



AMERICAN
MADE
U.S. DEPARTMENT OF ENERGY

Spring 2024

Alumni Book

Welcome to American-Made

The American-Made program is your fast track to the clean energy revolution. Funded by the U.S. Department of Energy, we incentivize innovation through prizes, training, teaming, and mentoring, connecting the nation's entrepreneurs and innovators to America's national labs and the private sector.

Since 2018, American-Made has launched more than 70 different challenges with over \$260 million in cash prizes to support more than 650 entrepreneurs, startups, communities, students, and leading-edge companies, all with the goal of incentivizing and accelerating new possibilities in renewables and energy efficiency.

Support from an American-Made prize may accelerate research and development (R&D) timelines, give an aspiring entrepreneur her first non-dilutive funding to turn an idea into reality, or help a team overcome the infamous "valley of death."

But the path to commercialization doesn't end when a prize concludes.

We recognize that American-Made is one part of a much larger ecosystem. It's our goal to help connect prize participants in this ecosystem with the right funders, partners, and expertise to continue to bring their products and services to market.

How to Use This Book

We are excited to release the second edition of our Prize Alumni Book. Teams that won any phase of any American-Made Challenge were invited to be included in this book. We asked each alumnus team to submit information about their company, progress, and current business and/or technical needs. All information in this book is provided directly from prize alumni in their own words—we just curated it.

The companies and organizations that you will find in the following pages are eager and ready to connect with you to accelerate their innovations. Whether you are an investor, corporate R&D department, potential customer, prospective partner, or just curious about innovations leading the clean energy revolution, we encourage you to connect directly with any of our alumni using the contact information provided.

The book is organized by prize. Each prize in the American-Made program has a different topic area, structure, duration, and funding amount. Many of our prizes are phased, so a team's progress through the prize is indicated below in their status (semifinalist, finalist, winner). In addition to cash, many of our prizes offer technical assistance vouchers for teams to work with a national laboratory to research, test, or validate their innovations. Cash and vouchers awarded are also included in each team's entry.

We will continue to periodically update this book to give you the most up-to-date information on our alumni and include more teams as we administer more prizes.

—Debbie Brodt-Giles, American-Made Program Manager,
Sarah Gomach, American-Made Senior Prize Lead,
and the American-Made Team

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Community Clean Energy Coalition Prize

Helping community coalitions—made up of nonprofits, city governments, school systems, and other community organizations—come together to develop a strategy to address a local clean energy opportunity or inequity. [Learn more](#)



www.dream.org

Prize Status: Winner; **Prize Winnings:** \$205,000

Contact: Kasheef Wyzard, National Director, Tech - kasheef@dream.org

About the Organization

The Dream.Org Entrepreneurs Network is a coalition of Black and Brown business leaders in the clean energy and climate tech industry who work to deploy energy solutions that address key Justice40 Initiative challenges such as energy burden, access to clean energy, and workforce development.

Audiences/Communities Served

Black and Brown entrepreneurs in the clean energy and green sectors who are working in Justice40 communities.

Recent Successes

Through the Community Clean Energy Coalition Prize, we:

Expanded our network from 7 members to 28 members, increasing BIPOC leadership in the clean energy and climate tech industry

Community Clean Energy Coalition Prize (continued)

Identified two community-led climate projects that are supported through the Dream Entrepreneurs Network.

Contracted a grant writer to help our Network drawdown government and philanthropic climate solution dollars

What They're Looking For

We are looking for continued funding from corporations and philanthropic organizations to continue our work and support federal funds that we are drawing down. We also continue to look for partners to join the Entrepreneurs Network or to form coalitions to access federal funding.

Community Energy Innovation Prize

Supporting teams that provide support, build trust, and strengthen relationships and partnerships with underserved communities while advancing the clean energy transition. [Learn more](#)



Greener CASA

Prize Status: Currently Competing; **Prize Winnings:** \$15,000

Contact: Dr. Nelson Fumo, Associate Professor of Mechanical Engineering - nfumo@uttyler.edu

About the Organization

Creating an academia-community partnership to bring free energy audits to underserved communities to promote energy efficiency.

Audiences/Communities Served

Hispanic low-income households in Smith County, TX

What They're Looking For

Funding

Community Power Accelerator Prize

Fast-tracks the efforts of solar developers to learn and grow their operations to support multiple, successful community solar projects. [Learn more](#)

Energy Allies
Prize Status: Currently Competing; Prize Winnings: \$50,000
Contact: Eli Goldman, Program Manager - Egoldman@energy-allies.org
About the Company We revolutionize the energy system by centering climate-impacted communities through clean energy projects, policy advocacy, and education.
Technology Readiness Level (TRL): TRL 3 - Analytical and experimental critical function and/or characteristic proof of concept
Recent Successes
What They're Looking For We are seeking funders interested in supporting community-led, community-owned renewable energy systems. Our projects promote energy democracy and advance energy justice in climate-impacted communities. We would be excited to connect with a partner on educational events and community-owned solar projects in climate-impacted communities.

RETI Center
www.reticenter.org
Prize Status: Currently Competing; Prize Winnings: \$50,000
Contact: Kaila Wilson, Director of Energy Development - kaila@reticenter.org
About the Company RETI Center's mission is to educate, train, and work with local youth, experts, professionals, and community members to transform our coastal city from one that is driven by fossil fuels to one balancing equity, ecology, and economy. We believe experiential learning and innovative ideas empower all of society to adapt and thrive together.

Community Power Accelerator Prize (continued)

Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment

Recent Successes

Have so far trained 41 people living in environmental justice communities in entry-level solar installation. So far 32 have been placed in paid-internships, full-time jobs, and/or continuing education programs.

What They're Looking For

Funding opportunities to support our community-owned and community-led community solar and workforce training program. Additionally, looking for interested NY building and land owners interested in community solar projects for their buildings/land.



MANA PACIFIC
IMPACT COMPANY

Mana Pacific

www.manapacific.com

Prize Status: Currently Competing; **Prize Winnings:** \$50,000

Contact: Sierra Jackovics, Energy Policy Manager - sierra.jackovics@manapacific.com

About the Company

'Mana' throughout the Pacific is the "life force" within all living things and Mana Pacific is a social impact company and benefit corporation that develops, finances, and derisks scalable island resiliency and renewable energy projects across Hawaii and the 22 Pacific Island Territories and Countries.

As a social impact company, we prioritize doing work that consciously solves local community needs. We are addressing energy and resource scarcity and climate risk in the Pacific by employing transformational, disruptive, and regenerative business models and solutions to create opportunities for change at every segment of the economic spectrum.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Recent Successes

Currently co-developing the state of Hawaii's first ever 100% community-owned and designed projects, which are also the island of Molokai's first community solar projects ([details](#))

Signed MOU with Tonga Power Limited to move ahead with a 20 MW solar PV + battery storage project

Community Power Accelerator Prize (continued)

Signed MOU with the Lau Provincial Council in Fiji to develop solar mini-grids on the off-grid outer islands of the Lau Group

Early development 5MW community solar project in American Samoa underway

What They're Looking For

Majority funding partner—equity or debt—for both company investment and project investment partners (above \$10 million) that are open to Hawaii, U.S. Territories, and/or Pacific Island Countries. Specifically looking for ~\$10 million of debt and equity financing for our community solar project in American Samoa and ~\$14 million of debt financing for our community solar project in Molokai by Q3 2024.

North End Woodward Community Coalition

www.mynewcc.org

Prize Status: Currently Competing; **Prize Winnings:** \$50,000

Contact: Mary Braun, Green Projects Manager - mary@wnuc.org

About the Company

We are looking to develop an innovative community solar solution and eventual SEU that serves LMI households in the North End Detroit, Hamtramck, and Highland Park communities.

Technology Readiness Level (TRL): TRL 2 - Technology concept and/or application formulated

Recent Successes

What They're Looking For

Next funding round, and a technical partner to assist us in designing our first microgrid.



Legacy Solar Co-op Wisconsin

<https://legacysolarcoop.org>

Prize Status: Currently Competing; **Prize Winnings:** \$50,000

Contact: Kurt Reinhold, CEO/Founder - kurt@legacysolarcoop.org
About the Company Since 2014 we have been improving member access to investing in solar while optimizing quality and value for all stakeholders. Through our work, we see our stakeholders developing enough community solar capacity to be able to replace the energy coming from one coal-fired power plant in Wisconsin, or 250 MW, in the next decade.
Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration
Recent Successes We have led or co-led the development of more than 4MW of solar installations, mostly in Wisconsin.
What They're Looking For Wisconsin communities interested in community solar and citizens wanting to own a part of a solar installation and reap its benefits.

Sovereign Resiliency Partners, LLC
www.svrpartners.com
Prize Status: Currently Competing; Prize Winnings: \$250,000
Contact: Mark Harding, Managing Partners - mark@svrpartners.com
About the Company Optimal energy and resource management solutions for Native American tribes.
Technology Readiness Level (TRL): TRL 3 - Analytical and experimental critical function and/or characteristic proof of concept
Recent Successes We have one Native American Community Solar project that is 100% financed through government grants and the Investment Tax Credits/Direct Pay program. The project needs a temporary construction loan that the Direct Pay program will pay after taxes are filed.
What They're Looking For We are looking for bridge capital (temporary construction loans) and part of the financial stack.



Solar United National, LLC

www.solarunitednational.com

Prize Status: Currently Competing; **Prize Winnings:** \$150,000

Contact: Brad Leon, Chief Executive Officer - brad@solarunitednational.com

About the Company

We are a South Carolina-based for-profit company that develops solar, storage and EV charging locations to provide governments, businesses and communities with reduced expenses and continuous income. Our workforce development training centers focus on providing all students the opportunity to gain access to the renewable energy economy's high paying jobs. Every site pays respect to the unique heritage of the community, and doubles as a resiliency hub that provides services during disasters.

Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment

Recent Successes

We completed our first green jobs introduction class in Aiken, SC. With our community partners, The Umoja Village and The Imani Group, 14 students completed a three-week, paid course teaching employment soft skills, OSHA10, and solar panel and electric vehicle charger installation. We brought in solar installation and electric contractor companies to interview the students.

WRDW news covered the class on their local news: <https://www.wrdw.com/2023/11/14/new-solar-training-program-helps-fill-gaps-industry/>


What They're Looking For

Funding to raise capital for creating projects. We used the initial funds to create and execute our first, paid, workforce training, but we need additional capital to secure construction loans to create our solar projects.



Community Power Accelerator Prize (continued)

SAGE Development Authority
www.sagesrst.com
Prize Status: Semifinalist; Prize Winnings: \$50,000
Contact: Quita Hines, Solar Project Coordinator - quita@sagesrst.com
About the Organization The SAGE Development Authority (SAGE), a 100% Native-led organization with a women-led board of directors is dedicated to community development, institution building, and self-determination for the Standing Rock Sioux Tribe. Through the Community Power Accelerator Prize we generated solar photovoltaic feasibility studies for 150 kW in community solar at eight Standing Rock Sioux Tribe Reservation District buildings.
Audiences/Communities Served All 8 districts in Standing Rock
Recent Successes Our solar project has achieved significant success in revitalizing the feasibility of our buildings. Previously, the structures were not viable, but through diligent efforts, we've been able to maintain and preserve them for the project's specific needs. Exciting developments are unfolding within our tribe, marked by the establishment of a dedicated building committee. This committee, empowered by the tribe, is proactively hiring its own appraiser for solar projects at Standing Rock. As part of our commitment to progress, we are also in the process of digitizing community-owned blueprints, ensuring a forward-thinking approach to our solar initiatives and fostering sustainable growth
What They're Looking For We are seeking comprehensive support to further advance our organization and propel our prize-related program. This includes financial assistance for ongoing and upcoming projects, potential partnerships to enhance collaboration and resource-sharing, educational resources to strengthen our team's skills and knowledge, and any other forms of support that can contribute to the sustainable growth and success of our initiatives. We believe that a holistic approach to support, encompassing funding, partnerships, and education, will enable us to maximize our impact and achieve long-term success in our mission.

 Groundswell
www.groundswell.org
Prize Status: Currently Competing; Prize Winnings: \$250,000
Contact: Marta Monti, Director of Project Development - marta.monti@groundswell.org

Community Power Accelerator Prize (continued)

About the Organization

Groundswell is a 501c3 nonprofit that builds community power through equitable community solar projects and resilience centers, clean energy programs that reduce energy burdens, and pioneering research initiatives that help light the way to clean energy futures for all. Groundswell leads clean energy programs and projects in five states, including the District of Columbia, providing low- and moderate-income households more than \$6.8 million in clean energy savings to date. The Community Power Accelerator Prize supported Groundswell's work in expanding community solar projects while exploring and developing innovative financial models to enable community project ownership.

Audiences/Communities Served

Underserved, low- to moderate-income communities

Conductivity-enhanced materials for Affordable, Breakthrough Leapfrog Electric applications (CABLE) Prize

Encourages researchers and inventors to design affordable conductors that demonstrate significant enhancements in conductivity and enable U.S. manufacturers to leapfrog to next-generation materials. [Learn more](#)



TS Conductor, Inc.

tsconductor.com

Prize Status: Currently Competing; **Prize Winnings:** \$200,000 + \$100,000 voucher

Contact: Savannah Cole, Office Manager - Savannah.Cole@tsconductor.com

About the Company

Formed in 2018, TS Conductor (Total Solution), Inc. developed a conductor that outperforms all current transmission and distribution conductors on the market. We take pride in our Minority Business Enterprise designation, and draw strength from the diversity in our team of global business and technical leaders with deep experience in wire and composite core conductor manufacturing and applications.

The result is a product that requires no compromises. TS Conductor is safe, reliable, easy to work with, and offers the conductivity and efficiencies that reflect our commitment to sustainability in the ongoing green revolution.

Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment

Recent Successes

TS baseline conductor technology is already commercially deployed in both new transmission lines (Basin) and reconductoring (MDU), including substantial CAPEX savings to the utilities.

What They're Looking For

We seek funding support to scale the TRL8 product at much bigger scale for debottlenecking the PowerGrid, while also seeking funding to further the TRL4 technologies.

Digitizing Utilities Prize

Connects utilities with teams of software developers and data experts to transform digital systems in the energy sector for utilities. [Learn more](#)

SIEMENS

Siemens Corporation, Technology

<https://www.siemens.com/us>

Prize Status: Currently Competing; **Prize Winnings:** \$75,000

Contact: Bruno Paes Leao, Research Scientist - bruno.leao@siemens.com

About the Company

Siemens Technology U.S. is Siemens' U.S. research and development hub with more than 200 scientists, engineers, and researchers located in Princeton, Berkeley, and Charlotte. Together with its Siemens' business units and government and university partners, they create technology focused on innovation fields with high relevance for both Siemens and society, ultimately empowering its customers to positively transform the industries that form the backbone of the U.S. economy—industry, infrastructure, transport, and healthcare. Scalable Labeling for Data Enrichment (ScaLaDE) project is led by Siemens Technology U.S.'

Dr. Bruno Paes Leao and is one of the winners of the first phase of this DOE prize. Southern Methodist University (Prof. Jianhui Wang) is also part of the project team. The ScaLaDE concept is based on the use of machine learning to enrich large datasets of power systems multivariate time series data with information that can be employed for comparison and labeling of relevant patterns in the data. Such information facilitates the execution of key tasks such as anomaly detection, clustering and classification.


Technology Readiness Level (TRL): TRL 3 - Analytical and experimental critical function and/or characteristic proof of concept

Recent Successes

N/A

What They're Looking For

We are looking for collaborators and partners for future research and pre-development activities.

 <p>Dirkius</p>
www.dirkius.com
Prize Status: Currently Competing; Prize Winnings: \$75,000
Contact: Shane Pederson, Founder - shane.pederson@dirkius.com
About the Company We designed Automativity, a systems integrator using robust technologies, user-first design principles, and a knowledge of the utilities industry to lessen the administrative and data-quality efforts of its engineers and operators. Addressing data-quality and administrative issues head-on with a powerful utilities-focused systems integrator will free up the time of engineers and operators so they can focus on what really matters: maintaining constant service levels for their customers.
Technology Readiness Level (TRL): TRL 3 - Analytical and experimental critical function and/or characteristic proof of concept
Recent Successes N/A
What They're Looking For We're looking for partnership opportunities

Electrify USA (University of California - Riverside)
https://intra.ece.ucr.edu/~nyu/
Prize Status: Winner; Prize Winnings: \$300,000
Contact: Nanpeng Yu, Associate Professor - nyu@ece.ucr.edu
About the Organization The Electrify USA team is led by University of California - Riverside. Our industry partners include Exelon, Baltimore Gas and Electric Company (BGE), and Pepco Holdings (PHI). Our involvement in the Digitizing

Digitizing Utilities Prize (continued)

Utilities Prize supported the development of a software platform to accelerate the integration of passenger electric vehicles in power distribution systems.

Audiences/Communities Served

Electric utilities

Recent Successes

The competition fostered the development of an integrated, data-driven planning platform for predicting EV adoption, charging profiles, and impacts on the distribution network at the feeder level. The software solutions were validated and adopted by our electric utility partners.

What They're Looking For

We are looking for electric utility partners to join us in pilot demonstration projects and to adopt the integrated and data-driven planning platform. In addition, we are seeking electric utility partners to work collaboratively and extend the current technology solution to include medium- and heavy-duty electric vehicles.

Powder River Energy Corporation (PRECorp)

www.precorp.coop

Prize Status: Finalist; **Prize Winnings:** \$75,000

Contact: Quentin Rogers, Vice President of Engineering and Technical Services - quentinr@precorp.coop

About the Organization

PRECorp is a non-profit electric cooperative in northeast Wyoming that developed a ML process to review AMI meter data to determine locations of physical connection issues in order to reduce risk of wildfire and improve reliability for its members.

Audiences/Communities Served

Electrical utilities and their members/customers

Recent Successes

The program has been implemented for PRECorp and has kept hundreds of outages from occurring since it was installed. Reducing these types of outages also reduces overall risk of wildfires from ignition sources.

Energy Storage Innovations Prize

Aims to gain insight on innovative, emerging, and next-generation energy storage technologies to accelerate grid modernization and decarbonization. [Learn more](#)

NerG Solutions
www.nergsol.com
Prize Status: Finalist; Prize Winnings: \$10,000
Contact: Ayyoub Momen, CEO - amomen@nergsol.com
About the Company Our technology can help utilities and industry to meet their decarbonization goals faster. Our novel energy storage technology is: <ul style="list-style-type: none">○ Energy Density ~ 20 kWh/m³○ Modular and scalable from 1 MW–1000 MW+○ Less expensive than batteries○ Last 40+ years○ It can be sited anywhere○ Site permitting is easy and quick○ Very reliable○ Has the round trip efficiencies >70%○ No toxic or fire hazard
Technology Readiness Level (TRL): TRL 2 - Technology concept and/or application formulated
Recent Successes Prototype development
What They're Looking For Capital / Workforce

Cache Energy
www.cache-energy.com
Prize Status: Finalist; Prize Winnings: \$10,000
Contact: Arpit Dwivedi, CEO/Founder - arpit@cache-energy.com

Energy Storage Innovations Prize (continued)

About the Company

Long-duration energy storage in a solid fuel that can be safely installed anywhere and transported everywhere. Once charged the solid material holds energy at room temperature, insulation free indefinitely with zero loss.

Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment

Recent Successes

N/A

What They're Looking For

Pilot Partners, Passionate team members



Rondo Energy



www.rondo.com

Prize Status: Finalist; **Prize Winnings:** \$10,000

Contact: Conner Gordon, Director of Marketing - conner.gordon@rondo.com

About the Company

Rondo Energy's product, the Rondo Heat Battery (RHB) meets the demanding needs of industry for safe, simple, low-cost energy by economically replacing fossil fuel-fired furnaces and boilers with zero-carbon heat

Energy Storage Innovations Prize (continued)

from electricity—unlocking energy prices for America’s industries that are both more affordable and predictable.

The RHB provides zero-carbon, low-cost industrial heat to heavy industrial processes ranging from baby food production to cement and steel manufacturing. It does this by capturing low-cost renewable electricity and providing on-demand delivery of high-temperature heat in the form of hot air, steam, or hot water. Rondo helps customers lower their operating costs while continuously powering operations with zero-carbon energy.

Rondo not only helps replace fossil fuels for some of the most challenging sectors to decarbonize, but its technology can also help stabilize the grid by reducing curtailment and making use of excess renewable electricity.

Rondo is manufacturing its heat batteries in its facilities in California and has begun commercial deliveries.

Technology Readiness Level (TRL): TRL 7 - System/process prototype demonstration in an operational environment

Recent Successes

Calgren Renewable Fuel's 2 MWh Rondo Heat Battery captures intermittent renewable electricity, stores it at temperatures exceeding 1,000 °C in brick materials, and delivers continuous industrial heat on demand. Calgren Renewable Fuels produces the world’s lowest carbon intensity (CI) ethanol, biodiesel and RNG at their Pixley, California facility. Rondo is proud to be working with Calgren on this first step in further reducing both the cost of production and the carbon intensity of today’s biofuels.

RHBs are designed to integrate seamlessly into both existing and new facilities, This RHB was installed and commissioned without causing a single hour of facility downtime.

The RHB is delivering heat to Calgren on a Heat-as-a-Service (HaaS) basis, supplying energy at a cost per MMBtu lower than gas-fired heat. Rondo’s HaaS enables industrial producers to enjoy low and predictable energy costs without upfront capital.

Key Milestones and Value Drivers:

First-of-its-Kind Energy Storage: This is the first electric thermal energy storage (ETES) system in commercial operation in the U.S. ETES technologies are an important new tool for decarbonization because they deliver industrial heat using half as much electricity as green hydrogen.

Highest Temperature Heat: This installation is the highest temperature ETES system in commercial operation worldwide, storing and transferring energy above 1,000 °C. Rondo Heat Batteries provide both industrial steam and the high temperature heat needed for producing steel, chemicals, cement, and other industrial processes.

Lower Cost Energy: This project delivers cost savings to Calgren by reducing energy costs. Because energy is a major portion of total operating costs for fuel producers and other industries, lower cost energy improves industrial competitiveness, preserves jobs, and encourages investment.

Highest Efficiency Storage: This Rondo Heat Battery is among the highest efficiency energy storage of any kind in the world, with documented efficiency over 90%. Larger Rondo Heat Batteries store energy at over 98% efficiency.

What They’re Looking For

We are looking for early commercial deployments, as we already have a commercial installation online today in California with a second project under construction. We seek to accelerate deployments across the

Energy Storage Innovations Prize (continued)

industrial sector, as well as engage with prospective project financiers and investors for future fundraising rounds.



KineticCore Solutions

www.kineticcore.com

Prize Status: Winner; **Prize Winnings:** \$50,000

Contact: James Clegern, President/CTO - james@kineticcore.com

About the Company

KineticCore Solutions (KCS) offers an evolutionary leap forward in non-chemical energy storage, creating a deployable, safe, and cost-competitive alternative for commercial, industrial, and utility peak power support applications in the 30 kWh+ sizes. Our high-power, high-cycle life “Kinetic Batteries” become an extremely effective solution for clients who need to reduce a facilities peak power load, especially when they have high-power spikes (HVAC, EV fast charging, furnaces, refrigeration, pumps, etc.) that draw 100+ kW periodically during the day (up to 48 cycles per day, but not continuous operations). Reducing a facility's electrical operational expenses up to 60% leads to 12-36 month Returns On Investment with continued OPEX savings \$24k-\$36k per year for the 25+ year life of the Kinetic Battery system. KCS Kinetic Batteries can also significantly reduce the grid power required for new or upgrading facilities, often with an instant ROI.

Technology Readiness Level (TRL): TRL 5 - Component and/or process validation in relevant environment

Recent Successes

N/A

What They're Looking For

Entering seed round with accredited angel investors during summer 2023 in preparation for recruiting strategic pilot partnerships.

Gravity Power LLC

www.gravitypower.net

Prize Status: Winner; **Prize Winnings:** \$50,000

Contact: Jim Fiske, Chief Technology Officer - jfiske@gravitypower.net

About the Company

A Gravity Power plant is a simple, reliable, and elegant upgrade to pumped hydro. It uses conventional pumped hydro equipment but replaces problematic reservoirs with an underground shaft and piston design. This improves efficiency, vastly reduces land requirements, and avoids detrimental environmental impact. This results in massive storage capacity with a very low LCoS.

Technology Readiness Level (TRL): TRL 5 - Component and/or process validation in relevant environment

Recent Successes

Stantec, one of the premier pumped hydro engineering firms worldwide, completed a technical feasibility study/fatal flaws analysis of our technology in 2022 and determined it is buildable and will perform as expected.

What They're Looking For

We are seeking a \$5 million round to fund IP development, component tests, detailed system design and simulation, third party verification of costs, management team expansion, and a submission to the DOE Loan Program.



Thermal Mechanical Energy Storage LLC (THEMES)

www.themesllc.com

Prize Status: Finalist; **Prize Winnings:** \$10,000

Contact: Ben Hoffman, VP Business Development - ben@themesllc.com

About the Company

Thermal Mechanical Energy Storage (THEMES) LLC repurposes idle gas wells for thermal and mechanical energy storage systems, initially innovating on traditional compressed-air energy storage (CAES) methods. Our unique technique eliminates the need for natural gas on the surface, providing a carbon-free CAES system, while utilizing the saline aquifer zone via idle wells for storage. This not only manages the surplus of idle wells near underserved communities, but also significantly reduces CAES storage costs.

We aim to promptly establish 6 GWh (100+ MW, 12 hours) of power generation nationwide by 2030 by circumventing typical greenfield permitting obstacles and leveraging oil and gas offtake customers. Post scale-up and optimization, we project storage costs as low as \$1/kWh at 100 MW scale, and an LCOS of \$0.05/kWh by 2030.

Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment

Recent Successes

THEMES has assembled top talent with decades of deep experience in both subsurface and surface equipment and technology while building a partnership ecosystem of USC, EPRI, NREL/ORNL, and Rotating Equipment and EPC partners. Most of all we are proud of the support letters we have received from the Central Valley community and the state of California to build our 5 MW demonstration plant.

What They're Looking For

THEMES is raising a pre-seed round between \$2-5 million to expand the team and accelerate the development of a 5 MW, 12-hour commercial demonstration.



FOURTH POWER

Fourth Power (formerly Thermal Battery Corporation)

www.gofourth.com

Prize Status: Finalist; **Prize Winnings:** \$10,000

Contact: Asegun Henry, Founder & CTO - ase@gofourth.com

About the Company

Our technology makes renewable energy an on-demand energy source through utility-scale thermal storage. We can harness today's wasted wind and solar production to respond to grid needs at a cost that's competitive with fossil fuels. Our modular battery can provide 5-10 hours of storage to meet needs now and scale with renewable deployment for needs up to 100 hours and any increment in between. With the ability to provide short- and long-duration energy storage (LDES), we can start small and grow with the grid to save consumers money and ensure a clean energy future.

Technology Readiness Level (TRL): TRL 5 - Component and/or process validation in relevant environment

What They're Looking For

We are looking for the most talented, creative and mission-driven engineers to build our first at-scale demonstration of the battery. We are also interested in speaking with grid operators about commercialization opportunities.

Envelope Retrofit Opportunities for Building Optimization Technologies (E-ROBOT) Prize

Designed to catalyze the development of minimally invasive, low-cost, and holistic building envelope retrofit solutions that make retrofits easier, faster, safer, and more accessible for workers. [Learn more](#)



Apellix

www.Apellix.com

Prize Status: Finalist; **Prize Winnings:** \$100,000

Contact: Robert (Bob) Dahlstrom, Founder & CEO - r.dahlstrom@Apellix.com

About the Company

At Apellix, we make drones that perform real work, such as power washing, painting, and testing (for corrosion and paint thickness).

Our technology revolutionizes industries making elevated projects safer, faster, and less expensive.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Recent Successes

N/A

What They're Looking For

Seed round funding



FLX Solutions, Inc.

www.flxsolutions.com

Prize Status: Winner; **Prize Winnings:** \$866,666

Contact: Matt Bilsky, Founder and CEO - matt@flxsolutions.com

About the Company

FLX Solutions is dedicated to solving real world problems with cutting-edge robotics in industries that are overdue for innovation. The FLX BOT, the company's anchor product, is a patented 1" diameter collaborative robot that can be used by operations and maintenance technicians to access hard-to-reach places in critical systems and equipment to minimize downtime. Its modular configuration is made up of identical, interchangeable links that each have a camera and sensors for autonomous obstacle avoidance. Customizable end effectors can be easily interchanged including 360 degree, thermal, and 3D cameras, grippers, caulk dispensers, aerosolized sprayers, leak detectors, etc. to help perform maintenance tasks more efficiently and safely.

Technology Readiness Level (TRL): TRL 5 - Component and/or process validation in relevant environment

Recent Successes

- We have been performing numerous live and paid demos with our recently completed 3-link FLX BOT and joystick interface.
- Top 10 finalist in Navy Tank inspection competition and performed paid demo aboard the U.S.S Midway
- New demo reel: <https://youtu.be/tzAXzlgv45s>
- Finding a leak in a kitchen wall: <https://youtu.be/Kq2TKwLySxs>
- News and blog posts: <https://www.flxsolutions.com/news>

What They're Looking For

- FLX Solutions currently has a long list of customers waiting to buy FLX BOTs and are raising funds to cover manufacturing and strategic hiring costs
- Individual angel/strategic VC investors to close out remaining \$400K of \$850K pre-seed convertible note
- Demo and pilot partners in high-availability industrial facilities (e.g. large manufacturer, airport, transit MTA/BART)

Equitable and Affordable Solutions to Electrification (EAS-E) Home Electrification Prize

Rewards innovative solutions to advance widespread electrification upgrades in residential buildings. [Learn more](#)



Aris Hydronics

www.arishydronics.com

Prize Status: Currently Competing; **Prize Winnings:** \$5,000 + \$75,000 voucher

Contact: Robert Benjamin, CEO - home@arishydronics.com

About the Company

Aris Hydronics is an award winning clean HVAC startup developing all electric, efficient, combi systems for heating, cooling, and hot water. We specialize in advanced technologies utilizing heat pumps and hydronics that make buildings better by lowering energy bills, increasing occupant comfort and control, and by cutting greenhouse gas emissions. By utilizing the superior thermodynamic properties of water for thermal energy storage and delivery along with strategic use of high performance ultra-low GWP natural refrigerants, the ARIS systems offer many design, performance, and carbon reduction advantages over current state-of-the-art split heat pump systems.

Technology Readiness Level (TRL): TRL 7 - System/process prototype demonstration in an operational environment

Recent Successes

What They're Looking For

We are currently looking for funding to secure certifications ahead of the commercial launch of our residential single family ARIS Combi System, as well as to fund the continued development of our Modular Thermal Plant system for multi-family and commercial buildings. We are looking for additional pilot partners for both system types.



NeoChargeTM

NeoCharge

www.getneocharge.com

Prize Status: Currently Competing; **Prize Winnings:** \$5,000 + \$75,000 voucher

Contact: Spencer Harrison, CEO - spencer@neocharge.io

About the Company

NeoCharge seamlessly integrates software and hardware solutions to optimize home EV charging and energy usage. NeoCharge's flagship product, the Smart Splitter, enables EV adoption and home electrification by making access to 220-volt power clean, easy, and affordable. NeoCharge's Connect platform is a vehicle-integrated software that helps EV drivers track their energy costs, reduce their carbon emissions, and save money on their utility bills through intelligent charge scheduling.

Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment

Recent Successes

We are growing our utility partnerships, software, and Smart Splitter revenue and impact. In the running for numerous grant opportunities.

Floating Offshore Wind Readiness (FLOWIN) Prize

Paving the way for the cost-effective domestic manufacturing and deployment of commercial utility-scale floating offshore wind energy turbines in U.S. waters.



PelaStar, LLC

www.pelastar.com

Prize Status: Currently Competing; **Prize Winnings:** \$100,000 + \$75,000 voucher

Contact: Ben Ackers, Managing Director - bbackers@glosten.com

About the Company

PelaStar is a leading tension leg platform (TLP) for offshore floating wind energy with a long history of technology maturation and currently engaged in commercialization globally. PelaStar offers project developers unique benefits with its simple but robust design supported by a complete set of project execution services. In the end, this will increase developer and wind farm operator profitability and reduce their project risks.

Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment

Recent Successes

N/A

What They're Looking For

We are pursuing ~\$4-8 million of Series A funding to enable organizational scale up and commercialization. We are also seeking partners to support pilot project development.



ESTEYCO, LCC



www.esteyco.com

Prize Status: Currently Competing; **Prize Winnings:** \$100,000

Contact: JOSÉ SERNA, CTO - angeles.ortega@esteyco.com

About the Company

Our patented innovation is called WHEEL technology (Wind Hybrid Esteyco Evolution for Low-carbon solutions) and it is a breakthrough solution for floating wind.

This innovative technology provides an efficient solution to today's big challenges of the wind energy market which are mainly how to create competitive floater industrialization strategies avoiding supply chain bottlenecks and promoting local economic benefits.

WHEEL is an evolved spar floating platform which delivers an unparalleled reduction in the required width and draft of the floaters in harbor. Combined with extensively proven techniques for serial production of harbor concrete caissons on floating barges, WHEEL drastically reduces the requirements on the harbor infrastructure needed for floater construction, overcoming one of the key challenges that the industry faces for large scale deployment on the West Coast.

In addition, WHEEL allows for a major reduction in material usage, with the corresponding benefits in terms of cost and carbon footprint.

Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment

Recent Successes

Our company is deeply committed to renewable energy in order to achieve the desired net-zero emissions by 2030. With this goal in mind, we have designed and patented the [ELISA technology](#), a revolutionary

FLOWIN Prize (continued)

solution allowing for the crane-free installation of fixed-bottom offshore wind turbines operating in the Canary Islands since 2019.

Furthermore, we have designed and patented the ATOMS technology, a breakthrough platform to perform large-corrective operations and maintenance actions in both fixed-bottom and floating wind turbines of which a pilot will be ready in summer 2024; and, last but not least, the patented WHEEL technology for floating wind of which a pilot will be built, certified, installed, and in operation in 2025.

What They're Looking For

The final demonstrative step prior to commercialization of the WHEEL technology shall be completed with an operative 6 MW pilot of the WHEEL floater to be built in the Canary Islands. This currently ongoing pilot project has received €16.6 M funding from the EU commission and will deliver an operative pilot in the water in 2025. Esteyco is leading a capable European Consortium who will complete the project and is undergoing conversations with investors interested in acquiring the asset after project completion (\$8-10M investment to acquire a 6 MW operative floating wind turbine).

The WHEEL concept has undergone multiple designs for large-scale commercial application, including a West Coast-specific design developed as part of the NOWRDC project "Evolved spar concrete substructure for floating offshore wind (WHEEL technology); U.S. based design for large scale turbines." Such design was developed in close collaboration with NREL to adequately support the IEA15 MW wind turbine in conditions representative of the Morro Bay area in California.

Thanks to the FLOWIN prize, Esteyco will show that the WHEEL technology is suitable for U.S. mass manufacturing and large-scale deployment. Our next objective in the U.S. is to find partners willing to invest in the commercialization and exploitation in the U.S. of the technology and to support the required engagement with the local supply chain and stakeholders.

Geothermal Geophone Prize

Designed to address the challenges of operating seismic sensors in geothermal environments. [Learn more](#)

DNV
www.dnv.com
Prize Status: Currently Competing; Prize Winnings: \$75,000 + \$75,000 voucher
Contact: Bill Kovacs, Principal Engineer - William.Kovacs@dnv.com
About the Company Seismic sensors provide a key to the management of drilling, fracturing, operation and safety monitoring for the burgeoning geothermal energy industry. The limitation on traditional seismic sensors is the thermal stability of the electronics at the temperatures observed downhole. We are employing sensor technology pulled from the aerospace industry, together with a cutting-edge amplifier circuitry inside of proven geothermal/oil-and-gas tooling, to extend the operational envelope of seismic sensors.
Technology Readiness Level (TRL): TRL 3 - Analytical and experimental critical function and/or characteristic proof of concept
Recent Successes
What They're Looking For Our next round of funding.

Geothermal Manufacturing Prize

Catalyzing geothermal manufacturing innovation by harnessing the rapid advances in additive manufacturing. [Learn more](#)

THE BIT GUYS

Geothermal Hammer Bit

The Bit Guys

<https://hewittenergystrategies.com/hot-hammer>

Prize Status: Finalist; **Prize Winnings:** \$283,333 + \$150,000 voucher

Contact: Jay Hewitt, Owner - jhewitt@hewittenergystrategies.com

About the Company

"The Bit Guys" is a collaboration between Hewitt Energy Strategies and Stryker Underbalanced with the goal of bringing air hammers to extreme temperatures.

Technology Readiness Level (TRL): TRL 7 - System/process prototype demonstration in an operational environment

Recent Successes

Testing is complete

What They're Looking For

We are looking for partners that would like to fund/drill geothermal wells.

Rapid Prototypes LLC

www.rapidprototypesllc.com

Prize Status: Winner; **Prize Winnings:** \$783,333 + \$150,000 voucher + \$200,000 field testing costs

Contact: Jeffrey Johnston, Principal Engineer - jjohnston@rapidprototypesllc.com

Geothermal Manufacturing Prize (continued)

About the Company

Using additive manufacturing to open design techniques, we have designed, built, and characterized a novel heat sink to elongate the dwell time of electronics in geothermal applications.

Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment

Recent Successes

Not yet, but keep your eyes open for end of Q3 field test results!

What They're Looking For

We are currently planning and will soon be field testing the technology to increase to TRL5. After the field testing, we are looking for partners who will work with us to commercialize this new and exciting technology.

Multiscale Systems

www.multiscalesystems.com

Prize Status: Semifinalist; **Prize Winnings:** \$133,333

Contact: Jesse Silverberg, CEO / Research Director - js@multiscalesystems.com

About the Company

Development of metal additive manufacturing of expansion joints to alleviate thermal expansion stresses at high temperatures.

Technology Readiness Level (TRL): TRL 3 - Analytical and experimental critical function and/or characteristic proof of concept

Recent Successes

We expanded manufacturing capabilities to produce parts for the industry.

What They're Looking For

Customers willing to put products downhole.

H-Prize: Hydrogen Shot Incubator

Aims to incentivize breakthrough clean hydrogen production technologies by incubating novel ideas in hydrogen production. [Learn more](#)

Electro-Active Technologies, Inc.
www.electroactive.tech
Prize Status: Currently Competing; Prize Winnings: \$10,000 + \$50,000 voucher
Contact: Abhijeet Borole, Co-Founder & CTO - aborole@electroactive.tech
About the Company We are developing a modular and scalable bio-electrolyzer system to generate clean hydrogen using renewable resources. This includes renewable electricity as well as renewable biomass or organic waste. Our system has a significant GHG emissions reduction of 104 tons of CO ₂ e/ton H ₂ produced, including a pathway to remove CO ₂ from air via biomass route of 10 tons CO ₂ /ton H ₂ . This can lead to a dual solution impacting climate change via clean hydrogen as well as CDR (carbon dioxide removal) from air.
Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment
Recent Successes Electro-Active licensed a patented technology from Oak Ridge National Laboratory developed by its founders for commercial development in 2021. We also filed for new IP developed at the startup for a U.S. patent and PCT in 2022. We have developed a partnership with a large winery in California for application of our technology to their waste and acquired support from the California Energy Commission. This project will be deployed in a disadvantaged community in California. We also have a strategic international partnership with a South Korean firm to deploy this technology in South Korea.
What They're Looking For We are planning a Series A raise in 2024 of \$10 million. We are interested in a pilot and demo partner as well as strategic partners from the biomass, waste, and energy industries. We are open to funding support from potential partners/end users in the form of SAFE or similar instruments in the near future.



Evolve Hydrogen Inc.

<https://evolvehydrogen.com/>

Prize Status: Currently Competing; **Prize Winnings:** \$10,000 + \$50,000 voucher

Contact: Brian Gilman, CEO - brian@evolvehydrogen.com

About the Company

Evolve Hydrogen Inc. has developed an electrolyzer, "Evolve™." Comprised of polymers instead of platinum, iridium, or other precious metals, Evolve™ can electrolyze impure water sources, e.g., seawater, treated wastewater, groundwater, and lithium brine to produce > 99.99% hydrogen. With a > 65,000-hour duty cycle, Evolve™ is more durable and will require less maintenance than the competition. Instead of being made from metal parts manufactured via computer numerical control, it is produced by injection molding and quickly assembled (in 2 hours instead of 18 months). Evolve™ manufacturing, installation, maintenance, and innovations add significant employment opportunities in the local community.

Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment

Recent Successes

We have won the first phase of the Hydrogen Shot Incubator Prize, and are working with NREL to help prepare us for Phase 2. We have currently won an NSERC grant, awarded to us by the Canadian Government.

What They're Looking For

We are attempting to raise \$16 million to develop Evolve™ into a minimal viable product at a TRL of 7 and prepare it for 25 testbeds, and other evaluations for 80 companies.



CEMVITA

Gold H2, A Cemvita Company

H-Prize (continued)

www.cemvita.com/gold-hydrogen

Prize Status: Currently Competing; **Prize Winnings:** \$10,000 + \$50,000 voucher

Contact: Alicia Dinges, Business Development Manager - alicia@cemvita.com

About the Company

Cemvita is the standard for biosolutions in the energy industry. Nature-inspired technologies are humanity's most powerful allies in the fight against climate change, and our field-tested biotechnologies can be seamlessly integrated into existing workflows and infrastructure. Gold Hydrogen™ is a low carbon fuel source that reshapes the world's transition away from fossil fuels. Extracted from existing oil and gas sites that would have otherwise been abandoned, Gold Hydrogen makes inexpensive, eco-friendly hydrogen more accessible to refineries, power plants, and everyone seeking to meet their environmental—and financial—goals.

Technology Readiness Level (TRL): TRL 5 - Component and/or process validation in relevant environment

Recent Successes

[Demonstrated our first proof of concept](#) single-well field trial with hydrogen production from testing the technology downhole

What They're Looking For

Our next funding round will be open soon. Always looking for technology partners in processing and potential commercial partners.



TERRAVENT
ENVIRONMENTAL

The Hope Group; TerraVent Environmental Inc.

www.TheHopeGroup.Tech; <https://www.terra-vent.com>

Prize Status: Currently Competing; **Prize Winnings:** \$10,000 + \$50,000 voucher

Contact: Qingwang Yuan, Assistant Professor - Qingwang.Yuan@ttu.edu

About the Company

The Hope Group at Texas Tech University, together with TerraVent Environmental Inc., is working on developing the technology for generating and producing carbon-zero, potentially low-cost hydrogen directly from petroleum reservoirs. We use the off-peak electricity from renewable energy sources for electromagnetic-assisted catalytic heating for highly efficient methane conversion to hydrogen in the subsurface. With the assistance of a hydrogen membrane separator, we only extract hydrogen to the surface, leaving all other gases, including CO₂, in the subsurface. This is therefore a clean technology.

H-Prize (continued)

Repurposing existing infrastructure and depleted petroleum reservoirs will also potentially reduce the cost to below \$1/kg hydrogen.

Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment

Recent Successes

The Hope Group has the first-of-its-kind patent published in March 2023 on the proposed technology. The collaborator, TerraVent Environmental Inc., has successful field-scale test experiences using electromagnetic heating for heavy oil recovery. The equipment, skills, and simulations tools will be re-purposed for clean, low-cost hydrogen production from petroleum reservoirs. The team is also collaborating with Argonne National Laboratory on techno-economic assessment for this technology.

What They're Looking For

The team has interested partners for the field pilot test in the future (2–3 years). We are working on derisking the future pilot test through intermediate scale experiments and field-scale simulations. To achieve and accelerate that, the team is working on looking for at least \$2 million funding for further research and commercialization.



BoMax Hydrogen, LLC

www.bomax-hydrogen.com

Prize Status: Currently Competing; **Prize Winnings:** \$10,000 + \$50,000 voucher

Contact: Deborah Maxwell, Chief Science Officer – debbie@bomaxhydrogen.com

About the Company

BoMax Hydrogen, LLC has developed a green hydrogen production method for use in fuel cells. The patented technology is comprised of a light-activated nanoparticle and enzyme component. Pure hydrogen is made onsite using no rare earth materials at ambient temperatures and pressures, producing no carbon emissions.

Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment

Recent Successes

Lab experiments with successful hydrogen production in sunlight and with the use of renewable reductants extending the life of the catalyst.

H-Prize (continued)

Catalyst component production is now all in-house for considerable cost savings aiming toward \$ 1/kg.

NREL issued a preliminary TEA, LCOH and LCA, emphasizing that there was room for improvements with further optimization, which is ongoing in the lab.

Additional patents have been awarded in Japan and India.

Collaboration with an end user in developing hydrogen use in aeronautic internal combustion engine.

What They're Looking For

BoMax is working with Taylor DeJongh Investment Firm to raise \$15 million in Series A funding. Recently, a partnership with ZEBOX was formed. Funds will be used for the development, construction, and testing of a beta prototype unit that will produce 1–5 kg of hydrogen per day. The funds will provide a 10X scale up in catalyst manufacturing.

NX Fuels Inc

Website in progress

Prize Status: Currently Competing; **Prize Winnings:** \$10,000 + \$50,000 voucher

Contact: Saemin Choi, CEO - choi@nxfuelsinc.com

About the Company

NX Fuels is a climate tech startup established in late 2019 as a Delaware C Corp to commercialize our proprietary artificial photosynthesis materials and systems developed at the University of Michigan. We can produce green H2 cost effectively from water (or sea water) using direct solar energy. Furthermore, by tailoring the photocatalysts, we can also efficiently produce green fuels including methanol, syngas, methane, etc. from CO2 and water.

Technology Readiness Level (TRL): TRL 5 - Component and/or process validation in relevant environment

Recent Successes

N/A

What They're Looking For

We're planning a pilot scale demonstration through Series A in 2025.

PAX Scientific

www.paxscientific.com

Prize Status: Currently Competing; **Prize Winnings:** \$10,000 + \$50,000 voucher

Contact: Francesca Bertone, COO - fbertone@paxscientific.com

About the Company

PAX Scientific is a nature-inspired engineering firm that solves fluid-handling challenges to make industrial

equipment more efficient. Inspired by the reuse of heat in natural systems, our innovative water purification system, PAX H₂(O), distills water for electrolysis from source water of any salinity, while delivering significant cost savings in operational expenditure compared to reverse osmosis.

Technology Readiness Level (TRL): TRL 7 - System/process prototype demonstration in an operational environment

What They're Looking For

We are seeking funded pilots and manufacturing partners.

High Voltage Direct Current Prize

Invited electrical and industrial engineers, computer scientists, and power electronics researchers to develop new power and energy system solutions to improve renewable distributed generation, transmission to population centers, and integration with the U.S. energy grid. [Learn more](#)



SixPoint Materials

www.spmaterials.com/ssl/

Prize Status: Winner; **Prize Winnings:** \$50,000

Contact: Tadao Hashimoto, CEO - tadao@spmaterials.com

About the Company

SixPoint Materials produces high-quality gallium nitride (GaN) semiconductor wafers needed for energy efficient power electronics. We developed a proprietary NEAT (near equilibrium ammonothermal) method through several government projects including ARPA-E SWITCHES and DOE SBIR. SixPoint is committed to becoming a reliable U.S. producer of GaN wafers and contributing to an energy-efficient future.

Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment

Recent Successes

SixPoint successfully commercialized 2" n-type GaN substrates. We also provide 15x15mm Mn-doped semi-insulating GaN substrates.

What They're Looking For

SixPoint is looking for \$10 million-level financing to set up a pilot production reactor of 2" and 4" GaN wafers.

High Voltage Direct Current Prize (continued)

Drexel University
https://drexel.edu/engineering/about/faculty-staff/L/lu-fei/
Prize Status: Winner; Prize Winnings: \$50,000
Contact: Fei Lu, Assistant Professor - fl345@drexel.edu
About the Organization We are working on medium-voltage solid state circuit breaker technology for DC power grid protection. It can achieve high efficiency, fast speed, and high reliability. In addition, it has a modular structure so it can be extended for various voltage and current ranges.
Audiences/Communities Served Any DC power system, from kV to 100s of kV range.

Perovskite Startup Prize

Designed to accelerate the growth of the U.S. perovskite industry and support the rapid development of solar cells and modules that use perovskite materials. [Learn more](#)



Beyond Silicon, Inc.

www.beyondsilicon.com

Prize Status: Currently Competing; **Prize Winnings:** \$200,000

Contact: Zhengshan (Jason) Yu, CEO - jason@beyondsilicon.com

About the Company

Beyond Silicon is developing perovskite/silicon tandem solar cells with efficiencies beyond the limit of today's silicon PV technology. Our tandem solar cells will be used as a drop-in replacement of conventional silicon cells in PV module production to leverage the existing PV manufacturing infrastructure. Our products allow our customer—PV module manufacturers—to fabricate and sell high-efficiency PV modules at premium price to increase their profitability while still reducing the system cost.

Technology Readiness Level (TRL): TRL 3 - Analytical and experimental critical function and/or characteristic proof of concept

Recent Successes

What They're Looking For

We are raising our seed round (\$3 million) to develop a minimum viable product.

Solar Forecasting Prize

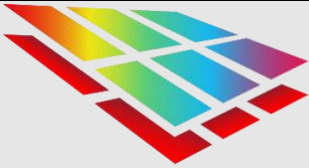
Designed to better equip solar industry stakeholders with state-of-the-art solar forecasting capabilities. [Learn more](#)

University of Michigan
https://huang.engin.umich.edu
Prize Status: Winner; Prize Winnings: \$50,000
Contact: Xianglei Huang, Professor - xianglei@umich.edu
About the Company We are thinking of forming a company based on the techniques we developed for this solar forecasting competition. It is a hybrid approach using both numerical weather forecast and machine-learning techniques for probabilistic forecasts with a lead of 24-48 hours.
Technology Readiness Level (TRL): TRL 5 - Component and/or process validation in relevant environment
Recent Successes High rankings in the Solar Forecasting Prize (our team is Prompt Molly, and you can see our performances for each site across the entire climate zone of the U.S.). We were one of the top 2 performers overall , with a very small delta between our team and the winning team.
What They're Looking For Develop further for the entire system/process model and look for customer application scenarios.

Solar Prize

Encourages the rapid development of innovative solar energy solutions capable of addressing the tough challenges facing the solar industry. Now at the start of its seventh round. [Learn more](#)

Solar Inventions LLC
www.solarinventions.com
Prize Status: Winner; Prize Winnings: \$650,000 + \$150,000 voucher
Contact: Gregg Freishtat, CEO - Gregg@solarinventions.com
About the Company We have invented a new process for making solar cells that does not require any capital expenditures or process changes. Our Configurable Current Cell (“C3”) reduces silver by up to 15% and improves efficiency.
Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration
Recent Successes Check out Solar Inventions in the news
What They’re Looking For Looking for partnerships to bring our patented technology to market with new U.S. cell manufacturers as they come online. Also looking to expand to India and the EU.

 TANDEM PV Tandem PV, Inc.
www.tandempv.com
Prize Status: Finalist; Prize Winnings: \$150,000 + \$75,000 voucher
Contact: Colin Bailie, CEO - info@tandempv.com

Solar Prize (continued)

About the Company

The world needs a distributed generation solution for net-zero energy homes to meet sustainability and grid resiliency goals at the same time. Current solar panels can meet the electricity needs for about 50% of homes in the United States today, but a very small fraction of homes in a fully electrified future. Tandem PV uses perovskite technology to upgrade the performance of silicon solar panels with a target entry panel product at 26% efficiency and the potential to exceed 30%.

Technology Readiness Level (TRL): TRL 7 - System/process prototype demonstration in an operational environment

Recent Successes

Tandem PV was highlighted in the [May issue of PV Magazine](#)

Tandem PV is part of [the TEAMUP consortium](#) awarded a \$9M grant from DOE to drive perovskite technology closer to commercial readiness

Tandem PV is part of [a UC Berkeley-led project](#) awarded a \$1.5M grant from DOE to complete Tandem PV's perovskite recycling invention and develop a cradle to grave solution for perovskite

What They're Looking For

Raising next financing round in Q4 2023 or Q1 2024. Also interested in exploring manufacturing synergies with U.S. companies.



BREK Electronics Corporation

www.BREKelectronics.com

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Kala Majeti, President - Kala.majeti@gmail.com

About the Company

BREK Electronics offers a platform for building power electronics using patented silicon carbide composite architectures that can be used in solar string inverters, power converters, EV chargers and more. Our unique designs provide tremendous reduction in size and weight and an increase in efficiency and reliability for high-power solar string inverters and low-power EV chargers.

Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment

Recent Successes

BREK Electronics was voted as one of the top ten renewable energy startups in 2022.

Solar Prize (continued)

What They're Looking For

Acquisition or large VC investment.

Guardian Devices, LLC



www.guardiandevices.com

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Kenny Blemel, Chief Technology Officer - kenny_blemel@guardiandevices.com

About the Company

Guardian Devices, LLC (GDL) is a spin-off of the American Made Solar Prize Round One winner Management Sciences, Inc. (MSI) and was created to commercialize MSI's solar technology products. GDL's first product is the Solar Guardian®, which pre-detects and mitigates arcing faults *before* they happen!

During Round 1 of the Solar Prize, Sandia National Laboratories evaluated and confirmed the Solar Guardian's "unique ability" to pre-detect electrical faults and prevent fires in solar arrays. It locates and shuts off only the defective solar panel, connector, or cable, providing continued production of electricity by the array.

Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment

Recent Successes

We are currently working with the University of Arizona Center for Innovation, negotiating with the Solar

Solar Prize (continued)

Energy Technologies office, and awaiting a DOE STTR proposal response for a Sandia National Laboratories arc-fault mitigation technology that we attained a license to research.

What They're Looking For

GDL is seeking funding to finalize designs to Underwriter's Laboratory requirements prior to licensing to OEMs.

Green Cycle Design Group

www.greencycleddesigngroup.com

Prize Status: Semifinalist; **Prize Winnings:** \$50,000

Contact: Ken Clayton, Owner - Ken.clayton@greencycleddesigngroup.com

About the Company

We build battery management systems (BMS) for small and large-scale lithium battery packs. We have a BMS that can reduce long-term maintenance and cost. Customer doesn't have to replace a complete battery pack—just the damaged cells. We can incorporate different battery types in series.

Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment

Recent Successes

We have 10 years of experience with our current BMS without changing hardware components. We are designing Gen 3 of a circuit board to raise boats out of the water. Gen 1 went 2 years, Gen 2 for 5 years.

What They're Looking For

Partnership and finalization of end product.



SilisiumTech Inc.

www.silisiumtech.com

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher

Solar Prize (continued)

Contact: Erik Ydstie, CTO - erik@silisiumtech.com

About the Company

SilisiumTech is commercializing a new approach to make silicon wafers for solar cells. The approach is kerf-less. It requires less energy and has 50–75% smaller carbon footprint than the classical Czochralski/Wire saw approach in current use. It is continuous and suitable for domestic implementation.

Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment

Recent Successes

We have patented and tested the base technology at small scale. We have obtained funding to complete testing at Carnegie Mellon University (CMU).

What They're Looking For

We have obtained significant government, state, and industrial support for research carried out at CMU during the past decade. We are currently looking for seed funding to move out of the university environment and demonstrate the technology at scale.



Sunspan (formerly Taka Solar)

www.sunspansolar.com

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Christopher Barnes, Founder & CEO - chris@sunspansolar.com

About the Company

Sunspan is reshaping solar panels to make installation faster, easier, and lower cost. In addition to the American-Made prize, the company has won SBIR grants from both DOE and NSF. Our initial market will be for parking lot solar (750 GW technical potential), where we can cut the cost of finished systems by 30% to drive wide adoption. The technology also has proven advantages when deployed over crops and in the longer term, the self-buoyant panels can revolutionize floating solar.

Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment

Recent Successes

The company has produced several generations of early panels with more than 1 year of field data demonstrating improved performance. We have also had multiple patents granted in the last year.

Solar Prize (continued)

What They're Looking For

Sunspan is seeking a \$9 million round in order to build the 3 pilot systems for which we have signed LOIs (solar developer, \$90 billion energy company, national energy center).



Ecological Estates LLC

www.ecoestates.us

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: David Pham, CEO/CTO - dpham@ecoestates.us

About the Company

Ecological Estates (Eco-Estates International) is a green company with diversified services and products and is among the most respected for eco-friendly pavement products to replace climate-wrecking concrete and toxic asphalt pavements. Also a well-known worldwide EPC renewable MWs solar energy plant, products, solutions, services, electrification of residential homes, and builder of elegant luxury eco-friendly healthy zero-energy custom homes.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Recent Successes

In August 2023 our Terra Pave products won the first place 2023 CADE Prize in the Agriculture and Environmental category.

In July 2023, Calhoun County of Texas used our Terra Fog to pave 4 miles of road in the county.

Our USA and Vietnam/SE Asia teams are currently working with the U.S. State Department in Vietnam, Indonesia, and Malaysia for road projects in 2024.

Our U.S. and Africa teams are currently working directly with many African countries' governments for road projects in 2024.

The Nevada Department of Transportation has completed a test with our Terra Pave Cool Pavement to lower the street/city temperature by +18 degrees F.

We have completed a 4 miles x 100 ft road for Exxon/Mobil in Corpus Christi TX, and paved TP Albedo for a bi-facial solar farm in Oregon. We have completed many road projects for private companies in Austin TX, Wimberly TX, the Texas Department of Transportation and for Travis County, Texas.

What They're Looking For

Worldwide customers in the transportation, pavement, solar and roofing industries.

ORISON

Orison

www.orison.com

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Eric Clifton, President and CEO - eclifton@orison.com

About the Company

Orison's self installable energy storage appliance (ESA) is designed to provide energy resilience, flexibility, and autonomy to forgotten disadvantaged communities (DAC) living in attached housing, apartments, high density, and other rental housing options who have been left behind in the ongoing energy transition. By supplying an integrated energy storage system (ESS)—with onboard power electronics, controller, and communications—that is both low cost and user self-installable, Orison will enable DACs to participate in creating a reactive and dynamic electric grid that is resilient, reliable, and that supports a rapid transition to 100% renewable generation.

Technology Readiness Level (TRL): TRL 7 - System/process prototype demonstration in an operational environment

Recent Successes

Orison now has 14 patents and 260 claims that set us apart from any other ESS as we are the only ESA with a clear path to market. Orison has begun field testing and anticipate shipping production systems to customers this year.

What They're Looking For

Orison is currently looking for additional seed capital to support a DOE LPO low-interest loan and several grant programs. We plan to use the funds to build our manufacturing facility in Sheridan, Wyoming, and scale production. We are currently seeking \$6–8 million under a convertible note in anticipation of two matching grants and LPO financing.



SunFlex Solar

www.sunflectech.com

Prize Status: Winner; **Prize Winnings:** \$650,000 + \$150,000 voucher

Contact: Cody Van Cleve, COO - cody@sunflectech.com

About the Company

SunFlex has developed a new way to interconnect back contact solar cells using laser welding. Back contact cells are a type of silicon solar cell with the highest efficiency, but historically it has been expensive or difficult to connect these cells together using traditional manufacturing processes like tabbing/stringing, which limits these cells to niche markets. Our company has developed a flexible, robust, low-cost aluminum foil "flex circuit" that can connect these cells together while enabling them to become cost competitive for end users in a variety of different applications. Our process also supports integrating these cells into vehicles, architectural materials, irregular shapes, flexible panels, and more!

Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment

Recent Successes

SunFlex is now a participant in the Solar Energy Technologies Office's Systems Integration and Hardware Incubator Funding Program, a DOE grant allocating \$3M for the continued development and scaling of our low-cost, laser-welded aluminum foil interconnection technology. In partnership with Silfab solar (a domestic solar manufacturing company) SunFlex will soon demonstrate the fabrication of 1,000 modules with a greater than 22.5% average efficiency at prices not historically feasible. SunFlex is growing and is continuing to form partnerships in a wide range of market segments such as BIPV, VIPV, and flexible solar panels with the goal to bring our proven process and cost reductions to these segments and enable new pathways for back-contact solar modules.

What They're Looking For

SunFlex is currently funded via a combination of nondilutive American-Made prize money and nondilutive grant funding from DOE, and is currently using this funding to scale our laser welding process up into full production with Silfab Solar in Washington. In addition to scaling and derisking our product for traditional solar modules in the residential and commercial space, we are actively seeking partners for joint development projects in vehicle-integrated solar (VIPV), architecturally integrated solar (BIPV), and flexible, rapidly-deployable solar. We'd welcome the opportunity to work with any company in those spaces looking to integrate high-efficiency, premium back-contact solar cells into their products at competitive prices not historically possible with traditional fabrication methods, or conductive copper backsheets. We are also open to investment in a seed funding round after completing the current phase of development with Silfab and transitioning to scaling the company and product to multiple markets.

Solar Prize (continued)



Renu Robotics

www.renubot.com

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Tim A Matus, CEO - tim.matus@renubot.com

About the Company

Renu Robotics has developed autonomous mobile robots (AMRs) to provide maintenance in solar fields and energy infrastructure with mowing being the first product. The system is fully autonomous, operates on electricity (no carbon emissions) and is designed to go under solar panels. We offer a RaaS business model.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Recent Successes

We built the 100th robot in April. We operate in 19 states. We have 65 employees.

What They're Looking For

We are currently raising \$5 million in a bridge round, we will then raise \$20 million on a series A round.



Uplift Solar Corp.

www.upliftsolar.com

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Darius Roberts, CEO - darius@upliftsolar.com

Solar Prize (continued)

About the Company

Electronics for renewable energy (solar, wind, batteries) that improve performance and increase manufacturability. Currently marketing solar panels that include our internationally patented technology, and looking for partners for a battery project.

Technology Readiness Level (TRL): TRL 7 - System/process prototype demonstration in an operational environment

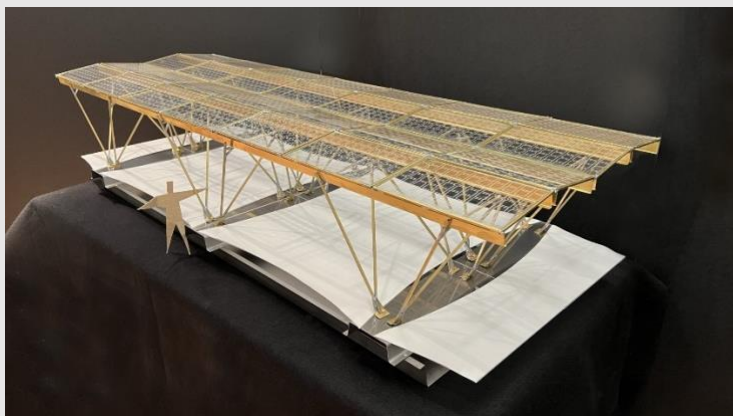
Recent Successes

Cleantech Open Winner (Region West). New Energy Nexus incubator.

What They're Looking For

Funding for this technology company OR funding to scale a separate residential installation business.

TrackerSled



www.trackersled.com

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Lawrence Kearns, Founder - larry@trackersled.com

About the Company

TrackerSled simplifies solar for farmers and ranchers with ground-agnostic solar farming modules (SFM) crews can assemble onsite in two hours from prefabricated parts. No surveys. No pile driving. No fencing. No moving parts. After assembly, crews tow the self-ballasted SFMs to a field before linking them with overhead cables.

When a Corn Belt farmer deploys sixty SFMs on 3.5 acres, they can power a containerized ammonia plant to produce all the fuel and fertilizer they need to operate a 1,000-acre grain farm. Those farmers can sell their carbon-reduced crops at price premiums to create a new source of rural wealth.

Technology Readiness Level (TRL): TRL 5 - Component and/or process validation in relevant environment

Solar Prize (continued)

Recent Successes

TrackerSled is a member of AgLaunch's 2023 cohort, won the pitch competition at Farm Journal's 2023 Top Producer conference, and was a Farm Bureau 2023 Ag Innovation semifinalist. TrackerSled was named a poster presenter at RE+ 2023.

What They're Looking For

We need \$500,000 of capital funding to certify our second-generation solar farming modules, which will unlock unmet demand for agriculture, brownfields, and disaster relief use cases.

Conserval Systems Inc

www.solarwall.com / www.sut.solar

Prize Status: Semifinalist; **Prize Winnings:** \$50,000

Contact: John Hollick, CEO - jhollick@solarwall.com

About the Company

The hybrid energy tower is a new concept combining solar thermal and wind into one structure to produce power. Updraft is created by low-temperature solar heat from unglazed transpired collectors which can be combined with a PV thermal option. Downdraft is created by wind being directed down from the top of the tower to one side of turbines located at ground level, the same turbines that receive solar updraft air on the opposite side of the turbines. The prototype shows that the system can operate day and night without batteries and offers an unique renewable energy option for both urban and remote locations.

Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment

Recent Successes

NREL worked with Conserval in the 1990s to commercialize the transpired solar air collector which we branded as SolarWall. This invention has become the leading technology for solar heating for commercial industrial and institutional buildings around the world. We believe that the solar power tower represents another breakthrough invention as it uses the same transpired collectors to produce power. This is the first technology to use low-temperature heat to generate electricity economically and when combined with wind, can generate power continuously without batteries.

What They're Looking For

We are seeking a partner who can commercialize the solar power tower invention.



infiniRel Corporation

Solar Prize (continued)



www.infiniRel.com

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Bert Wank, Founder &CEO - bert.wank@infiniRel.com

About the Company

infiniRel offers equipment health diagnostics for renewable energy plants to improve efficiency and profitability. Similar to an EKG for heart failure prediction, our high-resolution measurements create unique data offering unprecedented insight for improving output, optimizing maintenance, and extending the life of critical assets.

Our patented technology offers prescriptive diagnostics as an annual subscription to global renewable energy developers and asset owners, combining signal-processing, proprietary algorithms, and resource-efficient machine learning.

Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment

Recent Successes

Continued support, financial and operational, from our lead investor, the American Wire Group. Term sheet from a global renewable energy developer (confidential) in final negotiation.

What They're Looking For

Currently raising \$1 million, of which \$328,000 are already banked to support the rollout of our initial "EKG"s with a one paying and three not-yet-paying pilot customers model. Funds support completion of EKG builds by contractors and hire of an experienced engineer for power electronics (still searching), and a data scientist (offer pending).

Verify Energy Inc

www.verifyenergy.com

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: James D'Albora, CEO - james@verifyenergy.com

Solar Prize (continued)

About the Company

We have developed and launched the PowerFly, the only plug-and-play solar monitoring and controls solution purpose built for the C&I market.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Recent Successes

N/A

What They're Looking For

We are always interested in partnering/piloting with a utility company looking to add a standardized two-way communication system to behind-the-meter DERs.



Urban Energy Inc.



www.urbanenergy.nyc

Prize Status: Winner; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Russell Wilcox, CEO - rwilcox@urbanenergy.nyc

About the Company

Urban Energy solutions include rooftop solar, energy storage, EVs, heat pumps, and solar racking hardware.

Solar Prize (continued)

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Recent Successes

We have completed three pilot urban rooftop solar canopy projects in Brooklyn and Manhattan.

What They're Looking For

Growth equity and project capital raise. We are looking for \$20 million raise in equity and \$80 million in project capital from an infrastructure or private equity fund.



StarlingRFS/The r&d lab



www.starlingrfs.com / www.therdlab.com

Prize Status: Winner; **Prize Winnings:** \$650,000 + \$150,000

Contact: Amy Atchley, C.O.O. - amy@amyrs.com

About the Company

We innovated a solar roofing system that uses off-the-shelf solar panels to keep labor and supply chains

Solar Prize (continued)

intact for the most scalable solar roof on the market. When all homes are offered solar at the time of re-roof, the impact will be massive. Starling is a better roof in all the ways you want a roof to perform: thermal, fire, water catchment, wind, hail, aesthetics, and longevity.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Recent Successes

Our CEO was a judge in Solar Prize Round 7 and was able to help teams with direct previous experience in their focus areas.

We also have plans to rebuild prototype shop this year.

What They're Looking For

Funding for flat roof product development and installers for existing patented, certified product.

Etajoule



www.etajoule.com

Prize Status: Winner; **Prize Winnings:** \$650,000 + \$150,000 voucher


Contact: Carlos Fernandez-Aballi, General Manager - cfa@etajoule.com

About the Company

Etajoule is developing a flat plate solar collector and thermal energy distribution system for industrial process heat. This system is capable of operating with >40% efficiency at more than 100°C above ambient. This is achieved by insulating the glazing with a transparent aerogel produced by our team partners Aeroshield.

Solar Prize (continued)

Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment
Recent Successes We have successfully measured a model demonstrating the technology signifies a qualitative improvement in flat plate solar technology. We are building and testing a prototype.
What They're Looking For Pilot partners, funding round, and value.

 Sol Clarity
www.solclarity.com
Prize Status: Semifinalist; Prize Winnings: \$70,000
Contact: Ryan Eriksen, Co-Founder and CEO - admin@solclarityeds.com
About the Company Sol Clarity's patented technology, the electrodynamic screen (EDS), can clean solar modules using a water-free, autonomous, non-contact cleaning process, without the use of moving parts or manual labor, just using electricity fields. The EDS can remove over 90% of the dust on PV collectors, restoring over 95% of the lost output power in laboratory tests; thereby supporting the growth of solar energy production while saving over 14 billion liters of water per year.
Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment
Recent Successes In November 2022 we raised a \$920,000 Seed I round with Equinor ventures, Techstars, and friends and family to begin work on our first commercial pilot. Sol Clarity has also been awarded the MassCEC Catalyst award, the MassCEC InnovateMass grant and the Equinor and Techstars accelerator prize. We are a member of Greentown Labs in Somerville, MA.
What They're Looking For We are currently raising our first priced equity funding round aimed to close by Q4 2023. We have an upcoming pilot with Nexamp in Massachusetts, in which we will field test the EDS on full-scale panels. We also have plans to set up a pilot with Engie in California, one of our target markets. We are looking for pilots with solar operators in the C&I (Commercial and Industrial) sector.

Solar Stewards

Solar Prize (continued)



Solar Stewards

www.solarstewards.net

Prize Status: Finalist; **Prize Winnings:** \$100,000

Contact: Dana Clare Redden, CEO - dana@solarstewards.net

About the Company

Solar Stewards connects corporate renewable purchasers with opportunities in historically excluded communities. Our Solar Stewards Marketplace platform provides the resources that community-based and serving renewable projects need to access renewable energy markets thereby helping to infuse equity in market-based systems and usher in a just transition.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Recent Successes

Solar Stewards continues to grow our businesses with industry-leading clientele such as Microsoft, T-Mobile, and CohnReznick LLP.

What They're Looking For

Solar Stewards is scaling to meet the moment and is always seeking corporate renewable buyers, community-serving renewable projects, talent, growth capital, and advisors.



Solvari Solar (Formally TECSI Solar)

www.solvarisolar.com

Prize Status: Winner; **Prize Winnings:** \$650,000 + \$150,000 voucher

Contact: Samuel Truthseeker, CEO - struthseeker@solvarisolar.com

About the Company

Solvari SR is an all-in-one solar panel that ships from our factory ready to install on residential roofs. By simplifying more than 450 components typically required to install a solar system to a single installable Solvari SR module, installation times are reduced by 75% allowing 3x the number of installations a day by unskilled crew. In addition, the simplification affects the entire organization by reducing office resources, waste, and other operational costs by as much as 28%. Finally, since Solvari SR is "solar made easy," anyone can install it, including contractors and homeowners, which opens new and exciting market segments.

Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment

Recent Successes

We have secured the supply chain for all components of our product and are looking to start certification testing within 45 days. Production is targeted for the end of Q3.

What They're Looking For

Initial funding round of \$5 million from angel investors using SAFE agreements. Investors that are versed in heavy working capital businesses such as distribution would be a bonus as would investors that would be interested in our second round, which is targeted at \$20 million.

Leap Photovoltaics

www.leap-pv.com

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Matias Machado, Co-founder - matias@leap-pv.com

About the Company

Leap Photovoltaics is developing a revolutionary process to manufacture crystalline silicon solar cells. By replacing wafers with a single layer of monocrystalline silicon particles, Leap goes directly from refined

Solar Prize (continued)

silicon to finished solar cells. Leap's additive manufacturing process can provide solar module manufacturers with a local supply chain for solar cells that have the same performance but half the cost of imported wafer-based cells.

Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment

Recent Successes

We have received grants from DOE, NSF, and the California Energy Commission, and completed our first round of private capital earlier this year.

What They're Looking For

Currently looking to expand into a small manufacturing (5–10,000 SF) facility in the Bay Area.

Talent: searching for a Manufacturing VP with 10 yr+ experience in high volume semiconductor manufacturing, preferably for solar PV or commodity semiconductors.



Resonant Energy

www.resonant.energy

Prize Status: Finalist; **Prize Winnings:** \$135,833

Contact: Ben Underwood, Co-CEO - ben@resonant.energy

About the Company

Resonant Energy's mission is to use solar projects to build wealth in under-invested communities. We are a B Corp and 100% employee-owned. Our clients include community nonprofits, affordable housing providers, and low-income homeowners in Massachusetts, New York City, and Long Island. Thanks to innovative financing options, a focus on operational excellence, and trusted local partners we are putting the benefits of clean energy within reach for everyone. We believe that the people most heavily impacted by climate change and racial injustice should receive the greatest benefit from the shift to an economy powered by clean energy. We have been working to realize this vision since 2016, and have completed solar installations across more than 200 sites to date, 57% of which serve environmental justice communities.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Solar Prize (continued)

Recent Successes

We recently won the first round of another American-Made prize, the Community Power Accelerator Prize, to use our solar equity platform to develop low-income community shared solar projects in Boston.

What They're Looking For

Impact investors interested in project-level and corporate-level lending; networks of nonprofits who want to bring solar to their constituents



CleanFi.com (dba for CleanFinancing LLC)

www.CleanFi.com

Prize Status: Finalist; **Prize Winnings:** \$102,500

Contact: Philippe Hartley, Founder/Managing Director - ph@cleanfi.com

About the Company

CleanFi.com is a financing platform for small-to-mid C&I retrofit projects that have net-zero impact. We engage with the \$25,000 to \$5 million building improvement market by providing instant and actionable financing options from 3rd party funders to contractors who, in turn, present those options to their clients as part of their proposals. Property owners/managers can also use the platform directly for quotes, and must use it to apply for the funding of choice.

The sub-\$5 million building retrofit market is underserved by most funders because it is too difficult to underwrite, does not yield enough revenue, and requires too much servicing. But 90% of the U.S.'s 6 million commercial buildings are less than 50,000 sq ft and will require sub-\$1 million financing. CleanFi serves that market by creating efficiency via automation of proposals, application, and pre-underwriting.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Recent Successes

We have reached nearly half a billion dollars in project inquiries on the platform. We were the first FinTech company to reach the Finalist round of the Solar Prize, usually reserved for engineered solutions, because of our disruptive potential in the marketplace. We are fully operational with a growing list of registered users, currently at 300. We are implementing new features and funding solutions regularly, including tax equity, sale of ITC for cash (per Direct Pay and Transferability features introduced by IRA 2022), and are considering moving into the residential market but need additional resources to do so.

What They're Looking For

Scaling capital and strategic alliances.

Solar Prize (continued)

Origami Solar
https://origamisolar.com
Prize Status: Winner; Prize Winnings: \$650,000 + \$150,000 voucher
Contact: Tyler Hudson, Product Engineer - tyler@origamisolar.com
About the Company Origami Solar is a steel frame supplier for PV modules. We've developed a novel steel frame design that provides a significant reduction in cost and GHG emissions over traditional aluminum frames. Origami Solar has engaged the U.S. steel ecosystem to meet the growing needs of domestic module manufacturing.
Technology Readiness Level (TRL): TRL 7 - System/process prototype demonstration in an operational environment
Recent Successes Our first-generation frames well exceeded performance specifications. Our second-generation frames are 25% lighter and will undergo customer trials in Q2-Q3 of 2023.
What They're Looking For Origami is working towards our Series A financing round with an expected completion of summer 2023. We have multiple manufacturing, supply, and module partners, and are open to working with additional module manufacturers interested in evaluating our steel frames.

 SPADE Agrivoltaic Design
www.agrivoltaic.design
Prize Status: Semifinalist; Prize Winnings: \$90,000
Contact: Thomas Hickey, co-founder - spade@agrivoltaic.design
About the Company SPADE Agrivoltaic Design & Development is a small startup with a big mission: make agrivoltaics accessible and implementable at scale worldwide. Currently, uncertainties in optimization, unknowns about agronomic feasibility, and challenging financial calculations stall agrivoltaic development. SPADE minimizes these challenges by modeling project scenarios, defining a range of suitable crops, producing

Solar Prize (continued)

empirically based system designs, and demonstrating agronomic and economic returns that are bankable for investment activity.

Technology Readiness Level (TRL): TRL 3 - Analytical and experimental critical function and/or characteristic proof of concept

Recent Successes

A feature in the [March 2023 issue of PV Magazine](#).

What They're Looking For

Funding, accelerator, etc.



Nimbus AI LLC

www.nimbus.solar

Prize Status: Semifinalist; **Prize Winnings:** \$60,000

Contact: Peter Sadowski, Chief Analytics Officer - peter@nimbus.solar

About the Company

Solar irradiance is forecasted 1–14 days ahead. Nimbus AI's technology combines the latest open satellite data and machine learning methods to generate probabilistic forecasts at unprecedented resolution (500m) and accuracy.

Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment

Recent Successes

2022 Winner of DOE's Solar Forecasting Prize.

What They're Looking For

Looking for partners to test beta prototypes.

Solar Prize (continued)



Enersion Inc

www.enersion.com

Prize Status: Unknown; **Prize Winnings:** \$50,000

Contact: Hanif Montazeri, CEO - hanif.montazeri@enersion.com

About the Company

Enersion uses nano-porous materials to convert 90% of solar radiation directly into "refrigerant-free" cooling, heating, and electricity. The technology is essentially a heat-driven heat pump that is paired with hybrid solar panels, that produces hot water (70%) and electricity (20%). Enersion heat pump uses water as a refrigerant, and offers electrical COPs of 30+ and 10+ for cooling and heating.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Recent Successes

We have a sales pipeline for more than \$50 million for which we need to ramp up our production.

What They're Looking For

We raising series A of \$10 million to be matched with another \$10 million non-dilutive fund.

HelioVolta

www.solargrade.io

Prize Status: Winner; **Prize Winnings:** \$290,000 + \$50,000 voucher

Contact: James Nagel, Co-Founder - james@heliovolta.com

Solar Prize (continued)

About the Company

HelioVolta is the company behind SolarGrade, a renewable energy fieldwork and asset management SaaS platform. As labor shortfalls undermine the global sprint to a net zero economy, pennies saved on renewable deployments become fortunes lost to quality failures. Climate tech that scales best-practice renewable fieldwork and asset management is the solution. SolarGrade transforms fieldwork data into AI-powered analytics, and serves as a workforce multiplier that boosts fieldwork efficiency by 30% with desktop and mobile apps. SolarGrade empowers renewable asset owners, EPCs, and O&M providers to achieve scale without sacrificing quality and despite labor, time, and cost constraints.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Recent Successes

SolarGrade has hundreds of paid users that span a broad range of companies, including Fortune 50 asset owners and off-takers, world-leading engineering firms, global project developers, and regional EPCs and O&M providers.

What They're Looking For

SolarGrade aims to raise \$3 million in a seed round.



SolarSCADA

www.skyfri.com / www.solarscada.com

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher'

Contact: Greg Linder, Founder - greg@skyfri.com

About the Company

Solar supervisory control and data acquisition. We provide a modular, full-turnkey SCADA system for PV plants at any scale, including advanced analytics, a digital twin, and service and support functionality. SolarSCADA is the hardware end in the field, and Skyfri provides the software analysis, alarming, O&M support, and ticketing systems.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Recent Successes

SolarSCADA was acquired at the start of 2023 by Skyfri, a Norwegian cleantech company. Skyfri has the fancy high-level analysis tools, and SolarSCADA brings a scalable hardware platform to feed reliable data

Solar Prize (continued)

into those systems. Our manufacturing and supply chain, as well as the servers for U.S.-based business, are based in the United States.

What They're Looking For

Currently we're seeking customers, either through EPCs, or operations and maintenance partners for ongoing projects. We're an excellent choice for legacy retrofit.



GrokPoint LLC

www.solactivator.com

Prize Status: Semifinalist; **Prize Winnings:** \$50,000

Contact: George Wu, General Manager - gwu@solactivator.com

About the Company

Solactivator is a smart off-grid controller for home solar systems that enables economical power generation from grid-tied solar systems without requiring dedicated home batteries or utility power.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Recent Successes

N/A

What They're Looking For

Our current primary need is funding for commercialization and we are also interested in pilot customers and partners.

Smartville, Inc.

www.smartville.io

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Mike Ferry, President - mferry@smartville.io

Solar Prize (continued)

About the Company

Our mission is to build the world's most sustainable and scalable electric vehicle battery repurposing platform, and empower stationary energy storage on a global scale, one battery pack, one kilowatt hour, at a time. Smartville's product, MOAB, uses repurposed electric vehicle batteries as the core component of its energy storage system. This means that MOAB has the lowest carbon footprint of any energy storage product available, making it the ideal choice for environmentally conscious businesses and organizations. MOAB's building block design enables a wide range of applications, from MWh-scale commercial and industrial installations to GWh-scale grid services and renewable integrations.

Technology Readiness Level (TRL): TRL 7 - System/process prototype demonstration in an operational environment

Recent Successes

News of our [pilot demonstration](#) in October 2022.

What They're Looking For

Series A investors and commercial demonstration partners.



OptimoEnergy

<https://www.youtube.com/watch?v=8PEGilS5P-A&t=1s>

Prize Status: Semifinalist; **Prize Winnings:** \$30,000

Contact: Masood Shahverdi, CEO - masood.shahverdi@gmail.com

About the Company

Our combination of solutions, published in U.S. provisional patent 63/299,886, is novel and helps end-users pay less and gain more. The combination includes:

1. An innovative optimization-based hierarchical power management software (the operation method) to exploit the storage during real-time operation.
2. Advanced machine-learning modules trained and used to forecast global horizontal irradiance (GHI) for use in our power management software.
3. Cutting-edge machine-learning modules trained and used to forecast commercial and industrial facilities' electric load for use in our power management software.
4. A sizing software to directly use the to-be-applied operation method described in item 1.

Solar Prize (continued)

5. A power management system, including all essential hardware pieces, that is designed to realize items 1–3 and is capable of communicating, in real-time, with battery inverter, weather station, GHI sensor, cloud server, electric meters, etc.

Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment

Recent Successes

OptimoEnergy is the NSF I-Corps Spring 2023 cohort best story award recipient.

What They're Looking For

Solar plus storage EPC partner to help implement the system in TRL 5-8. Funding for TRL 5-8 implementation.

GismoPower LLC



www.gismopower.com

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Erika Ginsberg-Klemmt, C.O.O. - erika@gismopower.com

About the Company

Today, Americans can choose between two photovoltaic deployment methods for their residential solar installations: Ground mounted structures, which require large spaces of single-use real estate, and “rooftop” solar, requiring costly, custom-engineered installations with onerous permitting procedures. GismoPower’s Mobile Electricity Generating Appliance (“MEGA”) is a carport on wheels that plugs directly into an electrical outlet, integrating a high-power bifacial solar PV system and Class 2 EV-Charger, fitting neither the ground-mount nor rooftop category. It can be wheeled into garages and shelters during adverse weather conditions, otherwise freeing up garage space, and its portability circumvents structure setback and HOA covenant regulations. Instead of site-specific permitting, engineering, and customized construction of rooftop or ground mounted structures, this standardized appliance will significantly reduce

Solar Prize (continued)

soft costs. As a “PV-EV Charger,” this portable solar carport is ideally suited to making solar and EV ownership more accessible to lower and moderate income communities.

Technology Readiness Level (TRL): TRL 7 - System/process prototype demonstration in an operational environment

Recent Successes

The power electronics research laboratory FREEDM System Center at NCSU was GismoPower’s first paying customer. With the help of American-Made Solar Prize voucher funds, NCSU’s research team completed their grid impact analysis study using measurements collected at the North Carolina pilot site on FREEDM’s parking deck. The voucher funds also enabled a continuation of FREEDM’s grid impact analysis research and the establishment of pilot site #6 in cooperation with SLAC National Accelerator Lab in Palo Alto, California.

The DOE granted GismoPower a Phase I SBIR grant in 2022 to refine their technology with the goal of establishing a viable go-to market strategy and enabling them to obtain structural engineering approval with wind code compliance up to 130 mph and snow load approval for North Carolina and most parts of California. The maximum generating power per MEGA rack was upgraded to 4.41 kW by using 490 W PV modules. Then they further improved the systems by upgrading to 540 W bi-facial modules. As a result, GismoPower has achieved a maximum wattage per MEGA rack of 4.86 kW, not accounting for the bi-facial gain.

Four out of five MEGA pilot sites currently use integrated PV-Inverter/ EV-Chargers as specified in the FSEC 203-17 certification. Pilot Site #5 uses a hybrid inverter in off-grid mode.

GismoPower decided to advance the "off-grid" version of the MEGA, with a hybrid inverter and a 5.12 kWh battery. The first off-grid pilot site went live in Sarasota in February 2023.

The product has recently received its own name, the “Fiona,” named after Shrek’s princess. The “Fiona” continues to deliver electricity as long as the sun is shining and even when the grid goes down for a short period. Like Princess Fiona, the MEGA goes into a less attractive mode at night.

GismoPower was recently invited to participate in the DeltaClimeVT Cleantech Accelerator in Burlington, Vermont, and met innovative VPP software companies who were open to collaborate with their team to bring this vision into reality.

What They’re Looking For

Our expertise lies primarily in the engineering, design and communications areas. **Our team looks forward to cooperating with individuals and organizations with expertise in transforming this company from single unit, manual production to a scalable manufacturing process in a factory environment.**

As we refine our scalability and the design options, we also believe that GismoPower has applicability in the commercial and institutional markets, including for condominiums, commercial and private parking lots and other scalable areas. **To reach and serve this large market potential, our team could also benefit from team members with a financial and business background.**

We anticipate that competent legal support might be necessary to overcome legal and disinformation campaigns curtailing the right to install GismoPower’s mobile appliances and we believe **we would benefit from a team of effective legal advisers.**

The MEGA is a viable solution for lower and middle-income Americans seeking affordable, accessible solar energy. **We are excited about the opportunity to collaborate with other entrepreneurs and professionals to launch pilot projects and accelerate the growth of our business.**

Solar Prize (continued)

Our present goal is to complete the New & Innovative program with Underwriters Laboratories and obtain UL certification for the system as a mobile electricity generating appliance. Once the UL-certification is reached, the MEGA 2.0 will be sold as a plug-in electricity-generating appliance without the permitting paperwork, interconnection delays by utilities, and costs that fixed, individually permitted solar PV installations face. This will mark the entry point for Venture Capital, or a major industrial partner, to accelerate market uptake by contributing the funds to scale up the manufacturing and create a countrywide distribution network. High expectations regarding ROI will funnel venture capital into an already low-risk project thanks to the achievement of the UL certification. **At this point, the company estimates needing a \$10 to \$15 million investment to complete this phase, but the final amount will depend on the formula used for the manufacturing (contract manufacturer, industrial partner, or own manufacturing).**



RCAM Technologies, Inc.

www.rcamtechnologies.com

Prize Status: Solar Prize Finalist; Energy Storage Innovations Winner **Prize Winnings:** \$200,000 + \$75,000 voucher

Contact: Mason Bell, 3D Printing Lead - mason.bell@rcamtechnologies.com

About the Company

RCAM Technologies is a growing startup dedicated to reducing the cost of renewable energy and creating domestic jobs by adapting digital design and automated concrete manufacturing technologies, like 3D concrete printing (3DCP), to marine renewable energy sources including floating photovoltaics (FPV), wave, and floating wind. As a part of the American-Made Solar Prize, RCAM began development of an industrialized 3DCP gravity anchor that reduces installed cost by ~42% compared to conventional block-shaped deadweight anchors. RCAM's gravity anchor combines two primary innovations, 1) a hollow concrete shell manufactured in a factory environment that holds inexpensive, reusable ballast materials such as gravel sourced near the FPV installation, and 2) digital design and fabrication methods that eliminate concrete formwork, increase production speed, and enable customization of anchor geometries and features.

Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment

Recent Successes

We are currently finishing up voucher funds from the Solar Prize with Sandia National Laboratories doing preliminary subscale geotechnical testing of RCAM's gravity anchors, a great success and use of resources won during Ready! and Set! portions of Solar Prize Round 5.

Solar Prize (continued)

What They're Looking For

We have a pending SBIR proposal for \$250,000 and a pending SIPS proposal for \$250,000 to perform full-scale structural design, full-scale manufacturing, and full-scale structural and geotechnical testing of RCAM's gravity anchors. This will need to be followed up and could be further accelerated by a pilot partner for a full-scale demonstration of a small FPV array anchored by RCAM's gravity anchors located in the water off the wharf at Alta Sea at the Port of Los Angeles, potentially marking the first application of offshore floating solar in the United States.



Leaptran, Inc.

www.leaptran.com

Prize Status: Semifinalist; **Prize Winnings:** \$80,000

Contact: Jeff Xu, CEO - jeff.xu@leaptran.com

About the Company

Leaptran is a spinoff company from the University of Texas at San Antonio (UTSA) that holds the exclusive commercial license of core technologies developed by the Energy Research Alliance of CPS Energy and UTSA. Since 2017, Leaptran has developed into a product company that focuses on renewable forecasting, load forecasting, energy storage, and microgrids to support utility operations and programs. It has accumulated expertise and accomplished commercial projects supported by a strong intellectual property (IP) portfolio. Its core strength is providing accurate and reliable solar forecasting and load forecasting solutions to the utility industry.

Technology Readiness Level (TRL): TRL 7 - System/process prototype demonstration in an operational environment

Recent Successes

N/A

What They're Looking For

We are looking for next funding round and multiple demonstration partners.



Mirai Solar



www.miraisolar.com

Prize Status: Semifinalist; **Prize Winnings:** \$50,000

Contact: Michael Salvador, CEO - michael.salvador@miraisolar.com

About the Company

Mirai Solar is a solar energy company. We expand the utilization of solar energy beyond conventional applications. We invented the Mirai Screen: a lightweight and foldable electricity generating shade screen. Our solutions dramatically improve the energy use efficiency of greenhouses and smart buildings for a sustainable future.

Technology Readiness Level (TRL): TRL 7 - System/process prototype demonstration in an operational environment

Recent Successes

Cleantech Open Regional Winner (West)

DOE SETO Solar Manufacturing Award

Portfolio company of LACI

Portfolio company IN2 Wells Fargo

Recognized by PwC Net Zero Future50 - Middle East

Solar Prize (continued)

Backed by KAUST Innovation Ventures

What They're Looking For

We are seeking investment to upscale and commercialize the Mirai Screen.



Latimer Controls

www.latimercontrols.com

Prize Status: Currently Competing; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Simon Julien, CEO - simon@latimercontrols.com

About the Company

Latimer Controls provides innovative control software for utility-scale solar assets. Our patented technology enables stand-alone PV to maintain consistent power output despite variable weather conditions, while also allowing for power dispatch in response to changing load behavior. By unlocking flexible operation of solar assets, Latimer Controls helps grid operators better integrate renewable energy onto their systems, improving reliability and lowering costs.

Technology Readiness Level (TRL): TRL 4 - Component and/or process validation in laboratory environment

Recent Successes

Latimer Controls is proud to be a finalist in the American-Made Solar Prize Round 6, and we are looking forward to competing in the final phase of the competition at RE+ in Las Vegas this September. Additionally, we are excited to announce that we have been awarded a \$100,000 Advanced Industries Early-Stage Capital and Retention Grant from the Colorado Office of Economic Development.

What They're Looking For

We are currently looking for introductions to potential pilot partners. Our ideal early adopters are those who: operate a diverse fleet of generation assets, including utility-scale solar; have strong carbon-reduction goals for the near and mid future; and are concerned about grid stability and/or solar curtailment as renewable resources are integrated into the bulk power system.



Logically Engineered Automation Features Ltd. (Leaf)

www.leafsolar.design.com

Prize Status: Currently Competing; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Evan Haug, CEO - ehaug@leafsolar.design.com

About the Company

Leaf is a software development company focused on using AI to help automate the process of solar engineering using AutoCAD plugins that seamlessly integrate into engineers' existing workflow. The plugin we're currently developing, Branch, allows the user to select a sub-array of solar panels and, after choosing some parameters, autonomously analyze and generate a DC cabling (stringing) design overlaying the panels in the drawing that is optimized to be efficiently installed in the field. Branch is currently in beta testing and will continue to grow in breadth and complexity as we receive insightful feedback from our beta partners with plans to roll out our market-ready product by January of 2024.

Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment

Recent Successes

In September 2022 we exhibited at RE+ in the startup alley to gauge interest in our product, generating 100+ solid leads for us. In early April 2023, we rolled out our beta to 8 partners and are using their feedback to roll out an amended beta 2.0 to a much larger group of beta partners by the beginning of August 2023.

What They're Looking For

Currently looking for a solar engineering expert/advisor and beta partners.



ReJoule

www.rejouleenergy.com

Prize Status: Currently Competing; **Prize Winnings:** \$166,000 + \$75,000 voucher

Solar Prize (continued)

Contact: Zora Chung, Cofounder and CFO - zora@rejouleenergy.com

About the Company

ReJoule's fast diagnostic platform enables automakers to maximize the value of their electric vehicle batteries. We help automakers understand the health of their aging batteries for resale, remanufacturing, repair, and repurposing. Since inception, we've raised over \$6 million in funding with \$5 million from non-dilutive grants that enabled the team to derisk and deploy the technology across the world. ReJoule is already in market with paying customers and is working with a top 10 OEM to create a solution for their flagship EV.

Technology Readiness Level (TRL): TRL 7 - System/process prototype demonstration in an operational environment

Recent Successes

We've raised over \$6 million in funding with \$5 million from non-dilutive grants.

We are already in market with paying customers—some of which are from globally recognized household names.

What They're Looking For

We are raising a \$5 million seed round with a target pre-money valuation of \$15 million to \$20 million and seeking partners to give us access to EVs to test our next-generation product.

NC Solar Inverters

www.ncsolarinverters.com

Prize Status: Currently Competing; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Ken Dulaney, President - kdulaney@ncsolarinverters.com

About the Company

NC Solar Inverters designed a new inverter topology that promises to be more efficient, more reliable, and lower cost than today's state of the art. Our initial prototype is a 50 kW unit for large commercial customers. With patent pending technology licensed from NC State University, we are building the world's most reliable inverter.

Technology Readiness Level (TRL): TRL 3 - Analytical and experimental critical function and/or characteristic proof of concept

Recent Successes


We demonstrated core functionality for the Set! phase and are assembling the prototype for testing in July. We hired several consultants and a technician in May. And we met with a group of advisors to help us meet our JEDI goals. It seems like we learn something new with each customer discovery interview that gives us more confidence in our product market fit.

What They're Looking For

Solar Prize funding will take us through TRL 4 but we need multi sample reliability testing, then pilot

Solar Prize (continued)

projects in the field, and then samples for UL certification. We need \$200,000 for these tasks to be completed by August 2024.

	
Solar Prize (continued)	SolTek Nano
www.solteknano.com	
Prize Status: Semifinalist; Prize Winnings: \$50,000	
Contact: Jeremy Meeter, President - soltek.nano@gmail.com	
About the Company SolTek™ is a superhydrophilic and anti-reflective nanocoating based on proven HCM Technology. SolTek™ is designed to be applied to photovoltaic surfaces to impart a unique range of beneficial properties. Its anti-reflective properties improve light transmittance maximizing its power efficiency.	
Technology Readiness Level (TRL): TRL 5 - Component and/or process validation in relevant environment	
Recent Successes N/A	
What They're Looking For We are reorganizing our team structure and then preparing for field pilot demonstrations.	

Solar for Snow	
www.solarmuseum.org	
Prize Status: Semifinalist; Prize Winnings: 50,000	
Contact: Danielle Rhodes, Co-owner - danielle@solarmuseum.org	
About the Company Our innovation was to build a crystalline silicon solar panel designed specifically to operate best in snow and ice conditions. Since the competition, we have continued to expand the "Museum of Solar Energy," which is now our main focus.	

Technology Readiness Level (TRL): TRL 3 - Analytical and experimental critical function and/or characteristic proof of concept

Recent Successes

Our Solar for Snow experience helped us support other solar innovators, who continue to tackle the same core challenge of snow interfering with solar outcomes.

What They're Looking For

We have abandoned the Solar for Snow project, but are currently looking for contributors for the Museum of Solar Energy.



illu Global Inc.

www.illu.works

Prize Status: Winner; **Prize Winnings:** \$290,000 + \$50,000 voucher

Contact: Sierra Fan, Co-founder and COO - sierra@illu.works

About the Company

illu is a software platform that helps cleantech manufacturers onboard and manage their installer networks. illu's unique workflow interface allows manufacturers to build a mobile installer app with their workflows and procedures in under 30 minutes.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Recent Successes

Current users include solar inverter and ESS hardware companies, including publicly listed manufacturers.

What They're Looking For

Looking to scale up our user base further in the residential and commercial solar and ESS space, and enter the EV charging and HVAC space. Particularly seeking hardware companies who are currently scaling their installer and service coverage and want to streamline that process.

Solar Prize (continued)



CraftStrom

www.craftstrom.com

Prize Status: Semifinalist; **Prize Winnings:** \$50,000

Contact: Stephan Scherer, Managing Director - stephan.scherer@craftstrom.com

About the Company

We designed a plug and play solar system with storage that combines plug and play solar systems with a plug and play battery and a powermeter to intelligently balance our customers' home energy needs. Our system also runs zero-export, to avoid any grid connection fees.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration


Recent Successes

We have been selling our solar products in the U.S. and Europe, gradually building up our client base and production capabilities as we were finalizing our battery certifications.

All our components are now tested to qualify for sale in all of Europe and North America. We have signed contracts with resellers on both continents and, so far, have pre-orders for 20,000 solar panels, with estimates for further sales of 50,000 systems in 2024.

What They're Looking For

We still need funding, especially during these high-interest rate times, to expand. We would also prefer to manufacture at least some components in the U.S. rather than China.

 NoMIS Power NoMIS Power
www.nomispower.com
Prize Status: Semifinalist; Prize Winnings: \$50,000
Contact: Adam Morgan, Co-Founder, CEO, Technical Lead for Packaging Design - adam.morgan@nomispower.com
About the Company NoMIS Power is a design house and fab-less power semiconductor device provider of efficient, high-performing, and rugged Silicon Carbide (SiC) power devices and modules. NoMIS technology overcomes the power limitations of today's power conversion systems to meet the needs of the global energy transition.
Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment
Recent Successes NoMIS Power was recently awarded an AFRL SBIR Phase III for the development of rugged SiC power devices to support the electrical power systems of aircraft. And we are now starting commercial production of 1.2 kV SiC MOSFETs in TO-247s available in Q1 '24 and 1.2 kV SiC half-bridge power modules available in Q3 '24.
What They're Looking For We're looking for electrical and reliability testing lab partners to help us meet JEDEC, AEC, and MIL standards for our devices. We want power management product companies to explore our SiC power devices for their next-generation products.

Climformatics Inc.

Solar Prize (continued)

www.climformatics.com

Prize Status: Semifinalist; **Prize Winnings:** \$30,000

Contact: Subarna Bhattacharyya, CEO & Co-Founder - subarna@climformatics.com

About the Company

At Climformatics, we accurately predict localized climate, fire-weather, solar power, and net-load one year ahead, bridging the gap between weather and climate modeling and enabling risk mitigation. Our Near-to-Long term Prediction (NLP) innovation is a product that improves the forecast accuracy for localized solar irradiance, climate and fire-weather on scales <100km by developing technology that compensates for missing sub-grid scale/processes that are not yet included in the weather and climate models. This tool bridges the gap between short-term weather and long-term climate modeling technologies on the Subseasonal-Seasonal-Annual time scale identified by users as a singularly important and desired framework, missing from current resource planning and budgeting exercises. We engage strategic networks (CleanTech Open, United Nations Disaster Risk Reduction public-private partnership ARISE-US chapter, CALSEED), focusing currently on utilities for actionable climate-smart risk resilience for California's electrical grid infrastructures.

Climformatics provides a subscription-based, scalable tool that, when incorporated into any business risk assessment platform, will disrupt the trajectory of climate-driven catastrophe risk assessment, allow for improved disaster preparedness, and save lives.

Technology Readiness Level (TRL): TRL 5 - Component and/or process validation in relevant environment

Recent Successes

Climformatics is a proud winner of the CALSEED Concept Award 2022, and is a member of the UN Disaster Risk Reduction ARISE-US Chapter.

Climformatics is also partnering with University of California at Berkeley for their Data Science Discovery Program.

What They're Looking For

Seed funding round of \$3 million for completing MVP product development; paid pilots; early adopter customers; and partners.

Solar River - Tectonicus

www.solar-river.info

Prize Status: Semifinalist; **Prize Winnings:** \$30,000

Contact: Ben Lepley, Founder - info@tectonicus.com

About the Company

A stand-alone software for designing and optimizing solar panels placed over canals. The software takes

Solar Prize (continued)

in geometric variables, geography, local historical weather, wind loads, structural components, electrical components, and system design needs, and creates a design with the lowest levelized cost of energy.

Technology Readiness Level (TRL): TRL 3 - Analytical and experimental critical function and/or characteristic proof of concept

Recent Successes

Two Solar-River pilot projects have been announced as funded for construction, with one of them breaking ground in December 2023 (the first of its kind in the Americas).

What They're Looking For

We need another funding round to update our software for our latest environmental lab testing data, so we can fold in benefits such as evaporation, algae growth prevention, grid connection costs, and other benefits not previously worked into the software. We also plan on working the next versions back into the Rhino/Grasshopper environment, instead of as a stand-alone, as this will increase our ability to make iterative changes easily.



Noria Energy

www.noriaenergy.com

Prize Status: Finalist; **Prize Winnings:** \$150,000 + \$75,000 voucher

Contact: Jimmy Raiford, Head of Technology Development - james@noriaenergy.com

About the Company

Noria Energy is building the future of floating solar. Our product, AquaPhi, enables rotational tracking of the sun. AquaPhi increases energy production by up to 17% compared to floating solar with fixed anchoring, leading to higher project revenues. Our technology also reduces installation costs and complexity by replacing over-engineered, site-specific anchors and mooring lines.

Technology Readiness Level (TRL): TRL 6 - System/process model or prototype demonstration in a relevant environment

What They're Looking For

Noria is currently raising our Series A round and looking for investors and pilot project partners.

The Sunny Awards for Equitable Community Solar

Recognizes community solar portfolios and programs that employ or develop best practices to increase equitable access to the meaningful benefits of community solar. [Learn more](#)

SOLARone

Solar One

www.solar1.org

Prize Status: Finalist; **Prize Winnings:** \$11,000

Contact: Gretchen Bradley, Director, Community Solar - gretchen@solar1.org

About the Company

Solar One is a 501(c)(3) not-for-profit organization whose mission is to design and deliver innovative education, training, and technical assistance that fosters sustainability and resiliency in diverse urban environments.

Technology Readiness Level (TRL): TRL 7 - System/process prototype demonstration in an operational environment

What They're Looking For

Pre-development funding, NYC-based non-profit, affordable housing and community solar developer partners, partnerships with community solar-subscriber acquisition groups.

Brownfield to Brightfield (City of Urbana, IL)

urbanaininois.us

Prize Status: Finalist; **Prize Winnings:** \$2,500

Contact: Scott Tess, Sustainability & Resilience Officer - srtess@urbanaininois.us

About the Organization

Brownfield to Brightfield is a 5.3MW community solar project developed in partnership with the City of Urbana sited on a brownfield in Urbana, Illinois.

Audiences/Communities Served

Low-income residents

Water Resource Recovery Prize

Designed to accelerate the transition from conventional wastewater treatment to a model of resource recovery from municipal wastewater. [Learn more](#)

Genifuel Corporation
www.genifuel.com
Prize Status: Winner; Prize Winnings: \$300,000
Contact: James Oyler, President, Genifuel Corporation - jim@genifuel.com
About the Company Intellectual property and machinery to convert wet wastes into biocrude oil and natural gas. The process is the same as the geological processes that produced oil and gas, but we do it in 30 minutes instead of millions of years. We have scaled multiple times and are now building commercial systems.
Technology Readiness Level (TRL): TRL 7 - System/process prototype demonstration in an operational environment
Recent Successes Pilot-scale system running since 2017 and small commercial system starting construction later this year (2023). Our mobile demonstration system has so far visited potential customers in five states. We have also formed an alliance with a very large European partner.
What They're Looking For Funding to build company to rapidly take advantage of current opportunities and incentives included in the Inflation Reduction Act.

Water Resource Recovery Prize (continued)

Chomp



www.chomp.energy

Prize Status: Finalist; **Prize Winnings:** \$50,000

Contact: Michael Smith, Director, Legal and Business Development - michaels@chomp.energy

About the Company

Chomp manufactures and sells community-scale, prefabricated anaerobic digester systems that transform food waste, liquids, and other organic materials into renewable natural gas and biofertilizer with nearly zero waste.

Technology Readiness Level (TRL): TRL 8 - Actual system/process completed and qualified through test and demonstration

Recent Successes

[A strategic partnership](#) with National Grid Partners.

What They're Looking For

Funding, and strategic and pilot partners.



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Alumni Book