



Flanked by former Vice President Al Gore, New York State Governor Andrew M. Cuomo signed the Climate Leadership and Community Protection Act (CLCPA) on July 18, 2019 in New York City. Framed by Governor Cuomo as a statewide Green New Deal, the act commits New York State to a “globally unprecedented” ramp-up in renewable energy deployments as the state seeks to achieve 100% emission-free electricity by 2040, and ultimately to eliminate its entire carbon footprint. (Credit: [Office of Gov. Andrew Cuomo](#))

### Cooperation Agreement

## The Largest State-Owned Power Utility in the USA Announces Collaboration with Zinc8 Energy Solutions

### Cooperation with the New York Power Authority to Deploy Zinc-Air Battery System

This may eventually turn out to be the biggest announcement for MGX Renewables Inc. (doing business as “Zinc8 Energy Solutions Inc.”; pending name change) on the road to commercialization of its low-cost, long-duration battery energy storage system. New York State appears to be the perfect place and the New York Power Authority the perfect partner to demonstrate the advantages of Zinc8’s battery technology under real conditions.

Today, the New York Power Authority (NYPA) issued a [press-release](#) announcing “a collaboration with a leading-edge energy storage company to develop a demonstration energy storage system, using new zinc-air energy storage technology, in New York State”.

“The project, selected as a winner through the NYPA Innovation Challenge, will have the ability to provide back-up power, help level grid demand, and move the

state further toward a carbon-free electric grid supported by renewable energy resources”, the press-release stated.

“The new technology storage system will help advance Governor Cuomo’s Green New Deal by helping to achieve the Governor’s aggressive energy storage goal of 3GW by 2030 and by supporting a nation-leading commitment of 100 percent electricity from zero carbon emission sources by 2040.”

### Company Details



Zinc8 Energy Solutions Inc. (dba) /  
MGX Renewables Inc.  
#1 – 8765 Ash Street  
Vancouver, BC, V6P 6T3 Canada  
Phone: +1 604 558 1406 (Extension 5)  
Email: [investors@zinc8energy.com](mailto:investors@zinc8energy.com) (Patrick)  
[www.zinc8energy.com](http://www.zinc8energy.com)

ISIN: CA59325P1080 / CUSIP: 59325P108  
Shares Issued & Outstanding: 47,123,529



▲Chart Canada (CSE)

Canada Symbol (CSE): [MGXR](#)  
Current Price: \$0.13 CAD (01/16/2020)  
Market Capitalization: \$6 Million CAD



▲Chart Germany (Tradegate)

Germany Symbol / WKN: [0E9 / A2PNN3](#)  
Current Price: €0.098 EUR (01/17/2020)  
Market Capitalization: €5 Million EUR





**New York State Lieutenant Governor Kathy Hochul commented in NYPA's press-release today:**

"Advancing innovation is key in New York State's commitment to achieve carbon neutrality and invest in a clean energy future. This investment in long duration, low-cost energy storage technology will provide a boost to our clean energy economy, maximize the benefits of renewable resources, and help in our aggressive efforts to combat climate change."

Founded in 1931 by Franklin D. Roosevelt, the [New York Power Authority](#) (NYPA) is the largest state-owned public power utility in the United States, owning and operating 16 power plants in concert with +1,400 miles of transmission lines.

Today's announced Cooperation Agreement with the NYPA was achieved by Zinc8's successful participation in the [NYPA Innovation Challenge](#), launched last year by NYPA and the New York University Tandon School of Engineering's [Urban Future Lab](#) (UFL). More than 60 business applicants entered the Challenge, designed to accelerate the commercialization of new technologies for the electricity grid to ensure an affordable and reliable renewable energy supply to New York State. The NYPA selected Zinc8's battery technology to demonstrate energy storage and demand management that can help build longer duration flexibility (8 hours plus) into the grid and optimize the role storage resources play.

**Pat Sapinsley, NYU Tandon's Managing Director of Clean Tech Initiatives, said:**

"We at the Urban Future Lab are delighted to help NYPA, one of the most innovative utilities in the country, to source innovative clean energy solutions for their grid. The selection of Zinc8 Energy Solutions illustrates how important and effective a public-academic collaboration like the NYPA Innovation Challenge can prove. By awarding this contract, New York State is not only accelerating its own clean-energy future but building confidence in the clean-power industry overall."



NYPA's power plants generate 28.7 billion kilowatt hours (kWh) of electricity per year, of which more than 70% is clean renewable hydropower. The [NYPA](#) provides some of the lowest-cost electricity in the nation. State and federal regulations determine NYPA's customer base, which includes large and small businesses, not-for-profit organizations, public power systems and government agencies. NYPA also sells electricity to private utilities for resale (without profit) to their customers, and to neighboring states, under federal requirements. ([Source](#) / [Image](#))



The NYPA is a national leader in promoting energy efficiency, the development of clean energy technologies and electric vehicles. The NYPA uses no state tax dollars and incurs no state debt, financing its projects through bond sales to private investors and repaying bond holders with proceeds from operations. According to the article "[NYPA Uses Digital Simulation of the New York Power System to Test Advanced Grid Technologies](#)": NYPA, "the largest state public power organization in the nation, will test, model and develop innovative solutions for energy systems at its research and development facility – the Advanced Grid Innovation Laboratory for Energy (AGILE) – at its White Plains headquarters. With expertise and support from the Electric Power Research Institute (EPRI), the lab will simulate the impacts of new technologies before they are deployed on New York's electric grid, allowing NYPA and other research participants to evaluate their effects on system reliability, performance, and resiliency. The research aims to also help renewable resources come online more quickly and integrate more effectively to the New York state grid." ([Image](#))





Start-ups know that sealing the first major utility deal is not only difficult but also the most important as it sets the stage for possible future deals. Now having that first major deal under its belt with such a high-level collaborator, Zinc8 is on the fast-track to demonstrate the performance and advantages of the zinc-air energy storage system under real conditions. The NYPA has the technical know-how and resources to potentially achieve this goal as quickly as possible.

**Ron MacDonald, Zinc8's CEO and President, explained in today's news:**

"This collaboration with the New York Power Authority is a milestone in Zinc8 Energy Solutions' path to full commercialization and underscores the growing demand for low-cost reliable long-duration energy storage. This unique opportunity with NYPA not only helps Zinc8 contribute to the rapid advancement of clean energy in New York State, but also opens the door for Zinc8 to deploy its technology into the broader utility market."

**Gil Quiniones, NYPA's CEO and President, added:**

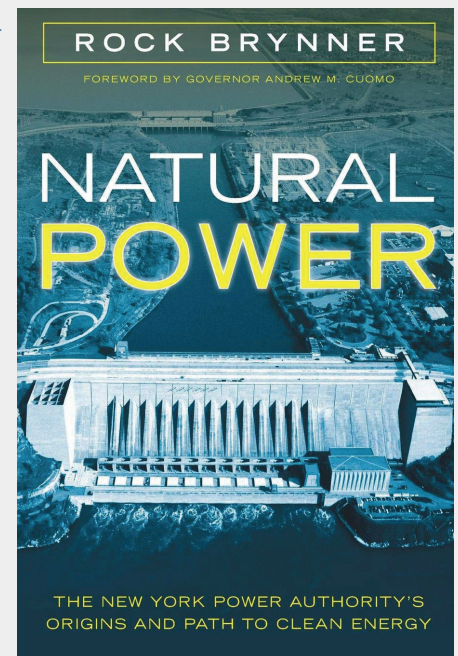
"NYPA is pleased to be working with Zinc8 on an innovative technology that can help achieve the state's targets for energy storage and have broad impacts across New York State. This collaboration will showcase a low-cost, long duration solution that addresses the unpredictability of renewable energy resources, such as wind and solar, and offers environmental and efficiency benefits."

As per the press-release, NYPA "will support the development, fabrication and installation of the storage unit at commercial scale over a three-year period". The proposed 100kW/1MWh behind-the-meter energy storage system is expected to be installed at a demonstration site in Western New York State. NYPA is actively investigating potential sites, such as a municipal building or a building on a college campus or university that would benefit from the demonstration of this technology. The final demonstration site is expected to be set in the first quarter of 2020. Zinc8 and NYPA see this initial collaboration and installation as "a refer-



The late Governor of New York, [Mario Cuomo](#), said in 1991: "The New York Power Authority is maybe one of our proudest boasts. You almost never hear about the New York Power Authority, but you should. It would do us all a lot of good: You can see government at its very best." Mario Cuomo's oldest son, [Andrew Mark Cuomo](#), is an American politician, author, and lawyer serving as the 56th Governor of New York State since 2011. A member of the Democratic Party, he was elected to the same position his late father, Mario Cuomo, held for 3 terms, from 1983 to 1994.

In the foreword of the book "[Natural Power: The New York Power Authority's Origins and Path to Clean Energy](#)", Andrew Cuomo wrote (2016): "New York State has had a unique relationship with generated power since its leading pioneers introduced the world's first electrical grid in Lower Manhattan more than a century ago. Considering how profoundly manmade electricity has transformed almost every aspect of human existence, it is reasonable to argue that the inventions launched here in New York by Edison, Tesla, Westinghouse and others produced the greatest technological revolution since the printing press. From a twenty-first-century perspective, the development of the power industry is an affirmation of human ingenuity. Thanks to my predecessor, Governor Franklin D. Roosevelt, who created New York's Power Authority, the clean, renewable hydropower pioneered along the Niagara and St. Lawrence rivers belongs to the people of New York and provides us with the energy infrastructure that we need to achieve sustainability... At its core, the NYPA narrative tells us how much can be achieved when new thinking and enlightened public policy are combined with technological ingenuity and incredible determination... Looking ahead, we can use the lessons from this book to help us chart the future development of the power industry."







ence site” for possible future installations that may further demonstrate Zinc8’s technology through NYPA’s wide variety of customers in microgrid, commercial and industrial, and utility markets. According to a separate [news-release](#) from Zinc8 today, the Cooperative Agreement stipulates that the NYPA commits a total of \$2.55 million USD to the project over a 3-year period.

**As per the article “How NYPA Is Taking ‘First Mover’ Position on EVs, Energy Storage and the Digital Grid” (2018):**

“As the largest state-owned public utility in America, in one of the most progressive states in the country, the New York Power Authority doesn’t have the option of taking a ‘wait and see’ approach on cleantech. Plus, NYPA’s business model enables it to invest in and deploy new technologies in bold ways, according to President and CEO Gil Quiniones. New York’s investor-owned utilities are also deploying innovative technologies. But NYPA can generally take more risks and move faster because it doesn’t have to go through the Public Service Commission’s regulatory process. ‘We tend to be able to be the first mover and the first tester of new initiatives’, Quiniones said.”

## New York’s Green New Deal

NYPA and Zinc8 want to collaborate in this joint development project to help advance New York State Governor Andrew Cuomo’s **Green New Deal** by achieving the energy storage goal of 3GW by 2030 and by supporting a nation-leading commitment of 100% electricity from emission-free sources by 2040.

While Cuomo called New York State’s version of the Green New Deal as “[The most aggressive in the country](#)”, Miles Farmer, a senior attorney at the Natural Resources Defense Council, said “It’s definitely the most progressive bill that we’ve seen anywhere”. Bloomberg added: “Exactly how New York will pull off such an ambitious plan remains to be seen”. Zinc8 – a developer and manufacturer of long-duration, low-cost zinc-air energy storage solutions – aims to play a major role in achieving this goal, with NYPA hoped to be the perfect partner to do so.



The hub of NYPA’s statewide power transmission facilities is the **Frederick R. Clark Energy Center**, in Marcy, New York. The NYPA owns and operates approximately one-third of New York’s high-voltage power lines. These lines transmit power from NYPA’s generation facilities into New York State’s power grid. NYPA’s high-voltage transmission assets include a 765 kilovolt (kV) line that stretches more than 100 miles from the Canada-US border to the Clark Energy Center and almost 1,000 miles of 345 kV power lines that crisscross New York State, including the [Marcy South line](#) and a 26.3 miles (42.3 km) transmission project, that follows an underground and underwater path from Westchester County to Long Island. ([Source](#) / [Image](#))



The NYPA owns and operates the 2,675MW **Robert Moses Niagara Hydroelectric Power Station** in Lewiston, New York, near Niagara Falls. At peak times, approximately 43 million gallons of water per minute flow into the turbines. In 1956, a rock-slide destroyed most of the Niagara Mohawk Power Corp.’s Schoellkopf Hydropower Plant, resulting in a power shortage that endangered thousands of local manufacturing jobs. In response to the emergency, Congress passed the Niagara Redevelopment Act in 1957. After obtaining a license from the Federal Power Commission, Robert Moses commenced work on NYPA’s second hydroelectric generating station in early 1958. When it was completed, three years later, the Niagara Power Project was the largest facility of its kind in the Western world. In a recorded message broadcast February 10, 1961, to mark first power, President John F. Kennedy called the Niagara project “an outstanding engineering achievement” and an “example to the world of North American efficiency and determination.” ([Source](#) / [Image](#))





According to [The New York Times](#) (2019):

“Many Democratic-led states have passed laws designed to reduce their greenhouse gas emissions, in response to the Trump administration’s sustained efforts to loosen or abandon environmental regulations on power plants and vehicles. But New York’s bill, which comes amid a number of Democratic presidential candidates proposing net-zero targets for the United States, would set one of the most ambitious climate targets by a legislature anywhere in the world. ‘This unquestionably puts New York in a global leadership position,’ said Jesse Jenkins, an energy expert and postdoctoral fellow at Harvard University... To help meet its new targets, the state plans to erect massive offshore wind turbines, ramp up rooftop solar programs and install large new batteries to juggle all that renewable power.”

### Multi-Billion Dollar Investments in Clean Tech

A few days ago, on January 8, 2020 at the [2020 State of the State Address](#), Governor Cuomo delivered the agenda “**Making Progress Happen**” that fosters economic growth and social progress, combats climate change and keeps New Yorkers safe, including the section “Expanding Renewable Energy Power in New York to Meet Zero Carbon Emissions by 2040”:

“Increasing Solar, Onshore Wind and Storage Capacity by More Than 1,000 Megawatts: NYSDERDA will make competitive awards to 21 large-scale solar, wind and energy storage projects across upstate New York, totaling over 1,000 megawatts of renewable capacity and 40 megawatts of energy storage capacity. Taken together, these efforts will spur over \$2.5 billion in private sector investments toward the development, construction and operation of clean energy projects, create over 2,000 short-term and long-term jobs and generate enough renewable electricity annually to power over 350,000 homes. In addition, NYPA will work with state agencies and authorities and its customers to competitively contract for clean energy resources to further accelerate progress towards meeting the State’s aggressive renewable energy goals.”



The NYPA owns and operates the 842MW **St. Lawrence-Franklin D. Roosevelt Power Project** located between Massena in New York and Cornwall in Ontario. The International Joint Commission granted its approval for a cross-border construction project in 1952. In 1953, the Federal Power Commission issued a license for NYPA to develop the U.S. portion of a power dam crossing the Canada–US border. On May 13, 1954, President Dwight D. Eisenhower signed legislation that cleared the way for construction of both a hydroelectric facility and the St. Lawrence Seaway. First power was achieved in July 1958, and on June 27, 1959, Queen Elizabeth II and Vice President Richard M. Nixon formally dedicated the St. Lawrence Project as a symbol of international cooperation. In 1981, NYPA’s half of the cross-border power dam was renamed the St. Lawrence-Franklin D. Roosevelt Power Project in honor of the man who founded the Power Authority half a century earlier. ([Source](#) / [Image](#))



CEO & President Gil Quiniones monitors NYPA’s operations, while 1,100 engineers and operations staff at the NYPA facilities ensure that NYPA power meets market needs.

The NYPA also owns and operates the 1,169MW [Blenheim-Gilboa Pumped Storage Power Project](#) in the Catskill Mountain towns of North Blenheim and Gilboa. The [NYPA](#) also has 4 small hydro facilities with a net capability of 10MW: The **Ashokan Project** in Ulster County, the **Crescent Plant** in Albany and Saratoga counties, the **Gregory B. Jarvis Plant** in Oneida County and the **Vischer Ferry Plant** in Schenectady and Saratoga counties. Other generating facilities include 2 highly efficient natural gas-fueled combined cycle power plants: The 150MW **Richard M. Flynn Power Plant** in Holtsville, Long Island and the 500MW **Eugene W. Zeltmann Power Project** in Astoria, Queens. Additionally, the NYPA operates 10 small clean power plants also fueled by natural gas. Those sites – 6 in New York City and 1 in Long Island – combined output 460MW. The NYPA has been financially responsible for the [New York State Canal Corporation](#) since April 2016 and has owned it since January 1, 2017. ([Source](#) / [Image](#))



**“Prepare the Electric Grid for New, Renewable Generation:** The state will put together a plan for authorizing and building new transmission capacity to bring clean and renewable power to areas that need additional electricity capacity, prioritizing using existing rights of way. The plan will include upgrading the grid with smart new technology that increases the capacity and effectiveness of the system, such as battery storage technology.”

**When Governor Cuomo announced details of the Green New Deal agenda in January 2019, he [said](#):**

“Energy storage is vital to our resiliency work and this funding will enable us to grow the industry and create jobs while we continue on our path toward meeting the country’s largest energy storage target.”

**NYPA’s Gil Quiniones added:**

“Governor Cuomo’s Green New Deal puts New York on the fast track to realizing the goal of a carbon neutral energy system. Under the Governor’s Reforming the Energy Vision strategy, the Power Authority has dedicated \$250 million through 2025 in energy storage and demand response programs, and \$200-300 million a year in energy efficiency measures and customer-sited renewables in public buildings across the state to lead by example. We are excited to further build on this momentum under the Green New Deal.”

## The Race Is On

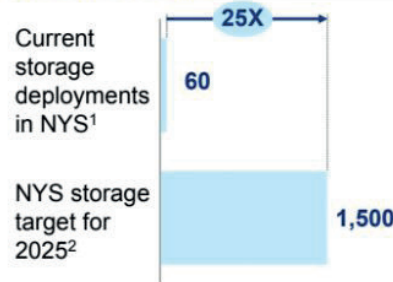
In July 2019, when NYPA announced a \$30 million energy storage demonstration project including a 1-hour-lithium-ion battery system with a 20MW capacity, [Quiniones said](#):

“Energy storage is paramount as we bring more renewable energy online. To meet Gov. Cuomo’s aggressive clean energy targets, we need to be able to store energy in large-scale batteries so it can be used at times of demand.”

By running both a lithium-ion and zinc-air energy storage demonstration project, NYPA would be in a valuable position (i.e. first-hand experience) to evaluate the pros

## Barriers currently exist, hindering New York State from increasing grid flexibility at the necessary rate to support at-scale integration of renewables

### NYS storage gap, MW



1 Includes batteries, flowbatt technology, thermal storage deployed at 2017 end-of-year. 90% of projects in development are lithium ion batteries.  
2 Target announced by Governor Cuomo in 2018 State of State.

Source: Expert interviews, The Scullin Group, “Getting to 500MW”, Clean Energy Group, “Jump-Start Energy Storage”, NY-BEST, 2018 Energy Storage Roadmap



### Barriers to increasing flexibility in the grid



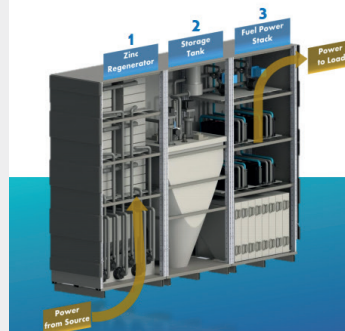
**Full value of flexibility services cannot be monetized**



**Market is still very nascent, with limited knowledge driving uncertainty**

Source: [“How NYPA Is Taking ‘First Mover’ Position on EVs, Energy Storage & the Digital Grid”](#)

## How it works



20 U.S. patents issued and 4 more pending



Certifications in process: UL1973, UL 9540, UL 9540A, NFPA 855, EN-61000 series

1. Power from the grid or renewable source is used to generate zinc particles in the **Zinc Regenerator**. Oxygen is released to the atmosphere as a by-product.
2. The zinc particles are flowed to the **Storage Tank** and maintained in potassium hydroxide (KOH) electrolyte until required.
3. Whenever power is needed, the zinc particles are delivered to the **Power Stack**, recombining them with oxygen to generate electricity. The zinc oxide (ZnO) by-product is returned to the storage tank for later regeneration.

## Market core segments



Source: Zinc8 Energy Solution Inc.’s [corporate presentation](#)

and cons of different technologies, facilitating the decision-making process for possible future large-scale deployments.

**As per [Rockstone Report #2](#):**

Zinc8 does not see itself competing in the

under 4 hour market currently dominated by lithium-ion. Anything under 8 hours is not of interest but rather multi-megawatt-hours of storage, i.e. every sector that requires large amounts of +8 hours of energy storage is targeted by Zinc8, which is reflected in its new corporate name.





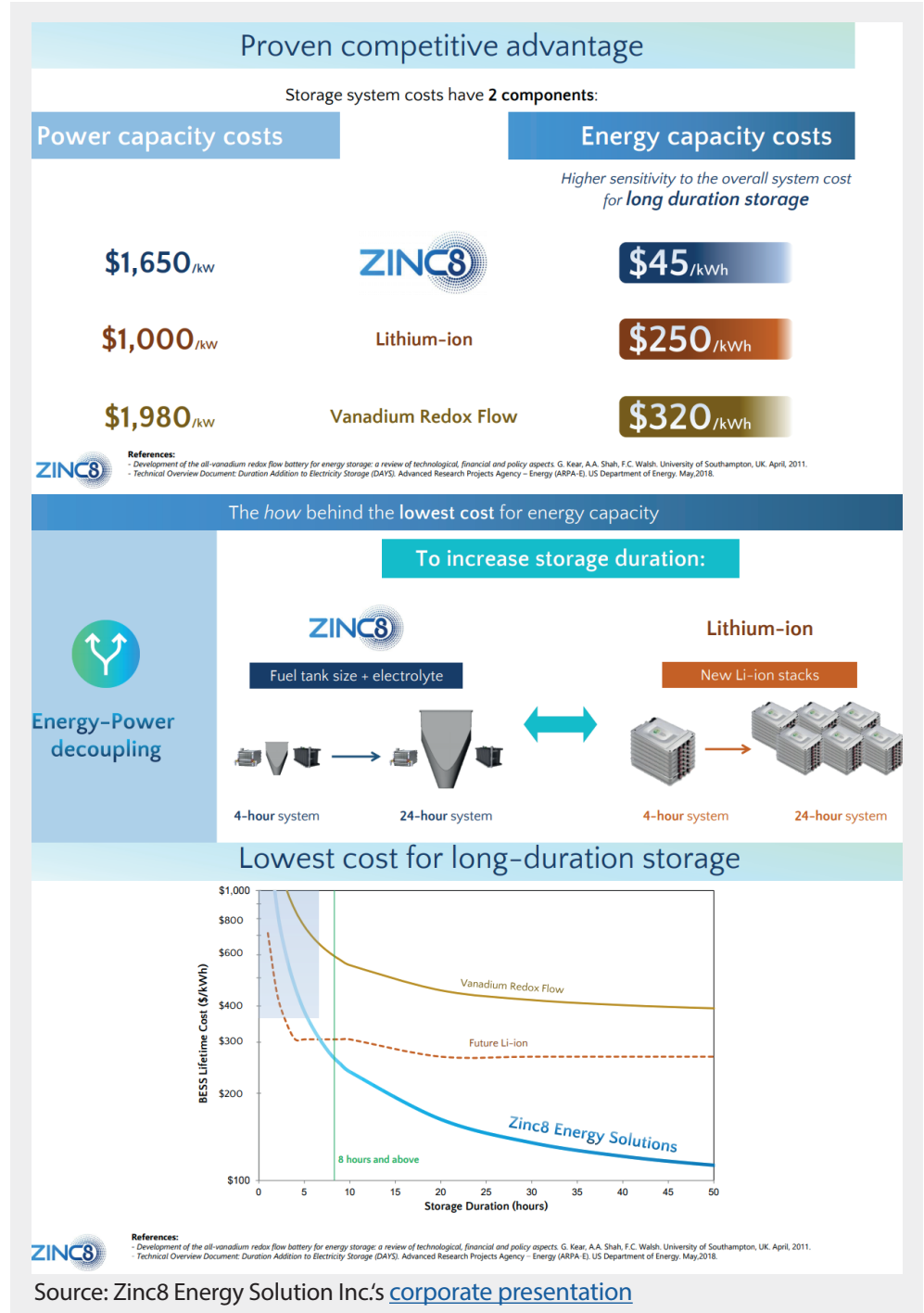
The number 8 is known as the symbol of harmony and balance, representing abundance and power. Likewise, Zinc8 is on a mission to bring harmony to the grid by perfectly balancing energy supply and demand in an unprecedented fashion. Moreover, the infinity symbol is like the shape of the sideways figure 8. Note that Zinc8 is eager to demonstrate that it can perform unlimited discharge and recharge cycles within the battery's lifetime as well as deliver both high-power and long-duration energy services with no capacity fade over time, which features could set Zinc8 apart from other battery technologies, including lithium.

Apparently, the biggest transition in the history of the energy sector is underway, providing a multi-trillion-dollar opportunity for those who adapt the fastest and for those who unlock the full potential of renewable energy sources and the transmission grids. Efficient technologies and innovative energy storage solutions are key to do so. Zinc8 aims to be at the forefront of this development by commercializing a market leading long-duration, low-cost zinc-air energy storage system.

#### As per [Rockstone Report #1](#):

However, the biggest challenge for energy storage is its price. The falling cost of lithium-ion batteries has positioned them for a much broader integration into stationary grid operations as other battery types were not commercially ready or simply too expensive. Grid-scale lithium battery costs have plummeted in the past years and are forecasted to range [between \\$187 and \\$316 per kWh by 2023](#). Now imagine a novel, commercially ready battery technology entering the market with a price of less than \$50 per additional kWh. **How much faster could the energy landscape evolve now? How much bigger could the market become? What new applications would be possible?**

Zinc8 plans to deploy its battery technology for utility- and grid-scale energy storage, peak shaving, renewables storage (wind, solar, tidal power) as well as stationary and portable energy for military and natural disasters, or anything sizeable that requires long duration energy storage and reliable backup. In contrast to nearly every



commercially available energy storage system, Zinc8's zinc-air flow battery could become one of the safest and environmentally cleanest rechargeable energy storage systems ever developed. It uses only zinc and air as fuels, thus running on a safe, non-toxic, non-explosive and non-flammable chemistry. Moreover, it aims to deliver both high-power and long-duration energy services, a feature that is extremely important to consider as most other battery technologies can only excel in one aspect, including lithium.

Zinc8 projects no capacity fade over time and a 100% depth of discharge without affecting system's longevity or performance. For long-duration applications, the company targets the lowest levelized cost of storage (LCOS) of all energy storage systems commercially ready. Zinc8's battery energy capacity is being developed to be easily extended by simply increasing the size of the fuel tank. It's the modular architecture that brings potential for the system to be scaled from 20 kilowatts to the order of megawatts relatively inexpensive.



## Disclaimer and Information on Forward Looking Statements

This report contains forward-looking information or forward-looking statements (collectively "forward-looking information") within the meaning of applicable securities laws. Forward-looking information is typically identified by words such as: "believe", "expect", "anticipate", "intend", "estimate", "potentially" and similar expressions, or are those, which, by their nature, refer to future events. Rockstone Research, dba Zinc8 Energy Solutions Inc. ("Zinc8") / MGX Renewables Inc. ("MGXR") and Zimtu Capital Corp. ("Zimtu") caution investors that any forward-looking information provided herein is not a guarantee of future results or performance, and that actual results may differ materially from those in forward-looking information as a result of various factors. The reader is referred to the Zinc8's / MGXR's public filings for a more complete discussion of such risk factors and their potential effects which may be accessed through documents filed on SEDAR at [www.sedar.com](http://www.sedar.com). 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 today's news may eventually turn out to be the biggest announcement for MGX Renewables Inc. (doing business as "Zinc8 Energy Solutions Inc."; pending name change) on the road to commercialization of its low-cost, long-duration battery energy storage system; that New York State appears to be the perfect place and the New York Power Authority the perfect partner to demonstrate the possibly vast advantages of Zinc8's battery technology under real conditions; that Zinc8's battery will enter the market and that Zinc8's will commercialize its battery; that today's announced cooperation agreement will start as planned and will be completed; that Zinc8 will demonstrate the advantages of its technology under real conditions; that more deals may follow after this first deal with NYPA and Zinc8; that Zinc8 is on the fast-track to demonstrate the performance and advantages of the zinc-air energy storage system under real conditions and that NYPA has the technical know-how and resources to achieve this goal as quickly as possible; that in contrast to large-scale and expensive lithium-ion energy storage systems, Zinc8 targets multi-megawatt-hours of storage, i.e. for every sector that requires large amounts of +8 hours of energy storage; which feature, oftentimes critical, is reflected in its new corporate name; that the proposed 100kW/1MWh behind-the-meter energy storage system is expected to be installed at a demonstration site in Western New York State, e.g. at a college campus or university that would benefit from the availability of emergency power; that Zinc8 and NYPA envision this initial collaboration and installation as a reference site for possible future installations that may further demonstrate Zinc8's technology through NYPA's wide variety of customers in Microgrid, Commercial & Industrial, and Utility markets; that the demo project is anticipated for installation in 2022 and that NYPA plans to commit a total of \$2.55 million to the development, fabrication and installation of the storage unit at commercial scale over a three-year period; that NYPA and Zinc8 want to collaborate in this joint development project to help advance New York State Governor Andrew Cuomo's Green New Deal by achieving the energy storage goal of 3GW by 2030 and by supporting a nation-leading commitment of 100% electricity from emission-free sources by 2040; that Zinc8 – a developer and manufacturer of long-duration, low-cost zinc-air energy storage solutions – aims to play a major role in achieving the goals of the Green New Deal, with NYPA hoped to be the perfect partner to do so; that by running both a lithium-ion and zinc-air energy storage demonstration project, NYPA would be in a valuable position (i.e. first-hand experience) to evaluate the pros and cons of different technologies, facilitating the decision making process for possible future large-scale deployments; that Zinc8 does not see itself competing in the under 4 hour market currently dominated by lithium-ion and that anything under 8 hours is not of interest but rather multi-megawatt-hours of storage, i.e. every sector that requires large amounts of +8 hours of energy storage is targeted by Zinc8, which is reflected in its new corporate name; that Zinc8 is on a mission to bring harmony to the grid by perfectly balancing energy supply and demand in an unprecedented fashion; that Zinc8 is eager to demonstrate that it can perform unlimited discharge and recharge cycles within the battery's lifetime as well as deliver both high-power and long-duration energy services with no capacity fade over time, which features could set Zinc8 apart from other battery technologies, including lithium; that apparently, the biggest transition in the history of the energy sector is underway, providing a multi-trillion-dollar opportunity for those who adapt the fastest and for those who unlock the full potential of renewable energy sources and the transmission grids, and that efficient technologies and innovative energy storage solutions are key to do so; that Zinc8 aims to be at the forefront of this development by commercializing a market leading long-duration, low-cost zinc-air energy storage system; that the biggest challenge for energy storage is its price; that a novel, commercially ready battery technology will be entering the market with a price of less than \$50 per additional kWh; that Zinc8 plans to deploy its battery technology for utility- and grid-scale energy storage, peak shaving, renew-

ables storage (wind, solar, tidal power) as well as stationary and portable energy for military and natural disasters, or anything sizeable that requires long duration energy storage and reliable backup; that in contrast to nearly every commercially available energy storage system, Zinc8's zinc-air flow battery could become one of the safest and environmentally cleanest rechargeable energy storage systems ever developed as it uses only zinc and air as fuels, thus running on a safe, non-toxic, non-explosive and non-flammable chemistry; that it aims to deliver both high-power and long-duration energy services, a feature that is extremely important to consider as most other battery technologies can only excel in one aspect, including lithium; that Zinc8 projects no capacity fade over time and a 100% depth of discharge without affecting system's longevity or performance; that for long-duration applications, the company targets the lowest levelized cost of storage (LCOS) of all energy storage systems commercially ready; that Zinc8's battery energy capacity is being developed to be easily extended by simply increasing the size of the fuel tank. It's the modular architecture that brings potential for the system to be scaled from 20 kilowatts to the order of megawatts relatively inexpensive; that the Green New Deal will achieve the energy storage goal of 3GW by 2030 and that Zinc8 will play a major role in achieving this goal. Such forward-looking statements are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information. Risks that could change or prevent these statements from coming to fruition include that aspects or all of the process development may not be successful; that the technology may not be cost-effective; that the technology may not work as well as expected in commercial applications; that the costs may not reduce as much as expected on large storage uses; general economic, market and business conditions; increased costs and expenses; that the partnership with the NYPA will not be completed or will not be successful; that Zinc8 may not raise sufficient funds to carry out its plans, and obligations as per today's agreement; changing costs for development, manufacturing and marketing; increased capital costs; interpretations based on current data that may change with more detailed information; the availability of labour, equipment and markets for the products produced; changing political landscape, e.g. to hinder the Green New Deal or any of its goals, and certain other risks detailed from time to time in Zinc8's / MGXR's public disclosure documents including, without limitation, those risks identified in this news release, copies of which are available on Zinc8's / MGXR's SEDAR profile at [www.sedar.com](http://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 writer assumes no responsibility to update or revise such information to reflect new events or circumstances, except as required by law.

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## Author Profile & Contact

**Stephan Bogner** (Dipl. Kfm., FH)  
Rockstone Research  
8260 Stein am Rhein, Switzerland  
Phone: +41 44 5862323  
Email: [sb@rockstone-research.com](mailto:sb@rockstone-research.com)



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 duty-free storage of gold and silver bullion in a high-security vaulting facility within the St. Gotthard Mountain in central Switzerland.

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