

HPQ Silicon Affiliate – Novacium’s GEN2 Advanced Silicon-Based Anode Material Delivers Superior Performance at 100 Cycles

- Testing results after 100 cycles of GEN2 material show continued strong overall capacity improvement compared to the graphite benchmark and GEN1 material, with minimal cycle degradation ^[1].

Montreal, Canada, June 26th, 2024 — [HPQ Silicon Inc.](#) (“HPQ” or the “Company”) ([TSX-V: HPQ](#)) ([OTCQB: HPQFF](#)) ([FRA: O08](#)), a technology company specializing in green engineering of silica and silicon-based materials is pleased to announce the latest battery milestones achieved by its France-based affiliate, NOVACIUM SAS (“Novacium”). This announcement highlights the continuation of the remarkable results obtained during the cycle tests of 18650 industrial batteries made with Novacium’s non-optimized second-generation advanced silicon-based anode material over 100 cycles.

“These results continue to showcase our capability to produce a blend of graphite and advanced silicon anode material that significantly improves overall battery performance and can be seamlessly integrated into existing anode manufacturing facilities,” stated Dr. Jed Kraiem, Ph.D., COO of Novacium. “However, we are not finished, we intent to continue improving our material so that our third generation of advanced silicon-based material can crack the 4,000 mAh.”

Silicon Based Anode Materials Unlocking Enhanced Battery Performance with Minimal Degradation

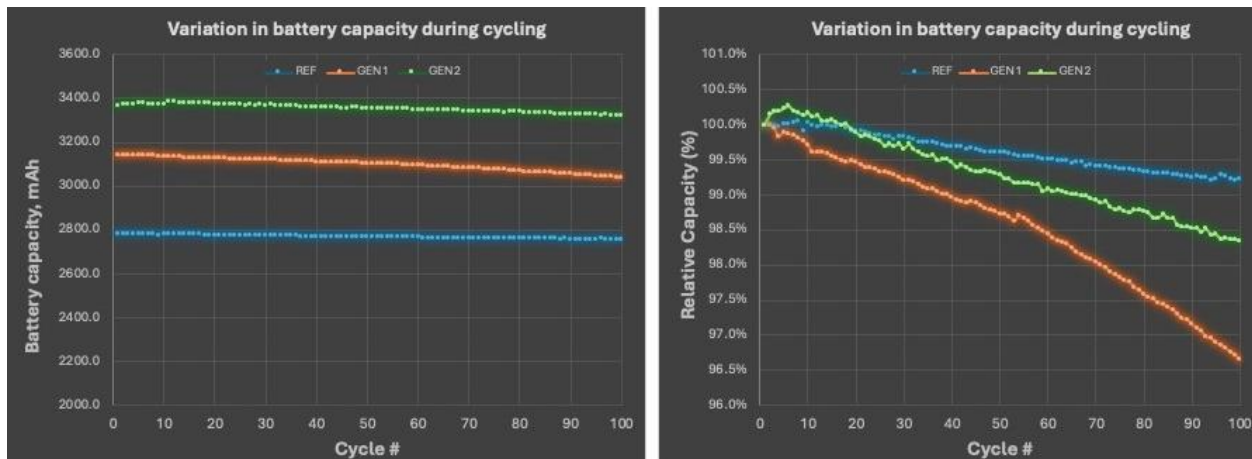


Image 1 left) the blue line shows average capacity of 100% graphite batteries, the orange line, the average capacity of GEN1 batteries, and the green line the average capacity of GEN 2, all measured in milliampere-hours (mAh) while on Image 1 right) the blue line shows the relative capacity of 100% graphite batteries, the orange line the relative capacity of GEN1 batteries, and the green line the relative capacity of GEN 2, over 100 cycles ^[1].

The graph on the left illustrates the progression in battery capacity over 100 cycles. The blue line represents the average capacity of three (3) 18650 batteries with 100% graphite at around 2,769 mAh. The orange line shows the average capacity of three (3) 18650 batteries using Novacium GEN1 materials at around 3,100 mAh. Finally, the green line depicts the average capacity of three (3) 18650 batteries using Novacium GEN2 materials at around 3,355 mAh.

In the graph on the right, the blue line represents the average relative capacity of three (3) 18650 batteries with 100% graphite; the orange line is the average relative capacity of three (3) 18650 batteries made using Novacium GEN1 materials, and the green line the average relative capacity of three (3) 18650 batteries using Novacium GEN2 materials, over 100 cycles.

These results continue to demonstrate minimal measurable capacity degradation for Novacium GEN2 materials (approximately 1.7%), similar to the graphite benchmark and also show the superior relative capacity retention of the GEN2 materials compared to the GEN1 material (1.7% versus 3.3%).

“These promising results have real-world applications,” stated Mr. Bernard Tourillon, President and CEO of HPQ Silicon Inc. and NOVACIUM SAS. *“To illustrate an example of its potential impact, the global cell phone battery market, which is perfectly suited for our anode material, is expected to reach US\$38.8 billion by 2030, growing at a CAGR of 6.4% between 2024 and 2031 ^[2].”*

Notice of termination

The Company wishes to inform its shareholders that it has received a notice of termination from KPMG, its auditor, regarding the cessation of their duties and the non-renewal of their mandate. The Company is actively seeking a new auditor. At the shareholder meeting on June 27, 2024, there will be no vote on the appointment of auditors. A new press release will be issued once a new auditor is appointed.

REFERENCE SOURCES

- [1] Novacium technical team analysis of the data from the ongoing charging and discharging cycle tests conducted at a world-leading university, the name of which is kept confidential for competitive reasons.
- [2] Global Cell Phone Battery Market is expected to reach US\$ 38.8 billion by 2030, growing with a CAGR of 6.4% during the forecast period 2024-2031. ([Link to source](#)).

About NOVACIUM SAS

Novacium is an HPQ - affiliated company started in Q3 2022. This green technology startup is based in Lyon, France and is a partnership with HPQ and three of France’s leading research engineers, Dr. Jed KRAIEM PhD, Novacium's Chief Operating Officer (“COO”), Dr. Oleksiy NICHIPORUK PhD, Novacium's Chief Technical Officer (“CTO”), and Dr. Julien DEGOULANGE PhD, Novacium’s Chief Innovation Officer (“CIO”). Novacium is a new Research and Development company which allows the researchers to develop their own technology in high added value fields connected to renewable energy, and allows HPQ Silicon Inc, a Canadian company, to expand the depth and reach of its technical team to help develop its silicon and new renewable energy projects.

About HPQ Silicon

[HPQ Silicon Inc.](#) (TSX-V: [HPQ](#)) is a Quebec-based TSX Venture Exchange Tier 1 Industrial Issuer.

HPQ is developing, with the support of world-class technology partners [PyroGenesis Canada Inc.](#) and [NOVACIUM SAS](#), new green processes crucial to make the critical materials needed to reach net zero emissions.

HPQ activities are centred around the following four (4) pillars:

- 1) Becoming a green low-cost (Capex and Opex) manufacturer of Fumed Silica using the **FUMED SILICA REACTOR**, a proprietary technology owned by HPQ being developed for HPQ by PyroGenesis.
- 2) Becoming a producer of silicon-based anode materials for battery applications with the assistance of NOVACIUM SAS.
- 3) HPQ SILICON affiliate NOVACIUM SAS is developing a low carbon, chemical based on demand and high-pressure autonomous hydrogen production system.
- 4) Becoming a zero CO₂ low-cost (Capex and Opex) producer of High Purity Silicon (2N+ to 4N) using our **PUREVAP™ “Quartz Reduction Reactors” (QRR)**, a proprietary technology owned by HPQ being developed for HPQ by PyroGenesis.

For more information, please visit [HPQ Silicon web site](#).

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This press release contains certain forward-looking statements, including, without limitation, statements containing the words "may", "plan", "will", "estimate", "continue", "anticipate", "intend", "expect", "in the process" and other similar expressions which constitute "forward-looking information" within the meaning of applicable securities laws. Forward-looking statements reflect the Company's current expectation and assumptions and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated. These forward-looking statements involve risks and uncertainties including, but not limited to, our expectations regarding the acceptance of our products by the market, our strategy to develop new products and enhance the capabilities of existing products, our strategy with respect to research and development, the impact of competitive products and pricing, new product development, and uncertainties related to the regulatory approval process. Such statements reflect the current views of the Company with respect to future events and are subject to certain risks and uncertainties and other risks detailed from time-to-time in the Company's ongoing filings with the security's regulatory authorities, which filings can be found at www.sedar.com. Actual results, events, and performance may differ materially. Readers are cautioned not to place undue reliance on these forward-looking statements. The Company undertakes no obligation to publicly update or revise any forward-looking statements either as a result of new information, future events or otherwise, except as required by applicable securities laws.

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