HPQ GEN 1 NANO SILICON REACTOR SUCCESSFULLY PRODUCES FIRST SAMPLE OF NANO SILICON MATERIAL

MONTREAL, Canada, August 5nd, 2021 — HPQ Silicon Resources Inc. ("HPQ" or the "Company") (TSX-V: HPQ) (OTCQX: HPQFF) (FWB: UGE), an innovative silicon solutions company, through its wholly – owned subsidiary HPQ Nano Silicon Powders inc ("HPQ NANO"), is pleased to inform shareholders that further to our April 22, 2021 release, technology provider, PyroGenesis Canada Inc. (TSX: PYR) (NASDAQ: PYR) (FRA: 8PY), has confirmed that the *Gen1 PUREVAP™ Nano Silicon Reactor ("NSiR")* ***("the Reactor")*** has produced its first batch of Nano Silicon Materials.

MAKING NANO SILICON MATERIALS: A BIG MILESTONE REACHED WITH THE REACTOR

This milestone of producing a first batch of Nano Silicon Materials followed our methodical R&D approach to developing the *PUREVAP™ NSiR* process. As might be expected with development projects, the PyroGenesis engineering team faced a series of unexpected operating issues which they have since resolved and overcome, which has resulted in today's announcement.

"The HPQ NANO team is now more confident than ever that the PUREVAP™ NSiR will be able to deliver, at scale, and on-demand, a nano silicon for anode production that will be cost competitive. The validation announced today, that the PUREVAP™ NSiR process can make Nano Silicon Material, was the big breakthrough we were looking for," said Bernard Tourillon, President and CEO of HPQ Silicon. "Silicon is just beginning its path to battery anode commercialisation, going from a demand today that is less than 5% of anode material composition to over 30% expected by 2030[1] in a rapidly expanding market. This represents a massive demand expansion that simply cannot be met economically by traditional processes to make silicon for anodes. With this milestone, HPQ NANO is well positioned to offer the various sizes and types of silicon material that reflect customer demand as each industry participant is developing his own path to resolve the silicon battery anode issue."

The following three main objectives of the Reactor testing program have now been achieved:

1. Validation that the Reactor can produce < 150nm Nano Silicon Powder ("NSP") materials,
2. Validation that the Reactor can reach its design production parameters, and
3. Producing Nano Silicon materials using the Reactor

"Notwithstanding certain unexpected operating challenges, the results today are indeed a significant milestone as it validates our original assumptions and gives further evidence that we are on the right path," said P. Peter Pascali, CEO and Chair of PyroGenesis. "Words cannot adequality describe the excitement at PyroGenesis at potentially being able to address and solve challenges in developing lithium-ion batteries, which are sought after by many industries but specifically the EV market."

GOING FORWARD – MAKING MORE SILICON MATERIAL FOR TESTING AND POTENTIAL CLIENTS

After having made the required design modification and process improvements necessary for the Reactor to make Nano Silicon Materials, the program can now move to the next phase of development, the *Gen2 PUREVAP™ NSiR.* The immediate work program will:

1. Continue testing with the Reactor in order to produce greater quantities of Nano Silicon Powders ("NSP"),
2. Have the NSP materials qualified and
3. Commence engineering design for the next phase, the *Gen2 PUREVAP™ NSiR*, a 6 metric tonne per year design capacity pilot plant

[1] Source Roskill.com

The next samples of NSP's produced by Reactor will be sent to the "Institut National de Recherche Scientifique" (INRS) for third party evaluation of powder characteristics. This third-party evaluation will be the next major milestone after which subsequent batches will be delivered to the awaiting automobile manufacturers plus numerous other entities that have demonstrated an interest in receiving samples.

The objective of *Gen2 PUREVAP™ NSiR small scale pilot plant phase of work is to* validate the commercial scalability of producing nano silicon materials in the size range from less than 100 nanometers to 5 microns (5,000 nanometres).

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 four 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 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
HPQ Silicon Resources Inc. (TSX-V: HPQ) is a Quebec-based innovative silicon solutions company that offers innovative silica (SiO_2), 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 (SiO_2) in what has historically been a capital and energy-intensive process.

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

1. the ***PUREVAP™ "Quartz Reduction Reactors" (QRR)***, an innovative process (patent pending), which will permit the one-step transformation of quartz (SiO_2) into high purity silicon (Si) at reduced costs, energy input, and carbon footprint that will propagate its considerable renewable energy potential**.**
2. 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.

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 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.

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 CEO Verified Discussion Forum, a moderated social media platform that enables civilized discussion and Q&A between Management and Shareholders.

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