Renewable Energies: HPQ Silicon Announces International Development Agreement With Solar Silicon Specialist Apollon Solar

18.12.2017 | Marketwired

MONTREAL, QUEBEC--(Marketwired - Dec 18, 2017) - HPQ Silicon Resources Inc. (HPQ) (TSX VENTURE:HPQ)(FRANKFURT:UGE)(OTC PINK:URAGF) is pleased to announce the signing of a partnership with Apollon Solar SAS, ("Apollon"). Apollon is a private French company that has become one of the world's leaders in renewable energies, and the development of processes to make high purity silicon metal for photovoltaic conversion used in high performance solar cells.

THIRD PARTY VALIDATION OF THE POTENTIAL FOR THE PUREVAP^{tm} SOLAR GRADE SILICON PROCESS

Before concluding the partnership, Apollon completed a technological audit of the potential of the innovative PUREVAP™ process, that PyroGenesis Canada Inc. ("PCI"), a leader in the design, development, manufacture and marketing of advanced plasma processes, is developing for HPQ.

Its conclusions were as follows:

- PUREVAP™ is a unique metallurgical process, based on the innovative plasma technology that is at the heart of PyroGenesis's expertise,
- PUREVAP™ is a new metallurgical process (patent pending held by HPQ) for the production of solar grade silicon metal,
- Successful commercial scaling-up of the PUREVAP™ process will lead to the production of solar quality silicon at a significantly lower cost compared to those of competing process technologies (examples include Siemens chemical process, Elkem Solar, Silicor Materials, etc.)

Bernard Tourillon, Chairman and CEO of HPQ Silicon stated:

"This collaboration with Apollon Solar represents a significant validation, by a leader in the solar industry, of the potential for the innovative metallurgical production of Solar Silicon using PUREVAP™. The addition of Apollon's expertise to the knowledge of Pyrogenesis will take our development efforts of the GEN 2 PUREVAP™ and Pilot Plant to the forefront of innovative development in the solar industry."

APOLLON: A GREAT ADDITION TO THE TECHNOLOGICAL TEAM OF HPQ'S PUREVAP™ PROJECT

For nearly 20 years Apollon has invested time and money in Solar Silicon, and has become one of the world leaders in the development of processes to make solar grade silicon metal refined metallurgically "SoG Si UMG" that can generate high performance Solar Cells". Apollon's achievements include:

- Being the first to manufacture entirely monocrystalline Czochralski ("Cz") ingots made with 100% "SoG Si UMG";
- In previous collaboration with solar cell partners, Apollon obtained conversion efficiencies of over 20% with monocrystalline ingots;
- Has obtained, with the ANU (Australian National University) and independently confirmed by Fraunhofer ISE, a world record conversion efficiency of 21.1% with monocrystalline ingots, for a solar cell made with "SoG Si UMG".

A WORLD CLASS TECHNICAL TEAM TO SUPPORT THE PUREVAP™ PROJECT

The formation of a single team of experts from HPQ/PyroGenesis/Apollon with a common and fully defined objective will enable the following:

- Apollon to commercialize the knowledge it has acquired in solar silicon over the last 20 years,
- Pyrogenesis and HPQ to benefit from Apollon's many years of innovative research and development work,
- HPQ to combine Pyrogenesis' and Apollon's abilities to achieve a higher level of vertical integration from the extraction of raw quartz (SiO_2) and extend it all the way to the production of high performance multi-crystalline and monocrystalline solar cells.

PUREVAP™ - A UNIQUE PROCESS FOR THE GROWING GLOBAL SOLAR MARKET

The world market for solar cells exceeded US$35 billion in 2015, with a projected annual growth rate of approximately 12% per year(1). The primary material for the production of solar cells is Solar Grade Silicon Metal "SoG Si". Currently, 99% of SoG Si used in the solar industry comes from the refining of metallurgical grade silicon using the Siemens process, a traditional chemical purification method.

The strong growth in demand, along with recent production disruptions, has resulted in a price increase of 35% for SoG Si in the last four months, according to an article published by BLOOMBERG(2).

The desire for more cost - effective processes that also are less stressful to the environment (CO_2 emissions, aggressive chemicals, high energy consumption) creates a unique opportunity for HPQ and its partners to develop the PUREVAP™ Quartz Reduction Reactor (QRR) metallurgical process. The partnership with Apollon is expected to enable HPQ to produce multi- and monocrystalline solar cells as effective as those produced with SoG Si of chemical origin at a significantly lower Capex and Opex cost compared to those of competing process technologies.

The combination of innovative new technology of the combined team, and strong market conditions are expected to create a dynamic market for the commercialization of PURVAP™ process.

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.

About HPQ Silicon

HPQ Silicon Resources Inc. is a TSX-V listed resource company planning to become a vertically integrated and diversified High Purity, Solar Grade Silicon Metal producer and a manufacturer of multi and monocrystalline solar cells of the P and N types, required for high performance photovoltaic conversion.

HPQ goal is to develop, in collaboration with industry leaders that are experts in their fields of interest, the innovative metallurgical PUREVAP™ "Quartz Reduction Reactors (QRR)" process (patent pending), which will permit it to produce in one step SoG Si. The start of the pilot plant that will validate the commercial potential of the process is planned for 2018.

Disclaimers:

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 on-going filings with the securities 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.

Shares outstanding: 187,679,173

(1) https://www.gminsights.com/industry-analysis/solar-cells-market

(2)
https:Bloomberg.com/news/articles/2017-11-13/solar-companies-grapple-with-unexpected-shortage-of-key-material

Contact

Bernard J. Tourillon
Chairman and CEO
(514) 907-1011
Patrick Levasseur
President and COO
(514) 262-9239
www.HPQSilicon.com