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HPQ Silicon Inc. is a technology company focused on re-engineering key manufacturing processes: 1) Furned Silica Reactor (FSR): Developing a new plasma process for the direct transformation of Quartz into Furned Silica; 2) Silicon-Based Anode Materials: Advancing next-generation materials for battery applications; 3) Autonomous Hydrogen Production: Creating a low-carbon, chemical-based system for on-demand, high-pressure hydrogen production via silicon hydrolysis; 4) Black Aluminium Dross Recycling: Innovating a process to convert black aluminium dross into a valuable resource, and 5) PUREVAP™ Quartz Reduction Reactor (QRR): Developing a novel carbothermic process to convert Quartz into green Silicon (patent granted in the United States and pending in other jurisdictions). HPQ collaborates with leading technology partners to advance its technology portfolio while maintaining a strong commitment to sustainability and efficiency. Projects 1 and 5 are developed in collaboration with PyroGenesis Inc., while projects 2, 3, and 4 are pursued in partnership with our affiliated company, NOVACIUM SAS.

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Executive Summary: Advancing Materials Manufacturing for a Sustainable Future









HPQ – Near-Term Commercialization Ventures

Technologies Co-Developed with Leading Innovation Partners





Product: Specialized powder additive with

large industrial uses

Market: US \$2.0B (2024) \rightarrow \$3.4B (2034) [1]

Opportunity: Traditional process has Large

muti billion \$ Capex, with large footprint - Low EBITDA margins ~ 20% -Massive CO2 footprint Barriers to entry high / small of producers / all large chemical Co

Solution: The FSR, a new proprietary.

One Step process – Resulting in

Low Capex & Opex

EBITDA margins significantly higher

than traditional process ~ 20%

Very small CO₂ footprint Modular process that

Eliminates barriers to entries

Commercial production end of 2025, + Strategic Offtake and/or Licensing Agreements



Silicon Battery Materials

Product: Engineered Silicon based

anode materials for Li-Ion-

graphite batteries

US\$ 38 B by 2030 m Market:

Opportunity: Legacy Silicon based

manufacturing Inefficient batch process that needs multiple steps from Si to Engineered Silon based material high Opex / High Capex

Solution: A new proprietary semi

> continuous process to go from Si to Engineered Silicon base

anode material

Same Capex / lower Opex

Scalable process

Using QRR Si as feedstock will reduce CO₂ footprint

Commercialisation: end of Q3 2025



Autonomous H2 Production

Product: Autonomous and on demand

Hydrogen production

US\$ 648 B by 2030 [2] Market:

Opportunity: Traditional Hydrogen supply

chain is expensive, technically challenging, and dangerous

Capex (Billions) High Opex

Massive barriers to entry

Solution: A new hydrogen pressurized

autonomous production system that uses a chemical process to liberate Hydrogen from specific low-cost, low carbon and non-

hazardous alloys

First commercial protype: End 2025 - Q1 2026







An innovative process for a Supply Critical Everyday Materials: Fumed Silica

The Fumed Silica Reactor (FSR)

A proprietary One step process to make Fumed Silica directly from Quartz





Fumed Silica: HPQ Nears Production with High-Value Market Opportunity

Fumed Silica – What It Is & Why It Matters

What is Fumed Silica?

A **high-performance industrial powder** with **exceptionally high surface area**, delivering unique material properties.

Key Functional Roles:

- Thickening agent
- Anti-caking / anti-settling additive
- Thixotropic modifier (e.g., in ketchup, sealants, adhesives)

Industries Using Fumed Silica:

- ✓ Paints & coatings
- ✓ Adhesives & sealants
- ✓ Cosmetics & pharmaceuticals
- √ Food industry
- ✓ Batteries (enhanced safety, electrolyte stability, dendrite suppression)

No viable substitutes due to unique performance profile



HPQ Fumed Silica produced with Pilot Plant



Fumed Silica Market Opportunity

GLOBAL MARKET OPPORTUNITY & STRATEGIC GAP

Market Growth:

Olobal: US \$2.0B (2024) \rightarrow US \$3.4B (2034) (CAGR: 5.4%) [1]

USCA US & Canada: US \$411M (2024) \rightarrow US \$587M (2034) [2]

Canadian Supply

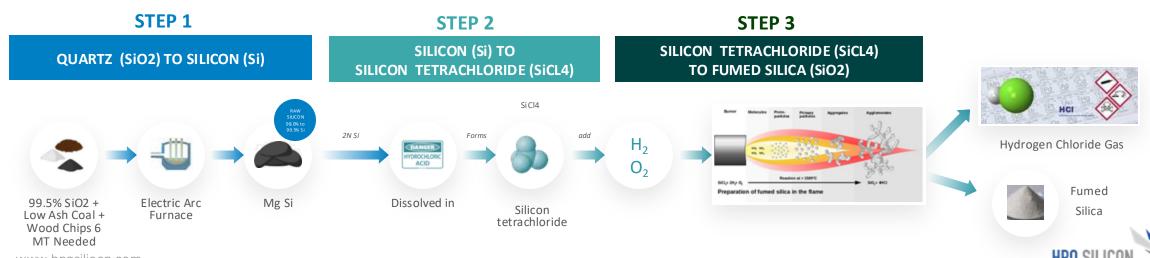
X No domestic production capacity

CA Imports: 20,000-24,000 tonnes/year

Annual import market: ~US \$200M [3]

Conventional Production = Growth Bottleneck

Multi-step \rightarrow Capital intensive \rightarrow Low margins (~20%) - High environmental footprint: **HCl & CO₂ emissions**



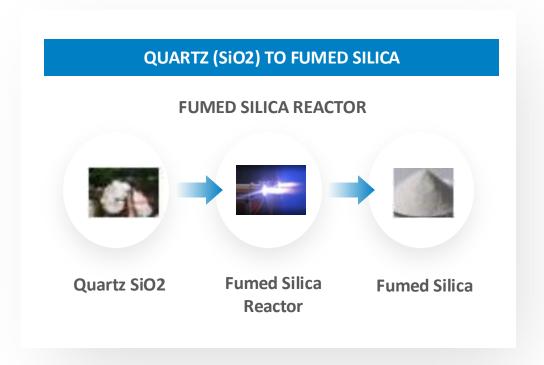
HPQ Fumed Silica Opportunity

HPQ'S DISRUPTIVE SOLUTION

We are pioneering a **low-cost**, **one-step**, **eco-efficient process** to produce fumed silica — replacing legacy methods with a cleaner, smarter alternative.

OUR COMPETITIVE EDGE

- **✓** Direct Quartz-to-Fumed Silica Process
 - → Drastically reduces CAPEX & OPEX
- +70% Projected Gross Margins [1]
 - → Margin profile radically above industry average
- **✓** Lower Energy Use & CO₂ Emissions
 - → Sustainability built into the core process
- No HCl Byproduct
 - → Simplified permitting & safer operations
- **✓** Modular, Scalable & Re-shoring Ready
 - → Aligned with North American industrial policy



[1] Forward-Looking Statement: Management estimates, based on projections provided by our technology partner, will be updated following the completion of the pilot plant phase. Investors should refer to the cautionary statements on page 2.



HPQ POLVERE FUMED SILICA REACTOR: A Paradigm Shift in Fumed Silica Manufacturing



produce fumed silica

directly from quartz?





2023
Concept Validated at lab scale / commercial-grade fumed silica directly from quartz produce



2024
Pilot Plant manufacturing,
assembly & commissioning.
Pre-offtake agreement signed
with Evonik Corporation, the
Global leader in the FS market



Pilot Plant scale up validation, production of commercial grade fumed silica at batch scale, then at semi-continuous scale.

negotiation formal offtake with Parties under LOI & NDA



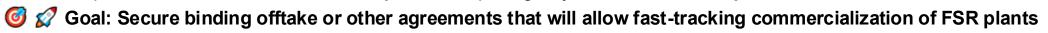
2026 – and beyond
Scaling Toward Commercial Production
Begin work on modular 1,000 TPY (tonnes per year)
commercial-scale design
Leverage pilot plant data to optimize performance,
cost, and environmental efficiency

HPQ Fumed Silica Reactor (FSR) – Current Status

- > Successfully **replicated lab-scale batch results** at pilot scale under semi-continuous operations with large material output increases
- ➤ Surface area improved reaching **136 m²/g** confirming trajectory toward commercial benchmarks.
- > 20-fold scale-up from lab to pilot → reinforced scalability of HPQ's proprietary FSR process.

Performance, Product Development, Market Engagement and Pilot Operations & Scale-Up

- Produce 150 200 m²/g material \rightarrow validates entry into mid-range commercial segment (largest demand tier).
- Process optimization to target >300 m²/g → unlocks food/pharma premium grades.
- Continue testing collaboration with global fumed silica manufacturer operating under LOI.
- ➤ Upon reaching **150 m²/g**, begin **sample distribution** to additional third parties under NDAs.
- > Ramp throughput to **161 kg/day (~50 TPY)** via multiple production cycles.
- Prepare for transition to commercial operations, paving way to 1,000 TPY FSR plant.





FROM PILOT TO PLANT: HPQ's Rapid Fumed Silica Scale-Up Timeline

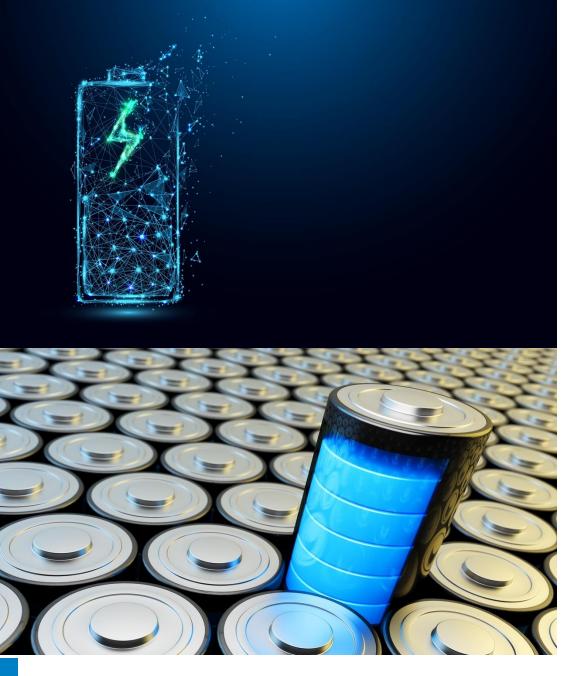
PROJECT	2025		2026	2027		2028
FUMED SILICA REACTOR (FSR)	FSR Pilot plant testing &	Optimizing operations - commercial production of Fumed Silica with pilot plant			Fumed Silica production	
		Engineering studies regarding building 1,000 TPY FSR		onstruction – Commissioning of commercial plants	from our first of many 1,000 TPY FSR plants	

Commercialization Strategy

- 1. Capture Domestic Market Share
 - Canada lacks domestic fumed silica production
 - HPQ targets 50% market share of the ~US\$200M/year Canadian market Equivalent to ~10,000 TPY demand
 - Strategic advantage: Onshore production, reduced import dependency, and shipping cost savings
- 2. Leverage Canadian Innovation for Government Support
 - Promote low-emission, one-step process as a Canadian cleantech solution Align with:
 - CA Industrial decarbonization strategy / Clean technology innovation funding programs / Critical materials independence
- 3. Capture US Market Share by offering a US based Fumed Silica production to replace imported materials
 - HPQ targets 20% market share of the ~US\$300M/year US market Equivalent to ~6,000 TPY demand
 - Strategic advantage: Onshore production, reduced import dependency, and shipping cost savings
- 4. Leverage Innovation for Local State Support
 - Promote low-emission, one-step process as a solution Align with reshoring goals / Critical materials independence

Goal: Secure public funding to accelerate plant deployment and scale









ADVANCING SILICON-BASED BATTERY MATERIALS & CELLS MANUFACTURING

- 1. Silicon-Based Battery Materials
 - Developing Engineered Silicon Anode Materials
 Optimized for Industrial Integration
 - Awarded up to \$3 million in funding by the Government of Canada to scale up the process to commercial production
- 2. Commercial Launch Using Novacium GEN3
 Silicon Anode Material Starting
 Capacity 1.5M HPQ ENDURA+ Cells / Year

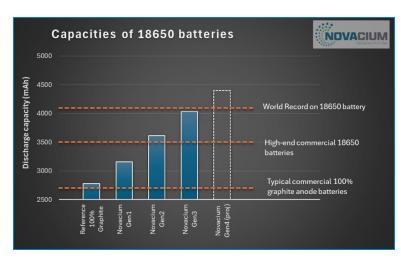


Developing cutting-edge advanced Silicon-Based anode materials for batteries

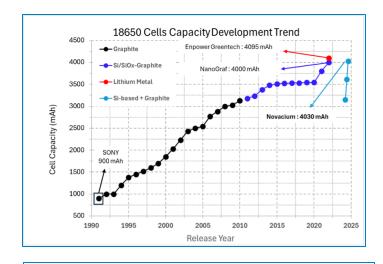
Testing Results Confirms the Potential of Novacium GEN3 Silicon Anode Material

- Material's ability to enhances battery performance, and seamlessly integrated into 18650 27100 batteries proven
- Test results at 1,000 cycles confirm material's performance

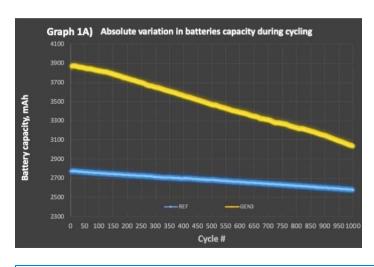
Novacium Gen 3 Results 2024 - 2025



The graph compares the energy capacity (mAh) of 18650 batteries from 100% graphite (left) to Novacium's GEN1, GEN2, GEN3, & projected GEN4 materials (right).



The chart shows how HPQ-Novacium accelerated 18650 battery capacity gains—achieving in one year what typically took the industry several years to accomplish.



Graph 1a) - average capacity of 100% graphite & GEN3 batteries ù (the Blue & Yellow lines) over 1,000 cycles [1], in mAh.

Two Major Addressable Markets for HPQ Battery Materials

- **3C Battery Market** (Computing, Communication & Consumer Electronics)
 - Projected to reach US\$38.8 billion by 2030
 - Growing at a **6.4% CAGR (2024–2031)** [2]



• Estimated addressable market between US\$27.5B & US\$55.0B by 2030 [3]



HPQ SILICON – NOVACIUM ENGINEERING SILICON FOR BATTERY ANODES

NOVACIUM – KEY BATTERIES ACHIEVEMENTS TO DATE

- Developed Engineered Silicon Anode Material for Industrial Integration that can be seamlessly compatible with existing battery manufacturing lines, eliminating costly process redesigns
- **✓** High-Performance 18650 Cell Validation GEN3 Material,
- Exceeds 4,000 mAh significantly outperforming graphite benchmarks
- Deliver **3,000 mAh** capacity over **1,000** cycles
- Maintain 80% retention after 1,000 cycles combining energy density + durability [1][2]
- **INDUSTRIAL PRODUCTION LAUNCH − SILICON-DOPED HIGH-PERFORMANCE BATTERIES**
- Initiating commercial production of 18650 and 21700 cells incorporating seamlessly Novacium's silicon-doped anode material
- Presently capable of producing enough GEN3 Silicon Anode Feedstock Material to make 1,500,000 batteries
- Subcontracted production to large-scale manufacturer with spare capacity, Immediate market access, no new facilities
- Market pricing: \$4.50-\$8.00 per cell
- HPQ ENDURA+: higher performance within same range

HPQ IS THE EXCLUSIVE NORTH AMERICAN LICENSEE OF NOVACIUM'S BATTERIES TECHNOLOGIES

- HPQ also Filed Patent Application
- Covers HPQ's proprietary **high-throughput process** for manufacturing engineered **silicon-based anode materials**
- Advancing Continuous Advanced Silicon-based material Production
- Ongoing discussions with multiple technical and financing partner's lead to Cad \$ 3 million financing
- Targeting making at least 50 TPY Silicon-based material enough to make annually 40 M 18650 battery cells











Innovative Hydrolysis based Hydrogen processes:

1. METAGENE™

Autonomous H2 Production Solution

2. WASTE TO ENERGY (W2E)

Using black aluminum dross waste to generate Hydrogen

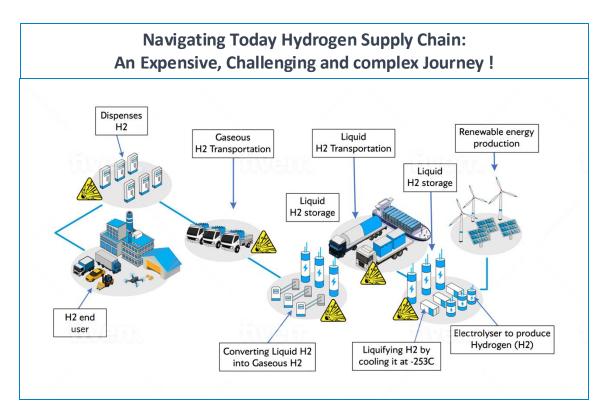


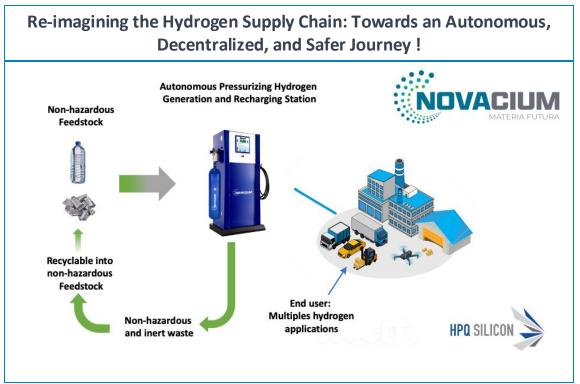
— METAGENE™ AUTONOMOUS GREEN HYDROGEN

HARNESSING ON-DEMAND GREEN HYDROGEN — WITHOUT THE LIMITATIONS

Addressing the Three Core Barriers:

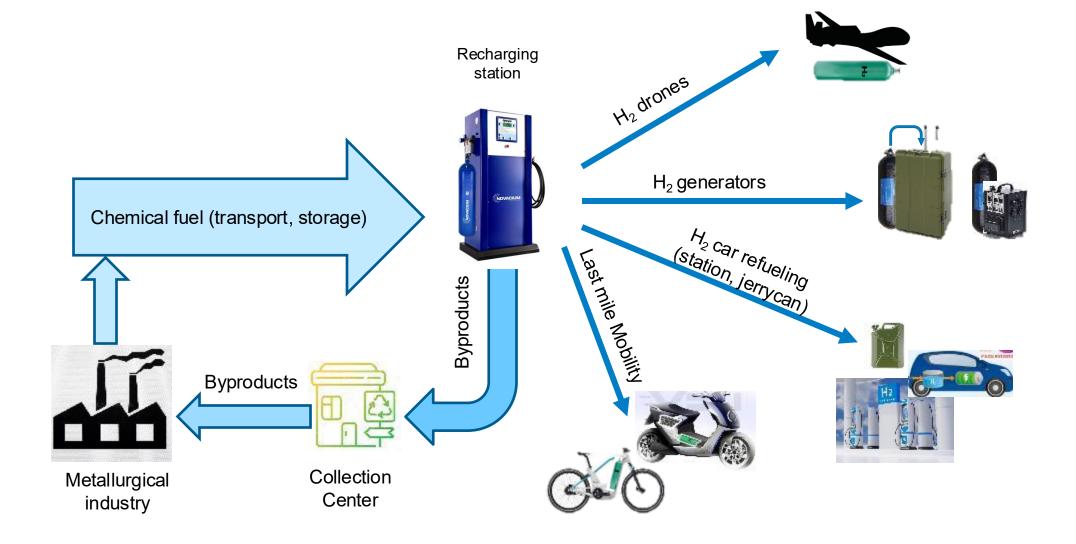
- **Storage** Producing hydrogen at point-of-use eliminates the need for high-pressure or cryogenic storage
- **◯** Transport − On-site generation removes the cost and complexity of hydrogen distribution logistics
- **The State of the State of the**





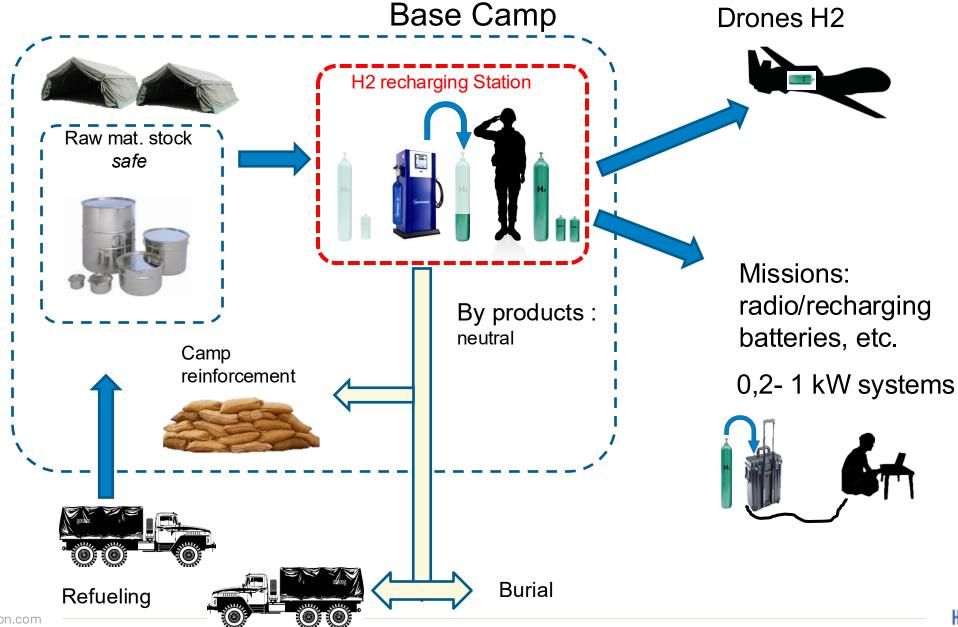


METAGENETM: Potential Civilian utilization





METAGENETM: Potential Military utilization



— METAGENE™: Beyond Autonomous H2 Production Solution

First prototype ready - Q4 2025



The system's **flexible design** allows for the integration of from **10 up to 25 reactors within a single container**, enabling scalable, high-output deployment.



Beyond Hydrogen: Clean Heat & Water from METAGENETM Systems

These systems, when combined with **hydrogen fuel cells**, offer more than just electricity generation — they become **versatile energy hubs**.

- In cold climates, they provide useful heat for household or industrial applications.
- In hot environments, they can support water purification, including desalination and treatment of stale or brackish water.



HPQ / NOVACIUM WASTE TO ENERGY GREEN HYDROGEN INITIATIVE

Product

Waste-to-Energy (W2E) Technology — Transforming Black Aluminum Dross (BAD) from a costly hazardous waste into a valuable resource

- Market Opportunity
- Global Secondary Aluminum Market: US\$98.87B (2023) → US\$150.53B (2030) CAGR: 6.8%
- The Problem:

Black Aluminum Dross (BAD) is a toxic byproduct of aluminum recycling.

- Up to 95% is landfilled today. ✓ Disposal costs reach €600+ per tonne.
- ✓ Recycling is rarely pursued due to poor economics despite BAD containing recoverable aluminum and other valuable materials.

Novacium's Solution

A breakthrough additive-based W2E process that:

- **Doubles hydrogen yield** vs. conventional methods
- A Produces green hydrogen + usable heat
- **Recovers valuable solid byproducts** for reuse in aluminum production
- X Eliminates landfilling and associated disposal costs
- lowers operational energy costs through on-site energy recovery

X Impact

Instead of paying to dispose, recyclers can now profit from processing BAD. Estimated European cost savings: €900–€1,500 per tonne processed

- **Reserve Status** Pre-Commercialization Status
- Pilot-scale validation underway / Commercialization targeted within 12 months









From Lab to Market: HPQ's Commercialization Momentum

HPQ has successfully scaled multiple technologies from proof-of-concept to pilot stage.

The Company is now actively focused on commercialization its technologies: Starting with Green Fumed Silica



HPQ Executive Leadership and Governance



Bernard J Tourillon, BAA. MBA CHAIRMAN, PRESIDENT, CEO AND DIRECTOR

Over the last 35 years, Mr. Tourillon has held senior level executive positions with extensive finance, accounting, marketing, administration, and business development experiences in diverse industries including banking, manufacturing, exploration, mining, and technologies companies. Since joining HPQ Silicon in 2006, he has participated in fundraising activities and financial transactions worth over \$75 million.

Since 2015, he has been leading the transformation of HPQ Silicon from a simple High Purity Quartz and Gold exploration Company into a green tech focused Corporation.

Mr. Tourillon was instrumental in securing the partnership with PyroGenesis Canada Inc, a world leader in plasma technology and high temperatures processes, and the creation of NOVACIUM SAS – a French associated company of HPQ responsible for groundbreaking R&D in the battery domains.



Francois Rivard, VICE PRESIDENT AND CHIEF FINANCIAL OFFICER

Over the last 35 years, Mr. Rivard has held senior accounting positions in diverse industries including banking, manufacturing, exploration, mining, and technologies companies. He joined HPQ Silicon in 2006.

Since 2015, he has been working with HPQ CEO transform HPQ Silicon from a simple High Purity Quartz and Gold exploration Company into a green tech focused Corporation.



Daryl Hodges H. BSc, M.Sc., INDEPENDENT LEAD TECHNICAL DIRECTOR

Mr. Hodges has experience in the mining industry and in the capital markets. In the last 25 years, Mr. Hodges has participated in fundraising activities and financial transactions worth over \$4 billion.

Since 2015, he has been participating in the transformation of HPQ Silicon from a gold exploration company into a Specialty Silicon company, first as an advisor and subsequently as a board member. On the Board of Directors his roles include Audit Committee and Technical Committee participation.

Mr. Hodges has a BSc and MSc degree in Earth Science.



Technical Leadership Team – HPQ/Novacium



Jed Kraiem, M.Sc., PhD, FOUNDER AND CHIEF OPERATING OFFICER

Over the last 20 years, Mr. Kraiem has held senior positions in the Photovoltaics industry, worked for the CNRS and FerroPEM (now Ferroglobe) as Valorization engineer to develop an innovative process for crystallization and purifying Silicon for Photovoltaics. He was subsequently approached by Apollon Solar SAS, a French start-up, which recruited him to become the Innovation Director and later promoted him to General Manager.

Since 2022, he cofounded Novacium and is the Chief Operating Officer ("COO")

Mr. Kraiem has a MSc and PhD degree in Physics & Chemistry from INSA Lyon and CEA (French Alternatives & Atomic Energy Center).



Oleksiy Nichiporuk, M.Sc., PhD, CO-FOUNDER AND CHIEF SCIENTIST & TECHNICAL OFFICER

Over the past 20 years, Mr. Nichiporuk has held senior roles in the photovoltaics industry. After obtaining his PhD, he joined PHOTOWATT, a leading French manufacturer of solar cells and panels, as an R&D engineer focused on continuous process improvement. In 2012, he became part of the Apollon Solar team as an R&D engineer and was soon promoted to Chief Technical Officer (CTO), reflecting his deep technical expertise and leadership in solar innovation.

Since 2022, he cofounded Novacium and is the Chief Technical Officer ("CTO").

Mr. Nichiporuk has a MSc from Kiev Univ. and PhD degree in Physics & Chemistry from INSA Lyon.



Julien Degoulange, M.Sc., PhD, CO-FOUNDER AND CHIEF INNOVATION OFFICER

Over the past 20 years, Mr. Degoulange has held senior roles in the photovoltaics industry. After obtaining his PhD, he spent a year working for NNTNU/SINTEF in Norway on Silicon crystallization as a postdoc. After he joined Apollon Solar in 2010 as an R&D engineer and was later promoted to Head of the Silicon Business.

Since 2022, he cofounded Novacium and is the Chief Innovation Officer ("CIO")

Mr. Degoulange obtained in 2008 is PhD Degree from the Polytechnic Institute in Grenoble



HPQ CAPITAL STRUCTURE

Major Investors	Basic	Fully Diluted
IQ (Investissement Québec)	8.4%	7.0%
Management & Board	6.3%	10.4%
Strategic Investors	10.9%	10.0%
PyroGenesis	-	3.1%

52	weeks

	Price	Low	High
(As of Sept 10, 2025)	\$ 0,155	\$ 0,14	\$ 0,425

	Million
Basic Shares Outstanding	421.9
Options (Average Price \$0.23 / Duration 3 years)	11.2
Warrants (Average Price \$0.275)	47.9
Fully Diluted Shares Outstanding	480.1
Market Capitalization (Basic)	\$ 65.3
Market Capitalization (Fully Diluted)	\$ 74.4



MANAGEMENT, BOARD & OTHERS



Management

- Bernard J. Tourillon, BAA, MBA
 Chairman, President, CEO and Director
- Noelle Drapeau, LLL, MBA, PMP Corporate Secretary and Director
- Francois Rivard VP, CFO
- Derick A. Lila, MSc, MA
 Director Marketing Communications



Independent Directors

- Richard Mimeau, B.Sc.
 Director
- Peter Smith, PhD, P. Eng. Director
- Daryl Hodges H. BSc, M.Sc. Director
- Patrick Levasseur
 Director



Consultants

- ▶ Marcel Drapeau, BA, BSC. Comm, LLL
- PyroGenesis Canada Inc



Transfer Agent

▶ Computershare



Auditors

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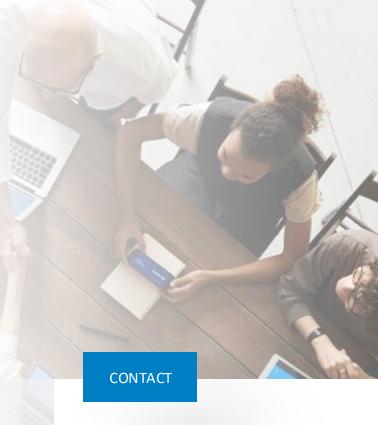


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