



Zinc8 Energy Solutions Announces the Signing of a Host Site Agreement with the New York Power Authority (NYPA) and the University at Buffalo, The State University of New York (UB)

Vancouver, British Columbia, Canada – April 8th, 2021 Zinc8 Energy Solutions Inc. (“**Zinc8**” or the “**Company**”) (CSE: **ZAIR** / OTC: **MGXRF** / FSE: **0E9**) is pleased to announce the planned deployment of its patented Zinc-air Energy Storage System (ZESS) at the University at Buffalo, a premier, research-intensive public university dedicated to academic excellence and making a positive impact on the world. This collaboration with the New York Power Authority (NYPA) marks a first long duration use in New York State and a development that will support further integration of renewable power sources into the grid.

Selection of the site will allow for the demonstration of a 100kW/1MWh Zinc-Air Battery Energy Storage System in Buffalo, New York to facilitate the wider use of renewable resources. Zinc8 won a contract to accelerate the new technology in the Innovation Challenge, a partnership between the New York Power Authority (NYPA) and the Urban Future Lab at New York University’s Tandon School of Engineering. The primary functions of the deployment will be to provide peak shaving capability by leveling out peaks in electricity consumption, increase campus resiliency and assist in training campus utility staff with new energy storage technology.

“We are very pleased to have the University at Buffalo join in our collaboration with the New York Power Authority to install our 100kW/1MWh Zinc-air Energy Storage System. This is a major milestone for Zinc8 on its path to our full commercialization target in early 2023” said **Zinc8 Energy Solutions President and CEO, Ron MacDonald**.

Zinc8’s ZESS will advance a holistic approach to what a low carbon sustainable energy system can achieve. It will be located less than a few hundred feet from the award-winning [UB Solar Strand](#), a project that NYPA and UB completed nearly a decade ago, and the [newly relocated GRoW Clean Energy Center](#) (a key part of UB’s climate action education and outreach efforts). In addition, the energy storage system will also be connected to the Baker Chilled Water Plant, which provides a cooling capacity of 168 million BTUs per hour, equivalent to 21,000 typical window air conditioning units. This facility provides service to most areas of the university’s North Campus, which consists of over 120 buildings including state-of-the-art academic and research spaces, the Student Union, athletic venues and administrative offices. Under the agreement with Zinc8, NYPA will contribute to the installation costs of the energy storage system at UB and share in the data generated during the demonstration period.

The project will move New York State further toward a carbon-free electric grid supported by renewable energy resources. The new technology storage system will help to achieve the State’s aggressive energy storage goal of 3GW by 2030 and support a nation-leading commitment of 100 percent electricity from zero carbon emission sources by 2040.

Gil C. Quiniones, NYPA president and CEO, said, “NYPA recognizes the potential for this first-of-its kind clean energy solution, and it is rewarding to see the project begin to take shape. The collaboration with Zinc8 and the University at Buffalo bodes well for a successful demonstration project that addresses the need for reliability of renewable energy resources and will help achieve New York State’s targets for energy storage.”

Zinc8’s 100kW/1MWh behind-the-meter energy storage system being installed at UB will serve to demonstrate the long-duration aspect of the energy storage system, to validate the performance reliability of the system, demonstrate the peak shaving capability, determine the O&M cost and to determine the estimated life cycle cost.

Tonga Pham, UB Associate Vice President of Facilities, said “UB is very excited to pilot this innovative energy storage system and is grateful for our partnership with NYPA and Zinc8. Although the project will mainly be used for peak shaving research, we are also interested in exploring alternative uses, such as emergency back-up for our campus buildings, gaining insight into the life cycle cost for alternative energy sources, and introducing our staff to the latest technology. Initiatives such as this will greatly help UB in our quest to achieve [climate neutrality by 2030](#).”

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 the University at Buffalo, The State University of New York

The University at Buffalo is a premier research-intensive public university, the largest and most comprehensive campus in the State University of New York. UB’s nearly 30,000 students pursue their academic interests through more than 300 undergraduate, graduate and professional degree programs. Founded in 1846, the University at Buffalo is a member of the Association of American Universities.

About NYPA

NYPA is the largest state public power organization in the United States, operating 16 generating facilities and more than 1,400 circuit-miles of transmission lines. More than 80 percent of the electricity NYPA produces is clean renewable hydropower. NYPA uses no tax money or state credit. It finances its operations through the sale of bonds and revenues earned in large part through sales of electricity. For more information visit www.nypa.gov and follow Twitter @NYPAenergy, Facebook, Instagram, Tumblr and LinkedIn.

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 installation of the Chilled Water Plant storage system will serve to demonstrate the long-duration aspect of the energy storage system, validate the performance reliability of the system, demonstrate the peak shaving capability, determine the O&M cost and determine the estimated life cycle cost, and 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 installed does not provide the kind of data that can be applied in other projects; 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.

Neither the CSE nor any Market Regulator (as that term is defined in the policies of the CSE) accepts responsibility for the adequacy or accuracy of this release.

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