



HPQ Silicon 2025 Marked by Strategic Focus, Technical Validation, and a Clear Path Toward Commercialization

From broad R&D to validated platforms, HPQ advances fumed silica, battery materials, and hydrogen while realigning capital for growth.

MONTREAL, Canada, December 31th , 2025 — [HPQ Silicon Inc.](#) (“HPQ” or the “Company”) (TSX-V: [HPQ](#), OTCQB: [HPQFF](#), FRA: [O08](#)), a technology company driving innovation in advanced materials and critical process development, released a year-end corporate update summarizing a year defined by decisive strategic realignment, deep technical validation, and tangible progress toward near-term revenue generation across its core technology platforms.

Building on the success of its R&D work in 2025, HPQ is shifting towards a more focused, execution-oriented strategy centered on the commercialization of technologies offering strong market relevance and scalable economics.

“2025 was the year in which HPQ moved from broad technology development to a focused commercial intent,” said Bernard Tourillon, Chairman, President, and CEO of HPQ Silicon. “We spent the year aligning the company around platforms that can generate value in the foreseeable future, while maintaining the technical integrity that has always defined HPQ. That balance is not easy, but it is necessary.”



(Left) Fumed silica samples from test batch no. 7; (Center) HPQ ENDURA+ batteries at HPQ’s offices in Montréal; (Right) METAGENE™ technology system in operation



Fumed Silica Reactor: A streamlined alternative to legacy fumed silica manufacturing routes

In 2025, the Fumed Silica Reactor (FSR), developed in partnership with PyroGenesis through HPQ Silica Polvere Inc ^[1], emerged as one of HPQ's two most advanced technology platforms. Over the course of the year, the project progressed from pilot commissioning to meaningful industrial validation.

Key achievements included:

- Successful production of fumed silica at pilot scale
- Independent confirmation of morphological equivalence to commercial material
- Achievement of commercial material surface areas assessed under BET testing protocols
- Progress toward semi-continuous operation and throughput optimization

Collectively, these results supported HPQ's core technical premise: that fumed silica can be produced in a single step using a lower-energy, lower-carbon plasma-based process, offering a streamlined alternative to legacy manufacturing routes that have historically relied on complex, capital-intensive, and environmentally challenging multi-step processes.

"What mattered to us in 2025 was demonstrating, step by step, that the reactor performs at scale in line with theoretical models and laboratory results," said Bernard Tourillon. *"Reaching that point changes the nature of the discussion—from whether the technology works to how fast can it be deployed."*

With global demand for fumed silica expanding across batteries, advanced materials, energy systems, and increasingly datacenter and AI-driven infrastructure, HPQ believes its timing and positioning are converging.

"Fumed silica is rapidly becoming a strategic material," added Tourillon. *"Its growing role in energy storage, electronics, and next-generation computing is expected to drive demand well beyond the capacity of today's manufacturing infrastructure. The FSR directly addresses this gap by enabling a purpose-built production pathway designed for scale, rather than incremental refinement of legacy, multi-step processes."*

Battery Materials: Advancing from Laboratory Validation to Commercial Production

During 2025, HPQ advanced its silicon-based anode materials initiative, developed through its strategic partnership with Novacium SAS, which emerged as HPQ's second most commercially advanced technology platform.

In the first half of the year, Novacium's GEN3 silicon-based anode materials, deployed in commercially sized 18650 lithium-ion lab scale cells, achieved a key performance milestone by sustaining high-capacity retention beyond 1,000 charge cycles. This performance exceeded that of leading commercial graphite-based cells by at least 30%.

These independently validated results confirmed both the material's seamless integration potential within existing lithium-ion battery manufacturing processes and its measurable performance advantages over conventional graphite-only anode systems—marking a significant step toward commercial production readiness.



In the second half of 2025, HPQ and its technology partner Novacium SAS advanced the silicon-based anode materials initiative beyond laboratory and materials validation into commercial-scale lithium-ion cell manufacturing. This phase included the production of commercially sized 18650 (4,000 mAh) and 21700 (6,000 mAh) cells incorporating GEN3 silicon-based anode materials.

These activities culminated in the launch of the HPQ ENDURA+ battery platform, and the successful completion of the certifications required for commercial distribution. Collectively, these milestones validated HPQ's core premise that its silicon-based anode materials can be integrated into existing battery manufacturing architectures and scaled into commercially qualified products—marking a clear transition from upstream materials development to downstream industrial and commercial execution.

In September 2025, HPQ received strong third-party validation of its silicon-based anode materials initiative through the award of up to \$3 million in funding from the Government of Canada. The funding was granted under the Battery Industry Acceleration call for proposals of the Energy Innovation Program, administered by Natural Resources Canada.

This investment is intended to support capital expenditures and accelerate the construction of HPQ's first continuous production system, designed for an initial capacity of 50 tonnes per year, to manufacture silicon-based anode materials for lithium-ion batteries developed in collaboration with its technology partner Novacium SAS.

"What we demonstrated in 2025 was not incremental improvement, but execution across the full battery value chain," said Bernard Tourillon. *"From independently validated GEN3 anode performance to commercial-format cell manufacturing, certification, and now government-supported scale-up, we have methodically removed the key barriers between materials innovation and commercial production. This is the transition point where battery materials stop being a R&D project and become an industrial product."*

Hydrogen-Based Initiatives: Expanding Strategic Optionality Toward Commercialization

During 2025, Novacium SAS continued to advance the development and scale-up of its autonomous hydrogen production platform, METAGENE™, alongside its waste-to-energy technology. This process is designed to convert industrial by-products, such as black dross, into hydrogen and other recoverable value-added outputs.

Leveraging HPQ's exclusive North American license (Canada, the United States, and Mexico) for Novacium's technologies, together with its 28.4% equity interest in Novacium, these initiatives further broaden HPQ's strategic optionality by extending its technology portfolio beyond advanced silicon materials for batteries into clean hydrogen production and circular-economy applications, with a focus on scalability and long-term commercial relevance.

While these initiatives remained at earlier stages of commercialization in 2025, the work completed during the year confirmed both their technical viability and strategic relevance, particularly for decentralized energy systems and industrial hydrogen applications. 2026 is expected to be a year in which the commercial potential of these platforms begins to become more apparent.



“These platforms give HPQ strategic optionality,” said Tourillon. “But optionality only has value when it is pursued with discipline. In 2025, our role was to advance these technologies responsibly, while maintaining a clear focus on executing our primary commercialization priorities.”

Strategic Discipline: Increased Focus on the Commercialization of Novacium Technologies

Novacium SAS is a privately held French technology company founded in 2022. It operates as an engineering and research-and-development company focused on energy-related materials, with activities centered on silicon-based materials and hydrogen systems. Since its formation, Novacium has developed an extensive portfolio of intellectual property relating to its technology platforms.

Novacium is presently advancing the development of the following technology platforms:

- **Silicon-based anode materials** intended for use in lithium-ion batteries, with the objective of improving energy density while remaining compatible with existing industrial manufacturing processes.
- **A hydrogen-generation system** based on a proprietary silicon–aluminum alloy, designed to produce hydrogen on demand without reliance on external power sources. This technology is being evaluated for potential decentralized and mobile applications.
- **A waste-to-energy process** intended to convert industrial by-products, including black dross, into hydrogen and other recoverable materials.

Based on the results to date, Novacium’s activities are now more focused on engineering optimization, and scale-up assessment.

HPQ management’s evaluation of the potential future applications of Novacium’s technologies contributed to the Company’s decision at the start of 2025 to increase its equity interest in Novacium. This investment is part of our strategy to strengthen long-term strategic alignment and increase HPQ’s exposure to battery materials, hydrogen-related technologies, and recycling-oriented processes.

As North American commercialization pathways for certain Novacium technologies became a clearer area of focus during later part of 2025, HPQ and Novacium clarified their exclusive licensing agreement. The amendments were intended to clarify the scope, duration, and key terms governing existing and potential future commercial licenses that may be granted to HPQ or its subsidiaries.

“Our increased investment in Novacium reflects management’s assessment of the technical progress achieved to date and the potential relevance of these technologies within HPQ’s broader strategy,” said Bernard Tourillon, Chairman, President and Chief Executive Officer of HPQ Silicon Inc. *“As Novacium’s programs mature, our focus is on disciplined engineering optimization and evaluating scalable commercialization pathways in North America, while maintaining a prudent and structured approach to execution.”*

Strategic Discipline: Concluding the QRR Program

As part of its year-end strategic review, HPQ determined that the Quartz Reduction Reactor (“QRR”) silicon metal program, while technically successful, was not sufficiently aligned with the Company’s short- and medium-term commercialization objectives. Management concluded that the capital and resources required to continue advancing the QRR program could be more effectively allocated to



initiatives with clearer and faster potential commercialization timelines. As a result, the Company decided to formally conclude development of the QRR program.

This decision reflects a disciplined reassessment of capital allocation priorities, development timelines, and the overall risk–reward profile of the project portfolio.

“The QRR was, and remains, an interesting technology,” said Bernard Tourillon, Chairman, President and Chief Executive Officer of HPQ Silicon Inc. “However, as a development-stage company, we must continuously assess where our capital can be deployed most effectively. The cost and time profile associated with silicon metal production no longer aligned with our objective of accelerating commercialization and progressing toward revenue generation.”

He added:

“Concluding a program is not a failure. In some cases, it is a necessary and responsible decision to ensure focus and execution discipline.”

Positioning for 2026: From Transition to Execution

HPQ exits 2025 with a more focused portfolio, multiple technologies that have progressed through key validation stages, and an increasingly defined operational roadmap. During the year, the Company completed financing activities without excessive dilution and strengthened strategic partnerships.

“2025 was a year of transition toward revenue generating-oriented activities,” Tourillon concluded. “Our efforts during the year were directed toward establishing the conditions required for execution. As we enter 2026, management’s focus is on advancing technologies that have reached appropriate levels of readiness, evaluating commercial scale-up opportunities in response to market interest, and seeking to translate technical progress into sustainable long-term value for our shareholders.”

REFERENCE

- [1] A wholly owned subsidiary of HPQ Silicon Inc., when technology supplier PyroGenesis announced its intention to exercise its option to acquire a 50% stake in HSPI in May 2024.

About HPQ Silicon

[HPQ Silicon Inc.](#) is a Quebec-based TSX Venture Exchange industrial issuer ([TSX-V: HPQ](#)) focused on innovation in advanced materials and critical process development. In partnership with its research and development partner **Novacium**—of which HPQ is a shareholder—the Company is advancing next-generation **silicon-based anode materials** (Gen3) for batteries, commercializing its **ENDURA+ lithium-ion cells**, and developing breakthrough **clean-hydrogen** and **waste-to-energy** technologies, for which HPQ holds exclusive North American rights.

HPQ is also pursuing proprietary technologies to become a low-cost, zero-CO₂ producer of **fumed silica** with technical support from PyroGenesis Inc. Together, these initiatives position HPQ to capture growth opportunities in the energy storage, clean hydrogen, and advanced materials markets essential to achieving global net-zero goals.

For more information, please visit [HPQ Silicon web site](#).



Cautionary Note Regarding Forward-Looking Information

This press release contains forward-looking statements. These statements rely on assumptions about technology performance, market demand, permits, financing, supply chains, and economic conditions but remain subject to significant risks, including delays, regulatory challenges, competition, pricing, financing availability, and macroeconomic uncertainties. Actual outcomes may differ materially from expectations. Detailed risk factors are outlined in HPQ's Annual Information Form available on SEDAR+. Forward-looking information is provided solely to outline management's future expectations and objectives.

A more detailed cautionary note regarding forward-looking information related to the HPQ Fumed Silica Reactor project is available for download [[here](#)], the HPQ Endura+ batteries project is available for download [[here](#)], and METAGENE™ technology is available for download [[here](#)].

Further information regarding the Company is available in the SEDAR+ database (www.sedarplus.ca), and on the Company's website at: <http://www.hpqsilicon.com/>

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