

HPQ – SILICON
R E S O U R C E S



***Becoming the World's Leader in Low Cost
Solar Grade Silicon Metal
"Polysilicon"***

TSX-V: HPQ



DISCLAIMERS

This presentation includes certain “forward-looking statements”

All statements, other than statements of historical fact, included herein, including, without limitation, statements regarding future plans and objectives of the company, are forward-looking statements that involve various risks, assumptions, estimates and uncertainties, and any or all of these future plans and objectives may not be achieved. The terms SGSI, Solar Grade Silicon and Polysilicon are used interchangeably and refer to high purity silicon used in the solar panel industry, with 99.9999% purity, also referred to as “6N”.

These statements reflect the current expectations or beliefs of HPQ-Silicon Resources Inc. (“the Company”) and are based on information currently available to the Company. There can be no assurance that such statements will prove to be accurate, and actual results and future events could differ materially from those anticipated in such statements. All of the forward looking statements contained in this presentation are qualified by these cautionary statements and the risk factors described above. Furthermore, all such statements are made as of the date this presentation is given.

An investment in the Company is speculative due to the nature of the its business. The ability of the Company to carry out its plans as described in this confidential presentation is depending on obtaining the required capital. There is no assurance that the Company will be able to successfully raise the capital required or to complete each of the growth initiatives described. Investors must rely upon the ability, expertise, judgment, discretion, integrity and good faith of the management and Board of the Company.



THE Disruptive Technology in Solar Grade Silicon Metal

HPQ Has recently developed with its partner PyroGenesis a one-step Solar Grade Silicon Metal process



The results are radical but the science is simple

- **High Purity Silicon Metal is a foundation of the solar panel industry**
- **Solar Grade Silicon is a US \$ 5 Billion per year market, growing at 15% CAGR**
- **High Barriers to Entry: Capex, Operating Cost, Permitting are resolved in this simple one – step process**



Corporate and Capital Summary

Share Price (October 7, 2016)	\$0.165	Cash and equivalent in hand	\$500,000	
52 Week Low	\$0.020	Cash value of warrants in the money	\$2,712,111	
52 Week High	\$0.305	Breakdown of warrants in the money	#	\$
Shares Outstanding:	141,631,467	Warrants with \$0.07 Strike Price	28,705,750	\$2,009,403
Warrants:	49,007,837	Warrants with \$0.10 Strike Price	464,587	\$46,459
Options:	12,615,050	Warrants with \$0.15 Strike Price	4,375,000	\$656,250
Fully Diluted:	203,254,354	Warrants with \$0.20 Strike Price	8,000,000	\$0
Market Capitalization:	\$23,369,192	Warrants with \$0.25 Strike Price	6,200,000	\$0
Market Capitalization (FD):	\$33,536,968	Warrants with \$0.35 Strike Price	1,462,500	\$0

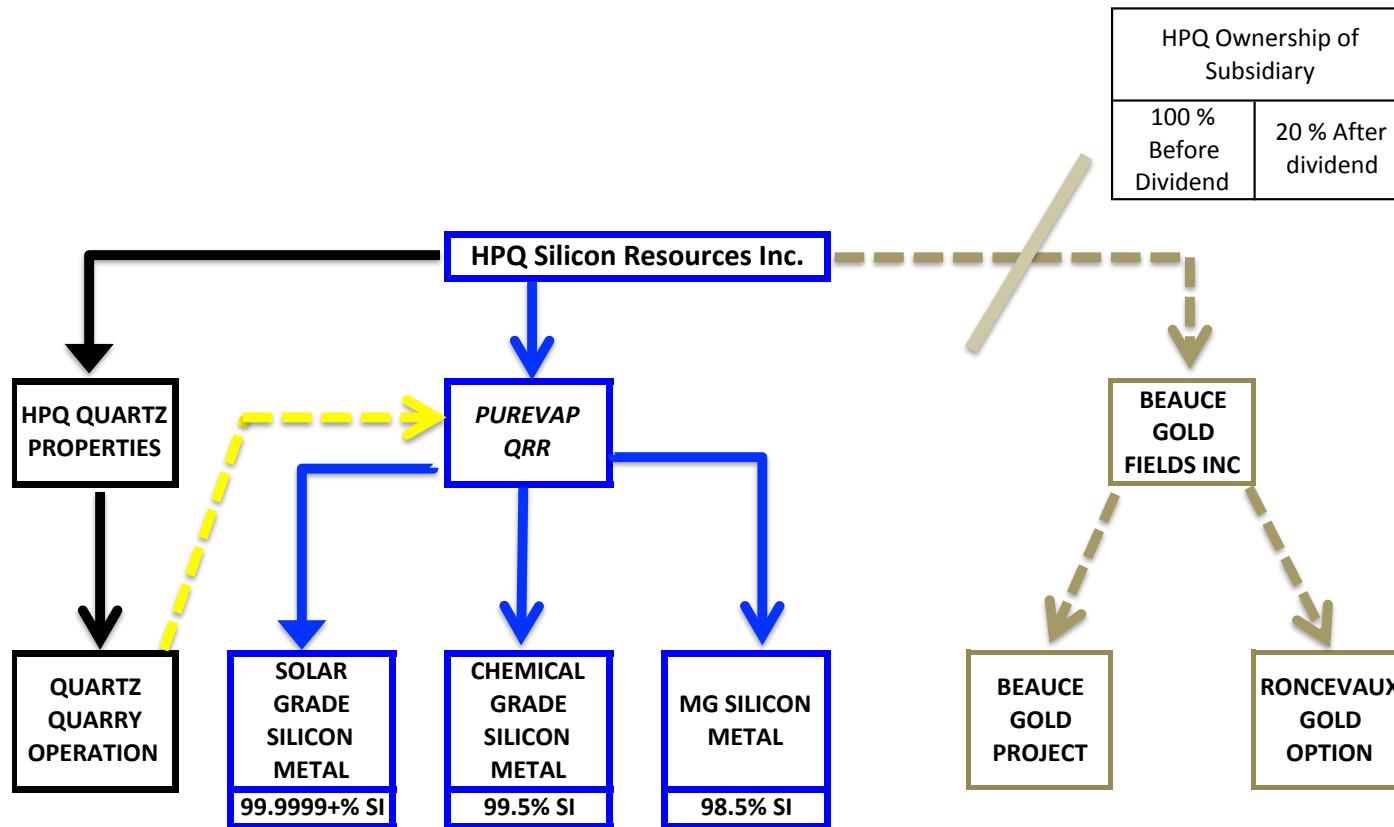
Debt free after gold spinout

Management	Independent Director (*)	Auditors	Major Investors
Bernard J Tourillon, BAA, MBA Chairman, CEO and Director	Richard Mimeau, B.Sc. Director	Raymond Chabot Grant Thornton	Management & Board ≈ 18% ≈ 27% (FD)
Patrick Levasseur President, COO and Director	Peter Smith, PhD, P. Eng. Director	Transfer Agent Computershares	Key Investor Group ≈ 19% ≈ 18% (FD)
Noelle Drapeau, LLL, MBA, PMP Corporate Secretary and Director	Robert Robitaille, B.A., L. Ph., MBA Director	Consultants Marcel Drapeau, BA, B.Sc. Comm, LLL Company Lawyer	Fancamp ≈ 5% ≈ 7% (FD)
Francois Rivard CFO	Daryl Hodges H. BSc, M.Sc.. Director	Marc Richer-Lafleche, P. Geo, PhD Technical Advisor (INRS- ETE)	Institutions ≈ 2% ≈ 3% (FD)
			Taiwanese Group ≈ 2% ≈ 3% (FD)
			PyroGenesis ≈ 2% ≈ 2% (FD)
			TOTAL ≈ 48% ≈ 60% (FD)

* Independent directors may receive additional compensation for project work.

Corporate Structure

HPQ Silicon plans to become a vertically integrated *Silicon Metal* Company



Gold assets planned to be spun out to unlock value during Q4 2016



Outsourcing R & D And Partnering With The Industry Leader



INNOVATIVE TECHNOLOGY

Patented Technology – 18 innovations, covered by 49 patents (issued or pending) worldwide.
*USING **PLASMA** LIKE NO ONE ELSE*

INTERNATIONAL REPUTATION

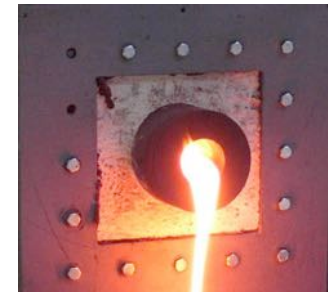
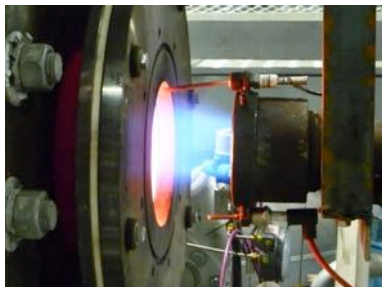
Montreal based with Industry credibility established through continued relationship with the US Navy and the US Air Force, and cutting edge research credibility with universities around the world

UNSURPASSED EXPERTISE

Largest concentration of **plasma experts** in the world make up our team of 50 employees, with more than 25 engineers dedicated to technologies development.

CULTURE

Proven leadership since 1991, ISO 9001:2008 certified since 2007, 2 facilities including a 38,000 ft² manufacturing facility in Montreal, TSX-V:PYR, OTCQB:PYRNF





RAPID PROGRESS SINCE FINALIZING AGREEMENT

STRATEGIC DEVELOPMENT AGREEMENT WITH PYROGENESIS

- HPQ has acquired the intellectual property rights to the **PUREVAP™ QRR** process and will finance the development as it relates exclusively to the production of silicon metal from quartz (*)
- PyroGenesis is developing for HPQ-Silicon's exclusive use the **PUREVAP™ QRR** (Patent Pending) a 1 Step, Clean Tech process for making SG Si directly from Quartz, using a plasma submerged arc
- PyroGenesis will build and commence production from a 200 TPY SG Si R&D pilot plant (Press releases August 2, 2016, September 30, 2015)

VALIDATION

- HPQ confirms the **PUREVAP™ QRR** process can transform Quartz into >99.9 % Silicon Metal (Si)
- HPQ announces independent confirmation of results validating the **PUREVAP™ QRR** capabilities of
 - Production of up to 99.97% (3N+) during phase 1 test
 - Demonstrated the removal of key impurities from the final product, notably Boron (B)
- Second phase of testing underway (Press releases June 29, September 1 and September 29, 2016)

* PyroGenesis retains a royalty-free, exclusive, irrevocable worldwide license to use the process for purposes other than the production of silicon metal from quartz



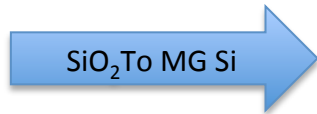
SILICA / QUARTZ / SILICON METAL 101

Silicon dioxide, Silica, Quartz and SiO₂, Synonym for the world's most common mineral...
High Purity deposits (SiO₂ > 99.0%) with low impurities are rare!

High Purity Quartz: The Key To Produce Metallurgical Grade Silicon Metal (MG Si)

- **Today's Key Green Strategic Minerals With Applications In The Silicone, Aluminium, Solar And High Tech Industries**
- **Designated A Critical Raw Materials For The EU In 2014 And A Critical Ingredients For Making Aluminum, Solar Panels And Other Products By The US Department Of Justice In 2015**

Presently Solar Grade Si Can Only Be Made By Refining MG Si Into Higher Purity Material



Quartz / SiO₂ For MG Si

Purity	99.5% to 99.7%
Price (US\$/Ton)	40 to 60
Cash Cost (US\$/ Ton)	20 to 30
Supply Picture	In equilibrium
Price Trend	Stable

MG SI

Si Purity	98 % to 99.5%
Market Size (Ton)	≈ 2.2 Million Tons
Market Size (US\$)	≈ 6 Billion
Demand Growth	≈ 6% CAGR
Supply Picture	In equilibrium
Price Trend	Up from 2016
Price (US\$/kg)	2.4 to 2.8
Cash Cost (US\$/kg)	1.75 to 2.25
Capex Cost (US\$/kg)	7 to 14

2015 Data (Sources CRU, Ferroglöbe, Bloomberg, Viridis.oq, Roskill)

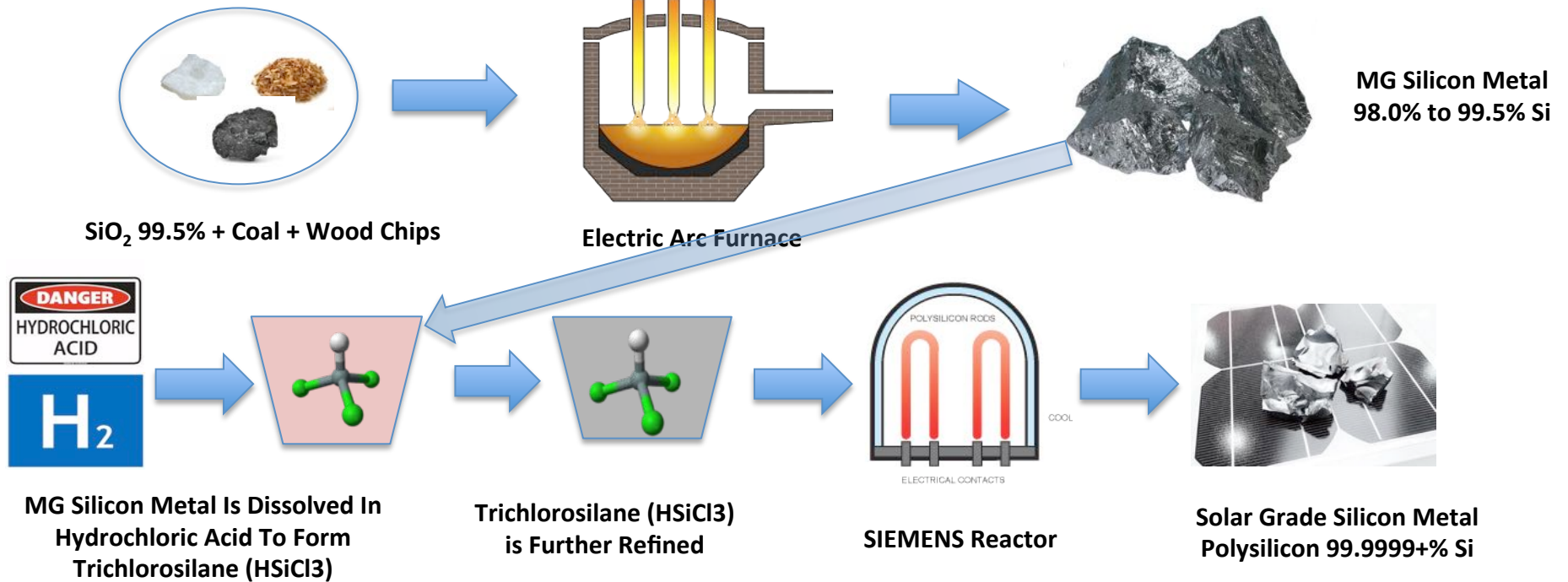
Solar Grade SI and Higher

Si Purity	6N to 9N
Market Size (Ton)	≈ 350 K Tons
Market Size (US\$)	≈ 5 Billion
Demand Growth	≈ 15% CAGR
Supply Picture	In Deficit
Price Trend	Up
Price (US\$/kg)	12.80 to 15.67
Cash Cost (US\$/kg)	12.0 to 17.0
Capex Cost (US\$/kg)	75 to 100

2015 Data (Sources CRU, GTW, IEEE JOURNAL OF PHOTOVOLTAICS, VOL. 5, NO. 2, MARCH 2015, Bloomberg)



CURRENT TECHNOLOGY PROCESS vs. PUREVAP™



PUREVAP™ Quartz Reduction Reactor

A Proprietary (Patent Pending) One-step Process To Make Solar Grade Silicon Metal





SIMPLE PUREVAP™ 1-STEP PROCESS

"ELEGANT IN ITS SIMPLICITY"

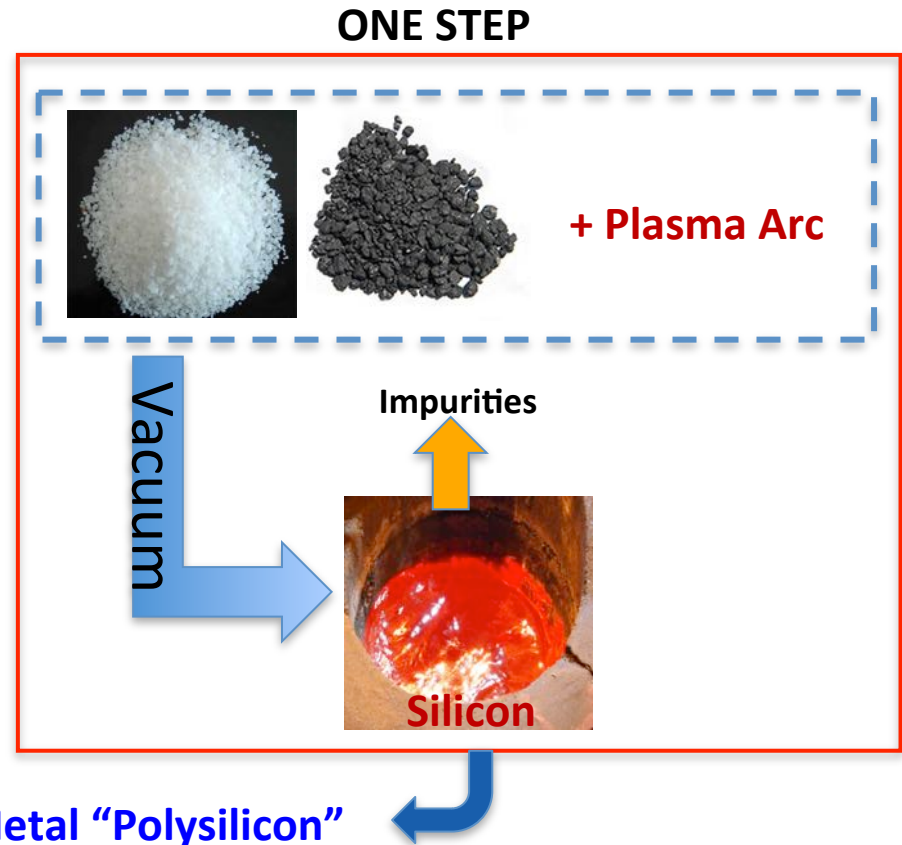


Quartz Reduction Reactor

- Quartz reduction with carbon using plasma submerged arc
- Silicon refining under vacuum to remove impurities

Vacuum Arc Furnace

- **Reaching very low air pressure level**
 - ✓ (m bar)
- **Very high temperature plasma arc**
 - ✓ +3500 degC
- **Resulting in vaporized impurities before Si can vaporize**
 - ✓ P, K, Mg, Zn, Ca, Mn, Pb, Al, Fe, etc

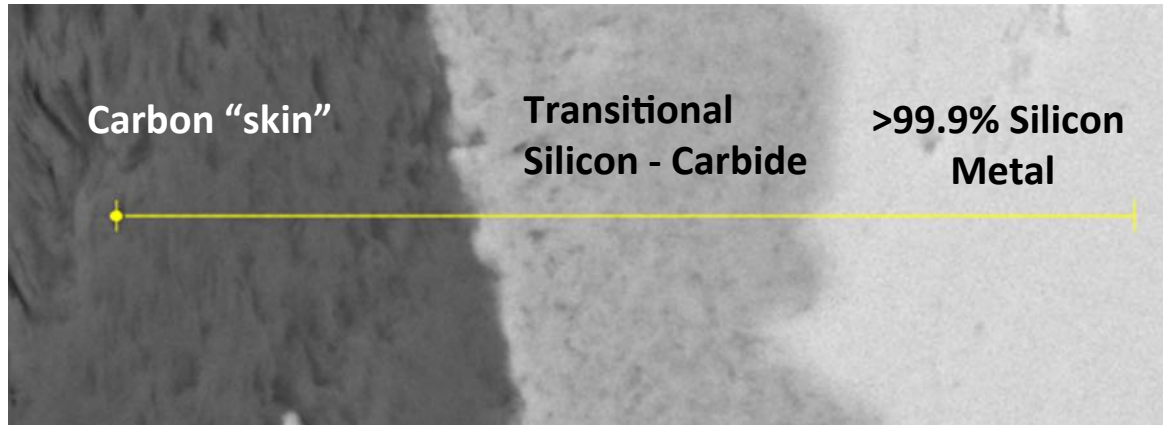


Solar Grade Silicon Metal "Polysilicon"



PUREVAP™ PROVEN CONCEPT AT LAB SCALE

Capture of transition from C to SiC to Si using Purevap™



SEM-EDX image from test done at Centre de Caractérisation Microscopique des Matériaux (CM²)

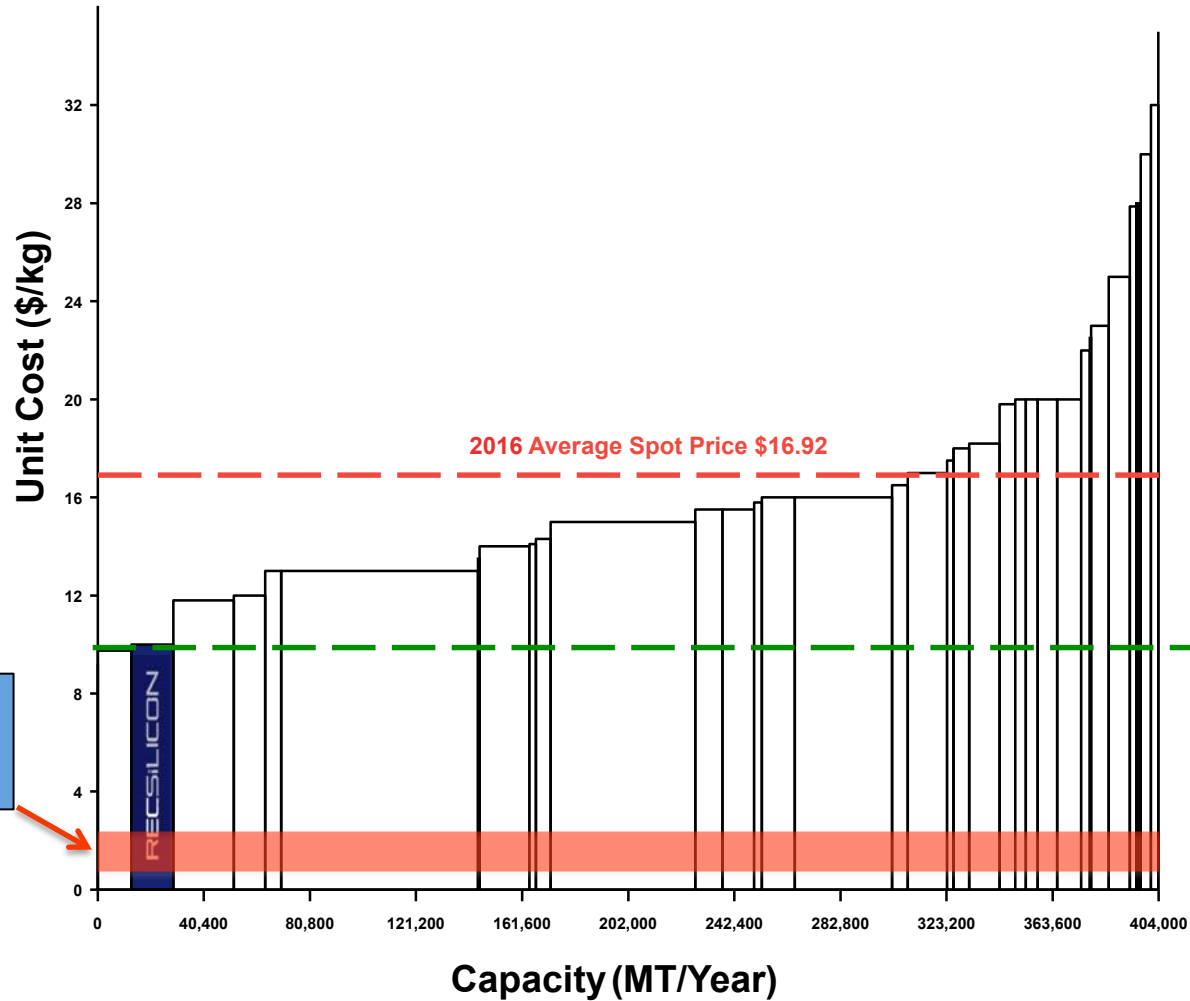
Phase 1 Testing Program confirmed that the *PUREVAP™ Quartz Reduction Reactor ("QRR") concept of combining different known steps into a one step process is working*

- Test results clearly indicate that the process can successfully remove impurities from the material while transforming SiO₂ into Silicon Metal (Si) in one step as predicted by PyroGenesis Theoretical Model

Elem.	<i>Impurity removal per Phase 1 test that produce material</i>				
	#6	#7	#9	#10	#15
Al	86%	96%	98%	97%	74%
B	97%	98%	91%	83%	96%
Ca	12%	23%	99%	96%	82%
Fe	-208%	61%	-214%	-148%	7%
P	94%	97%	67%	78%	92%
Ti	-321%	-63%	-93%	-49%	-93%

PUREVAP™ OPEX DISRUPTIVE POTENTIAL

Cash Cost vs. Capacity for all SG Si Manufactures



**PUREVAP™ QRR
Potential Opex Range
(Cash Cost)**

*Silcor Materials Inc. to move manufacturing to \$1-billion Iceland plant to reduce costs of production by 40% Or US \$10 per KG.
Globe and Mail Sept 1-2016*



PUREVAP™ CAPEX DISRUPTIVE POTENTIAL

Capital Cost Per Technologies Available To Produce SG Si Material (all \$ values in USD)						
		EXISTING TECHNOLOGY			HPQ TECHNOLOGY	
Technologies	Feed Material	Siemens HC	Siemens Hyper Pure	FBR Reactor with Silane	PUREVAP QRR R&D Pilot Plant	PUREVAP QRR Commercial plant
Capable of Transforming	SiO ₂ to				Solar Grade Si	Solar Grade Si
Capable of Upgrading	MG Si to	Solar Grade Si	Electronic Grade Si	Solar Grade Si		
Number of effective competitors		7			1	
Key Capex matrix						
Minimum Capacity Requirement (MT)		6,500			200	10,000
Cap Ex per Kg of annual installed capacity (US\$/kg)		70 (U.S.) 45 (China)	100 (U.S.) 75 (China)	100 (U.S.) 75 (China)	18	4
Capital Cost requirements (US\$ million)		455 (U.S.) 292 (China)	650 (U.S.) 488 (China)	650 (U.S.) 488 (China)	4	38
SOURCES:		IEEE JOURNAL OF PHOTOVOLTAICS, VOL. 5, NO. 2, MARCH 2015			PyroGenesis Canada Inc (PR August 2, 2016)	Roug Order of Magnitude Study by PyroGenesis

- **PUREVAP™ QRR** Pilot plant CapEx per kg of capacity of US\$18.5 (US\$/Kg) has the potential to transform quartz to SG Si in one step and becoming **the disruptive technology for the Solar industry**

Following Pilot Scale Validation of the **PUREVAP™ QRR** process;

- The goal will be to move to a commercial phase, with an objective of building capacity capable of producing 20,000 TPY of SG Si within 5-7 years



PUREVAP™ PILOT PLANT: CAPITAL NEEDS, TIMING

The total cost to purchase and commission the PUREVAP™ QRR Pilot Plant and related Intellectual Property is CDN\$8,260,000 over the next 30 months:

- \$ 1,000,000 for purchase of the related Intellectual Property (**Completed**)
- \$ 4,430,000 for design, fabrication, assembly, cold commissioning & testing (**\$490 K Done, over time to Oct-2017**)
- \$ 520,000 for hot commissioning of the pilot system (**To be paid From Nov-2017 to Feb-2018**)
- \$ 2,310,000 for testing and operating the pilot system during 10 months (**To be paid From March to Dec-2018**)

The Projected Cash call over the next 30 months are:

- \$1,900,000 for the remainder of 2016
- \$2,296,000 for 2017
- \$2,570,000 for 2018

HPQ Silicon funding advantages:

- HPQ will be entitled to R&D research credits worth about 30% of CDN\$7,260,000 of the program
- The project is eligible for government funding (Provincial and Federal) for 55% to 80% of the costs
- *Over CDN\$ 2,700,000 worth of warrants are in the money, majority in friendly hands*
- The acquisition of PUREVAP™ Intellectual property opens up additional options for financing because investors want to see direct control over the key intellectual property
- Management is exploring several likely non – dilutive paths for financing the Pilot Plant



HPQ – PUREVAP™ RAW MATERIAL

- **HPQ-Silicon** is the largest holder of High Purity Quartz properties in Quebec, with over 3,500 Ha under claims
- The High Purity Quartz from our Roncevaux property is already in high demand, as it successfully passed rigorous testing protocols of a major silicon metal producer





QUARTZ PROPERTIES LOCATION

- 12 High Purity Quartz Deposits In Quebec
- 61 Claims Totaling 3,500 Ha
- All Close to Transport, Infrastructure & Target Markets





HPQ VERTICAL INTEGRATION STRATEGY

Plans Are To Establish HPQ Quarry Operations in order to meet our Raw Material Requirement For Future *PUREVAP™ QRR* Plants.

- In parallel to scaling up our *PUREVAP™ QRR* process, HPQ will be developing the Roncevaux Quartz Potential, with a goal of delineating a significant resource on the Property
- Event when a significant resource is delineated on the Roncevaux property, work on a Preliminary Economic Assessment (PEA) will only be undertaken when required for permitting purposes
- Until that time, all our financial models will assume purchasing the raw High Purity Quartz required for the plants in the open market at market prices
- Upon successful start of quarry operations on Roncevaux, HPQ Silicon will be a fully integrated Silicon Metal Producer



Why Invest in HPQ Now?

HPQ Is Canada's Only Public Pure Play Investment In the Lucrative Solar Grade Silicon Market

HPQ Silicon has a staged plan to become a capital efficient integrated producer to a rapidly growing industry

HPQ PUREVAP™ Proprietary technology is:

- **Low Opex, Low Capex, Minimal Carbon Footprint and Environmentally friendly**
 - Less than 20% of the Industry's cash cost,
 - 5% of Industry Capex, and
 - With a 75% reduction in carbon footprint since the **Process is estimated to generate 14.1 kg CO₂ eq per Kg SG Si produced** compared to the standard 2 stage process currently in use that generates about 54.0 kg CO₂ eq per Kg SG Si produced

HPQ – SILICON
R E S O U R C E S



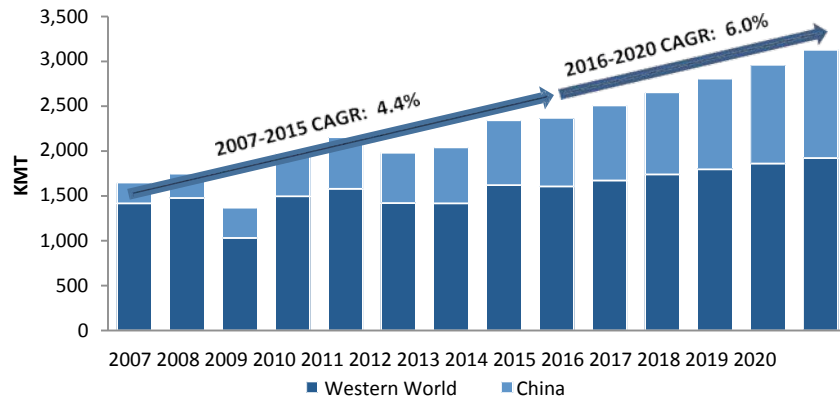
***Appendix
(Supporting Slides)***

TSX-V: HPQ

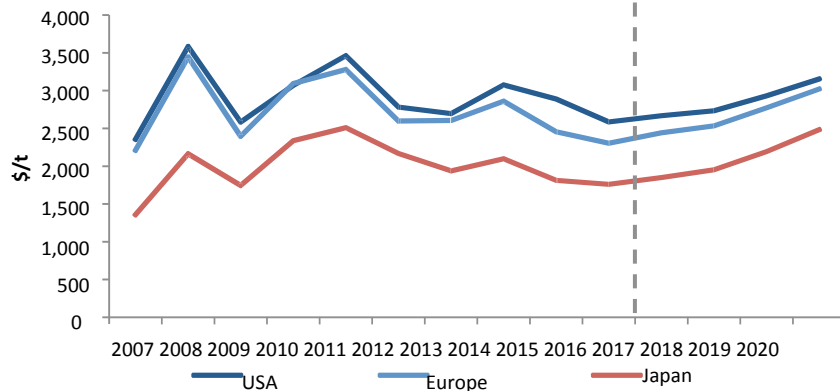


GROWING METALLURGICAL GRADE SILICON METAL MARKET

Growth in MG Si Consumption Expected to Accelerate from Historical Levels



Rising MG Si Demand Expected to Drive Price Recovery in 2017-2020



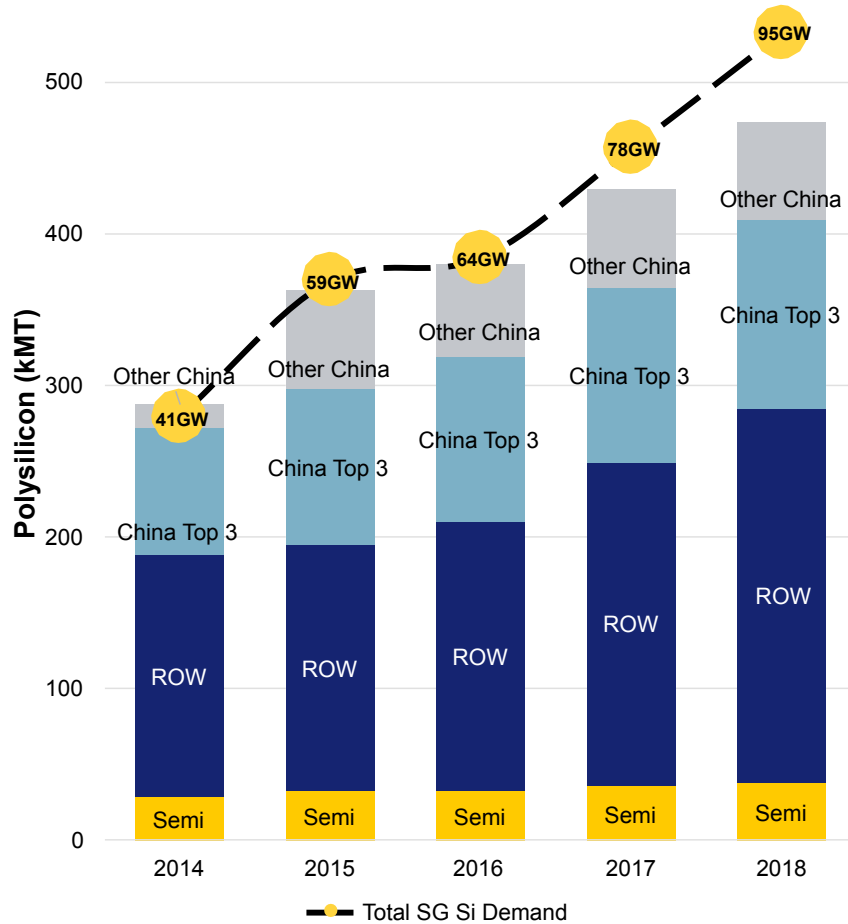
Source: CRU 2015, Ferroglobe

Note: Silicon consumption, pricing, and capacity data are from CRU.

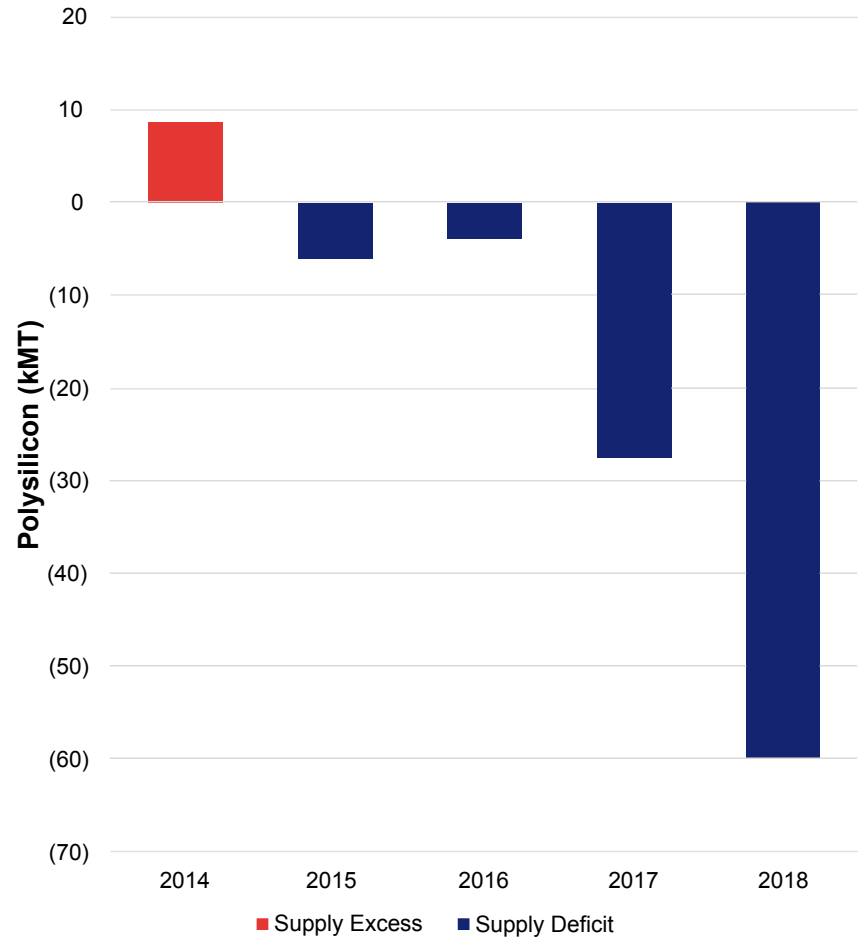
- MG Si 2015 consumption was 2.2 Million Tons;
 - > \$US 6 billion in worldwide sales
- Demand is expected to grow at 6.0% CAGR from 2016 – 2020
- CRU forecasts a 2017-2020 price recovery for MG Si driven by rising MG Si demand
- **In 2015, 15 % of Global MG Si (98.5% Si) production was further refined to Solar Grade Si (SG Si, or “Polysilicon”) at 99.9999% (6N) purity**
 - 350 K Tons of SG Si was sold in 2015 (≈ \$US 5Billion)
- Growth will be largely driven by the growing demand for Solar Grade (SG) Si (Polysilicon) material to be used in Photovoltaic (PV) solar panels
- Each Watt (W) of energy produced by a PV solar system demands ≈ 5 gr of SG Si
- GTM Research estimates that Installed PV demand to growth 15 % - 23 % annually, representing about 10 Gigawatt (GW) per year
- Significant SG Si Deficit are forecast from 2017 on as Gigawatt (GW) produce with Solar panels increases

Low SG Si (Polysilicon) Production Limiting PV Growth

SG Si (Polysilicon) Supply/Demand Forecast



SG Si (Polysilicon) Market Balance Forecast



Source: Demand Data Installations: GTM Research, PV Pulse, January 2016
Supply Data: Competitor releases, industry analysts, REC Market Intelligence

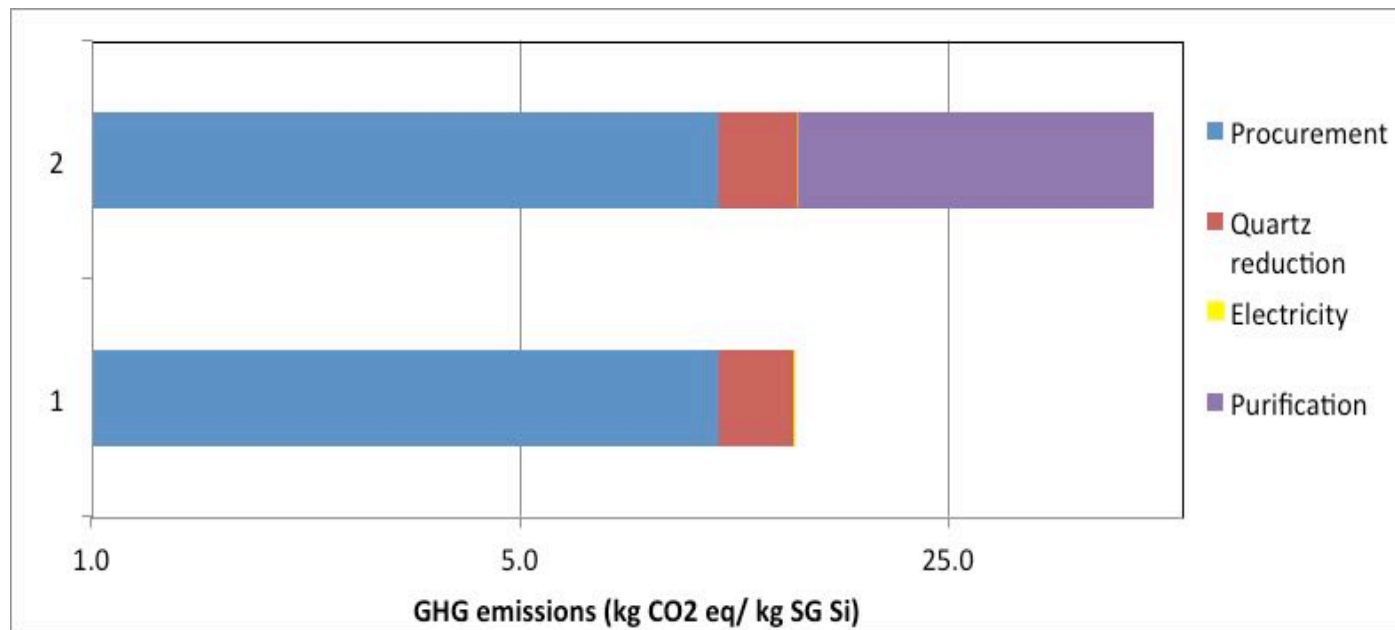
PUREVAP™ Environmentally Friendly

Carbon Footprint 75% Lower Than Conventional Process.

The *PUREVAP™ QRR* process is estimated to generate 14.1 kg CO₂ eq/Kg SG Si;

The Siemens process (the industry standard) normally generates 54.0 kg CO₂ eq/Kg SG Si of emissions.*

- This represents 75% fewer greenhouse gas emissions, which is justified by elimination of the emissions emanating from the use of chemicals, as well as, energy consumption from the additional purification step.





PUREVAP™ RECAP

Capital Cost Per Technologies Available To Produce SG Si Material (all \$ values in USD)							
			EXISTING TECHNOLOGY			HPQ TECHNOLOGY	
Technologies	Feed Material	Traditional electrical Arc-Furnaces Smelters	Siemens HC	Siemens Hyper Pure	FBR Reactor with Silane	PUREVAP QRR R&D Pilot Plant	PUREVAP QRR Commercial plant
Capable of Transforming	SiO ₂ to	MG Si				Solar Grade Si	Solar Grade Si
Capable of Upgrading	MG Si to		Solar Grade Si	Electronic Grade Si	Solar Grade Si		
Number of effective competitors		> 100	7			1	
Key Capex matrix							
Minimum Capacity Requirement (MT)		35,000	6,500			200	10,000
Cap Ex per Kg of annual installed capacity (US\$/kg)		7 to 14 (U.S.) 4.5 (China)	70 (U.S.) 45 (China)	100 (U.S.) 75 (China)	100 (U.S.) 75 (China)	18	4
Capital Cost requirements (US\$ million)		245 (U.S.) 158 (China)	455 (U.S.) 292 (China)	650 (U.S.) 488 (China)	650 (U.S.) 488 (China)	4	38
Key Opex matrix							
Best in Class Reported Cash Cost (US\$/kg)		2	13	14	12	10	2
Key Green matrix							
Kg of Co ₂ estimated to be produced (Kg CO ₂ eq/kg Si produced)		14.2	39.8	39.8	?	14.2	7
SOURCES:		Ferroglobe, Viridis.iQ GmbH, Bloomberg	IEEE JOURNAL OF PHOTOVOLTAICS, VOL. 5, NO. 2, MARCH 2015			PyroGenesis Canada Inc (PR August 2, 2016)	Roug Order of Magnitude Study by PyroGenesis