Zinc8 Energy Solutions Announces Fiscal Year 2021 Audited Financials SEDAR Filing and Provides Corporate Update

Company continues to expand its efforts towards commercialization

VANCOUVER, BC, May 2, 2022 /CNW/ - Zinc8 Energy Solutions Inc. ("**Zinc8**" or the "**Company**") (CSE: ZAIR)(OTC: ZAIRF)(FSE: 0E9) today announced its audited financial statements for the fiscal year ended December 31, 2021 and its fiscal 2021 MD&A were filed on SEDAR. For detailed information on these results, please see Zinc8 Energy Solutions Inc. Fiscal Year 2021 Financial Statements and Management Discussion and Analysis as filed on SEDAR on May 2, 2022.

Fiscal Year 2021 Highlights Include:

- Ended the fiscal year of December 31, 2021 with working capital balance of $9.9 million.
- Selected as the "Energy Tech Innovator" at the WE3 Summit. The WE3 Summit is focused on connecting global thought leaders who are embracing change and spear-heading our water-energy future.
- On April 23, 2021, the Company announced it had signed a US$200,000 contract with a cloud data center provider to demonstrate its 10kW/80kWh Zinc-Air Energy Storage System ("ZESS") for resilient backup application. The unit will undergo assessment tests to address unique use cases in data centers and represents an expansion into broader new markets for the Company's ZESS. Zinc8 will provide a demonstration of its ZESS combined with an uninterruptible power supply ("UPS") to be compared with the performance of a traditional generator set. The demonstration consisted of the Zinc-Air System connected to a UPS and operated in standby and black started into discharge. The successful completion of the pilot demonstration will validate a low-cost, long duration (8 to 100 hour) and sustainable energy storage technology which can provide megawatt-scale standby power solutions.
- On April 8, 2021, the Company announced the planned deployment of the Zinc-Air System at the University of Buffalo, in collaboration with the New York Power Authority ("NYPA"). The site will allow for the demonstration of a 100kW/1MWh Zinc-Air System to facilitate the wider use of renewable resources.

Subsequent to December 31, 2021:

- On January 18, 2022, it was announced the Company and partner Digital Energy Corp signed a host site agreement with Fresh Meadows Community Apartments in Queens, NY, to install a 100kW/1.5MWh ZESS for the purpose of demonstrating its long duration energy storage capability that included financial support by The New York State Energy Research and Development Authority ("NYSERDA"). The ZESS will support and enhance the economics of a Combined Heat and Power ("CHP") plant which is currently under construction along with an existing solar system at the Fresh Meadows Apartments, a site that is owned by Cammeby Realty Corp.
- Selected as a "Best-in-Class" solution in the Energy Storage Category for the Real Estate Board of New York's ("REBNY") 2022 PropTech Challenge.

"I am very proud of the accomplishments the team at Zinc8 has made over the course of the year," said Ron McDonald, President and CEO of Zinc8 Energy Solutions. "We have worked diligently towards the development of our unique zinc-air energy storage system with the goal of introducing a certified commercial product in 2023. The additional floorspace from the new facility has allowed us to expand our efforts towards this endeavor. We have added key personnel, streamlined workflows and continued to work closely with our partners to advance our demonstration projects through the various stages of development."

"We are all aware of the need for change when it comes to the reduction of our carbon footprint and the investment in technology solutions is critical if we are to bring about this change. Long duration energy storage has a key role to play as we look to transition towards less carbon intensive energy sources. Many members of our dedicated team have spent years developing a long duration energy storage solution in recognition of this role and we remain confident that we are developing the right solution at the right time."

Corporate Update

The demonstration project with a leading cloud provider announced in April 2021 is ongoing. Zinc8's engineering team continues to test, collect, and analyze data from these tests while performing scheduled reporting to representatives from the cloud provider. Zinc8 engineering has completed the build of the energy storage system and conducted multiple discrete charge and discharge cycles as part of the testing process. Zinc8 is evaluating the overall performance of ZESS tied with 3rd party's power electronics. Teams from both Zinc8 and the cloud provider intend to run further tests and build upon the results of those tests. The Company looks forward to sharing an update as soon as it is mutually agreed upon by both parties.

Zinc8's facility on Ash Street has undergone significant renovations over the last several months. The facility will contain executive offices, a dedicated research and development laboratory and the equipment used for the production of the Company's proprietary cathodes. The cathode production equipment was delivered and installed in Q2 2022. Preliminary validation of equipment functionality and controls is underway and will be followed by small-volume production runs and consecutive analysis of product quality and properties. The production equipment is expected to increase annual production volume to meet a megawatt production target and allow for greater design flexibility for the production of cathodes used in the cell stacks providing further support for the Company's commercial strategy.

The Market Outlook

Long duration energy storage remains a key growth component of the global energy transition. Research firm BloombergNEF predicts 30% annual growth for the global energy storage market through 2030. According to Bloomberg, a total of 10GW/22GWh of storage capacity was deployed in 2021, reaching 27GW/56GWh of cumulative installments by the end of the year.

Consultancy Wood Mackenzie said 3GW/9.2GWh of grid-scale storage came online out of a total 3.5GW/10.5GWh across all segments in the United States in 2021, equating to 140% year-on-year growth measured in GW and a tripling of deployments measured by GWh. Australia recently announced that its battery storage deployments had exceeded 1 GWh for the first time ever in 2021, while in Europe, construction has started on Belgium's largest battery storage project to date.

Funding for the sector remains robust, as data analysis provider Mercom Capital found that battery storage companies raised 159% more corporate funding in 2021 than in 2020, with funding activity reflecting the "significance of battery energy storage in the energy transition". Total funding reached US$19.5 billion, up from US$8.1 billion in 2020 and largely driven by a large increase in battery storage transactions.

About Zinc8 Energy Solutions Inc.

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:

Architecture

- 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.

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:

Notice Regarding Forward Looking Statements

- 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

All 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 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 we are not able to raise funds as expected; 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; the completion of our planned private placement or are unable to raise all of the funds we are seeking to raise; 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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