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News release – for immediate distribution **Shares outstanding: 222,284,053**

ENERGY TRANSITION: HPQ - APOLLON SOLAR EXTEND AGREEMENT REGARDING THE DEVELOPMENT OF THE TECHNOLOGICAL CLUSTERS NEEDED FOR A GREEN AND LOW COST TRANSFORMATION OF PUREVAP™ SILICON INTO SOLAR GRADE SILICON

HPQ Silicon Resources Inc. ("HPQ") (TSX Venture Exchange: "HPQ") is pleased to announce that the anticipated results from the mid 2019 commissioning of the PUREVAP™ Quartz Reduction Reactor ("QRR") pilot plant motivated the extension of the agreement with Apollon Solar SAS, ("Apollon"). Apollon Solar is a private French company that, over the past 20 years, has become one of the world leaders in the development of the metallurgical purification steps necessary for the transformation of 1 to 2 N silicon metal ("MG-Si") into solar grade silicon metal ("SoG-Si"), the critical material needed for the photovoltaic conversion of the sun energy into electricity.

CONTINUING THE VALIDATION OF THE INNOVATIVE SOLAR POTENTIAL OF THE PUREVAP™ QRR

Bernard J. Tourillon President and CEO of HPQ Silicon Resources stated: "*The December 2017 agreement with Apollon was the final piece of the puzzle in the creation of a world-class technical team. Joining PyroGenesis (PYR-TSXV) and HPQ, Apollon is dedicated to establishing a Low Cost and Green metallurgical approach for the production of solar grade silicon metal (SoG-Si). The extension of the agreement, as we get ready to produce our first 4N+ Purity (99.99+%) PUREVAP™ Silicon Metal (Si) (PVAP-Si) in 2019, could not be better timing, as the identification of the technological clusters needed for the transformation of PVAP-Si into SoG-Si has already started*".

The following release will take the form of a question and answer discussion between Mr. Bernard J. Tourillon (MBA, President and CEO of HPQ Silicon) who will ask the questions, and Mr. Jed Kraiem Ph.D, (General Manager at Apollon Solar) who will answer them.

Q. Hi Jed, thank you for taking the time for the Q&A session. Can you describe Apollon Solar's expertise in the metallurgical production of Solar Silicon (SoG-Si UMG)?

A. Certainly, for almost 20 years Apollon has invested time and money in research and development related to the development of metallurgical routes for the production of solar grade silicon metal (SoG-Si). Over time, Apollon emerged has a world leaders in the definition of impurity specifications for SoG-Si and the development of technological process required (Clusters) to produce solar cells with high photovoltaic conversion efficiency using silicon produced via metallurgical processes ("SoG Si UMG"). Some of our must significant achievements are:

- We were the first company ever (and the only one) to manufacture entirely monocrystalline Czochralski (Cz) ingots made with 100% SoG Si UMG;
- Working with the UNSW (University of New South Wales), we have obtained a Voc of 690 mV on standard PHOTOSIL Multi-crystalline Si wafers with a resistivity of 0.5 Ohm.cm;
- Working with the ANU (Australian National University), we have obtained, and the results were independently validated by a third party Institute, a maximum conversion efficiency of 21.1% on N-type wafers, a world record for a solar cell made from 100% "SoG Si UMG" that is still standing today. Furthermore, without betraying any secret we can already say that this record should be largely beaten in the coming months.

Q. Can you please describe the differences between the chemical production of Polysilicon (Siemens process) and a metallurgical production of Solar grade Silicon (SoG-Si UMG)?

A. Polysilicon was originally designed to meet the demands of the electronic industry with purities between 9N to 11N depending on end usage. The Siemens process uses hydrochloric acid to dissolve MG-Si and produce a gas compound, trichlorosilane on a fluidized bed, then that gas compound is purified and finally reduced to solid silicon or Polysilicon. This process requires significant amounts of electrical energy (about 72 kWh per kg produced) and is potentially harmful to the environment because of the usage of chloride and silane in the process. Over the years, the Siemens process was optimized around producing 6N to 9N purity Si used in the solar industry and massive investments in commercial development lead to large plants being built. The main reason the chemical approach became the dominant process until now was the absence of alternatives to polysilicon in the early 2000s, when solar energy experienced it's first boom. At that time, solar cells using metallurgically produce Solar Grade Silicon Metal were unable to reach the same levels of performance as those reached with polysilicon.

Metallurgically produced Solar Grade Silicon Metal (SoG-Si) has a purity of 5N+ with the main impurities being Boron, Phosphorus, Carbon and Oxygen. Contrary to chemical Solar Grade Si production (Siemens or FBR), the production of SoG-Si via metallurgical routes involves different liquid and solid phase processes, with at least 3 different purification steps (Cluster) needed to obtain solar requirements. Since the final purity of the product is adapted to solar application, CAPEX demands are reduced and after industrial scale optimization, operating costs (OPEX) will be significantly lower. Since 2007, many industrials have refined metallurgical Silicon into Solar Grade Silicon Metal (SoG –Si) via metallurgical processes and demonstrated that photovoltaic performances could be similar to performance attained using polysilicon.

On that point, Apollon Solar was one of the very first companies to demonstrate the possibility of obtaining very high photovoltaic conversion efficiency using 100% SoG Si UMG.

Q. Few industrial manufacturers have demonstrated an interest in metallurgical production of Solar Silicon (SoG-Si UMG), why is Apollon Solar still interested in its potential?

A. Developing a metallurgical pathway for the production of solar grade silicon metal requires time and significant investments. During the past 10 years, Apollon Solar has been involved in the development and optimization of the technologies needed to purify silicon metal (Mg-Si). Thanks to our global vision of the value chain and especially our photovoltaic expertise, Apollon Solar has identified the processes that need to be integrated in order to produce metallurgically low cost solar grade silicon metal (SoG-Si) that can reach high photovoltaic efficiency (Technological clusters).

Because of our unique expertise in both Silicon metallurgy and photovoltaic cells, Apollon Solar strongly believes in the future of the metallurgical pathway, but that is not the case for other manufacturers who generally only have one of these two core competences

Furthermore, three recent facts have reinforced our interest in the metallurgical production of SoG-Si:

- The production in the near future of 4N purity Si (PVAP-Si) at a cost similar to traditional MG Si;
- The possibility of using low resistivity wafers (higher concentration of Boron and Phosphorus) to obtain high PV efficiencies thanks to Passivated Emitter & Rear Cell (**PERC**)[1] cell technology;

[1] PERC_cell_technology_explained

- The growing interest of public administrations and consumers for photovoltaic modules with a low carbon footprint (reduction of approximately 33% of the module's CO_2 emissions through the use of metallurgical solar Si).

Q. Can you explain why Apollon thinks that an innovation like PUREVAP™ RRQ will allow the metallurgical production of Solar Silicon (SoG-Si UMG) to compete with polysilicon production?

A. In 2017, Apollon Solar identified the PUREVAP™ QRR process as a unique metallurgical process, based on an innovative technological approach developed by PyroGenesis Canada Inc ("PCI") for HPQ (patent pending, owned by HPQ).

Basically PUREVAP™ is a technology that is totally different from the traditional processes that transform Quartz into Metallurgical Silicon ("MG-Si") and it is totally different from the well-known conventional physical and chemical processes of metallurgical purification of silicon (plasma, slags, acid leaching, alloys, and others).

The successful industrialization of such a simpler process, as well as the production of PUREVAP™ Silicon metal of 4N + purity (99.99 +% Si) with 1 ppmw of Boron (PVAP-Si) would result in a simplification of the refining steps and an improvement in material yield, resulting in significant cost savings (CAPEX and OPEX). Although still subject to validation, the addition of the technologies required for the transformation of PVAP-Si into Metallurgical Solar Silicon ("SoG-Si UMG") would allow for a cost reduction that could equate to 60% for CAPEX and 30% for the "cash costs" (versus the most recent factories built in China).

While there is still some way to go toward industrial validation, this is a true innovation and it potential is there, so this is why we are excited to be continuing our involvement with HPQ!

Q. Which types of solar cells is the PUREVAP™ SoG-Si UMG meant for?

A. The first application for a PUREVAP™ SoG-Si UMG will be Multicrystalline solar cells (p-type Al-BSF and PERC) which will represent about 40% of the market in 2019 (that is about 50 GW or 175,000 MT/year of SoG Si). This is related to the fact that impurities specifications are less restrictive in multicrystalline than monocrystalline cells.

The new Mono PERC cell structures enabled higher solar cells efficiencies and lower SoG-Si consumption, monocrystalline (“mono-c”) cells are presently gaining market shares compared to multicrystalline (multi-c”), but this does not mean that the market for multicrystalline solar cells is not without a future.

The potential cell efficiency of a Multi PERC cell structure should be about 22.5%. Future multicrystalline market shares will depend on its costs and the speed at which cell performance will increase. Based on historical precedents, major technological advances in solar cells are always implemented first in the mono-c Si market before transferring to the multi-c Si market. When the significant cost reduction emanating from technological advances reaches the multi-c Si, it always gains back the market share lost to mono-Si.

Combining the innovations related to the increase conversion efficiency from Mono-c Si to Multi-c to the usage of a PUREVAP™ SoG-Si UMG will present a new pathway to significantly reducing the costs of the multi-c solar cells, as SoG-Si currently represents about 15% of the costs of a solar module.

Q. Can HPQ’s PUREVAP™ SoG-Si UMG be used to produce Si for industrial monocrystalline cells?

A. In the past, Apollon Solar and their partners have proven that high efficiency monocrystalline cells can be made from SoG Si 100% UMG (today’s world record at 21.1%). So this is an opportunity that

will be studied as well. Indeed the difference in cell efficiency for a solar cells made from SoG Si 100% UMG compared to solar cells made from polysilicon reference wafers could be less than 1.0% absolute.

Q. What is Apollon Solar's position on perovskites solar cells?

A. Perovskites use in photovoltaic applications is a very recent innovation so this is a less mature technology compared to crystalline SoG-Si. While Perovskites base technology has made enormous progress in terms of photovoltaic efficiency in recent years and it cost and efficiency potential is very appealing, two major problems have emerged:

1. A problem of long-term stability (cells are very sensitive to moisture) and;
2. Lead is a major component of perovskites, making them less environmentally friendly than Silicon while its removal reduces cells performances.

Many research efforts on that topic are currently underway and could eventually solve these main problems. However, perovskites are still far from industrialization and before they are able to compete with SoG-Si, a lot of convincing results will be required regarding both performance and reliability over time.

This having been said, another interesting point seems to be the potential to use SoG-Si in combination with Perovskites. In this case, the low cost solar Silicon ("SoG-Si UMG") produced by HPQ could probably be adapted to the industrial realization of Silicon/Perovskites tandem cells. Indeed for that type of cells, an optimum between the purity and the cost of silicon presumably exists. This is where a PUREVAP™ SoG-Si UMG would be at an advantage versus polysilicon with it high fixed costs that do not depend on the purity of the product.

Q. Do you see other markets for the PUREVAP™ RRQ process?

A. Whatever process is used to produce Solar grade Silicon ("SoG Si") (metallurgical or chemical), the main raw material needed will always be Metallurgical Grade Silicon Metal ("Si-MG"), a product that costs producers of SoG Si approximately US $ 2.5/kg for a 2 N purity raw material.

This reality has not changed even as production costs for industry leaders went from US $ 25 per kg fifteen years ago to less than US $ 9 per kg today, therefore making the relative importance of this raw material going from less than 10% of costs about fifteen years ago, when Polysilicon selling prices were high (> US $ 50 per kg) up to approximately 33% of today's cost, just as Polysilicon spot prices have starting reaching a price range <US $ 10 per kg.

The PUREVAP™ process, being the only process that can provide the industry with access to a superior raw material, will have a significant competitive advantage versus traditional producers of Mg-Si.

Finally, by optimizing the PUREVAP™ Silicon structure, it could be made suitable for use in a very important potential market: anodes for Lithium-ion batteries.

Q. No industrial group involved in the production of Metallurgical Silicon (MG - Si) and Solar Silicon (SoG - Si) seems interested in developing an equivalent process, why?

A. Firstly, it is important to realize that there is a real cultural difference between upstream actors, (metallurgical grade Silicon metal and Solar Grade Silicon Metal producers) and downstream producers, (photovoltaic producers). Contrary to what one might believe the border between these two groups is not very porous. Having experienced these difficulties first hand in our previous projects, this is an area where Apollon Solar can help HPQ and PyroGenesis benefit from the lessons learned and make these two worlds work together to our advantage.

Secondly, until recently there was no significant market for high purity metallurgical Silicon 3N + (99.9 +% Si) and this may explain some of this lack of interest.

Yet, for several decades now, researchers and industrials have developed Metallurgical purification processes that are now mature and can produce Solar Grade Silicon ("SoG-Si UMG") from Metallurgical Silicon Metal ("MG- Si").

The industrial scaling up development of these technologies was long and costly, but some industrials did succeed in producing a commercial SoG-Si UMG. While metallurgical production of SoG-Si consumes less energy than chemical production SoG-Si (35,000 KWh/t versus 72,000 KWh/t), operational savings until now have never been enough to pay back the CAPEX required for the production of SoG-Si UMG.

Presently only REC Solar Norway (Elkem Solar) still seemed to have an industrial production of SoG-Si UMG and it is small, 8,000 MT per year, or about 2% of the global solar Si market.

One of the main reasons why industrials have limited their investment in new metallurgical process to make SoG-Si is the massive margin destruction that has been happening over the last 25 years, and this even as demand for solar panels increased exponentially. This contradictory reality is a demonstration of the price elasticity of solar energy, whereby reduction in cost of making solar energy results in an increase in demand for solar energies.

Q. What is the future trend of the Solar Grade Silicon market?

A. Just during the last 6 years the spot prices of polysilicon ("SoG-Si") dropped from US $25 per kg to less than US $ 10 per kg. At these new prices not even the new high-performance plants built in China, with their cash cost below US$ 9 per Kg, and their all in cost around US$ 14 per kg can continue operating for a long period with spot prices staying below US$ 14 per kg.

So if there is a conclusion I would like readers to take away from this exchange is that demand for Solar Energy is not going away, therefore demand for SoG Si is not going away either. Furthermore since chemical processes to make SoG-Si have been optimized to the max, it is evident that very soon a new Low Cost pathway to make a SoG-Si that can produce high efficiency solar cells will be needed to meet solar demand.

The PUREVAP™ RRQ process being develop by HPQ and PyroGenesis is coming to market at the most opportune time, and when you combine this new process with our solar technological knowhow it creates a solar team with the potential to become a significant agent of change for the industry.

This press release is available on the forum "CEO Verified Discussion Forum", a moderated social media platform that allows civilized discussion and questions and answers between management and shareholders.

About HPQ Silicon

HPQ Silicon Resources Inc. is a TSX-V listed (Symbol HPQ) resource company focuses on becoming a vertically integrated producer of High Purity Silicon Metal (4N+) and a metallurgical producer of Solar Grade Silicon Metal (“SoG-Si”) used in the manufacturing of multi and monocrystalline solar cells of the P and N types, required for production of high performance photovoltaic solar systems.

HPQ’s goal is to develop, in collaboration with industry leaders, PyroGenesis (TSX-V: PYR) and Apollon Solar, experts in their fields of interest, the innovative PUREVAP^{TM} “Quartz Reduction Reactors (QRR)”, a new Carbothermic process (patent pending), which will permit the transformation and purification of quartz (SiO_2) into high purity silicon metal (4N+ Si) in one step therefore reducing significantly the CAPEX and OPEX costs associated with a metallurgical transformation of quartz (SiO_2) into SoG Si. The pilot

plant equipment that will validate the commercial potential of the process is on schedule to start mid-2019

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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 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.

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