



Hillcrest Wraps Up 2022, a Year of Technology and Commercialization Milestones

- Validated Zero Voltage Switching inverter technology through the publication of two white papers
- Completed 800V 250kW EV traction inverter commercial prototype
- Announced projects with two co-development partners
- Additional co-development agreements expected in early 2023

VANCOUVER, British Columbia, Dec. 21, 2022 -- Hillcrest Energy Technologies (CSE: HEAT) (OTCQB: HLRTF), a clean technology company developing transformative power conversion technologies and control system solutions for next-generation electrical systems, is pleased to provide a recap of the significant progress achieved by the company during 2022.

“2022 has been a tremendous year for Hillcrest, as the company met or exceeded every milestone we set out to achieve. We are proud of the incredible progress made thus far,” stated Hillcrest CEO Don Currie. “We entered the year with a proof of concept for our core technology, the Hillcrest ZVS inverter technology, and progressed through design, commissioning and finally completion of our first customer-centered product. Our technical team has delivered at every level and excitement is building around even bigger expectations in 2023.”

Key 2022 Highlights

Validation

During 2022, Hillcrest [published two technical white papers](#) on the Hillcrest ZVS inverter technology. Results summarized in these publications include:

- Inverter efficiency exceeding 99.4% at 60 Hz
- Improvements in motor efficiency of up to 13%
- Ability to reduce the size and weight of DC-link capacitors by as much as 50%

These technical publications provided an early demonstration of Hillcrest ZVS inverter technology’s value and were a pivotal factor in garnering the attention of potential customers much earlier in the development process than the company originally anticipated. As a result, the company was able to secure two co-development partnerships before completion of its first commercial prototype.

Prototype

In December 2022, the company announced the [completion of its 800V 250kW ZVS traction inverter commercial prototype](#). Through the material elimination of switching losses, the prototype takes advantage of higher operation frequencies at higher voltage, and offers improved motor efficiency, performance and reliability. With this prototype, the company believes it is the first to overcome the challenges found with current hard-switched wide-bandgap devices such as existing silicon carbide (SiC) traction inverters.

Co-development partners

In October 2022, the company announced its first two co-development agreements. Hillcrest is now working with [Hercules Electric Mobility](#) and a [Global Tier 1 automotive supplier](#) on integrating the ZVS traction inverter into their specific commercial applications.

The company is also engaged in ongoing conversations with several other automotive manufacturers and Tier 1 automotive suppliers on additional co-development and commercialization opportunities.

Other major milestones

Hillcrest is fully committed to developing transformational power conversion technologies. Part of that commitment comes with the responsibility to pursue and implement practices and policies that meet or exceed ESG expectations established by regulators and institutional investors around the world.

As part of our commitment to our clean energy focus, the company formally ceased oil and gas operations and commenced remediation work on our oil and gas leases. An aggressive 2022 work plan resulted in all wellbores plugged and surface equipment removed. The only work remaining is reclamation of the surface, which is expected to commence once winter weather breaks, with all effort anticipated to be complete by the end of 2023.

The Hillcrest team and purpose

“At Hillcrest we’ve assembled an incredible team with deep understanding and expertise, from technology development to the commercialization and implementation stages,” said CTO Ari Berger. “Additions to our team in 2022 included firmware engineers with expertise in electric vehicles and grid-tied applications.”

Currie added “We strengthened our Board of Directors with the incredible knowledge and experiences of David Farrell, who accepted the role as Chair and Michael Moskowitz who transitioned onto the Board of Directors and now Chair’s the Executive Committee”

From concept to commercialization, Hillcrest is developing the energy solutions that will power a more efficient, sustainable and electrified future. For every increase in efficiency, performance and reliability achieved with Hillcrest power conversion technologies, the company supports the global effort for a more sustainable, low-cost energy future. In 2023, Hillcrest intends to continue this effort through accelerated product development and commercialization activities in the quest to generate sustainable value for shareholders and stakeholders.

About Hillcrest Energy Technologies

Hillcrest Energy Technologies is a clean technology company developing high-value, high-performance power conversion technologies and digital control systems for next-generation powertrains and grid-connected renewable energy systems. From concept to commercialization, Hillcrest is investing in the development of energy solutions that will power a more sustainable and electrified future. Hillcrest is publicly traded on the CSE under the symbol “HEAT,” on the OTCQB Venture Market as “HLRTF”. For more information, please visit: <https://hillcrestenergy.tech/>.

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