



21.12.20:

THE SACRED MOMENT FOR ZINC8 ENERGY SOLUTIONS

First Real-World Energy Storage System To Be Delivered To
75.9 House

Today, Zinc8 Energy Solutions Inc. announced that its first commercial zinc-air energy storage system is set to be delivered on time by December 21, 2020, at an innovative, low-energy-footprint real estate in Surrey, British Columbia. Zinc8's innovative, low-cost battery for this project is currently configured to have a capacity of 20 kW and 80 kWh, providing up to 4 hours of storage, however the flexibility of Zinc8's modular architecture enables it to be easily modified to meet any change in demand. The energy storage system is to be integrated with an on-site solar array to provide the main source of power to the estate.

Zinc8's President and CEO, Ron MacDonald, commented in today's [news-release](#): "The ability to deliver our 'Zinc-Air Energy Storage System' on time to the '75 House' construction project reinforces our commitment to becoming a leader in the deployment of long-duration energy storage and is a testament to the hard work by the Zinc8 team. This is an important milestone as Zinc8 Energy Solutions moves forward to its planned commercial production in early 2023."

Most importantly, Zinc8 wants to have a working product with its first deployment at Surrey, enabling the company to show the world that its innovative battery technology actually works in a real-world environment. This milestone is crucial for the company to advance to a serious contender in ["the trillion-dollar industry"](#) of energy storage. [See video-news-release](#)

Once this first energy storage system is commissioned, Zinc8 gains valuable

hard-data from its operation and may consider producing more of such small-scale systems with the goal of generating revenues in late 2021, before commercial production of its larger ≥ 100 -kW systems, targeted for utilities and grid-scale deployments, is anticipated in early 2023 with a currently planned production capacity of 40-80 MW aiming for revenues in the range of \$80-160 million in the first year of operation, as MacDonald recently [stated](#).

In order to finance its planned commercial production of 80 MW, Zinc8 is in active discussions and negotiations with some of the largest branded companies in the world and government agencies of all levels to strategically raise the required \$35-50 million in a dilutive or non-dilutive manner between now and 2023. A working product at Surrey may push such discussions to a new dimension and put the company in a strong position for high-level negotiations to select the best financing in the interest for its shareholders.

Company Details



Zinc8 Energy Solutions Inc.

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Vancouver, BC, V6P 6T3 Canada

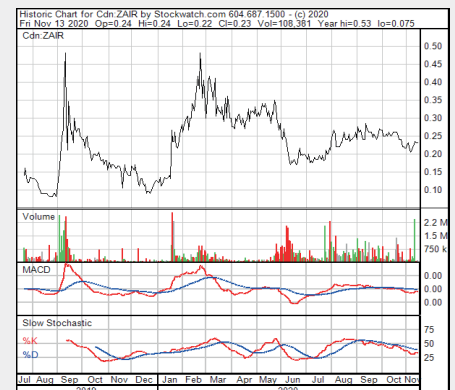
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ISIN: CA98959U1084 / CUSIP: 98959U108

Shares Issued & Outstanding: 90,563,457



▲ Chart Canada (CSE)

Canada Symbol (CSE): [ZAIR](#)

Current Price: \$0.23 CAD (11/13/2020)

Market Capitalization: \$21 Million CAD



▲ Chart Germany (Tradegate)

Germany Symbol / WKN: [0E9 / A2P15E](#)

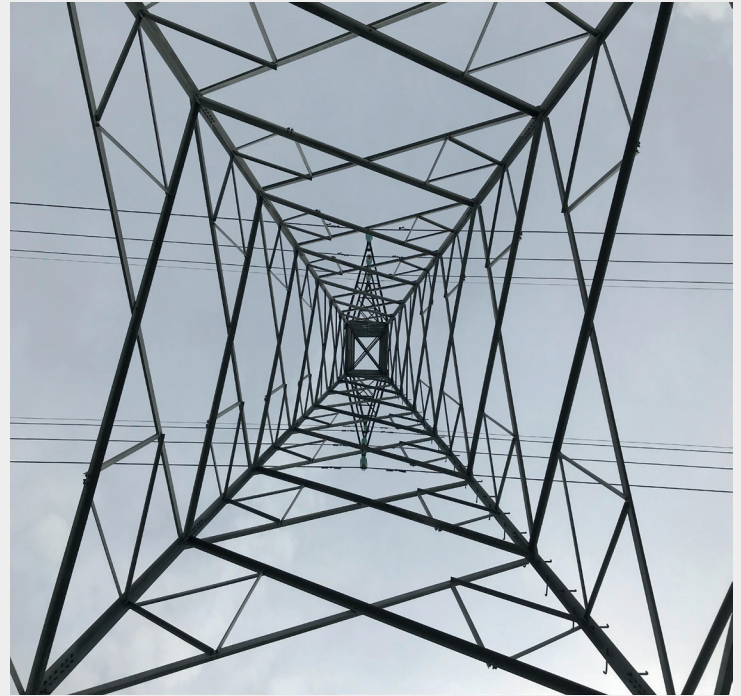
Current Price: €0.15 EUR (11/13/2020)

Market Capitalization: €14 Million EUR



"My intention is to develop a way of working with concrete that acknowledges its liquid nature and yields expressive form. These new methods could have significant practical and sculptural ramifications to the construction industry."

– [Omer Arbel: Particles For The Built World](#)



Zinc8's intention is to develop a way of working with zinc-air that acknowledges its liquid, true-flow-battery nature and yields efficiency. This new technology could have significant practical and structural ramifications to the energy industry.

– [Zinc8: Redefining Long-Duration Storage](#)

75.9 HOUSE MEETS ZINC8

[Statements](#) by Omer Arbel (left), boldly restated by Rockstone for the case of Zinc8 (right):

"For 15 years, we have developed a method of working with materials of the scale of an object."

"This is the first project where we've had the opportunity to try that same methodology at the scale of architecture."

"75 is a house composed of a series of concrete forms which we call lily pads. The lily pads are a result of an ongoing investigation into alternate methods of forming concrete."

"I think that the spaces are at their most interesting right now, for the very simple reason that they have no scale, there are no chairs or sofas or carpets or windows or doors to give people a sense that this is a house – to give people an understanding intuitively of how big things are."

"For that reason I think it's maybe the most exciting it's ever going to be right now while it's in progress."

"We worked with our structural engineers on a concrete formula which has the concrete curing throughout the duration of one very slow, durational pour, such that the curing rate follows along behind the pour rate, and the piece gains structural integrity at the stem in progress and is thus able to support subsequent concrete entering the system."

For 13 years, Zinc8 and its predecessors have developed a method of making zinc the material of choice for large-scale energy storage.

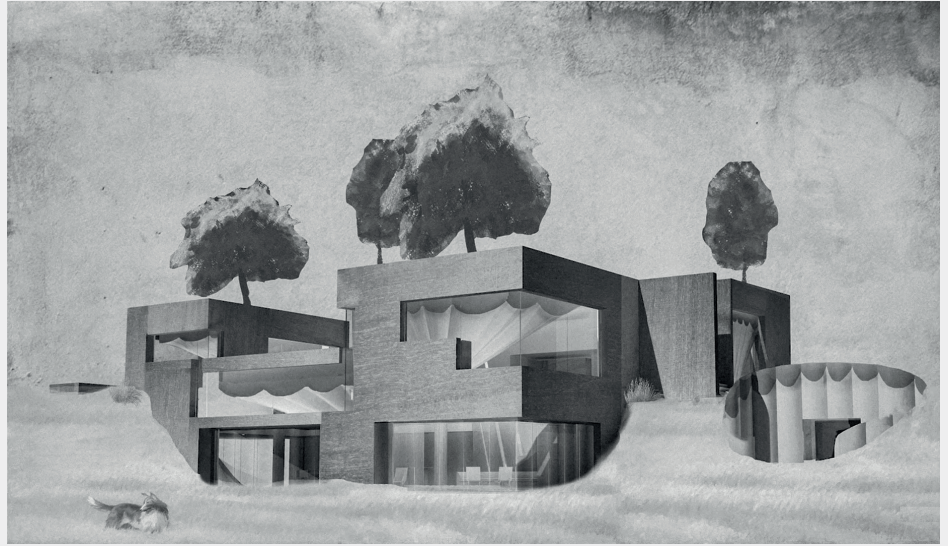
This is the first project where Zinc8 has the opportunity to deploy its modular architecture at commercial scale.

Zinc8 is a manufacturer composing a series of storage systems which they call for the green energy era – the result of an ongoing development into alternate methods of storing energy.

I think that the time is at the most interesting right now, for the very simple reason that Zinc8 has no scale yet but is set to have a deployed product providing possibility to scale based on hard-data to give investors a sense that this is a company-maker – to give investors an understanding intuitively of how big things may become.

Dito.

Zinc8 works with its in-house engineers on a zinc-air formula which has the stored energy released throughout long durations, configured to support a wide range of discharge power, recharge power and duty-cycle requirements unmatched by conventional battery technologies currently in the market and Zinc8 thus might be able to support subsequent systems entering the market.



Omer Arbel's design **71** (see example above) remains his "[favorite after all these years](#)". With way more electricity, he is super-charging the conventional electroplating process of metals by changing the recipe. In a similar fashion, Zinc8 has succeeded in turning the negatively perceived zinc-dendrite problem of zinc-air battery technology into a positive as they have developed a solution to capture growing zinc-dendrites for use as regenerative fuel.

With design **75**, Omer Arbel invented a new, "[more honest](#)" way of working with concrete, similar to Zinc8 having invented a zinc-air battery technology to overcome the limitations of conventional energy storage systems, first and foremost lithium-ion in connection with long-duration storage.

[Omer Arbel](#) is a 1976-born designer and sculptor known for his work in materials research, house design, ambient lighting design and as the Co-Founder of [Bocci](#), a Canadian manufacturing and design company. [Omer Arbel Office](#) (OAO) is "the creative hub of a constellation of companies structured to realize ideas of varying scale and across a wide spectrum of contexts and environments".

"Based in Vancouver, Omer Arbel cultivates a fluid position between the fields of architecture, sculpture, invention and design. Focal themes of his work include investigation of intrinsic mechanical, physical, and chemical qualities of materials and exploration of light as a medium."



Computer renderings of what the concrete structures of house 75.9 might look and feel like. [Watch Omer Arbel talking about 75.9](#) starting at 9 min. 18 sec.





Omer Arbel's designs are numbered in order of creation (1.1 – 113 at the time of writing); some have commercial potential and move into production (examples: 14, 16, 22, 28, 73, 75) while others remain conceptual or collectible (examples: 2.4, 30, 41, 71).

21.12.20: ZINC8'S SACRED MOMENT

"Before the actual moment where the molecules do whatever they are doing, the form turns into itself. There are infinite numbers of possible forms available for it to become. And then there is a moment in which all of that wavefront of possibilities collapses into one form – and that form will forever remain the object that we're making. And from our perspective that's almost the kind of sacred or holy moment... There's a moment when it becomes a real thing – and that moment is sacred."
– [Omer Arbel](#)

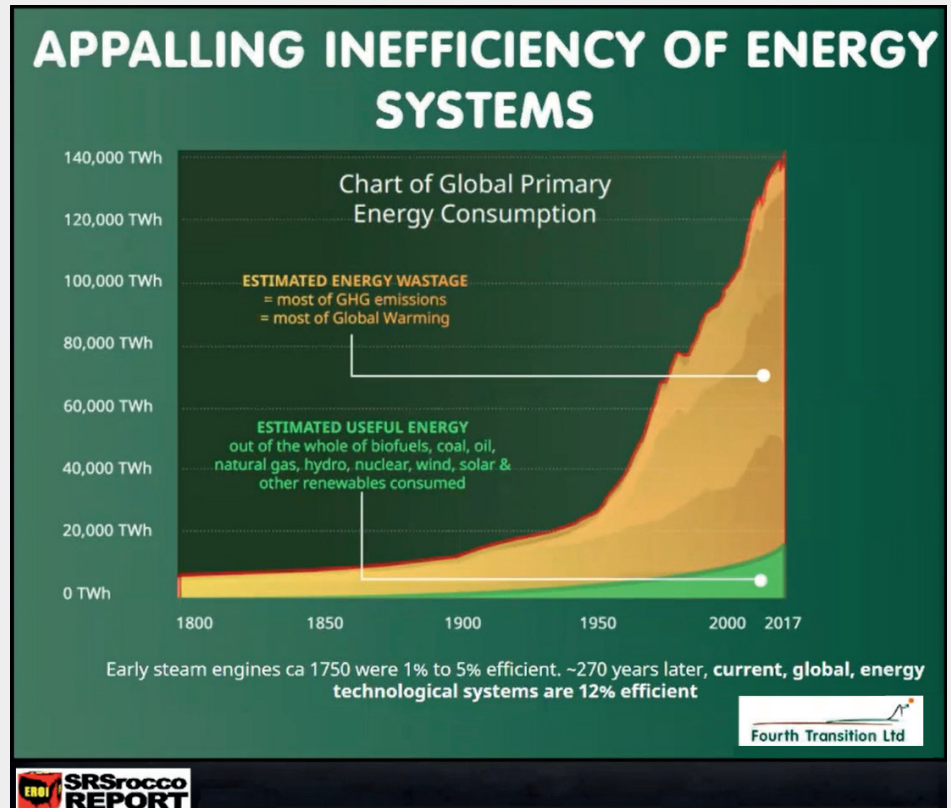
21st December of 2020 is that moment in time when the zinc-air molecules can finally do whatever they are doing and turn Zinc8 into a real company, a battery manufacturing powerhouse. From that point on, the energy space may forever transition into its new destiny of becoming more efficient, minimizing the appalling waste of energy the world is facing today, and will be facing in the future if not a real energy solution enters the space at the right time.

PREVIOUS ROCKSTONE COVERAGE

[Report #12](#): "Happy Battery Day for Zinc8: Winner of the first-ever Innovation Competition spearheaded by the US Department of Buildings of New York"

[Report #11](#): "Setting The Stage for A Global Launch: Zinc8 signs co-operation agreement with global transformer manufacturing powerhouse Vijai Electricals"

[Report #10](#): "Zinc8 accepted into the ACRE Cleantech Incubator Program at Urban Future Lab"



"It all really comes down to this chart. This is the problem that has got the world into the predicament it is currently in. This is a chart from my interview with Dr. Louis Arnoux: The appalling inefficiency of energy systems. Only 12% of the primary energy production/consumption is actually used, according to Dr. Arnoux. By ramping up wind, solar, and geothermal, we are still attaching it to a very inefficient and wasteful energy system. There is loss of energy in transmission lines etc. If we are going to solve the problem of energy – the thermodynamic energy cliff – we have to tap into this wasted energy which is causing a lot of side effects (pollution, climate change). So if we'd tap into this wasted energy – that is our only solution."
– Steve St. Angelo in a key-note speech in October 2020, [SRSroccoReport](#)

[Report #9](#): "The Empire State is accelerating renewable energy development as part of its COVID-19 recovery efforts"

[Report #8](#): "Supporting the Clean Energy Industry Through the COVID-19 Response"

[Report #7](#): "Renewable energy stocks could be the first to recover, says JPM"

[Report #6](#): "Death of an ill-fated bull market and birth of a clean energy infrastructure of resilience"

[Report #5](#): "Second Commercial Agreement in New York City, First Private Sector Energy Storage Deployment Contract for Zinc8"

[Report #4](#): "Visiting the Zinc8 Energy Storage Development & Production Facility: The Dawn of the Utility-Scale Battery Era"

[Report #3](#): "The Largest State-Owned Power Utility in the USA Announces Collaboration with Zinc8 Energy: Cooperation Agreement with the New York Power Authority (NYPA) to Deploy Zinc-Air Battery System"

[Report #2](#): "Reborn as Zinc8 Energy Solutions"

[Report #1](#): "Bridging the Renewable Energy Infrastructure Gap: A Mass Energy Storage Battery Company Goes Public"



"75.9 is a house constructed on a hay farm in the Canadian Pacific Northwest. The project makes use of a technique of pouring concrete into fabric formwork deployed within plywood rib structures, yielding walls and columnar roof forms. A deliberately slow, continuous pour and special concrete mix are employed to fabricate each element, in some cases approaching 10 meters tall. The intention is for the concrete to continuously cure throughout the duration of the pour, thus reducing hydro-static pressure at the stem and avoiding horizontal cold joints. Micro perforations in the weave of the fabric release air from the surface of the concrete as it cures, making it easy to remove and creating a richly textured woven finish. The technique acknowledges the material's plastic nature and prescribes its own unique geometry." – [Omer Arbel](#)

75.9 was the winner of the [World Architectural Festival's](#) "Future Projects: House" award in 2019: "The judges felt that the combination of the experimental process with fabric form concrete tightly contained within its external frame but internally and spatially arranged making incidence, opportunity and surprise in the relationship between the building and landscape. The hollow column capitol creating the containers for pink magnolia trees to set an at roof level was sublime."





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All statements in this report, other than statements of historical fact, should be considered forward-looking statements. Much of this report is comprised of statements of projection. Statements in this report that are forward looking include that Zinc8's energy storage system ("battery") will enter the market and Zinc8 will succeed in commercializing a market leading, efficient, long-duration, low-cost zinc-air energy storage system; that an energy solution is highly needed; that Zinc8's first commercial zinc-air energy storage system is set to be delivered on time by December 21, 2020; that Zinc8's modular architecture enables it to be easily modified to meet any change in demand; that Zinc8's ability to deliver its "Zinc-Air Energy Storage System" on time to the '75 House' construction project reinforces its commitment to becoming a leader in the deployment of long-duration energy storage; that this is an important milestone as Zinc8 moves forward to its planned commercial production in early 2023; that a working product at Surrey enables the company to show the world that its innovative battery technology actually works in a real-world environment; that this milestone is crucial for the company to advance to a serious contender in "the trillion-dollar industry" of energy storage; that once this first energy storage system is commissioned, Zinc8 gains valuable hard-data from its operation and may consider producing more of such small-scale systems with the goal of generating revenues in late 2021, before commercial production of its larger >100-kW systems, targeted for utilities and grid-scale deployments, is anticipated in early 2023 with a currently planned production capacity of 40-80 MW aiming for revenues in the range of \$80-160 million in the first year of operation, as MacDonald recently stated; that a working product at Surrey may push such discussions to a new dimension and put the company in a strong position for high-level negotiations to select the best financing in the interest for its shareholders; that Zinc8's technology could have significant practical and structural ramifications to the energy industry; that for 13 years, Zinc8 and its predecessors have developed a method of making zinc the material of choice for large-scale energy storage; that this is the first project where Zinc8 has the opportunity to deploy its modular architecture at commercial scale; that the author thinks that the time is at the most interesting right now, for the very simple reason that Zinc8 has no scale yet but is set to have a deployed product providing possibility to scale based on hard-data to give investors a sense that this is a company-maker – to give investors an understanding intuitively of how big things may become; that for that reason the author thinks it's maybe the most exciting it's ever going to be right now while it's in progress; that Zinc8 has a zinc-air formula which has the stored energy released throughout long durations, configured to support a wide range of discharge power, recharge power and duty-cycle requirements unmatched by conventional battery technologies currently in the market and Zinc8 thus might be able to support subsequent systems entering the market; that zinc8 has succeeded in turning the negatively perceived zinc-dendrite problem of zinc-air battery technology into a positive as they have developed a solution to capture growing zinc-dendrites for use as regenerative fuel; that Zinc8 has invented a zinc-air battery technology to overcome the limitations of conventional energy storage systems, first and foremost lithium-ion in connection with long-duration storage; that 21st December of 2020 is that moment in time when the zinc-air molecules can finally do whatever they are doing and turn Zinc8 into a real company, a battery manufacturing powerhouse, and that from that point on, the energy space may forever transition into its new destiny of becoming more efficient, minimizing the appalling waste of energy the world is facing today, and will be facing in the future if not a real energy solution enters the space at the right time; that tapping into this wasted energy is our only solution. 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Stephan Bogner studied Economics, with specialization in Finance & Asset Management, Production & Operations, and Entrepreneurship & International Law, at the

International School of Management (Dortmund, Germany), the European Business School (London, UK) and the University of Queensland (Brisbane, Australia). Under Prof. Dr. Hans J. Bocker, Stephan completed his diploma thesis ("Gold In A Macroeconomic Context With Special Consideration Of The Price Formation Process") in 2002. A year later, he marketed and translated into German Ferdinand Lips' bestseller "Gold Wars". After working in Dubai's commodity markets for 5 years, he now lives in Switzerland and is the CEO of [Elementum International AG](#) specialized in the storage of gold and silver bullion in a high-security vaulting facility within the St. Gotthard Mountain in central Switzerland.

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