

# Hillcrest's ZVS Technology to Elevate Efficiency and Performance of Grid-Connected Power Applications

Vancouver, British Columbia--(Newsfile Corp. - March 7, 2024) - Hillcrest Energy Technologies (CSE: HEAT) (OTCQB: HLRTF) (FSE: 7HI), an innovative clean technology company revolutionizing power conversion technologies, is redefining the power inverter landscape with its Zero Voltage Switching (ZVS) technology platform. This cutting-edge solution introduces the material elimination of switching losses and the ability to deploy higher switching frequencies without the common drawbacks associated with conventional power inverters, ushering in the opportunity for groundbreaking advancements in grid-connected inverter applications.

Hillcrest's ZVS technology platform is an adaptable architecture decoupled from an inverter's power control system, allowing for speed and agility when deployed into new applications and adapted to specific customer needs. The Company has already successfully deployed the ZVS technology into a 350kVA EV traction inverter and power module. The recent addition of the grid-connected inverter further expands the Company's market opportunities.

Hillcrest has [demonstrated unparalleled inverter efficiency of 99.6%](#). In a grid-tied application, this exceptional efficiency would enhance power production and storage capabilities and contribute to a substantial reduction in the levelized cost of energy (LCOE). For example, the implementation of Hillcrest's ZVS technology into solar power generation could yield efficiency improvements of 2% or more. This could allow a 250MW solar farm to deliver 5MW more power to the grid and enable system operators to generate millions of dollars in additional revenues over the life of the solar farm. With the addition of storage and the associated bi-directional charge and discharge cycles, this same solar farm could deliver as much as 4% more power and realize even greater potential revenues.

[Recent electromagnetic compatibility \(EMC\) chamber tests with a European automotive manufacturer](#) showcased Hillcrest's ZVS inverter outperforming conventional inverters at all tested operating points. This achievement would dramatically reduce the need for heavy and costly shielding, coatings and filters, presenting a significant cost-reduction opportunity in nearly all high-power electrical systems.

Moreover, the ZVS technology is also expected to play a pivotal role in lowering other system costs by allowing significant reductions in the size and weight of line filters and DC-link capacitors. These enhancements are expected to provide additional reductions in overall system costs, offering a more efficient and streamlined solution for electrical systems.

Hillcrest's ZVS technology is set to establish a new industry benchmark for grid-tied power inverters, enhancing performance and reliability. By improving power quality and minimizing harmonics, the Company's ZVS technology is expected to reduce current distortion injected into the grid, ensuring compliance with requirements set by grid operators and utilities. This enhancement improves the energy output predictability and stability, providing a strategic advantage in system design and operation.

Hillcrest Chief Executive Officer, Don Currie, states, "Our ZVS technology platform represents a transformative leap in power inverter capabilities, offering strategic advantages in system efficiency, cost-effectiveness, and reliability. We are receiving incredible interest and have already engaged in early-stage discussions with several groups for applications ranging from utility-scale renewable energy generation and battery storage to EV charging. Our technology is now available for grid-connected applications along with our existing e-mobility capabilities, providing Hillcrest with a very large commercial pool of opportunities."

The Company will continue to provide additional updates as material events occur.

## **About Hillcrest Energy Technologies**

Hillcrest Energy Technologies is a clean technology company focused on providing advanced 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" and on the Frankfurt Exchange as "7HI". For more information, please visit: <https://hillcrestenergy.tech/>.

## **CONTACT INFORMATION**

### **Investor Relations**

Don Currie

[info@hillcrestenergy.tech](mailto:info@hillcrestenergy.tech)

O: +1 604-609-0006

Toll-free: 1 855-609-0006

Or

Walter Frank/Jennifer Belodeau

IMS Investor Relations

[hillcrest@imsinvestorrelations.com](mailto:hillcrest@imsinvestorrelations.com)

O: +1 203-972-9200

### **Public Relations**

Jamie L. Hogue

[jhogue@hillcrestenergy.tech](mailto:jhogue@hillcrestenergy.tech)

O: +1 602-793-9481

*NEITHER THE CANADIAN SECURITIES EXCHANGE NOR ITS REGULATION SERVICES PROVIDER HAS REVIEWED OR ACCEPTS RESPONSIBILITY FOR THE ADEQUACY OR ACCURACY OF THIS RELEASE.*

## **Cautionary Statement Regarding "Forward-Looking" Information**

Some of the statements contained in this news release are forward-looking statements and information within the meaning of applicable securities laws. Forward-looking statements and information can be identified by the use of words such as "expects," "intends," "is expected," "potential," "suggests" or variations of such words or phrases, or statements that certain actions, events or results "may," "could," "should," "would," "might" or "will" be taken, occur or be achieved. This forward-looking information is provided as of the date of this news release. The forward-looking information reflects our current expectations and assumptions and is subject to a number of known and unknown risks, uncertainties and other factors, which may cause actual results, performance or achievements to be materially different from any anticipated future results, performance or expectations expressed or implied by the forward-looking information. No assurance can be given that these assumptions will prove correct. Forward-looking statements and information are not historical facts and are subject to a number of risks and uncertainties beyond the Company's control. Investors are advised to consider the risk factors under the heading "Risks and Uncertainties" in the Company's MD&A for the year ended Dec. 31, 2022, available at [www.sedar.com](http://www.sedar.com) for a discussion of the factors that could cause the Company's actual results, performance and achievements to be materially different from any anticipated future results, performance or achievements expressed or implied by the forward-looking information. Accordingly, readers should not place undue reliance on forward-looking statements. The Company undertakes no obligation to update publicly or otherwise revise any forward-looking statements, except as may be required by law.

###



To view the source version of this press release, please visit <https://www.newsfilecorp.com/release/200716>