

Tecogen Files Provisional Patent for New Hybrid Drive

WALTHAM, MA, July 07, 2021 (GLOBE NEWSWIRE) -- via NewMediaWire -- Tecogen Inc. (OTCQX: TGEN), a clean energy company providing ultra-efficient and clean on-site power, heating, and cooling equipment, is pleased to announce the filing of a provisional patent application entitled "High Efficiency Hybrid Engine-Driven Variable Frequency Drive." The application describes a novel system for seamlessly blending multiple power sources in any combination through a single inverter. The system will allow building owners to energize loads such as a chiller plant from an engine generator system, the existing electric utility, and/or solar and battery storage.

"We developed the hybrid drive concept to enable sales to two key market segments, including the air-cooled chiller market which is substantially larger than the water-cooled chiller market in our size range and is not currently addressed by our Tecochill® chillers, and an expanded edge-of-grid solution, blending the most appropriate energy source based on system operators' preferences regarding cost, efficiency, and environmental impacts," noted Robert Panora, President and Chief Operating Officer at Tecogen.

The hybrid drive based air-cooled chiller will allow customers to obtain maximum savings while having the added benefit of resiliency from multiple power sources. As the world moves towards a zero-carbon future many utilities are incentivizing microgrid and edge-of-grid solutions to shed load during peak times. Tecogen is already a recognized leader in microgrids, and the hybrid drive will allow customers with grid connections to seamlessly shed excess load on request and receive payments from utilities for doing so.

The hybrid drive would also allow many renewable sources such as rooftop solar systems to be used in a grid outage. In many cases these systems are not set up to run off-grid, but the hybrid drive would enable islanding from the grid as well as blending other energy sources as appropriate with no loss in efficiency. The system contemplates drawing from renewable sources when advantageous, including accessing solar and wind power in lieu of the engine as appropriate to achieve an optimal mix of affordable and clean power.

"Customers are looking to maximize savings and resiliency while choosing the greenest source of power," noted Benjamin Locke, Tecogen's CEO. "As the electric grid becomes greener and renewable, and on-site power becomes more widespread, the natural gas engine input to the hybrid drive may be used primarily for backup power, with an integrated inverter and controls providing effective coordination of all connected energy sources, and the system providing power in normal operations from renewable or other available energy sources."

About Tecogen

<u>Tecogen Inc.</u> designs, manufactures, installs, and maintains high efficiency and ultra-clean cogeneration products, including combined heat and power systems, air conditioning systems, and high-efficiency water heaters for residential, commercial, recreational, and industrial applications. The company's cost efficient, reliable, and environmentally friendly products for energy production nearly eliminate criteria pollutants and significantly reduce customers' carbon footprint.

In business for over 35 years, Tecogen has shipped more than 3,000 units, supported by an established network of engineering, sales, and service personnel throughout North America. Aggregate run hours on Tecogen's InVerde cogeneration systems exceeds 5 million hours. For more information, please visit www.tecogen.com or contact us for a free Site Assessment.

Tecogen, InVerde e+, Ilios, Tecochill, Tecofrost, Tecopack, Tecopower, and Ultera are pending or registered trademarks of Tecogen Inc.

Forward Looking Statements

This press release contains "forward-looking statements" which may describe strategies, goals, outlooks or other non-historical matters, or projected revenues, income, returns or other financial measures, that may include words such as "believe," "expect," "anticipate," "intend," "plan," "estimate," "likely" or "may" and similar expressions intended to identify forward-looking statements. These statements are only predictions and involve known and unknown risks, uncertainties and other factors that may cause our actual results to differ materially from those expressed or implied by such forward-looking statements. Forward-looking statements speak only as of the date on which they are made, and we undertake no obligation to update or revise any forward-looking statements.

In addition to the Risk Factors described in our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q under "Risk Factors," factors that could cause our actual results to differ materially from past and projected future results include the impact of the coronavirus pandemic on demand for our products and services, the availability of incentives, rebates and tax benefits relating to our products, changes in the regulatory environment relating to our products, competing technological developments, and the availability of financing to fund our operations and growth.

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