

# NEO Battery Materials' next generation EV battery is the focus of its new Korean R&D hub

written by InvestorNews | May 31, 2022

I'm going to make a bold prediction. The electric vehicles we see on the road today will be virtually obsolete in 5 years. The amount of capital and brain power being applied to battery technology coupled with the desire/need for fewer and lower carbon footprint resources that go into those batteries is going to result in material step changes in vehicle range, speed of charging and hopefully the corresponding cost. Whether the electrical grid can keep up with this rapid transition to EVs remains to be seen but we can save that discussion for another day.

Imagine you want to go on a road trip in your EV, but every 300-400 miles you have to spend a few hours charging. What if the next generation of EVs could add 50+% to that range and fully re-charge in 15-30 minutes. How much would you be willing to pay for the old generation of EV versus the convenience of a new one? For sure there will still be a market for used EVs as some people only need it for their daily commute or trips to the grocery store and otherwise the vehicle sits idle for hours, at which point in time there is little to no inconvenience to charge it. But for me, as someone who likes to fish and hike in the great outdoors of the Rocky Mountains, I can assure you there is no chance I'm buying a current generation EV with its theoretical range that potentially leaves me stranded in the middle of nowhere when the actual range ends up being 25% lower

than optimal operating conditions.

One company leading the charge into the next generation of batteries is [NEO Battery Materials Ltd.](#) (TSXV: NBM | OTCQB: NBMFF), a Vancouver-based company focused on lithium-ion battery materials for electric vehicle and energy storage applications. NEO has a focus on producing silicon anode materials through its proprietary single-step nanocoating process, which provides improvements in capacity and efficiency over lithium-ion batteries using graphite in their anode materials. The Company intends to become a silicon anode active materials supplier to the electric vehicle industry with their all-star [management](#) and [technical advisory team](#) cherry picked from LG Chem, Samsung and various renowned universities.

The numbers are impressive both from a capacity/capability perspective and relative cost to their competition. In mid-2021 the Company announced that in [a half-cell coin test](#) that its nanocoated silicon anode allowed for a safe full charge within 5 minutes, which demonstrates the potential for scaling and implementation in larger cells such as those used in high power EV batteries. Through a mix of treatments and nanocoating materials, NEO utilizes pure metallurgical-grade silicon (Si) particles, which provide a 40-70% higher initial capacity compared to current competitors that employ SiO<sub>x</sub>, SiC, or other composite silicon materials. Due to NEO's advantage of retaining a higher initial capacity, on average, a 5% silicon weight loading of NBMSiDE™ can have the equivalent impact of a 10% loading of a competitor's materials. Initial coulombic efficiencies (ICE) – the ratio of the discharge capacity after the full charge and the charging capacity of the same cycle and is usually a fraction of less than 1 – for NEO's 100% micron-size level Si anode have exceeded the 86% level, and cycling performance presents excellent capacity retention after 300 charging/discharging cycles.

And all this technology is advancing beyond research lab theoretical work. The latest press release from the Company confirms an [MOU with the Province of Gyeonggi](#) (basically Seoul, South Korea, and the surrounding area) to establish grounds for investments and cooperation between NEO and the Province to advance the mass production of silicon anode materials for EV batteries. NEO Battery Materials will initially invest, over the next 5 years, 24 billion KRW or approximately C\$25 million to support the construction and expansion of the silicon anode commercial plant located on a 107,000 sq. ft. site in Oseong Foreign Investment Complex, Pyeongtaek City, Gyeonggi-do. The Company aims to transform the Province into an essential manufacturing and R&D hub of silicon anode materials. The first phase of the commercial plant will possess an initial annual production capacity of 240 tons of NBMSiDE, and the facility will be built as a 4-story office building with additional space that can accommodate production expansion to 1,800 tons annually of the Company's anode material.

I have no idea if NEO Battery Materials will be one of the success stories to advance the next generation of battery technology for EVs and energy storage. I do know that they have generated some interesting results and have NDAs signed with over 20 globally established industry players in the battery cell manufacturing, materials manufacturing, and automotive industries. With a market cap of roughly C\$30 million, you can decide if this is one of the companies you'd like to hold if you are investing in the future of EVs.

---

# Nano One Strives For Sustainability and a Total Domestic North American Lithium Ion Battery Supply Chain

written by InvestorNews | May 31, 2022

My biggest takeaway from COP26 is not so much climate action and emission reduction, but the message of sustainability. Without focusing on the importance of sustainability one risks thundering down a path of unintended consequences. What do I mean by this? Several years ago I read that if we could convert all coal fired power generation to natural gas it would achieve the Kyoto emission target. I can't confirm if this is completely accurate or not, regardless it would have been a large step in the right direction (despite still being a fossil fuel based solution). At the time it would also have been achievable with existing, available resources and bought the world some time to continue building out renewable resources, which is the ultimate end game. However in 2021, with the lack of energy investment over the last several years due to a combination of factors, that isn't the case today, and we are starting to see parts of the world where renewables haven't developed enough by themselves to even keep people warm this winter. Meanwhile, the fossil fuel alternatives aren't any longer as readily available as backup and may still not even provide enough for home heating. I understand the urgency of eliminating coal fired power, but if there aren't enough alternative power options to keep people warm then who knows what happens next.

That's why I think in order to successfully green our economy and reduce our global carbon footprint, the focus has to be on how to do it sustainably. One company that has to be at or near the top of the list in the transition to clean energy in a sustainable way is [Nano One Materials Corp.](#) (TSX: NANO). Nano One is a clean technology company with a patented, scalable and low carbon intensity industrial process for the low-cost production of high-performance lithium-ion battery cathode materials. The technology is applicable to electric vehicle, energy storage, consumer electronic, and next generation batteries in the global push for a zero-emission future. Nano One's One-Pot process, its coated nanocrystal materials, and its Metal to Cathode Active Material (M2CAM) technologies address fundamental performance needs and supply chain constraints while reducing costs and carbon footprint.

Another facet of sustainability that is very applicable today is the supply chain. Currently, the cathode supply chain is long and complex. Nano One manufactures its cathode materials directly from nickel, manganese, and cobalt metal powder feedstocks rather than metal sulfates or other chemical salts. The metal powders used are one fifth of the weight of metal sulfates, avoiding the added costs, energy, and environmental impact of first converting to sulfate and then the shipping and handling of waste. The manufacturing process for all of its Cathode Active Material (CAM) uses lithium feedstock in the form of carbonate rather than of (lithium) hydroxide, which is costly, corrosive and harder-to-handle. The process is feedstock flexible which enables improved optionality of sourcing of raw materials. Nano One's technology aligns it with the sustainability objectives of automotive companies, investment communities and governmental infrastructure initiatives.

On Tuesday, November 10, 2021, [Nano One announced](#) the goal of building a fully integrated and resilient battery supply chain

in North America, which must include responsible mining of battery metals, onshore refining, environmentally favorable cathode material production, and recycling. The Company believes there is a once-in-a-generation opportunity to create a secure and cost competitive supply chain that is domestically integrated with a low environmental footprint. Accordingly, Nano One is shifting its LFP (lithium-iron-phosphate) cathode material strategic direction to large emerging markets outside of China, starting in North America, and has ceased joint development activities with Pulead Technology Industry.

LFP production is free from the constraints of nickel and cobalt, and although its origins are deeply rooted in Canada, its growth over the last decade is almost entirely based in China. Recent LFP cell-to-pack innovations have driven costs down and enabled greater EV range, setting the stage for EV pioneers to shift to LFP. The need has never been greater for a sustainable, responsible, and secure supply of LFP materials and batteries, to be established and supported in North America and Europe, proximal to where the EV's are manufactured. Canada has clean energy assets, responsibly sourced critical minerals, and a rich history in LFP technology and manufacturing. By leveraging these opportunities with the Company's simplified low-cost approach to cathode production, Nano One seeks to create a resilient value-added North American LFP supply chain in a collaborative ecosystem with a smaller environmental footprint.

There you have it. A company that sees the bigger picture and embraces sustainability in an effort to advance clean technology while reducing both costs and the overall carbon footprint. If this were a video, at this point I would simply drop the mic and walk away. Since it's an article and I need a conclusion I'll finish off by saying Nano One has the potential to have its technology in every EV built in North America and Europe, and

that's going to be a pretty big number in the not too distant future.

---

# Nano One Materials' Dan Blondal with Chris Thompson on decarbonizing the battery materials supply chain

written by InvestorNews | May 31, 2022

In a recent InvestorIntel interview, Chris Thompson spoke with Dan Blondal, CEO, Director & Founder of [Nano One Materials Corp.](#) (TSX: NANO) about Nano One's place in decarbonizing the battery materials supply chain and about the company's product development collaboration with [Euro Manganese](#) and a [global OEM automotive company](#).

In this InvestorIntel interview, which may also be viewed on YouTube ([click here to subscribe to the InvestorIntel Channel](#)), Dan Blondal said that Nano One's patented technologies are used to make a wide range of the cathode materials used in batteries for electric vehicles, energy storage, and for consumer electronics. Dan also provided an update on Nano One's One-Pot process, which increases the energy density and durability of lithium ion batteries, and how its M2CAM technology addresses supply chain complexities while reducing costs and carbon footprint.

To watch the full interview, [click here](#).

## About Nano One Materials Corp.

Nano One Materials Corp (Nano One) is a clean technology company with a patented, scalable and low carbon intensity industrial process for the low-cost production of high-performance lithium-ion battery cathode materials. The technology is applicable to electric vehicle, energy storage, consumer electronic and next generation batteries in the global push for a zero-emission future. Nano One's One-Pot process, its coated nanocrystal materials, and its Metal to Cathode Active Material (M2CAM) technologies address fundamental performance needs and supply chain constraints while reducing costs and carbon footprint. Nano One has received funding from various government programs and its current "Scaling of Advanced Battery Materials Project" is supported by Sustainable Development Technology Canada (SDTC) and the Innovative Clean Energy (ICE) Fund of the Province of British Columbia.

To learn more about Nano One Inc., [click here](#)

**Disclaimer:** Nano One Materials Corp. is an advertorial member of InvestorIntel Corp.

This interview, which was produced by InvestorIntel Corp. (IIC) does not contain, nor does it purport to contain, a summary of all the material information concerning the "Company" being interviewed. IIC offers no representations or warranties that any of the information contained in this interview is accurate or complete.

This presentation may contain "forward-looking statements" within the meaning of applicable Canadian securities legislation. Forward-looking statements are based on the opinions and assumptions of management of the Company as of the date made. They are inherently susceptible to uncertainty and other factors that could cause actual events/results to differ



materially from these forward-looking statements. Additional risks and uncertainties, including those that the Company does not know about now or that it currently deems immaterial, may also adversely affect the Company's business or any investment therein.

Any projections given are principally intended for use as objectives and are not intended, and should not be taken, as assurances that the projected results will be obtained by the Company. The assumptions used may not prove to be accurate and a potential decline in the Company's financial condition or results of operations may negatively impact the value of its securities. Prospective investors are urged to review the Company's profile on [Sedar.com](https://www.Sedar.com) and to carry out independent investigations in order to determine their interest in investing in the Company.

If you have any questions surrounding the content of this interview, please email [info@investorintel.com](mailto:info@investorintel.com).

---

**TechMet's Brian Menell with Jack Lifton on the "extreme supply-demand dislocation" in technology metals due to EV**

# market demand

written by InvestorNews | May 31, 2022

In this episode of the **Critical Minerals Corner** with Jack Lifton, Jack speaks with Brian Menell, Chairman and CEO of [TechMet Ltd.](#), about the “extreme supply-demand dislocation” in technology metals as the electric vehicles and energy storage industries accelerate.

In this InvestorIntel interview, which may also be viewed on YouTube ([click here to subscribe to the InvestorIntel Channel](#)), Brian went on to say that TechMet is an investment company that invests in projects across the technology metal supply chain adhering to the highest level of ESG standards. With focus on cobalt, lithium, nickel, tin, tungsten, vanadium, and rare earths projects, Brian told InvestorIntel that TechMet is “only metals and mining company with significant direct U.S. government equity participation.” Brian also provided an update on some of the projects that TechMet has invested in which includes the largest lithium-ion battery recycling company in North America and the cheapest producer in the world of electrolytes used in vanadium redox flow batteries.

To watch the full interview, [click here](#)

## About TechMet Ltd.

TechMet is a private industrial company that is building controlling or significant minority positions in world-class projects across the technology metal supply chain.

To learn more about TechMet Ltd., [click here](#)

**Disclaimer:** This interview, which was produced by InvestorIntel Corp. (IIC) does not contain, nor does it purport to contain, a summary of all the material information concerning the “Company”

being interviewed. IIC offers no representations or warranties that any of the information contained in this interview is accurate or complete.

This presentation may contain “forward-looking statements” within the meaning of applicable Canadian securities legislation. Forward-looking statements are based on the opinions and assumptions of management of the Company as of the date made. They are inherently susceptible to uncertainty and other factors that could cause actual events/results to differ materially from these forward-looking statements. Additional risks and uncertainties, including those that the Company does not know about now or that it currently deems immaterial, may also adversely affect the Company’s business or any investment therein.

Any projections given are principally intended for use as objectives and are not intended, and should not be taken, as assurances that the projected results will be obtained by the Company. The assumptions used may not prove to be accurate and a potential decline in the Company’s financial condition or results of operations may negatively impact the value of its securities. Prospective investors are urged to review the Company’s profile on [Sedar.com](https://www.sedar.com) and to carry out independent investigations in order to determine their interest in investing in the Company.

If you have any questions surrounding the content of this interview, please email [info@investorintel.com](mailto:info@investorintel.com).

---

# The Top 5 Lithium Development and Exploration Companies for 2021

written by InvestorNews | May 31, 2022

The electric vehicle boom continues to accelerate in 2021. Global electric car sales for May 2021 were up 199% YoY reaching [6.6% share](#). Europe sales rose 158% YoY reaching 16% share, China sales rose 146% YoY reaching 12% share. Global electric car sales are forecast to grow as much as 10x this decade, a statistic that is been helped by Europe's recent announcement to effectively [ban emission producing cars from 2035](#), and strictly limit the allowable emissions from 2030.

As a result of the EV and energy storage boom, lithium demand is forecast to grow [11x](#) this decade. More recently the International Energy Agency (IEA) [forecast](#) lithium demand to increase between 13x (low scenario) and 42x (high scenario) from 2020 to 2040. While existing lithium producers can expand supply new lithium miners will potentially be needed to fill the supply gap, particularly from 2025 onward.

Here are five lithium development and exploration plays to consider buying now and holding this decade.

1. Sigma Lithium Resources Corp. (TSXV: SGMA | OTCQB: SGMLF)
2. Neo Lithium Corp. (TSXV: NLC | OTCQX: NTTHF)
3. Critical Elements Lithium Corporation (TSXV: CRE | OTCQX: CRECF)
4. Global Lithium Resources Limited (ASX: GL1)
5. Lithium Energy Limited (ASX: LEL)

**Sigma Lithium Resources Corp.**

Sigma Lithium 100% owns the advanced stage lithium spodumene Grota do Cirilo Project in Brazil. The [January 2019 Resource update](#) for the Grota do Cirilo Project resulted in a resource estimate of Measured and Indicated 45.7 million tonnes @ 1.38% Li<sub>2</sub>O and Inferred of 6.6 million tonnes @1.34% Li<sub>2</sub>O. Sigma Lithium's Stage 1 Xuxa deposit (part of Grota do Cirilo Project) has a mining permit, pilot plant, and has [sold all Stage 1 off-take \(220ktpa\) to Mitsui](#). Sigma Lithium is currently working to finalize the Xuxa production complex design and EPC for construction. Sigma has produced a PEA for both Stage 1 and Stage 2, and when combined resulted in a [pre-tax NPV8% of US\\$844M](#). Stage 1 funding has been arranged and is expected to close soon, subject to due diligence.

Stage 1 lithium production is forecast to begin in H2 2022, Stage 2 to follow about 1-2 years thereafter, then potentially a Stage 3 after that. Sigma Lithium trades on a market cap of C\$598 million (~US\$472 million). One of the very best near term lithium producers.

**Sigma Lithium's proposed layout for Stage 1 and 2 mine planned to produce 440,000 tpa spodumene (66,000 LCE)**



Source: [Sigma Lithium](#)

## **Neo Lithium Corp.**

Neo Lithium 100% owns the entire salar with their Tres Quebradas (the "3Q Project") lithium brine project in Argentina, covering 160Km<sup>2</sup>. The 3Q Project has high grade lithium brine (3rd-4th highest globally) with extremely low impurities (lowest globally). The 3Q Project is [advanced with pilot ponds already constructed](#) and a lot of infrastructure in place.

The updated PFS resulted in a post-tax NPV8% of [US\\$1.14 billion](#) and post-tax IRR of 49.9%, with a 35 year mine life. The PFS was based on an initial 20,000t pa lithium carbonate production and has a CapEx of US\$319 million and OpEx of US\$2,914/t lithium carbonate. The EIS is currently under assessment with results due out soon. The FS is underway and is due out in [Q3, 2021](#).

Contemporary Amperex Technology Ltd (CATL) (China's largest battery manufacturer) is a strategic 8% equity partner with board representation and pre-emptive rights. This bodes well for funding the project.

Neo Lithium trades on a current market cap of C\$421 million (US\$332 million). I rate them as one of the best lithium near term producers, with a potential 2023 start-up for production. You can read more in my article [here](#).

### **Critical Elements Lithium Corporation**

Critical Elements is developing their 100% owned Rose lithium spodumene project in Quebec, Canada. Critical Elements also own several other projects with potential for lithium, copper, nickel, zinc, lead, gold, silver, rare earths, and platinum group elements (PGE) as you can read [here](#).

The November 2017 Rose Project Stage 1 [Phase 1 Feasibility Study](#) (based on an average production of 186,327t pa of chemical grade lithium concentrate and 50,205t pa of technical grade lithium concentrate) resulted in a post-tax NPV8% of C\$726 million with a post-tax IRR of 34.9%, and a CapEx of C\$341 million, over a 17 year mine life. Total operating costs net of tantalum by-product credit are forecast to be US\$337/t spodumene.

All in all, Critical Elements has a great asset at Rose, and just needs to achieve financing. Possible 2023 or 2024 producer. Critical Elements trades on a current market cap of C\$231

million (US\$182 million).

### **Global Lithium Resources Limited**

Global Lithium 100% owns the Marble Bar Lithium Project (“MBLP”) in the Pilbara region of Western Australia. Global Lithium is a new ASX listing raising A\$10 million on May 6, 2021 at A\$0.20 per share. The MBLP Archer deposit has a maiden Inferred Mineral Resource of [10.5Mt @ 1.0% Li<sub>2</sub>O](#). The Archer deposit comprises a swarm of spodumene bearing pegmatites over a 3km by 1km zone.

What’s quite interesting is that Global Lithium’s MBLP is located in the very same Pilbara region as lithium producer Pilbara Minerals (market cap A\$4.2 billion) and the Wodgina deposit (Mineral Resources (ASX: MIN)/Albemarle (NYSE: ALB) JV).

It is still very early days with a resource update planned for Q4, 2021. Global Lithium trades on a market cap of just A\$35 million (US\$25.5 million). High risk/high reward.

**Global Lithium 100% owns the early stage lithium spodumene exploration project at Marble Bar, Pilbara region, Western Australia**



Source: [Company presentation](#)

### **Lithium Energy Limited**

Lithium Energy majority owns two projects – The Solaroz Lithium Project, Argentina (90% owned) and the Burke Graphite Project, Australia (76.5% owned, potential for 100%).

Lithium Energy is a new ASX listing from May 2021, having been spun out from Strike Resources. The Solaroz Lithium Project is spread over 12,000 hectares of very well located lithium

tenements within the Salar de Olaroz Basin in Argentina. The Solaroz Project is directly adjacent to the tenements of both Orocobre's project and Lithium Americas (NYSE: LAC)/ Ganfeng Lithium project. This is prime real estate in Argentina.

Lithium Energy is just at the very beginning of their exploration stage and will spend the next two years (assuming the EIA Report is approved) exploring their tenements.

Lithium Energy trades on a market cap of just A\$30 million (US\$22 million). High risk/high reward. Patience required.

**Lithium Energy tenements [red] adjacent to Orocobre [yellow] and adjacent and near LAC/Ganfeng Lithium [blue]**



Source: [Lithium Energy](#)

## **Closing remarks**

If the forecasts are correct and we see a massive demand wave for lithium the next 10-20 years then there will be a need for a lot more new lithium miners. The five in this article include three potential near term lithium producers (Sigma Lithium, Neo Lithium, Critical Elements Lithium) and two very low market cap early stage lithium explorers (Global Lithium Resources, Lithium Energy Limited).

Be sure to diversify and not to miss one of the biggest trends this decade.

*Disclosure: The author is long Sigma Lithium, Neo Lithium, Global Lithium Resources, Lithium Energy Limited*



---

# Stock price up 275% over the past year, Nano One progresses commercialization efforts with JV partners in the lithium ion battery industry

written by InvestorNews | May 31, 2022

Battery cathode materials nanotech company, [Nano One Materials Corp.](#) (TSX: NANO) (“Nano One”) continues to make solid progress with regards to commercialization of their patented licenses via several joint development agreements. The Company has also recently been [upgraded to the TSX exchange](#), trading under the new ticker “NANO”.

**Nano One is working with some of the biggest names in the battery and EV industry**



Source: [Nano One investor presentation](#)

## **Nano One's recent development agreements update**

[Announced](#) on April 20, 2021, Nano One reported that they had successfully advanced phases one and two of their joint development agreement (JDA) with their [multi-billion-dollar](#) Asian (outside China) cathode producer development partner. The announcement [stated](#): “LNMO cathode materials have met performance metrics and initial economic targets. Next steps

include scale up, detailed economic modeling, third-party evaluation and planning for commercialization.....The JDA provides a framework to develop a business plan for the commercialization of cathode materials, through a joint venture, licensing of Nano One's technology and or through further development work."

The key takeaway here for investors is that Nano One has developed advance intellectual property that will help cathode makers make next-generation batteries, needed to support the next generation of electric vehicles that require lower cost, faster charging, and still with good energy density and power. Nano One's high-performance lithium-nickel-manganese-oxide (LNMO) cathode materials (using Nano One's patented one-pot process) is also known as high voltage spinel (HVS). It delivers energy and power on par with other high-performance cathodes and is more cost effective because it is cobalt free, low in nickel and does not require excess lithium. LNMO's three-dimensional spinel structure enables lithium ions to flow more quickly than other types of cathode for fast charging and discharge and keeps it from expanding, contracting and straining the battery.

[Announced](#) on June 3, 2021, Nano One and Johnson Matthey entered into a joint development agreement for lithium-ion battery materials. The co-development agreement is for next generation products and processes for Johnson Matthey's eLNO® family of nickel-rich advanced cathode materials using Nano One's patented one-pot process. The agreement also includes a detailed commercialization study for pre-pilot, pilot and scaled up production.

[Announced](#) on May 6, 2021, Nano One and niobium producer CBMM entered into a co-development agreement. The project will build on CBMM's niobium products and technologies, and on Nano One's successful demonstration and patenting of niobium coated cathode materials. Niobium coatings protect the cathode which leads to

long-term cycling stability and improved battery durability.

**Nano One is targeting to make US\$1B from the forecast US\$23 billion cathode market by 2025**



Source: [Nano One investor presentation](#)

### **Closing remarks**

Car makers and customers are demanding electric cars at lower prices with longer lasting and better batteries. To achieve this car makers, cathode and anode manufacturers, are spending up big on R&D and innovation. For most companies, it is easier and faster to pay a royalty to benefit from this better technology than spend billions of dollars trying to develop it themselves. The battery cathode market alone is forecast to be worth an incredible [US\\$23 billion](#) by 2025, so there is plenty of incentive to have the best technology. Nano One's goal is to target just US\$1 billion of the sector.

Nano One has done the work and is now rapidly co-developing better cathode materials to support cathode and battery manufacturers, and ultimately the EV and energy storage industries. This should potentially lead to successful commercialization and the beginning of strong revenues for Nano One.

Nano One is recently cashed up after a successful equity capital raise of [C\\$28.9 million](#) and trades on a market cap of C\$436 million after a nice [275%](#) stock price rise over the past year. There should be good times ahead for Nano One.

---

# Neo Lithium reaches nirvana with 125% increase in resources

written by InvestorNews | May 31, 2022

Whenever someone mentions lithium to me, the first thing that pops into my head is Kurt Cobain and Dave Grohl. Obviously, I'm still stuck in the 90's thinking about great songs like [this Nirvana offering](#). The recording of which is arguably responsible for Dave Grohl joining the iconic band. But when I drag my head out of the clouds and back to today the most important lithium going is the commodity that is vital to the build out of electric vehicles, consumer electronics and various energy storage applications involving rechargeable batteries. You've heard us go on and on at InvestorIntel about the importance of lithium, perhaps no more clearly than [this article](#) by Jack Lifton (a must read). So I won't pound the table anymore on that topic as long as you read Jack's article.

So what if there was a junior miner that just announced a 125% increase of measured and indicated resources in their lithium brine project in Catamarca Province, Argentina. I bet that would get you pretty excited. Well, you are in luck. [Neo Lithium Corp.](#) (TSXV: NLC | OTCQX: NTTHF) just [announced exactly that](#) at their [Tres Quebradas \(3Q\) project](#).

The Company's 3Q project is located in the southern end of the "Lithium Triangle" in the Puna Plateau, where over 40% of global lithium is produced. The area is characterized by high altitude salt flats, many of which contain elevated lithium

concentrations. The largest lithium brine mines and projects in the world are located in salars (a salt-encrusted depression that may or may not be the basin of an evaporated lake) in the Lithium Triangle including Atacama Salar (SQM and Albermarle), Cauchari-Olaroz Salar (Orocobre and Lithium Americas) and Hombre Muerto Salar (Livent and Galaxy). Neo Lithium is in the same neighborhood as all the big names in lithium.



Source: [Corporate Website](#)

This resource increase was a function of the latest drilling results [announced by Neo Lithium on May 27<sup>th</sup>](#) where the company intercepted a new deep brine aquifer, located outside the area which resulted in the Company's previous Mineral Resource Estimate prepared by Groundwater Insight Inc. with an effective date of August 14, 2018. So they gave Groundwater a call and asked them to work on a new resource estimate using the results from the new wells. Those results are summarized as follows (lower right of the table is the impressive 125% increase):



Source: [Corporate Press Release](#)

As an investor trying to make a decision on whether this is a good stock to buy or not, let's have a look at some of the other important facts about Neo Lithium. Notwithstanding the overall outlook for lithium, which I promised not to keep droning on about, there are several corporate specific items that are key. The Company has a lot of money to begin the commercial development of this project, \$59 million at the end of March. They have the world's largest battery manufacturer Contemporary Amperex Technology Co. Limited (CATL) – a global leader in the development and manufacturing of lithium-ion batteries and the

world's No. 1 ranked EV battery producer – as a strategic investor (8% equity interest), [including a seat on the board](#). A pre-feasibility study, done prior to the latest resource increase, had a 50% IRR, \$1.1 billion after tax NPV (8% discount rate), and a 1 year 8 month payback period.

Additionally, the 3Q project is 100% owned and Neo Lithium controls the entire salar which still has exploration upside. The high-grade core of the 3Q project is 3<sup>rd</sup> highest grade lithium project in the world, 4<sup>th</sup> best on overall average grade. The low impurities contribute to this project being estimated to be in the lowest quartile OPEX in the industry at US\$2,900/t. Pilot plant operations have run for over a year achieving battery grade quality (99.797% lithium carbonate) and pleasing CATL with the results. Similar processing operations have run in the area for over 20 years, so it's not like this project is reinventing the wheel, perhaps just advancing a better way to power the wheel.

All of this make 3Q one of the best undeveloped lithium projects worldwide. But there's the key – undeveloped. So what's next for Neo Lithium? The Company plans to complete the final feasibility study in Q3/21 at which point it will finalize financing discussions with CATL, assuming they've obtained the Environmental Impact Assessment. At that point, they can start executing a construction plan and get this impressive project making all that money that the PFS indicated was there for the taking, assuming lithium prices remain strong but we've already covered that!

---

# Quebec's \$6.7 billion Plan for a Green Economy is a huge boost for energy storage and EVs

written by InvestorNews | May 31, 2022

While Quebec Canada is known for its French influence and pro-mining sector, it is starting to become well known for its support for pro-green policies. Just recently the Quebec Government announced their \$6.7 billion Plan for a Green Economy (2030 PGE).

As a part of the 2030 PGE, two of the most interesting announcements were Hydro-Quebec's move towards energy storage and Quebec's decision to ban the sale of new gasoline-powered cars from 2035. All of these recent Quebec pro-green policies are very positive for the energy storage, EV and battery markets; and also for the battery metal (and EV metal) miners; especially those with projects in Quebec.

**A summary of the Quebec Government's \$6.7 billion Plan for a Green Economy (2030 PGE)**



[Source](#)

## **Hydro-Québec's move towards energy storage using LFP batteries**

On December 9, 2020, it was reported that Hydro-Québec announced the launching of a new subsidiary that specializes in energy storage systems in a bid to help speed up development of renewable power and commercialize technology it has developed

over four decades.

A Reuters report [quotes](#): “Hydro-Québec, Canada’s largest electricity producer, on Wednesday entered the fast-growing market for storing renewable energy, where it could face competition from the likes of Tesla.....Hydro-Québec aims to capture 10% of a niche market expected to reach \$3 billion in the next 10 years.”

Hydro-Quebec’s new EVLO subsidiary will design, sell and operate storage systems aimed at other utilities, commercial and industrial markets for medium-and-large-scale storage. They intend to initially focus on North America and Europe.

Hydro-Québec is using lithium iron phosphate batteries (LFP). LFP battery is a type of lithium-ion battery using  $\text{LiFePO}_4$  as the cathode material, and a graphite based anode. It means there is no use of nickel or cobalt, but still uses lithium and graphite.

### **Quebec to ban the sale of new gasoline-powered cars from 2035**

The [Quebec banning of ‘new’ gasoline cars from 2035](#) should mean that starting from 2035, 100% of new car buyers will buy electric vehicles (EVs). Of course EVs will be wildly popular well before then, especially post 2023 when they should hit purchase price parity with gasoline or diesel cars.

The Quebec Government [stated](#): “...the 2030 Plan for a Green Economy (2030 PGE) along with its first implementation plan covering 2021-2026, backed by a budget of \$6.7 billion over five years. The magnitude of the amounts earmarked for this electrification and climate change framework policy is indicative of the government’s intent to make Québec a leader in the green economy by building on its major strength: its clean electricity.”



Again this is another huge boost to the EV & battery manufacturers as well as the EV and battery metal miners. In the case of EVs, NMC (nickel, manganese, and cobalt) and NCA (nickel, cobalt, and aluminum) cathode batteries are currently the most popular in western markets as they offer the best energy densities. Lithium electrolyte and graphite based anodes are the usual other battery metals. Added to this would be the producers of rare earths neodymium-praseodymium (NdPr) used in EV motors. We should also add in copper as copper is integrally involved with clean energy and EVs. Finally, any companies that work in renewable energy and in particular emissions reductions.

### **Some potential winners from Quebec's support for energy storage and EVs**

- Hydro-Quebec as an energy storage designer, seller and operator. Also their suppliers of LFP batteries.
- Potentially any Quebec based cathode, anode or battery manufacturers and/or EV manufacturers.
- Quebec based battery metal miners – Lithium, cobalt, nickel, manganese, graphite, and aluminum.
- Energy storage and EV suppliers and miners, ideally in Canada and perhaps USA.
- Companies working in the pro-green economy sector.

Some companies that we follow at InvestorIntel that focus on the above areas include: [Appia Energy Corp.](#) (CSE: API | OTCQB: APAAF), [Avalon Advanced Materials Inc.](#) (TSX: AVL | OTCQB: AVLNF), [Canada Silver Cobalt Works Inc.](#) (TSXV: CCW | OTCQB: CCWOF), [CBLT Inc.](#) (TSXV: CBLT), [Critical Elements Lithium Corporation](#) (TSXV: CRE | OTCQX: CRECF), [dynaCERT Inc.](#) (TSX: DYA | OTCQX: DYFSF), [Exro Technologies Inc.](#) (TSXV: EXRO | OTCQB: EXROF), [Global Energy Metals Corporation](#) (TSXV: GEMC | OTCQB: GBLEF), [Ideanomics Inc.](#) (NASDAQ: IDEX), [Imperial Mining Group Ltd.](#) (TSXV: IPG), [Kodiak Copper Corp.](#) (TSXV: KDK), [Nano One](#)

[Materials Corp.](#) (TSXV: NNO), [Neo Lithium Corp.](#) (TSXV: NLC | OTCQX: NTTHF), [Neo Performance Materials Inc.](#) (TSX: NEO), [Nouveau Monde Graphite Inc.](#) (TSXV: NOU | OTCQX: NMGRF), [Search Minerals Inc.](#) (TSXV: SMY), [Vital Metals Limited](#) (ASX: VML), and [ZEN Graphene Solutions Ltd.](#) (TSXV: ZEN).

**Quebec Canada is supporting energy storage and electric vehicles etc with a \$6.7 billion plan for a green economy**

If you are a Quebec or Canadian company focused on the green energy sector then InvestorIntel would be happy to hear from you to see if we can get your company some greater exposure. Together we can make a better world.

---

# **Eric Zaunscherb on Critical Elements Lithium's competitive advantages and the demand driven by energy storage systems**

written by InvestorNews | May 31, 2022

In a recent InvestorIntel interview, Tracy Weslosky speaks with Eric Zaunscherb, Chairman of [Critical Elements Lithium Corporation](#) (TSXV: CRE | OTCQX: CRECF), about their flagship Rose Lithium-Tantalum project located in James-Bay, Quebec. Eric starts with "Lithium ion batteries are ramping up in terms of demand driven by e-mobility and energy storage systems." And

then proceeds to discuss the Critical Elements' vision, which is to be a global leading, responsible supplier of lithium hydroxide to the emerging electric vehicle and energy storage industries. Discussing the value of their First Nations relations, and the advantages relating to management with experience in taking a project to operations, Eric discusses how Critical Elements is well-positioned to play a significant role in the lithium market with one of the highest purity spodumene deposits in the world. Adding that "We aspire to be a large responsible and sustainable provider of lithium to the lithium ion battery industry."

To watch the full interview, [click here](#)

### **About Critical Elements Lithium Corporation**

Critical Elements Lithium Corporation is a junior mining company in advance exploration stage. The company's flagship project is the Rose Lithium-Tantalum project located in James-Bay, Quebec with a good geographic location, on-site access to infrastructures like: powerline, roads, airport, railway access and camp. Primero Group recently completed the first phase of its Early Contractor Involvement agreement with the Corporation and provided a Guaranteed Maximum Price for the engineering, procurement and construction of the wholly-owned Rose Lithium-Tantalum project on a lump sum turnkey basis that is in line with the Project's feasibility study published November 29, 2017. The project feasibility study is based on price forecasts of US \$750/tonne for chemical-grade lithium concentrate (5% Li<sub>2</sub>O), US \$1,500/tonne for technical-grade lithium concentrate (6% Li<sub>2</sub>O) and US \$130/kg for Ta<sub>2</sub>O<sub>5</sub> in tantalite concentrate, and an exchange rate of US \$0.75/CA \$. The internal rate of return ("IRR") for the Rose Lithium-Tantalum project is estimated at 34.9% after tax, and net present value ("NPV") is estimated at CA \$726 million at an 8% discount rate.

To learn more about Critical Elements Lithium Corporation, [click here](#)

***Disclaimer:** Critical Elements Lithium Corporation is an advertorial member of InvestorIntel Corp.*

---

# **Panneton on how Prophecy's Gibellini Project will be the first official primary vanadium mine in the U.S.**

written by InvestorNews | May 31, 2022

"The Gibellini Project is an excellent low-capital vanadium project that can be developed in Nevada in the U.S. There are no political risks. The feasibility study is completed. There is no red flag in the processing. It is a very solid project. That is what people saw while writing the checks." States Gerald Panneton, President and CEO of [Prophecy Development Corp.](#) (TSX: PCY | OTCQX: PRPCF), in an interview with InvestorIntel Corp. CEO Tracy Weslosky.

**Tracy Weslosky:** Allow me to start by congratulating you Gerald. You are brand new to the team. You have got a formidable career in the resource industry. I would just like to welcome you as the new CEO for Prophecy.

**Gerald Panneton:** Yes, October 10<sup>th</sup> was my first day on the job.

**Tracy Weslosky:** Gerald we noticed that you attracted some

institutional investors in this last round of financing, which is highly applaudable in these current markets, especially for a project your size. Can you tell me what it is that drew them in?

**Gerald Panneton:** The Gibellini Project is an excellent low-capital project that can be developed in Nevada in the U.S. There are no political risks. The feasibility study is completed. There is no red flag in the processing. It is a very solid project. That is what people saw while writing the checks.

**Tracy Weslosky:** There has been a constant news flow since you joined the team. Recently you also attracted [Ron Espell](#) as VP Environmental and Sustainability to your management team. Can you tell us a little bit more about your management team overall?

**Gerald Panneton:** When you bring a project into production and you want to do it efficiently and very well you bring expertise. Johnny brought me as CEO to develop the project because that will be my fourth mine that I put together during my career. You build mines and you build projects like this with a team. Ron Espell is the guy that has all the experience permitting projects in Nevada.

**Tracy Weslosky:** Of course those of us interested at InvestorIntel in issues of sustainability, the Gibellini Project that Prophecy has is one of the first to primarily produce vanadium in North America. Can you tell us a little bit more about the Gibellini Project please?

**Gerald Panneton:** Yes, the first official primary vanadium mine in the U.S. will be the Gibellini Project. It is the most advanced of all the projects.

**Tracy Weslosky:** With experience taking a mine fully to

production, can you tell us what attracted you to this project?

**Gerald Panneton:** The main reason I got involved in Prophecy is because I think vanadium has a solid future in terms of its use mainly for the steel industry, which has been 90% of its consumption. The growing number will be in the battery sector for long-term storage.

**Tracy Weslosky:** With everything that is happening in the vanadium markets presently, can you tell us what we should anticipate as potential shareholders in Prophecy in the next quarter or two?

**Gerald Panneton:** Well we are planning to continue the baseline study that we have initiated and of course the engineering. We are planning also to start drilling sometime in March or April because one of the deposits, the Louie Hill deposit, has not been drilled off completely. Our deposit, the Gibellini, is relatively concealed, but the Louie Hill further south is not. We believe we can probably increase our resource or double our resource at Louie Hill...to access the complete interview, [click here](#)

Disclaimer: Prophecy Development Corp. is an advertorial member of InvestorIntel Corp.