Recharging a battery in 5 minutes is the starting block for NEO Battery Materials interest

It seems like it was only last week that I was writing about nanomaterials and how they were going to save the world by making everything better. Oh wait, it was just last week. I guess the difference here is that this company has an actual resource (targeting silica in quartzites) that would supply their proprietary nanocoating technology. Nope, that's almost the same as well. So to quote baseball's philosopher, Yogi Berra, it's déjà vu all over again. Today is another story about nanomaterials that look like they have the potential to improve the technology required to lower our carbon footprint and make the air we breathe a little cleaner.

The company being discussed this time around is NEO Battery Materials Ltd. (TSXV: NBM | OTC: NBMFF). A six-month chart of this stock will tell you that there is plenty of buzz around what is happening, given it has traded in a range of $0.14/share to as high as $1.31, closing yesterday at $0.89. Most of this activity is being driven by the steady stream of exciting news that comes out on an almost weekly basis. Two of the biggest surges in the stock price came first in early June when the Company made the remarkable announcement that its nanocoated silicon anode allows for a safe full charge on small battery cells within 5 minutes leading to a two-day rally of 62%. Then this past Friday NEO reported the first prototype of silicon anode active materials has been successfully produced, and samples have been sent to partners for full cell evaluation and electrochemical characterization. The latest news causing the stock to surge 30% on the day with further follow through on Monday adding another 14% to the

share price.

These are some pretty stunning moves so let’s look a little closer at what this all means in the grand scheme of things and why the stock may be responding like it is to this news. The first news seems pretty obvious to me, recharging a battery in 5 minutes is impressive no matter how you look at it. If we could all recharge our smartphone, wearable device, tablet, laptop, cordless yard equipment, etc. in 5 minutes, life would be a whole lot more convenient. But convenience isn’t going to save the earth. Where this becomes a game changer is if they can evolve this technology for use in the Li-Ion batteries used in EVs. Imagine the change in adoption of EVs over internal combustion engines if you can recharge your battery in almost the same amount of time it takes to fill a vehicle with gas. It almost wouldn’t matter what the range of the battery is as long as there was adequate charging capability. Going to Starbucks for a coffee? Plugged in the car before I went in and it was charged when I came out. Stopping by the grocery store on the way home from work to pick up something for dinner? No problem, also charged the car while I was in the store.

Perhaps I’m getting a little bit utopian but it’s hard to argue that an EV that could charge in 5 minutes wouldn’t be revolutionary. This leads us to the latest news from the Company, the first working set of NEO’s proprietary silicon anode materials has been manufactured through their unique process. This prototype will be utilized by NEO’s third-party partners for evaluating the performance and efficacy of NEO’s silicon anodes in each respective party’s cell system and environment. The Company expects this development to act as a catalyst to accelerate the commercialization of its silicon anode active materials. Another critical piece of information in the latest press release was the signing of two new Non-Disclosure Agreements (NDAs) with global top-tier battery material producers in China and South Korea for NEO’s

innovations with silicon. They are getting the word out and in front of the right people to make something happen.

The Company raised $2 million in early May and had a cash balance of $872,171 as of their May 31st financials. NEO has likely raised another $1.4 million from the exercise of in-the-money ($0.30 strike) warrants that were set to expire on August 21st. There are still 17 million warrants outstanding but with an expiry date of May 2024, who knows if/when those might get exercised. In the meantime, there should be enough cash to continue operations for a couple of more months at which point in time we will see what's next for NEO Battery Materials. They may have to go back to the market to raise some capital, or perhaps a JV with one of their NDA partners will provide some financial support. Regardless, there are some exciting things happening that will keep investors on the edge of their seats for the foreseeable future.

HPQ Rocks the Silicon Boat

As the world pushes ever onward with its sustainable energy goals, the demand for precursor materials continues to climb. Government incentive programs around the world are driving up the installation of photovoltaic (PV) cells every day, and high-purity polysilicon is the requisite material that makes it all possible. Already, massive quantities of the highest-grade polysilicon are used in the manufacture of silicon-based microprocessors, but the sheer surface area required for a solar-powered world means that the material will likely go into drastic undersupply as the market peaks. The last time this occurred, the spot price rose from $60/kg in 2005 to around $450/kg by 2008.

The fact that HPQ is also the largest holder of high-purity quartz properties in Quebec is no accident; the ability to feed their own pilot plant means that they will be better-placed than anyone to pump out polysilicon in time for the PV explosion. In fact, their pilot plant is expected to produce 200 metric tons each year, and is a mere months away from completion. Management reports that the project is on schedule and on budget, and the completed furnace is expected to be delivered at the end of summer. Refining silicon dioxide into industry standard stuff is normally an extremely costly process, but HPQ Silicon Resources Inc. (TSXV: HPQ) ("HPQ") have been developing a vertically integrated production model that should be capable of delivering a market-ready product in a single step. The guys at HPQ teamed up with renowned plasma technologists Pyrogenesis to bring into existence a quartz vaporization reactor that can create solar-grade silicon metal from a relatively poor feedstock, and at crazy-low prices.

Additionally, the company owns two gold properties in the Beauce region of Quebec that should be able to support small surface-mining operations. A memorandum of understanding was recently signed with the aim of advancing one of the projects towards production. Once achieved, this will have the effect of supplementing the silicon operations, reducing CapEx, OpEx, as well as risk, and creating an all-round attractive proposition.

Over the last twelve months, lab tests of the plasma reactor have been entirely positive, and all payments are completely up to date. Just last month, Pyrogenesis successfully demonstrated single-stage production of PV-grade silicon metal from HPQ's feedstock, and all we are waiting for is the final results to tell us if the plant can produce the highest-purity material at volumes sufficient for the industry.

The company also wins-out on environmental impact, as its process produces 75% lower greenhouse gas emissions than the current industry standard process. The overall efficiency

savings that the project entails results in a CapEx of around 5% of what would normally be expected, and less than 20% of the normal cash cost.

This summer is the final window of opportunity before full commercialization brings the cash through the doors. Once conveyor belts begin rolling and material begins to ship out, value is added daily. The solar-power market can be difficult to break into, but HPQ's technology will give them the lowest production costs I have ever seen, giving them a serious edge with which to slice into the supply chain. This process will be the only one in existence that can turn low quality quartz into high purity silicon metal in a single step, so HPQ et al are certainly worth your attention.

HPQ Silicon Resources to present at InvestorIntel's 6th Annual Cleantech & Technology Metals Summit

Bernard Tourillon to present "Canada's Only Public Pure Play Investment in the Lucrative Solar Grade Silicon Market"

May 11, 2017 – HPQ Silicon Resources Inc. (TSXV: HPQ), making solar cheaper than fossil energy, is pleased to announce that they will be presenting at **InvestorIntel's 6th Annual Cleantech & Technology Metals Summit** (CTMS2017.com | @CTMS2017). Featuring some of the most impressive market movers in the cleantech and technology metals sector, #CTMS2017 is scheduled for Monday, May 15th and Tuesday, May 16th at the Omni King Edward Hotel in Toronto, Canada located

at 37 King St. East.

Bernard Tourillon, Chairman, CEO and Director of HPQ Silicon Resources Inc. will be presenting on Tuesday, May 16th from 12:15 – 12:40 PM (EST). Presenting **Canada's Only Public Pure Play Investment in the Lucrative Solar Grade Silicon Market**. HPQ Silicon has partnered with PyroGenesis Canada Inc., a world leader in plasma technology, to develop THE PUREVAP™: A quartz vaporization reactor – which HPQ Silicon has exclusive world-wide use of. The one step process for reducing quartz to high purity silicon and/or polycrystalline silicon, highlights a low Opex, low Capex, a minimal carbon footprint and is environmentally friendly. PUREVAP is a technology that could revolutionize the making of solar panels into a more competitive source of renewable energy.

InvestorIntel Corp. CEO Tracy Weslosky commented: "It is with great pleasure that we announce the participation of HPQ Silicon Resources as a presenter at our 6th annual Cleantech and Technology Metals Summit. We have over 100 companies participating in what is intended to be the most exciting review of global equities focused on strategic materials, critical metals and the associated technologies that impact the world. Please note that Bernard will also be on a panel moderated by InvestorIntel Sr. Editor Peter Clausi to debate on innovative processes to supply the new energy economy on Monday, May 15th from 9:00 – 9:50 AM (EST). We look forward to our best #CTMS event to-date."

#CTMS2017 Delegate Passes:
To secure a 2-day InvestorIntel's 6th Annual Cleantech & Technology Metals Summit delegates pass (includes lunches/reception) for Monday, May 15th and Tuesday, May 16th from 8AM – 6PM (EST), click on the following link: http://bit.ly/2p2lC3k

#CTMS Contact Information: For more information on **InvestorIntel's 6th Annual Cleantech & Technology Metals**,

please contact us at +1 647 345 5486 or email info@investorintel.com. For regular updates on the **Cleantech & Technology Metals Summit**, please go to CTMS2017.com or follow us on twitter @CTMS2017.

GTA Resources Peter Clausi to discuss Creative Financing at the Cleantech & Technology Metals Summit

19 days and counting to InvestorIntel's 5th Annual Cleantech & Technology Metals Summit on Tuesday and Wednesday, May 10-11th – I would like to take this opportunity to draw your attention to the April 18th news release from GTA Resources and Mining Inc. (TSXV: GTA) titled: **GTA Provides Update on Corporate Activities and Work Program** (click here to access).

The reason? Several actually….but let's draw your attention to the following excerpt: "GTA has been invited to attend at the 5th Annual Cleantech & Technology Metals Summit, to be held in May, 2016 in Toronto. This two day summit is intended to review the global status of technology metals (lithium, graphite, silicon, platinum, cobalt, vanadium, scandium, rare earths, etc.), and the supply and demand issues surrounding them. GTA has been asked to discuss how its innovative finance model works in compliance with Ontario's recent prospectus exemptions (see MI45-108 – Crowdfunding – click here) and how that model can be adapted for other resource issuers."

Interested? I hope so. GTA is a respected junior mining

explorer with a deep management team, high quality assets in great mining geologies, and only 32 M shares outstanding. Their team is justifiably well-known for innovation and a willingness to go first. Proof of that is the InvestorIntel interview that I felt deserved more attention:

Mr. Clausi, one of our leading editors at InvestorIntel, will be moderating and participating at the Cleantech & Technology Metals Summit on May 10-11th. A graduate of Osgoode Hall Law School called to Ontario's bar in 1990, Mr. Clausi has extensive experience in finance, shareholder rights and corporate growth – he is an experienced investment banker, executive and director. He makes frequent appearances as a shareholder rights and board governance advocate, with speaking engagements on compliance booked through to November, 2016. He is EVP of Corporate Affairs and General Counsel of GTA Resources and Mining Inc.; an independent director and audit committee member of Baja Mining Corp.; and Interim CEO for Buccaneer Gold Corp. – and he writes for InvestorIntel. We hope you will join us on May 10-11th and get ready for a nightly update as we race towards one of the best events of the year….

Countdown is on to the **5th Annual Cleantech & Technology Metals Summit: Invest in the Cleantech Revolution** – *click here to buy tickets!* https://ctms2016.eventbrite.com