Novacium's Silicon-Based Batteries with GEN3 Anode Material Surpass 4,000 mAh

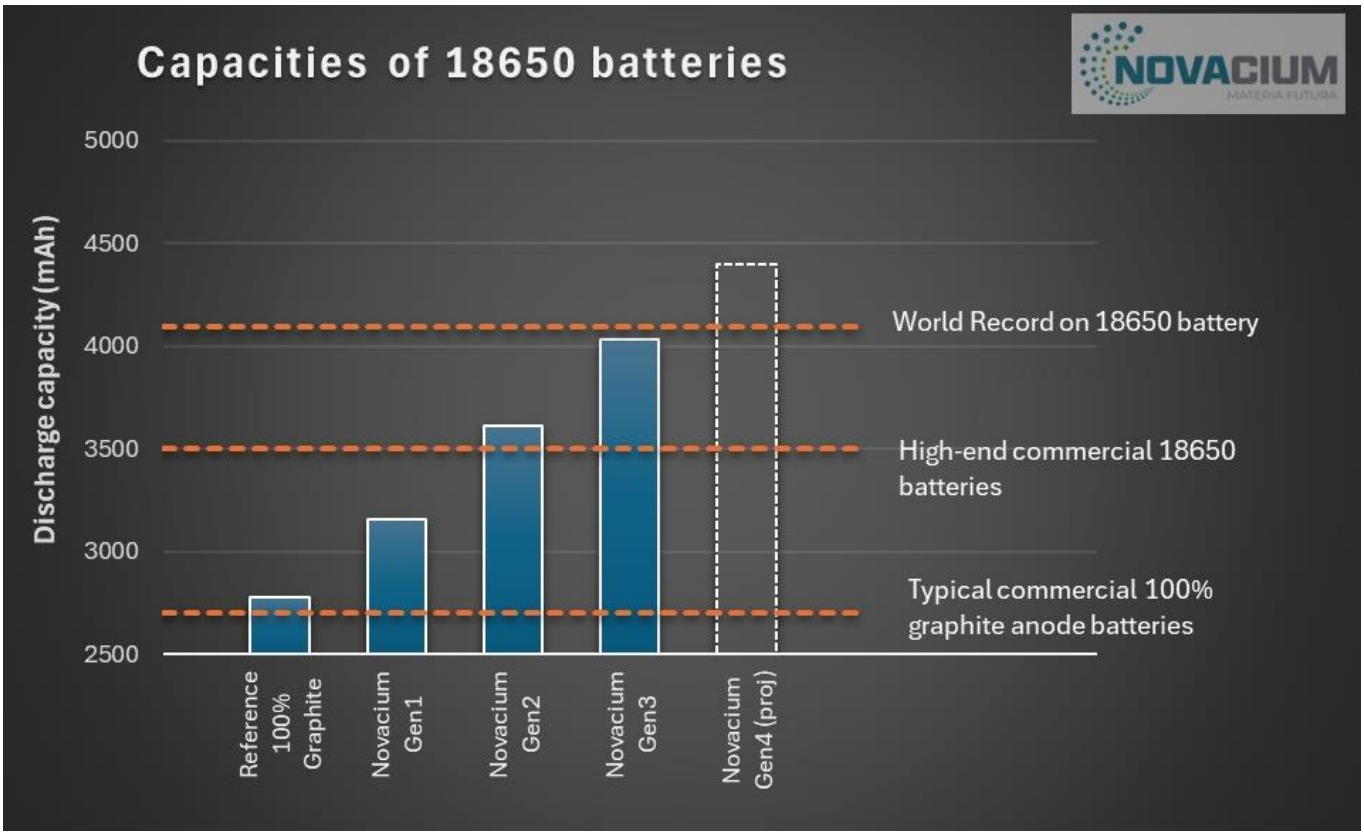
World-Class Results: This Milestone adds Novacium to the List of Only 3 Companies with Most Energy-Dense 18650 Batteries

Montreal, Canada, July 30th, 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 significant battery milestones achieved by its France-based affiliate, NOVACIUM SAS ("Novacium").

This announcement involves the latest batch of batteries, made with a blend of graphite and Novacium's partially optimized third-generation (GEN3) advanced silicon-based anode material, has surpassed the average capacity of 4,030 milliampere-hours (mAh) [1]. This result is close to the actual world record for 18650 batteries of 4,095 mAh [2]. However, validation by a third party will be necessary before that title is fully claimed.

"*As we expected, 18650 batteries made with our GEN3 materials exceeded 4,000 mAh, making Novacium one of only three companies in the world that have published 18650 batteries capacities results greater than 4,000 mAh [3],"* said Dr. Jed Kraiem, Ph.D., COO of Novacium. *"Based on the data gained to date, we strongly believe that we can continue improving our material so that a GEN4 material based 18650 batteries could exceed the 4,300 mAh mark."*

Continually Enhancing Battery Performance with Silicon Based Anode Materials



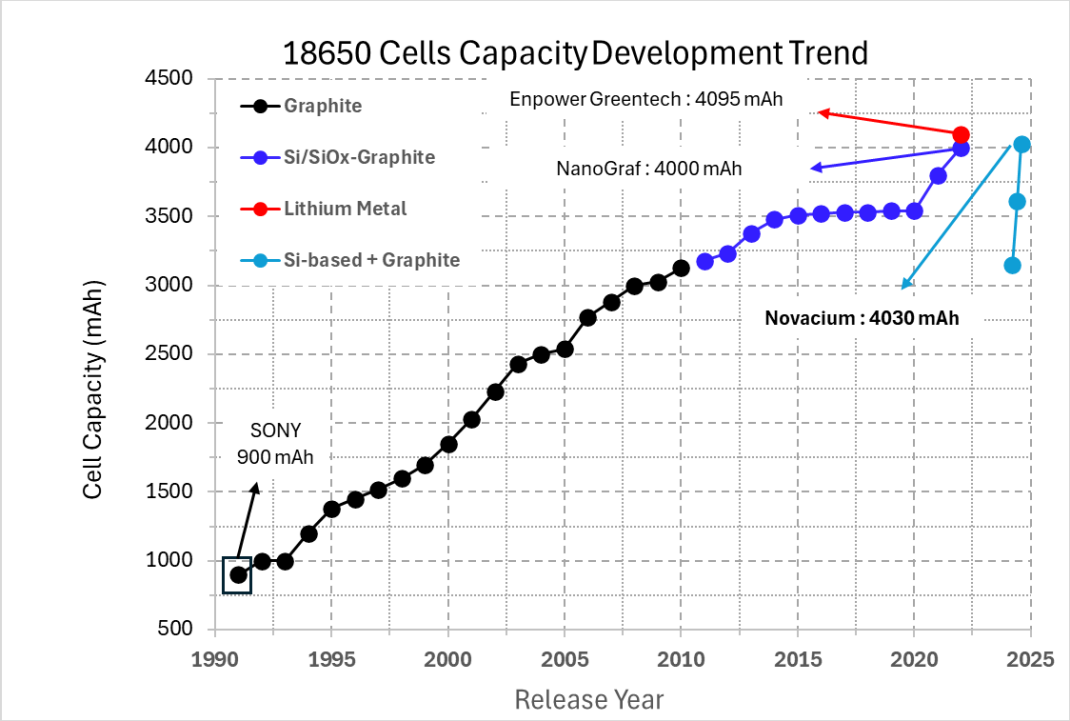
Graph 1) shows the energy capacity of different iterations of 18650 batteries manufactured using Novacium materials, measured in milliampere-hours (mAh), starting on the left with the 100% graphite batteries benchmark, moving to the right with the actual GEN1, GEN2 and GEN3 results and the proposed potential capacity of 18650-battery made with GEN4 materials [4].

Graph 1 above illustrates the remarkable battery capacity since January 2024.

Starting from the far left, the first bar shows the capacity of the 100% graphite reference battery at approximately 2,780 mAh, which aligns with the typical capacity advertised for commercial graphite batteries around 2,700 mAh. The second bar shows the capacity attained with a blend of graphite and GEN1 material at about 3,150 mAh, the third bar shows the average capacity attained with a blend of graphite and GEN2 material at 3,610 mAh, and the fourth bar shows the average capacity attained with a blend of graphite and GEN3 material at 4,030 mAh [1].

These results indicate that GEN3 material-based batteries improve capacity performance by a stunning 45% compared to the graphite benchmark, 28% compared to GEN1 material, and 12% compared to GEN2 materials [1]. The final bar on the graph shows Novacium's projection of potentially exceeding the 4,300 mAh mark with a blend of graphite and GEN4 partially optimized advanced silicon-based material.

Novacium at the Forefront of Silicon-Based 18650 Battery Advancements



Graph 2) Development of the capacity of 18650 lithium-ion batteries over years [2].

Graph 2 shows the progression in 18650 battery capacities since the creation of the first commercial 18650 battery by Sony in 1991. Interestingly, the graph clearly indicates that while the process of adding a small percentage of Si/SiOx in batteries started in early 2010, the results plateau around the 3,500 mAh level for many years (2014-2020). It is only in October 2022 that NanoGraf produced the first Si/SiOx 18650 batteries that attained the 4,000 mAh [3] mark, only to be surpassed in November 2022 by Enpower Greentech with a Lithium Metal world record for 18650 batteries a 4,095 mAh [2].

As the graph clearly indicates, in less than six months, HPQ Silicon affiliated company Novacium is now one of only three companies that have produced 18650 batteries with a capacity that exceeds the 4,000 mAh mark.

"Achieving these results with full-size 18650 industrial batteries showcases Novacium's ability to produce advanced silicon anode material that significantly enhances overall battery performance and integrates seamlessly into existing anode manufacturing facilities," said Mr. Bernard Tourillon, President and CEO of HPQ Silicon Inc. and NOVACIUM SAS. *"This seamless integration means that manufacturers can adopt this advanced silicon anode material without the need for expensive retooling or process overhauls. It*

ensures a smoother transition, reduces downtime, and minimizes additional costs, ultimately accelerating the deployment of high-performance batteries in the market."

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] November 3rd 2022, PR from Enpower-Greentech.

[3] Enpower-Greentech and Nanograf Corporation (October 20, 2022 PR)

[4] Ufinebattery.com blog on 18650 batteries

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 CO_2 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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For further information contact:
Bernard J. Tourillon, Chairman, President, and CEO Tel +1 (514) 846-3271
Patrick Levasseur, Director Tel: +1 (514) 262-9239
Email: Info@hpqsilicon.com