

# DOE \$5M Match Grant to Michigan-Based Clean Tech Company Gives the Green Light for Expansion

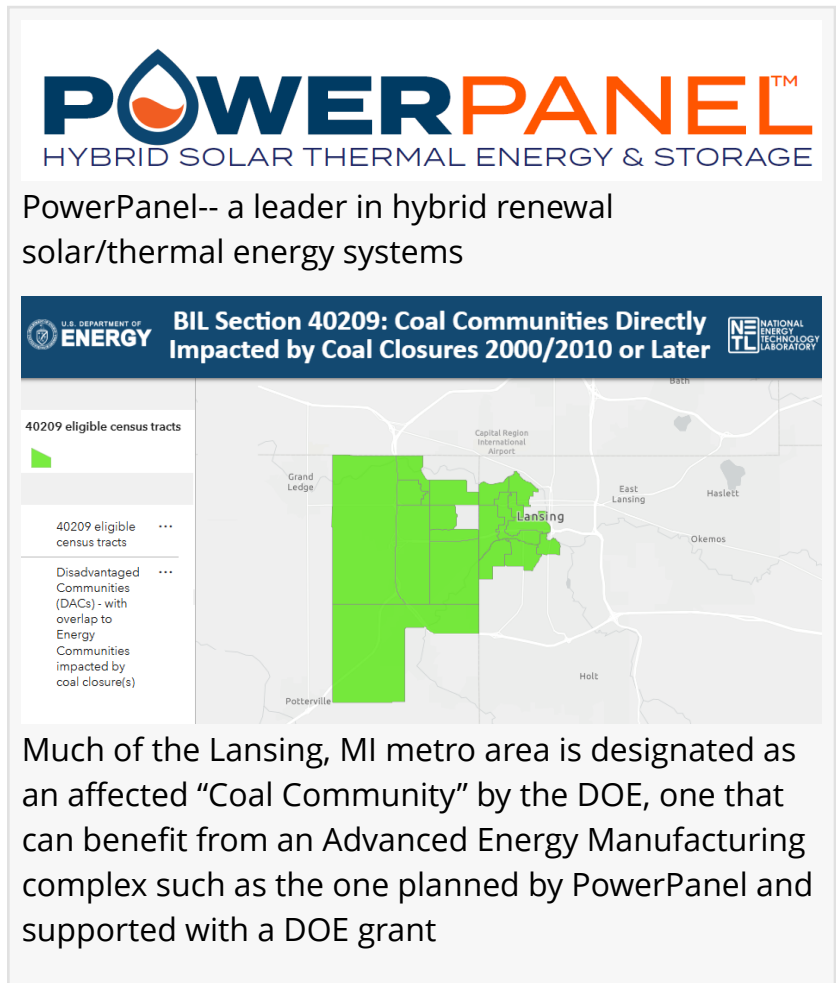
*DOE as well as local partners team up with PowerPanel in Lansing, to expand manufacturing of their clean energy systems and ultimately create over 150 new jobs*

LANSING, MI, UNITED STATES,  
December 18, 2024 /

EINPresswire.com/ -- From the Caribbean to the Ukraine, in applications ranging from disaster relief to “smarter” thermal energy generation at facilities of every type, the demand is surging for PowerPanel’s unique hybrid solar energy generation systems. Now, thanks to a multi-million grant from the [Department of Energy](#) along with workforce assistance from Michigan Works! a state-supported agency, the company will be able to ramp-up system manufacturing capacity, thanks to an innovative repurposing of a 50,000+ sq. ft. legacy industrial facility into a new advanced technology manufacturing center.

DOE is finalizing an over five million dollar grant to help make the company’s plan possible. “The DOE’s grant is the catalyst we need to grow our ability to make clean, critical energy available anywhere and everywhere it’s needed and make a positive climate impact globally, all while fostering economic, workforce and community development right here in our own home state ” stated Garth Schultz, president and founder of PowerPanel.

Continued Schultz, “This type of grant, DE-FOA-0003294, is awarded for Advanced Energy Manufacturing. It is geared towards the economic development of a site within a designated



**POWERPANEL™**  
HYBRID SOLAR THERMAL ENERGY & STORAGE

PowerPanel-- a leader in hybrid renewal solar/thermal energy systems

**BIL Section 40209: Coal Communities Directly Impacted by Coal Closures 2000/2010 or Later**

U.S. DEPARTMENT OF ENERGY | NATIONAL ENERGY TECHNOLOGY LABORATORY

40209 eligible census tracts

40209 eligible census tracts

Disadvantaged Communities (DACs) - with overlap to Energy Communities impacted by coal closure(s)

Map showing Lansing, MI metro area designated as an affected “Coal Community” by the DOE.

Much of the Lansing, MI metro area is designated as an affected “Coal Community” by the DOE, one that can benefit from an Advanced Energy Manufacturing complex such as the one planned by PowerPanel and supported with a DOE grant

'Energy Community;' specifically a location that has or had coal-powered generation or mining activities, or perhaps borders such an area, according to census data. The goal of a new recipient manufacturing plant is to 'support revitalization in an underserved and economically disadvantaged community,' in accordance with the DOE's Justice40 initiative."

"In addition, we will be working with local organizations such as LEAP ([Lansing Economic Area Partnership](#)) and [MichiganWorks!](#) to create over 150 quality, full-time new jobs – with 40% of those being filled by workers from designated disadvantaged communities" added Schultz.



A PowerPanel GEN20 Integrated System installed on the rooftop of a resort in the U.S. Virgin Islands, using solar energy to provide all the hot water the resort needs at a fraction of the cost of using utility power. The company's new facility in Michiga

The new plant will manufacture and assemble PowerPanel's line of GEN20 hybrid solar/thermal energy systems, which are based on several patented technological breakthroughs in the field. The first is a unique hybrid Photo-Voltaic/Thermal (PVT) panel which effectively combines two energy streams from the sun instead of one, generating both electricity and hot water from a single module. As a result, PowerPanel's "unitary" approach to solar energy produces four times the energy output of either a solar PV panel or solar thermal collector by itself. The second is a unique Thermal Tank to store all that increased energy produced by the PVT panels. It's made entirely of lightweight, engineered thermoplastics with twice the insulation capability as well as superior chemical and corrosion resistance compared to water storage tanks made from commonly used steel.

With the new facility up-and-running, PowerPanel expects to increase their PVT unit capacity some 25X, to over 120,000 per year. That works out to over 16 mW (megaWatts) of electricity produced plus another 65 mW of thermal energy, all from clean, emission-free solar power which will contribute to global decarbonization efforts. The increase in PVT production anticipates the needs of the global market for thermal storage systems, which is expected to grow to over \$10 billion dollars over the next five years—and is the category in which PowerPanel is regarded as an up-and-coming leader.

PowerPanel will fabricate both the PVT panels and Thermal Tanks on-site using state-of-the-art manufacturing technologies, including advanced injection-molding incorporating plasma treating methods along with advanced robotics to ensure the absolute precision necessary for thermal

system integrity. Partners and suppliers for the PowerPanel systems include NREL, 3M and BASF.

In addition, PowerPanel is working with Ceres Greenhouse Solutions in Colorado, a manufacturer of commercial and other greenhouses, to address the needs of the agricultural market (<https://ceresgs.com>). By heating or cooling greenhouses 24/7 with stored solar thermal energy, PowerPanel systems can efficiently and cost-effectively support year-round farming in colder latitudes such as Michigan.

PowerPanel's CEO Rob Kornaherns explained the strategy behind their expansion plans and partners. "We presently serve what I call 'a broad range of niche markets.' These include hospitality, medical, educational and 'any and all' other facilities that need a lot of clean, hot water for operations, but also are operating in places where a high cost-of-electricity makes hot water extremely expensive. For these types of users, our systems can pay back for themselves in short order. And with this new manufacturing facility, we're planning on meeting both the increased demand for systems in those existing, more specialized markets plus the rapidly growing 'smart agriculture' sector, which represents an added \$16 billion market globally and is inclusive of everything from livestock and dairy production to horticulture."

PowerPanel expects the new manufacturing facility to be operational by Q2 2026. For more information visit PowerPanel at <https://www.powerpanel.com/>

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About PowerPanel: founded in 2016 by Garth Schultz, a veteran of clean vehicle development on projects involving GM, Chrysler and Ford, as well as clean agriculture initiatives, PowerPanel's focus is advancing the field of hybrid solar energy with its highly efficient photo-voltaic plus thermal technology (PVT). The company's patented technical breakthroughs in PVT represent the greatest leap achieved in solar energy generation since the first demonstrations of the solar electricity module itself over four generations ago.

Today, PowerPanel manufactures the highly successful GEN20 line of PVT systems which also incorporate the company's advanced Thermal storage technology. GEN20 Portable Systems are providing clean, hot water along with electricity for essential applications as part of relief efforts ranging from the hurricane-struck Caribbean to the Ukraine. Larger GEN20 Integrated Systems are successfully operating at hotels, resorts and other multi-dwelling units, as well as serving health care, food, laundry and other facilities. PowerPanel is headquartered in Oxford, Michigan USA, where it manufactures its own products.

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