient cooling for data centers, reducing electricity usage by 30% or more compared to air-cooling while minimizing water consumption. With the explosive growth of AI computing, LCS cooling tech provides a key building block in mitigating the surge in electricity demand and reducing greenhouse gas emissions.

FOUNDING TEAM

Rick Tufty, Chief Technology Officer
David Roe, Program Manager

FUNDRAISING

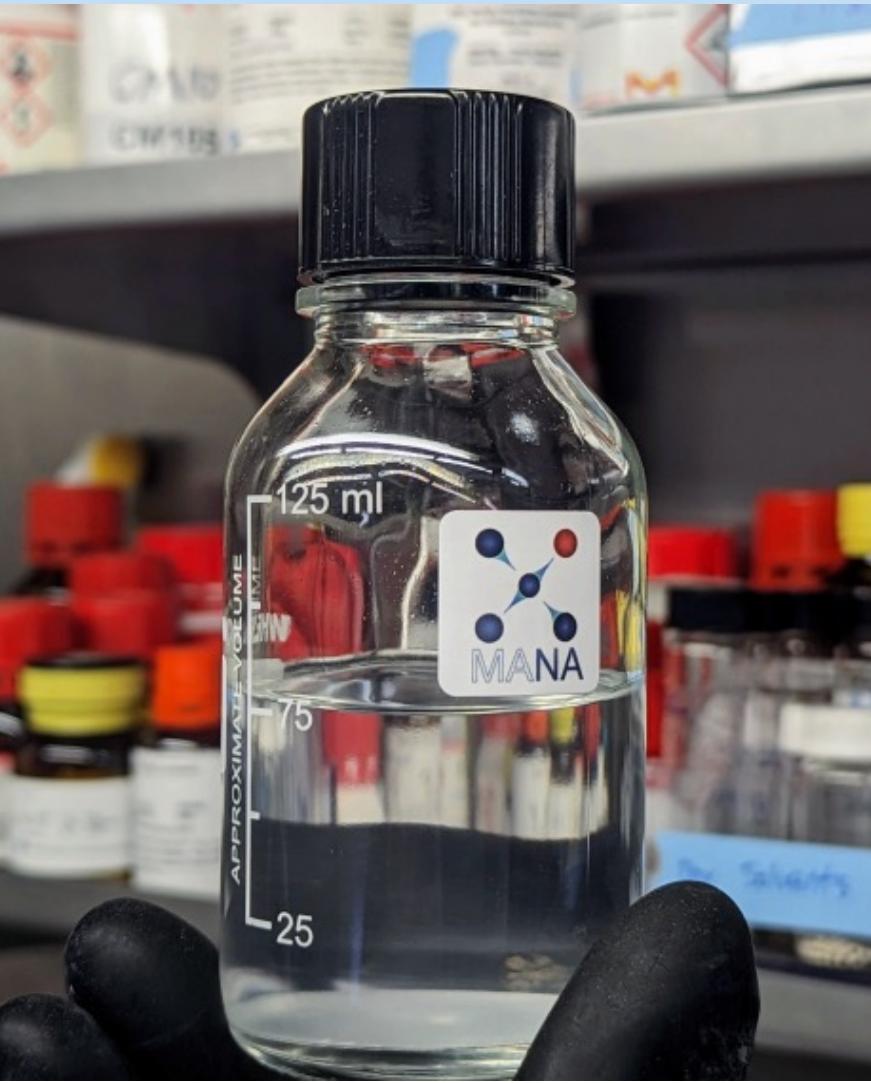
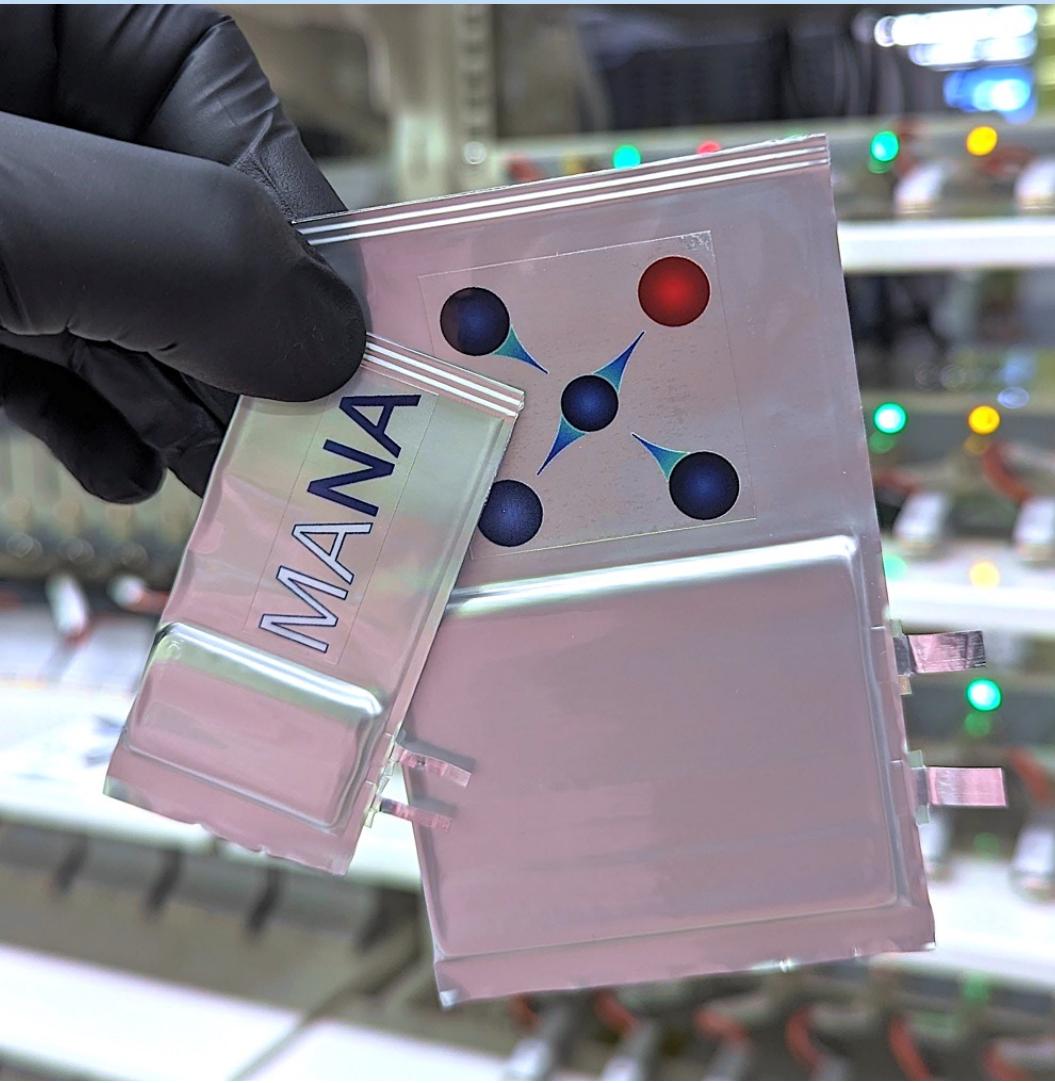
Total Raised: \$47M
Currently Raising: Series C
Investors: Herb Zien, Ken Krei, Steve Einhorn, Matt Ahearn, Tony Bryant, Paul Grunau, WatchHill Wireless

KEY MILESTONES

- IP Portfolio development – 65 Patents to-date
- Third-Party technology validation from NREL and LBNL
- Small-scale customer Installation
- Transition to growth, '24 – '25

IEC PROGRAM

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INCUBATOR



Mana Battery, Inc.

Delivering on the promise of the low-cost sodium-ion battery



MANA



HEADQUARTERS
Broomfield, CO



YEAR FOUNDED
2023

CONTACT

Website: manabattery.us

Email: tyler@manabattery.us

Social Media: linkedin.com/company/manabattery

Mana's sodium-ion battery cell platform enables best-in-class cost, safety, and performance for the grid Energy Storage Systems and low-cost EV markets. Batteries are still 40-60% too expensive for broad application in grid energy storage applications (>4-hour duration), and most of the world still can't buy a <\$20,000 EV. Mana delivers on the promise of the sodium-ion battery through a proprietary cell design that offers higher energy density than most Lithium-ion batteries at half the cost.

FOUNDING TEAM

Tyler Evans, *CEO (Co-founder)*

Nicholas Singstock, *CTO (Co-founder)*

Chunmei Ban, *Chief Scientific Advisor (Co-founder)*

Heather A.S. Platt, *Director of Materials Engineering*

KEY MILESTONES

- Completed initial prototype demonstrations with 2x increased lifetime relative to state-of-the-art, Q4 '24
- Secured 2x MOUs and 2x Testing Agreements, leading to JDA and off-take, Q1 '25

IEC PROGRAM

West Gate



Olokun Minerals

Make a Better Place for Your Waste



HEADQUARTERS
North
Chesterfield, VA



YEAR FOUNDED
2021

CONTACT

Website: olokunminerals.com
Email: Lacey@Olokunminerals.com
Pilanda@Olokunminerals.com
Social Media: linkedin.com/company/olokun-minerals

IEC PROGRAM

West Gate

Olokun Minerals regenerates mineral-rich industrial wastewater and process streams, converting waste into profitable assets, replenishing vital water supplies, and providing mineral-based products that support ocean life and serve critical industries.

FOUNDING TEAM

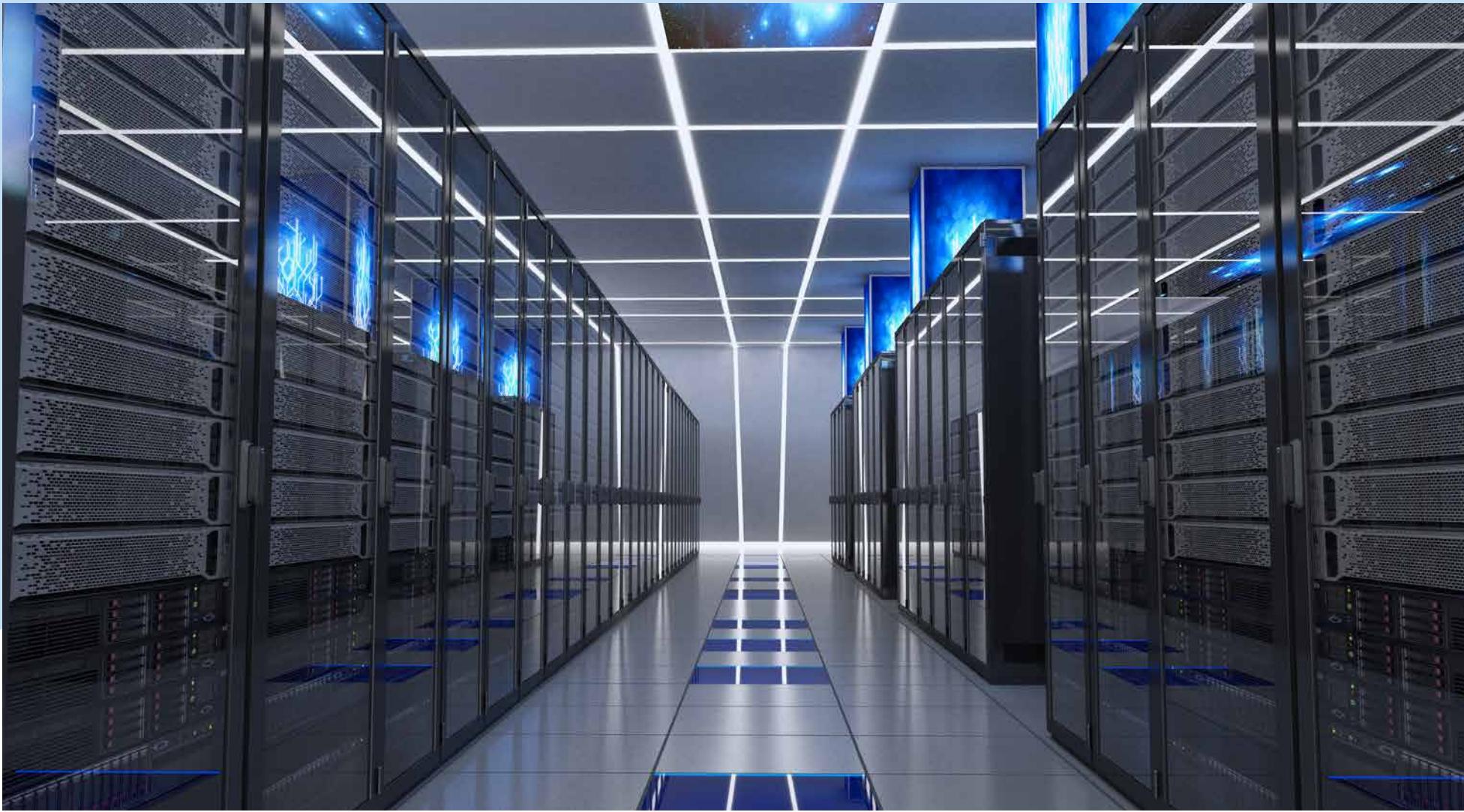
Lacey Reddix, CEO (Co-founder)
Pilanda Watkins-Curry, CTO (Co-founder)

FUNDRAISING

Total Raised: \$1.1M
Currently Raising: Pre-Seed
Investors: Propeller and Textbook Ventures

KEY MILESTONES

- Advanced technical maturity to Technology Readiness Level 4 in '24 and advancing to Technology Readiness Level 6 by '26
- Secured first customer in '24 with additional pending customers in '25



Palanquin Power

Building the world's most efficient data center power supplies



HEADQUARTERS
Golden, CO



YEAR FOUNDED
2024

CONTACT

Website: palanquinpower.com

Email: Michael@palanquinpower.com

Social Media: linkedin.com/company/palanquin-power

Palanquin Power is utilizing innovative power delivery architectures to reduce energy losses in hyperscale data center facilities, enabling future growth for a power-constrained industry.

FOUNDING TEAM

Michael Solomentsev, PhD, CEO & Co-founder

Professor Alex Hanson, Co-founder

FUNDRAISING

Total Raised: \$400K nondilutive

Currently Raising: Pre-seed

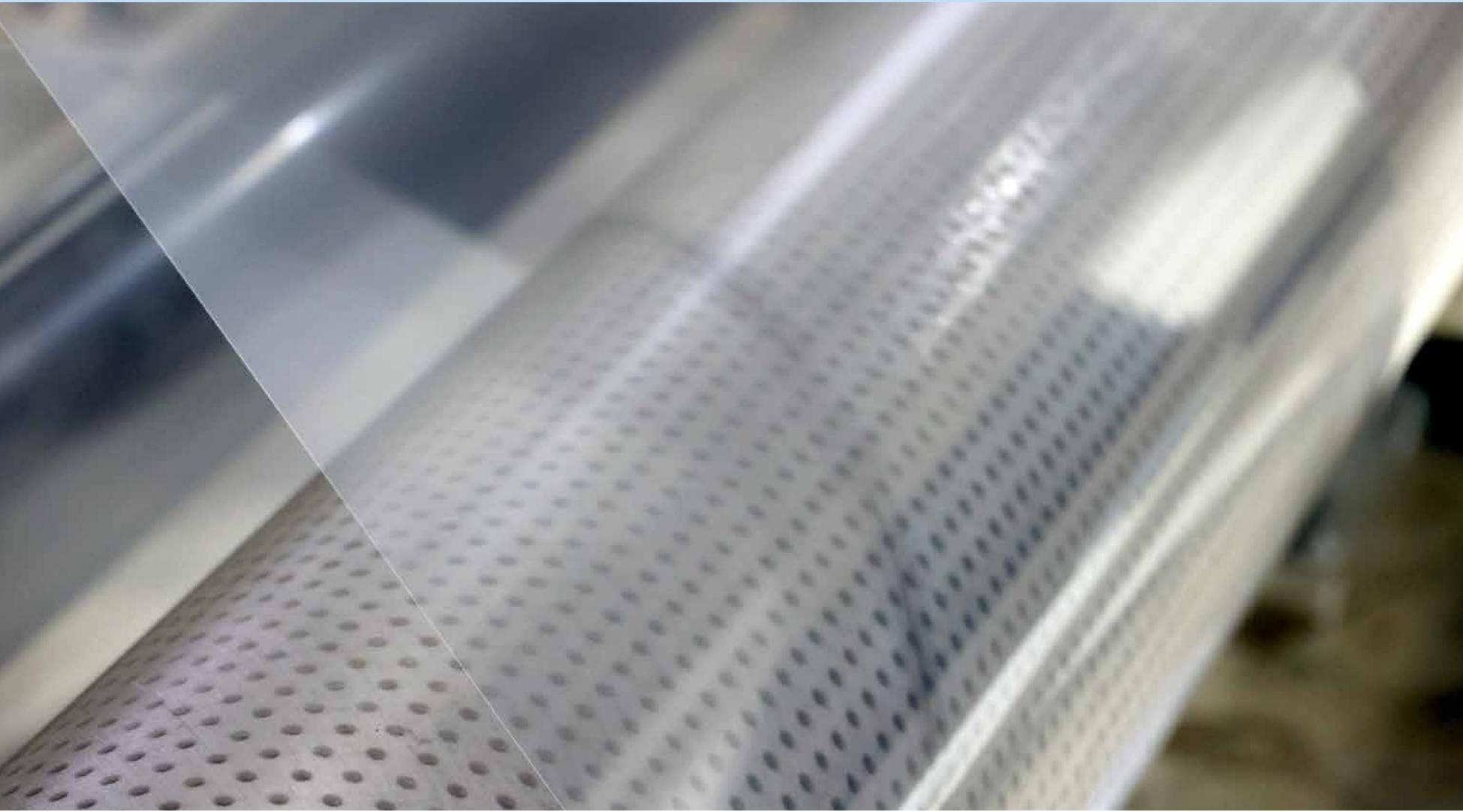
Investors: N/A

KEY MILESTONES

- Accepted into NREL West Gate Cohort 3 in '24.
- Working to develop full-power demonstration unit for deployment in '26

IEC PROGRAM

West Gate



Versogen, Inc.

Innovating AEMs for a net zero planet



HEADQUARTERS
Newark, DE



YEAR FOUNDED
2017

Versogen is a pioneer and leader in anion exchange membranes (AEMs) for low-cost green hydrogen and carbon capture.

FOUNDING TEAM

Dr. Yushan Yan, *CEO, Co-founder*
Dr. Junhua Wang, *Chief Scientist, Co-founder*
Dr. Brian Setzler, *Senior Chem Engineer, Co-founder*
Dr. Keda Hu, *Senior Chemist, Co-founder*
Dr. Lan Wang, *China Market Manager, Co-founder*
Dr. Balsu Lakshmanan, *CTO*
Jim Prendergast, *CCO*
Tim Krebs, *CFO*

KEY MILESTONES

- First sale in '19
- Series A in '22
- 1GW/yr capacity in '23
- Global benchmark for Anion Exchange Membranes by International Energy Agency in '25
- Cash positive in '27 (projected)
- No new capital needed for the next 10x revenue

FUNDRAISING

Total Raised: \$30M
Currently Raising: Series B
Investors: Doosan Investments, HyAxiom, and Pangaea Ventures

IEC PROGRAM

GCxN

CONTACT

Website: Versogen.com
Email: Yushan@Versogen.com
Social Media: linkedin.com/company/versogen



ZILA has developed a bio-epoxy resin to reduce the carbon footprint in composites by 60% and enable product recyclability. ZILA is at pilot stage with customers in the outdoor industry, and conducting lab validation for floor coating and wind turbine blade applications. ZILA is raising funds to prove unit economics and convert letters of intent into purchase orders.

FOUNDING TEAM

Jason Puracal, CEO & Co-Founder
Evan Bouchier, CPO & Co-Founder
Dr. Keithanne Mockaitis, CSO
Brad Clark, CFO
Andy Merriman, Director of Sales

FUNDRAISING

Total Raised: \$3.8M
Currently Raising: Series A
Investors: Tall Grass Ventures, Titus Family, The Heritage Group Accelerator, E8 Angels

KEY MILESTONES

- Passed prototype and in-situ testing with Burton Snowboards, Inc, in Aug '22.
- Secured a letter of intent from Burton to move to full adoption (300 tons/yr) in May '24.
- Completed first production pilot in steel reactors in Feb '25

ZILA Bioworks

Innovating biomaterials and processes that meaningfully prioritize people, planet and performance.



 **HEADQUARTERS**
Issaquah, WA

 **YEAR FOUNDED**
2014

CONTACT

Website: zilabioworks.com
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facebook.com/zilabioworks

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