



Zinc8 Energy Solutions Provides Progress Update

Vancouver, British Columbia, Canada – October 21, 2021 Zinc8 Energy Solutions Inc. (“Zinc8” or the “Company”) (CSE: ZAIR / OTC: MGXRF / FSE: 0E9) is pleased to announce its engineering teams have now been relocated to its newly upgraded and renovated facility in Richmond, BC where the construction of multiple test zinc-air energy storage systems (“ZESS”) for certification to the UL / CSA battery safety standard and demonstration projects are underway.

The new facility has undergone a variety of upgrades to ensure its safety and to support various engineering activities. Modifications to the facility's electrical systems have been made to facilitate both engineering verification testing and certification validation testing for multiple ZESS's. In addition, the facility has the requisite space for nine subsystem level engineering teams, each of which are tasked with testing and analyzing a specific subsystem of the ZESS for certification.

The energy storage systems are in various stages of development with priority given to the system assigned to the previously announced demonstration project for the cloud service provider. Each of these ZESS's are being built to test various system levels in parallel for certification and are expected to allow Zinc8 to have a certified product available for the company's production of an initial commercial 40-kilowatt ZESS anticipated in the first quarter of 2023.

“We are continuing to advance towards initial production of a certified 40-kilowatt ZESS targeting beachhead markets such as New York State,” stated Ron MacDonald, President and CEO of Zinc8 Energy Solutions Inc. “These are exciting times as we are actively transitioning the company from research and development into pre-commercialization. We have several core members of our engineering team that have been with Zinc8 from its earliest research and development days. It is understood that developing a new and potentially revolutionary technology requires years of commitment. It is their diligence and innovation that has progressed the technology to the point where we can now present a working product for certification on our path towards commercialization.”

“The initial production target in early 2023 has been set by our team, based on our deep knowledge of emerging long-duration markets like New York City” added Mr. MacDonald. “The new facility has allowed for the expansion of our team through the addition of key personnel with the qualifications and past experience to move the company towards this objective. We recognize the opportunity that exists for the energy storage system market and we have worked hard to accelerate our timelines. I am pleased with our progress to date. Our previously announced energy storage systems that were purpose-built for certification and specific demonstration projects are on schedule and we expect to enter the data collection and analysis phase in the near future.”

In response to the increasing demand for its proprietary cathodes, which are critical to the cell stack manufacturing process, the company is set to commence the upgrading of its cathode production facility at its original Ash Street location, which is also home to the R&D team. These upgrades will significantly increase the volume capacity of cathode production that in turn will support the future annual production of cell stacks.

Zinc8 Energy Solutions focuses on developing and commercializing its low-cost, long duration ZESS for utilities, microgrid, and Commercial & Industrial markets. By using the patented ZESS as a standalone or an enabling technology, it allows opportunities for peak demand reduction, time-of-use arbitrage, and participation in both the value stacking programs and the distributed long-duration energy storage space, all in conjunction with the opportunity for a significant reduction in carbon footprint. The long duration (8-100+ hours) ZESS has no fire and explosion risk, has no capacity fade over extensive lifetime, and offers complete charge operational flexibility.

About Zinc8 Energy Solutions Inc.

Zinc8 has assembled an experienced team to execute the development and commercialization of a dependable low-cost zinc-air battery. This mass storage system offers both environmental and efficiency benefits. Zinc8 strives to meet the growing need for secure and reliable power. To learn more about Zinc8's technology, please visit: <https://zinc8energy.com>

More about the Zinc8 Energy Storage System (ESS)

The *Zinc8* ESS is a modular Energy Storage System designed to deliver power in the range 20kW - 50MW with capacity of 8 hours of storage duration or higher. With the advantage of rechargeable zinc-air flow battery technology, the system can be configured to support a wide range of long-duration applications for microgrids and utilities. Since the energy storage capacity of the system is determined only by the size of the zinc storage tank, a very cost-effective and scalable solution now exists as an alternative to the fixed power/energy ratio of the lithium-ion battery.

Technology

The *Zinc8* ESS is based upon unique patented zinc-air battery technology. Energy is stored in the form of zinc particles, similar in size to grains of sand. When the system is delivering power, the zinc particles are combined with oxygen drawn from the surrounding air. When the system is recharging, zinc particles are regenerated, and oxygen is returned to the surrounding air.



Applications

The flexibility of the *Zinc8* ESS enables it to service a wide range of applications. Typical examples include:

- Smoothing energy derived from renewable sources such as wind and solar
- Commercial/Industrial backup replacing diesel generators
- Industrial and grid scale, on-demand power for peak shaving and standby reserves
- Grid-scale services such as alleviating grid congestion, deferring transmission/distribution upgrades, energy trading and arbitrage, and increasing renewable energy penetration.

Architecture

The Zinc8 ESS is designed according to a modular architecture that enables a wide variety of system configurations to be created from a small number of common subsystems. Each subsystem implements a single element of the technology:

- The Zinc Regeneration Subsystem (ZRS) provides the recharging function
- The Fuel Storage Subsystem (FSS) provides the energy storage function
- The Power Generation Subsystem (PGS) provides the discharging function

Notice Regarding Forward Looking Statements

This news release contains certain statements or disclosures relating to Zinc8 Energy Solutions that are based on the expectations of its management as well as assumptions made by and information currently available to Zinc8 Energy Solutions which may constitute forward-looking statements or information ("forward-looking statements") under applicable securities laws. All such statements and disclosures, other than those of historical fact, which address activities, events, outcomes, results or developments that Zinc8 Storage anticipates or expects may or will occur in the future (in whole or in part) should be considered forward-looking statements.

Forward looking statements in this press release include that we will commence the demonstration unit now, that we can validate a low-cost, long-duration (8-to-100-hour), and sustainable energy storage technology which can provide megawatt-scale standby power solutions; that we can execute the development and commercialization of a dependable low cost zinc-air battery; that our mass storage system offers both environmental and efficiency benefits; and that we can help meet the needs for secure and reliable power. Zinc8 Energy Solutions believes the material factors, expectations and assumptions reflected in the forward-looking statements are reasonable at this time, but no assurance can be given that these factors, expectations and assumptions will prove to be correct. The forward-looking statements included in this news release are not guarantees of future performance. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements including, without limitation: that the demonstration unit does not provide the kind of data that can be applied in other projects or validate our technology; that our technology fails to work as expected or at all; that our technology proves to be too expensive to implement broadly; that customers do not adapt our products for being too complex, costly, or not fitting with their current products or plans; our competitors may offer better or cheaper solutions for battery storage; general economic, market and business conditions; increased costs and expenses; inability to retain qualified employees; our patents may not provide protection as expected and we may infringe on the patents of others; and certain other risks detailed from time to time in Zinc8 Energy Solution's public disclosure documents, copies of which are available on the Company's SEDAR profile at www.sedar.com. Readers are cautioned that the foregoing list of factors is not exhaustive and are cautioned not to place undue reliance on these forward-looking statements.

The forward-looking statements contained in this news release are made as of the date hereof and the Company undertakes no obligations to update publicly or revise any forward-looking statements, whether as a result of new information, future events or otherwise, unless so required by applicable securities laws.

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