

OWNERSHIP OF THE PUREVAP TM QUARTZ REDUCTION REACTOR PILOT SYSTEM TRANFERED TO HPQ SILICON

Insurance to cover its \$6.2 Million replacement cost secured

MONTREAL, Canada, May 19, 2022 — HPQ Silicon Resources Inc. ("HPQ" or the "Company") (TSX-V: HPQ) (OTCQX: HPQFF) (FWB: UGE), an innovative silicon solutions and technology development company, would like to inform shareholders that with the forthcoming start of the final phase of the *PUREVAP*TM Quartz Reduction Reactor (RRQ) Research and Development program, and the imminent completion of the commissioning of the pilot system, time has arrived for the ownership of the pilot system to be transferred to HPQ-Silicon from PyroGenesis Canada Inc. (TSX: PYR) (NASDAQ: PYR).

The plan as always been to transfer the ownership of the pilot systems from PyroGenesis to HPQ Silicon prior to the reactor start, since under the terms of the July 2016 agreement, HPQ-Silicon, is the sole party entitled to claim R&D credits associated with the $PUREVAP^{TM}QRR$ pilot plant system operations.

Transferring the ownership required HPQ-Silicon to purchase insurance to cover the \$6.2 million 2022 replacement cost, estimated by PyroGenesis, of HPQ *PUREVAP*TM *QRR* pilot system. Based on PyroGenesis updated quotation, one thing is very clear, prices have increased significantly since the July 2016 signing of the agreement. HPQ paid, as per the 2016 agreement, \$4,240,000 for design, fabrication and commissioning the pilot system. Current replacement cost is \$6.2 million for the fabrication and commissioning of a new pilot system.

HPQ CEO Bernard Tourillon commented: "It may have taken time to get here, but the decision to enter early into a long term and mutually beneficial relationship with PyroGenesis to harness the potential of new silicon materials manufacturing will soon come to fruition. 2022 and beyond are going to be years for Silicon and our unique and innovative processes of manufacturing and commercializing silicon and nanosilicon materials needed for an ESG-demanding industrial landscape is one of our greatest strengths going forward."

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: www.pyrogenesis.com

About HPQ Silicon Resources

<u>HPQ Silicon Resources Inc.</u> (TSX-V: HPQ) is a Quebec-based innovative silicon solutions company that offers silica (SiO_2) and silicon (Si) based solutions, and is developing a unique portfolio of high value-added silicon (Si) products sought after by battery and electric vehicle manufacturers.

Silicon (Si), also known as silicon metal, is one of today's key strategic materials needed for the decarbonization of the economy and the Renewable Energy Revolution ("RER"). However, silicon does not

exist in its pure state and must be extracted from quartz (SiO₂) in what has historically been a capital and energy-intensive process.

With PyroGenesis Canada Inc. (TSX: PYR) (NASDAQ: PYR), HPQ is developing:

- 1. the *PUREVAPTM "Quartz Reduction Reactors" (QRR)*, an innovative process (patent granted in the United States and pending in other jurisdictions), which will permit the one-step transformation of quartz (SiO₂) into high purity silicon (Si) at reduced costs, energy input, and carbon footprint that will propagate its considerable renewable energy potential.
- Through its 100% owned subsidiary, HPQ NANO Silicon Powders Inc., the PUREVAP™ Nano Silicon Reactor (NSiR) is a new proprietary process that can use material produced by the QRR as feedstock, to make a wide range of nano/micro spherical powders of different sizes and nanowires.
- 3. Through its second 100% owned subsidiary, HPQ Silica POLVERE Inc., HPQ is developing a new plasma-based process that will allows a direct Quartz to Fumed silica transformation, removing the usage of hazardous chemical in the making of Fumed silica and eliminating the Hydrogen Chloride Gas (HCI) associated with its manufacturing.

HPQ is also a technology development company interested in developing hydrogen-based ventures, that could be complementary to the QRR efforts. Currently, HPQ is evaluating two different approaches to reach this goal, those being:

- 1. Working with Swiss based company EBH₂ Systems SAS as it pertains to their proprietary process to manufacture Green Hydrogen via electrolysis, and
- 2. Developing our own processes of making hydrogen via hydrolysis of nanosilicon materials made by our $PUREVAP^{TM}$ (NSiR).

For more information, please visit **HPQ Silicon web site**.

Disclaimers:

The Corporation's interest in developing the PUREVAP™ QRR and any projected capital or operating cost savings associated with its development should not be construed as being related to the establishing the economic viability or technical feasibility of any of the Company's Quartz Projects.

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 forwardlooking statements. The Company undertakes no obligation to publicly update or revise any forwardlooking statements either as a result of new information, future events or otherwise, except as required by applicable securities laws.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

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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