

This is the BEST START Digest, an energy sciences newsletter published by the Energetics Technology Center (ETC) Inc. BEST START provides the crucial support businesses need to bring their visionary technologies to the warfighter. Whether refining smart grid technologies, enhancing renewable energy applications, or creating resilient solutions for power generation, BEST START partners with Minnesota companies to move technology forward. This newsletter aids in this mission.

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Partner Update

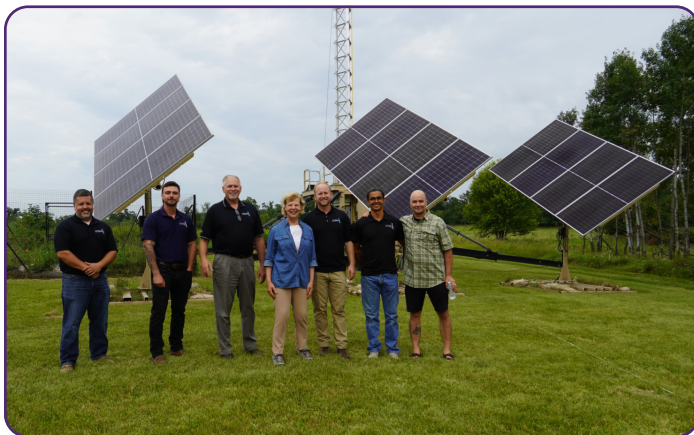
The **ETC BEST START** team has directly engaged the University of Minnesota Office of Investment Banks' (OIB) VC portfolio manager on behalf of the BEST START companies. As reported in the last issue of the Digest, the OIB administers the Minnesota State Small Business Credit Initiative (SSBCI) venture capital allocation, which are federal funds under the Covid-19 American Rescue Plan Act (ARPA) stimulus. Minnesota was allocated \$97 million for its SSBCI program, making it a potential funding opportunity for Minnesota small businesses. ETC briefed the OIB about each company, including specifics related to their technologies. VC funding would help accelerate the development of the

companies' technologies, bringing them closer to commercialization and potential procurement by the Army.

LEMA, Inc., coordinated a meeting with Senator Tammy Baldwin and the Senate Appropriations Committee staff, wherein Baldwin and staff visited LEMA's test site and met with key personnel. (See photos with Senator Tammy Baldwin below.)

Aza Power Systems presented their project on modular repower approach for diesel engines, The Rugged Ammonia Power System (RAMPS), at the 4th Symposium on Ammonia Energy at the University of Minnesota. They shared initial testing data, project status, and provided attendees with a practical alternative to full engine replacement.

COMPANY	PROJECT
Maxwell Labs Inc.	Photonic Cooling
SYNCRIS	Microgrid Inverter with Model Predictive Control
BWR Innovations, LLC	Hydrogen Fuel Cell
Ascentek, LLC	Sodium Ion Battery
Aza Power Systems	Ammonia Power Combustion
LEMA, Inc.	Dual-axis high-efficiency Solar Power System
Exergi Predictive, LLC	AI-Based Energy Control for Tactical Microgrids



General News

Defense Innovation Unit Digital On-Ramp

Devon Bistarkey, Defense Innovation Unit, April 3, 2025

The Defense Innovation Unit is developing what it terms a Digital OnRamp for official roll out by the end of the year. When launched, the OnRamp will be a single sign on platform that enhances the process of matching private sector capabilities with defense opportunities.

How Geothermal Energy Can Fill Solar and Wind Energy Gaps in Clean Microgrids

Lisa Cohn, Microgrid Knowledge, September 2, 2025

Next generation geothermal systems can be deployed in microgrids, providing flexible, dispatchable energy that complements intermittent sources like solar and wind. Geothermal also retains the federal investment tax credit as solar and wind tax credits get phased out.

Microgrid Challenges

Ryan Cross, Microgrid Knowledge, September 3, 2025

The DOE estimates that data centers could consume 12% of total US energy production by 2028. Projections also reveal that on-site generation will power more than 1/4 of data centers by 2030. However, challenges are abundant, including that some states require a local utility own the generation, sizing of the facility required to run the generation continuously or only when extra capacity is needed, fuel source constraints, storage needs, and permitting.

Legislative Updates

SBIR/STTR News. SSTI, a comprehensive weekly resource for those involved in economic development, reported on September 10, 2025, that changes may be coming to the SBIR/STTR program. While it is likely to be extended one year in an “as is” clean extension (H.R. 5100), there are House and Senate reforms on the horizon that have been introduced by the bodies’ Small Business Committees. House Committee Chairman Williams has packaged a proposed compromise H.R. 4777. If enacted as proposed by the House Committee, some of the provisions are:

- \$75 million cap on future SBIR Phase I and II awards for any one firm. There is a waiver for mission critical needs for firms heavily engaged with the Department of War, NASA, or DOE
- Submission throttle of a maximum of 10 proposals per solicitation and 25 per agency per year
- Broaden geographic participation by requiring outreach to rural areas and SBDC’s to provide technical assistance and proposal support

There is no mention of FAST (the Federal and State Technology Partnership

Program) awardees as technical assistance resources, which may further signal their demise. The House FY 2026 appropriations bill sets FAST funding at zero.

DOE Science Increased in Narrow House Vote. Appropriations and funding bills continue to be considered in Committees and in House votes. The House Energy and Water bill was passed by the full House by a single vote, 214-213, on September 4th, which includes a 50% cut to the [Office of Energy Efficiency and Renewable Energy](#). A 2% increase for the Department of Energy Office of Science was approved, despite cuts overall. SSTI, September 11, 2025.

New Battery Chemistry Innovations in Electrode Production

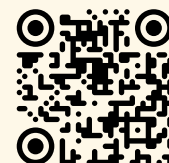
Rod Walton, EnergyTech, September 26, 2025

U.S. Companies like Kodak and Ateios are developing a solvent-free production process, called RaiCure, for high-energy electrodes, which offer substantial improvements. These innovations “can be deployed as a drop-in solution for faster, environmentally friendly, and more efficient electrode coating at manufacturing scale,” said Eastman Kodak’s CTO.

Opportunities and Solicitations

Topics for SBIR/STTR Solicitations

[12 new topics](#) are released on the first Wednesday of each month. Pre-release and open and closing dates for DoD SBIR/STTR topics can be found on the [Defense SBIR/STTR Innovation Portal](#).



Scan QR or visit <https://www.beststart.io> for more information.

UPCOMING EVENTS

Date	Event	Organizer	Location
Oct. 13–15, 2025	AUSA's Annual Meeting and Expo	AUSA	Washington, DC
Oct. 13, 2025	Minnesota Energy Innovation Summit	Various	Minneapolis, MN
Oct. 22–23, 2025	Microgrid and Energy Resilience Summit	Defense Strategies Institute	National Harbor, MD
Nov. 5, 2025	MN Annual State of Manufacturing Survey Release Event	Enterprise Minnesota	Minneapolis, MN
Dec. 4, 2025	2026 Legislative Preview	Clean Energy Economy MN	Minneapolis, MN