

PYROGENESIS TO EXERCISE OPTIONS FOR 50% STAKE IN HPQ SILICA POLVERE INC.

PyroGenesis opts for an early conversion of its 10% Gross Sales Royalty

Montreal, Canada, May 30th, 2024 — <u>HPQ Silicon Inc.</u> ("HPQ" or the "Company") (<u>TSX-V: HPQ</u>) (<u>OTCQB: HPQFF</u>) (<u>FRA: 008</u>), a technology company specializing in green engineering of silica and siliconbased materials, announces receipt of a notice from <u>PyroGenesis Canada Inc.</u> (<u>TSX: PYR</u>) (<u>OTCQX: PYRGF</u>) (<u>FRA: 8PY</u>) ("PyroGenesis") with intent to immediately exercise the right to convert its 10% gross sales royalty into a 50% ownership of HPQ Silica Polvere Inc. ("HPQ Polvere"), a wholly-owned subsidiary of HPQ.

The primary focus of HPQ Polvere is its Fumed Silica Reactor (FSR) project. PyroGenesis is developing proprietary technology for this initiative, which efficiently converts quartz (SiO2) into fumed silica (also known as pyrogenic silica). This innovative method facilitates the conversion in a single, eco-friendly step, eliminating the environmental impact of harmful chemicals typically used in traditional processes.

As previously discussed in the Company's news releases dated <u>July 6, 2021</u>, HPQ Polvere and PyroGenesis entered a development agreement covering the Fumed Silica Reactor ("FSR") development program and future commercialisation of fumed silica materials made with this green, proprietary and low-cost manufacturing process (the "Agreement"). The Agreement also granted PyroGenesis the right to convert, at any time, its rights to an annual royalty on the gross sales generated by HPQ Polvere, into an ownership stake in that company.

In accordance with the Agreement, and with this notice, HPQ and PyroGenesis will proceed to negotiate and draft a shareholders' agreement.

"PyroGenesis' decision to exercise its option early, as we commence the next phase of commercial validation, highlights their strong commitment to our project. This move also mitigates future financing risks and eliminates a prospective obstacle in our ongoing discussions with potential partners in the development of the fumed silica business," said Bernard Tourillon, President, and CEO of HPQ Silicon and HPQ Silica Polvere. "After the exercise, Pyrogenesis will be both an equity participant and technology provider for the project, and we look forward to this collaboration."

"With PyroGenesis' conversion of the HPQ Polvere annual royalty option to an ownership stake, the potential benefit to the Company from HPQ Polvere's future success is enhanced, and we are very excited about what the future holds for the FSR project – an initiative we believe is a truly innovative approach to producing fumed silica, one of the most in-demand materials," said Mr. P. Peter Pascali, President and CEO of PyroGenesis. "The technology developed by PyroGenesis for HPQ Polvere is designed to offer significant economic and environmental advantages over conventional manufacturers – improving profitability, but also reducing the environmental footprint and reducing the harmful chemicals associated with traditional fumed silica production. This conversion to an ownership stake also further solidifies the already-strong relationship between HPQ and PyroGenesis, as we move forward with this and other projects together."

FUMED SILICA MARKET TRENDS ARE SUPPORTIVE OF FSR PATHWAY TO COMMERCIAL PRODUCTION

In 2023, the Fumed Silica market was valued at US\$ 1.9 billion. It is projected to grow by more than 5.5% CAGR over the next seven years, reaching US\$ 3.1 billion [1] in 2032. The physical market for Fumed Silica is anticipated to grow by 80,000 tonnes (t) between 2024 to 2029, to about 390,000 t per year in 2029 [2], which translates to a requirement of approximately 16,000 additional tonnes of capacity annually.



The traditional Fumed Silica market is very consolidated around 5 large integrated chemical companies, (Evonik Industries AG, Cabot Corporation, Wacker Chemie AG, Tokuyama Corporation, and OCI Company Ltd.) [2], that use their capital-intensive, low-margins and carbon-intensive legacy technologies, to produce Fumed Silica.

Because of HPQ Polvere's Fumed Silica Reactor (FSR) disruptive advantages [3] regarding both capital investment requirement and high operating margins at the commercial scale, it is very well positioned to compete with traditional fumed silica manufacturers and go to market after the end of the pilot plant phase. In addition to the new annual demand for Fumed Silica mentioned above Canada, with its 24,000-ton fumed silica consumption per year [4], can certainly support HPQ Polvere's objective of building multiple 1,000-ton-per-year Fumed Silica Reactors (FSRs), and becoming the first and the sole producer of Low-Carbon Fumed Silica globally.

REFERENCE SOURCES

- [1] GML, Global Market Insight. Fumed Silica Market By Product (Hydrophilic, Hydrophobic), By Application (Pharmaceutical, Beauty & Personal Care, Silicone Elastomers, Paints, Coatings & Inks, UPR, Adhesives & Sealants, Food & Beverages) & Global Forecast, 2024 – 2032.
- [2] Mordor Intelligence: Fumed Silica Market Size & Share Analysis Growth Trends & Forecasts (2024 2029). <u>Source</u>.
- [3] HPQ January 10th, 2024, release.
- [4] Sales data per regions from MarketsandMarkets 2017 "fumed silica market global forecast to 2022".

About HPQ

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 <u>PyroGenesis Canada Inc.</u> and <u>NOVACIUM SAS</u>, 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:

- 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 base 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 <u>HPQ Silicon web site</u>.

About PyroGenesis Canada Inc.

PyroGenesis Canada Inc., a high-tech company, is a leader in the design, development, manufacture and commercialization of advanced plasma processes and sustainable solutions which reduce greenhouse gases (GHG) and are economically attractive alternatives to conventional "dirty" processes. PyroGenesis



has created proprietary, patented, and advanced plasma technologies that are being vetted and adopted by multiple multibillion dollar industry leaders in three massive markets: iron ore pelletization, aluminum, waste management, and additive manufacturing. With a team of experienced engineers, scientists and technicians working out of its Montreal office, and its 3,800 m2 and 2,940 m2 R&D and manufacturing facilities, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. The operations are ISO 9001:2015 and AS9100D certified, having been ISO certified since 1997. For more information, please visit: <u>www.pyrogenesis.com</u>

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This News Release is available on the company's <u>CEO Verified Discussion Forum</u>, a moderated social media platform that enables civilized discussion and Q&A between Management and Shareholders.

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