

Clean Tech Company Introduces Liquid Storage Tanks Made From 'Engineered Thermoplastics'

Michigan-based PowerPanel's Thermal Tank storage system consists of foam sections for a light, modular design that can be assembled on-site in minutes

LANSING, MI, UNITED STATES, May 7, 2025 /EINPresswire.com/ -- PowerPanel's [Gen20 Thermal Storage Tank concept](#) has the potential to replace traditional steel tank construction with durable, safe, stable and recyclable thermoplastics. It's a lightweight, rapidly deployable thermal storage system that can be set up in minutes and offers improved resistance to corrosion. Made from Expanded Polypropylene (EPP) foam sections and incorporating other plastics in its design, the Thermal Storage Tank weighs less than a standard tank and has twice the insulation effectiveness along with up to 1/5th the energy storage costs.



Solar thermal-electric system using PowerPanel's Thermal Storage tanks and Heat pumps at a Caribbean resort, capable of supplying the resort's entire hot water needs at a fraction of the cost of utility energy

EPP is a versatile closed-cell material offering improved thermal insulation and impact resistance along with recyclability, one proven in applications across various industries including automotive. In HVAC and other liquid storage applications, tanks made from EPP can simplify both the installation and operation process.

The tank's inventor and PowerPanel founder, Garth Schultz, notes that "the steel and glass hot water storage tanks of today are just a few generations removed from the original invention some 130 years ago. We believe that our solution, based on modern engineering and new materials, represents a significant advancement in the field of thermal liquid storage."

The PowerPanel Thermal Tank Storage system will offer cost advantages to specifiers, installers and users. Being "Made-in-U.S.A" it qualifies for the Federal ITC 40% tax credit and other applicable incentives, as well as not being subject to any tariffs affecting imported types. It also provides lower installation and maintenance costs. Unlike metal types, the EPP tank is more corrosion-resistant which lowers maintenance costs. Since the heaviest individual pieces weigh just 10 pounds, an entire Tank assembly can be handled by a team of just two people. The EPP plastic design and construction enable a "building block" assembly method, which allows Thermal Storage units to be more easily and quickly retrofitted into nearly any existing facility, on a rooftop or at ground level.



The modular pieces that form a complete PowerPanel Thermal Tank, making set-up quick and easy

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Our Thermal Storage Tank concept represents a “reimagining” of the hot water tank itself, as introduced over a century ago.”

*Garth Schultz, inventor &
PowerPanel founder*

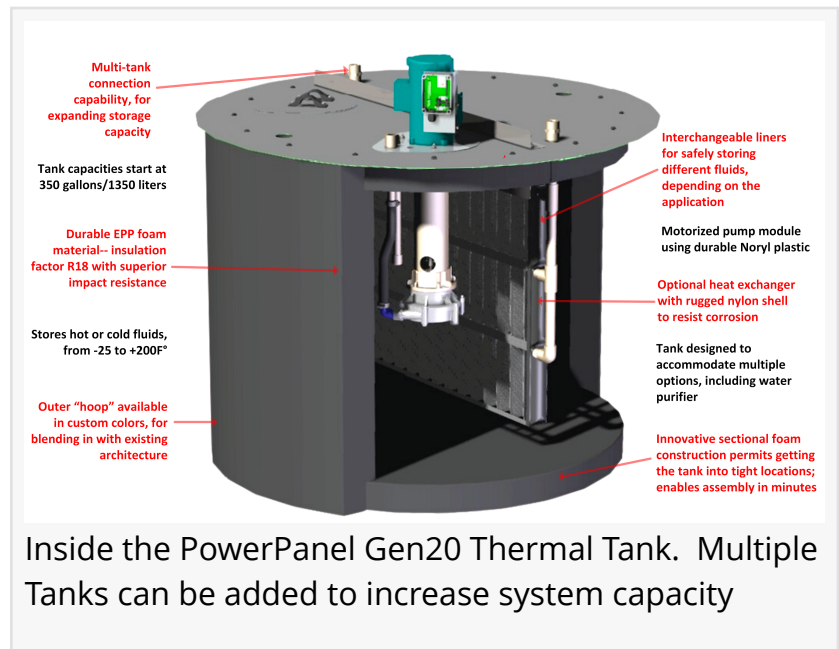
Since both the exterior and interior liner are made from non-degrading engineered foam and plastics, the Thermal Tank can be installed indoors or outdoors or even buried at grade. Multiple Thermal Storage Tanks can be “cascaded” together if more capacity is needed. Because the Thermal Tank isn’t pressurized no pressure vessel certification is required. There are a range of upgrades and options available for them, including a Heat Pump, heat exchanger, and water-purification system for medical and other field uses.”

Continues Schultz, “Because of their potential in HVAC and other markets, we’ve recently partnered with the Department of Energy to expand our manufacturing facilities here in Michigan meet the anticipated increased demand for the Thermal Storage system.”

By itself, a standard PowerPanel 350-gallon Thermal Storage Tank will lose just a little over 2°C / 3.6°F of heat over a 24-hour period due to the EPP material’s insulating properties. They are suited for both hot or cold liquids storage applications, with an operational temperature range from -25°F/-31°C to 200°F / 93°C. The material also has higher impact and chemical resistance compared to commonly used metal tank materials, especially important when used locations

such as the Caribbean where the available water is often desalinated by “reverse osmosis” (RO) and more corrosive as a result.

PowerPanel’s Thermal Storage Tank can cover a wide range of residential, commercial, “smart” agricultural and industrial applications, including hotels, multi-dwelling units, health care, laundry, and other facilities. Concludes Garth Schultz, “our Thermal Storage Tank concept represents a “reimagining” of the hot water tank itself, as introduced over a century ago.”



[See the Thermal Storage Tank system here: https://tank.powerpanel.com/](https://tank.powerpanel.com/)

For more company 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 as well as clean agriculture initiatives, PowerPanel’s mission today is advancing the field of hybrid solar energy with its efficient photo-voltaic plus thermal technology (PVT). The company’s patented advances in PVT represent a technological leap 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](#) incorporating the company’s advanced Thermal Tank 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 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 products.

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