



HPQ SILICON RECRUITS FORMER SENIOR EXECUTIVE FROM MAJOR GLOBAL SILICON METAL PRODUCER AS SENIOR CONSULTING ENGINEER

MONTREAL, Canada, July 20th, 2023 — [HPQ Silicon Inc.](#) ("HPQ" or the "Company") ([TSX-V: HPQ](#)) ([OTCQB: HPQFF](#)) ([FRA: 008](#)), a technology company specializing in green engineering processes for silica and silicon material production, is excited to announce the hiring of Dr. Pascal RIVAT Ph.D. as Senior Consulting Engineer within its technical team.

With 30 years of experience in the fields of metallurgy and the industrial deployment of new applications and manufacturing processes, Dr. RIVAT represents a major asset to HPQ as we prepare to enter our next phase of development, focused on the commercial deployment of our technologies.

With over two decades (20 years) of experience as the Head of the "Innovative Applications" design office at a leading industrial metallurgical equipment manufacturer, and an additional eleven years (11 years) spent at one of the world's largest silicon producers, including an eight-year (8-year) tenure as the Head of the Silicon Research and Development Department within one of the group's largest divisions, Dr. RIVAT significantly fortifies HPQ's expertise in silicon manufacturing and valorization."

"The hiring of Dr. RIVAT as a Senior Consulting Engineer, given his extensive qualifications and experience in metallurgy and silicon, demonstrates the company's careful and strategic approach to assembling a team that can effectively advance the commercialization of our technologies", said Mr. Bernard Tourillon, President and CEO of HPQ Silicon. "One of Dr. RIVAT's initial responsibilities will be working with the Novacium team on HPQ's battery strategy".

IMPLEMENTATION OF HPQ'S BATTERY STRATEGY FOR SILICON-BASED MATERIALS

Phase 1 in HPQ's ongoing battery strategy aims to provide industry buyers with a silicon-based (Si) material for anodes that meets their needs by the end of 2023. Simultaneously, HPQ plans to commission its first production line, capable of manufacturing 200 tonnes per year of silicon-based (Si) materials for anodes, by the end of 2024.

Once the first production line is operational, HPQ's next medium-term objective is to align our silicon (Si) materials for anodes production capacity with the PUREVAP™ Gen4 Quartz Reduction Reactor (QRR) raw material production capacity, which is 2,500 tonnes per year (TPY) of high-purity silicon.

SILICON-BASED MATERIALS FOR LITHIUM BATTERIES

A major trend in the lithium battery industry is the introduction of small amounts (between 5% and 10%) of silicon oxide (SiOx) into graphite composite electrodes. This is due to the fact that pure graphite anodes have essentially achieved their maximum performance in terms of energy density [1].

This new reality is driving a surge in demand for silicon anode materials. As of 2023, this market is valued between US\$1.1 billion [2] and US\$2.7 billion [3]. Its growth prospects indicate a potential demand of 300,000 tons by 2030, estimated at US\$15 billion [4], according to one source, and US\$ 131.6 billion in 2033 according to another source [5].

Currently, depending on the final composition, the potential selling price for silicon-based (Si) materials for anodes ranges between US\$30 per kg [6] and US\$50 per kg [7]."

REFERENCE SOURCES

- [1] The Royal Society of Chemistry 2020 Sustainable Energy Fuels, 2020, 4, 5387–5416
- [2] QY Research, SNE Research, Shinhan Securities / NBM June 2023 Deck page 11
- [3] The [global silicon anode battery market](#) is likely to be valued at US\$ 2.7 billion in 2023. From [Future Market Insights Global and Consulting Pvt. Ltd.](#)
- [4] QY Research, SNE Research, Shinhan Securities / NBM June 2023 Deck page 11



- [5] According to Future Market Insights, the [global silicon anode battery market](#) is Estimated to Reach US\$ 131.6 Billion by 2033.
- [6] Information from supplier quotes received from GH Technologies (adjusted to include freight and duties)
- [7] NMB July 10, 2023, press release

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.](#) (TSX: [PYR](#)) ([NASDAQ: PYR](#)) 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 five (5) pillars:

- 1) Becoming a green low-cost (Capex and Opex) producer of High Purity Silicon (2N+ to 4N) using our proprietary **PUREVAP™ “Quartz Reduction Reactors” (QRR)** being developed by PyroGenesis.
- 2) Becoming North America’s first producer of micron size High Purity Silicon (3N & 4N) powders with the assistance of NOVACIUM SAS.
- 3) Working to become the first producer of nano silicon materials from High Purity Silicon chunks using our proprietary **PUREVAP™ Nano Silicon Reactor (NSiR)** being developed by PyroGenesis.
- 4) Becoming a green low-cost (Capex and Opex) producer of Fumed Silica using our proprietary **FUMED SILICA REACTOR** being developed by PyroGenesis.
- 5) Developing a small and compact process for the on-demand production of hydrogen via hydrolysis of Silicon and other materials.

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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Source: HPQ Silicon Inc.

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