

HPQ Silicon Signs Memorandum of Understanding (MOU) with Company in Northern Germany

- MOU provides the basic framework, required to design, build, and operate a manufacturing facility for advanced silicon-based anode materials for batteries at an industrial park in Northern Germany.
- Explore the potential of deploying the PUREVAP™ QRR technology on-site to manufacture high-purity silicon required as feedstock for advanced silicon-based anode materials, plus leverage the QRR's unique carbon off-gas capture capability to produce green synthetic fuel.

Montreal, Canada, December 10th, 2024 — [HPQ Silicon Inc.](#) (“HPQ” or the “Company”) ([TSX-V: HPQ](#), [OTCQB: HPQFF](#), [FRA: O08](#)), a technology company specializing in the green engineering of silica and silicon-based materials is pleased to inform shareholders that on November 24, 2024, it signed a Memorandum of Understanding (MOU) with a company based in Northern Germany. This company operates an industrial site and has over 50 years of extensive experience in chemical/industrial manufacturing ^[1].

The overall goal of the MOU is to combine HPQ’s innovative advanced silicon-based anode material technology with the German Company’s industrial capabilities, to enable a smooth and efficient manufacturing capacity development.

The specific objectives will focus on:

1. **Production Site and Infrastructure:** The German Company will provide a suitable area within the Industrial Park in Northern Germany.
2. **Technical Due Diligence and Initial project planning phase and timeline setting:** The technical teams from HPQ, Novacium and the German *partner* will make decisions regarding the requirements and facility modifications essential for setting up production.
3. **Engagement of an Engineering, Procurement and Construction (EPC) partner:** The EPC partner will review the technical concept, confirm feasibility, and provide cost and timeline estimates for modifying and equipping the site for silicon-based anode material production.
4. **Operational transition:** The German Company will potentially manage the plant’s operations, if required by HPQ. The EPC partner will handle construction and technical setup, facilitating an efficient transition from design to execution.

Upon completion of all required planning phases, both Parties have agreed to negotiate a *Definitive Agreement* governing the collaboration. This agreement outlines the specific terms, site modifications, financial contributions, and technical and operational roles.

“This MOU represents a significant milestone in our journey to transform silicon-based anode material production,” said Bernard Tourillon, President and CEO of HPQ Silicon Inc. “By combining HPQ’s advanced technologies with the extensive industrial expertise and infrastructure of our German partner, we are laying the foundation for a seamless transition from pilot plant to commercial-scale manufacturing.”

Background on German Company

The German Company, headquartered in Northern Germany, has a rich history of industrial and chemical production dating back to the seventies. The company operates a chemical/industrial site (a lot of open space – all authorized as industrial zone) which is an ideal location for advanced manufacturing projects. Projects such as our advanced silicon-based anode materials for batteries, the PUREVAP™ QRR technology to manufacture high-purity silicon and also Fumed Silica Manufacturing.

With decades of expertise in industrial processes and a strong commitment to quality and environmental responsibility, The German partner provides infrastructure, operational expertise, and site access to support the MOU's goal of establishing a production facility for advanced silicon-based anode materials.

Current European Gigafactory Pipeline Set to Exceed 1.8 TWh ^[2] by 2030

Even with the inherent challenges and completion risks of building new gigafactories ^[3], Europe's rapidly growing demand for battery materials is projected to require between 100,000 and 300,000 tonnes of advanced silicon-based anode materials annually by 2030 ^[4].

This surge in demand is driven by the EU's ambitious decarbonization goals, increasing adoption of electric vehicles, and the strategic push to localize the supply chain for critical battery components. Establishing a production facility for advanced silicon-based anode materials in Germany underlines the MOU's importance, positioning it as a pivotal step in meeting Europe's demand while ensuring regional production and distribution resilience.

"This collaboration leverages our partner's decades of industrial expertise and our access to a fully permitted site, significantly reducing the risks typically associated with scaling from development to production," added Mr. Tourillon. *"As Europe races to meet its growing battery material demands, this partnership positions the Parties to play a pivotal role in securing a reliable, sustainable supply chain for advanced silicon-based anode materials."*

REFERENCE SOURCES

- [1] For competitive reasons, the name of the Northern Germany base Company will remain confidential for the time being.
- [2] Using information from publicly available sources (Battery-news.com and CIC energiGune) Management's calculated the total capacity in GWh for the active and projected by 2030 Gigafactories in Europe.
- [3] From a July 8, 2024, FT.COM article intitled "[Europe's battery industry hit by EV slowdown](#)", that contained information from CRU about the announced and risk adjusted capacity in GWh for the active and projected by 2030 Gigafactories in Europe.
- [4] It takes 1.2 kg of graphite per kWh of battery storage capacity (NOU.t August 2021 Deck, *Graphite 101*, page 7). Based on this, meeting the 1.8 TWh target by 2030 would require approximately 2,160,000 tonnes of graphite. Assuming a 15% substitution of graphite with advanced silicon-based anode materials, this translates to an annual demand of about 300,000 tonnes of silicon-based materials. Furthermore, using the more conservative CRU risk-adjusted target of 0.6 TWh by 2030, approximately 730,000 tonnes of graphite would be required. Assuming a 15% substitution of graphite with advanced



silicon-based anode materials, this translates to an annual demand of about 100,000 tonnes of silicon-based materials.

About HPQ

[HPQ Silicon Inc. \(TSX-V: HPQ\)](#) is a Quebec-based TSX Venture Exchange Tier 1 Industrial Issuer.

HPQ is developing, with the support of world-class technology partners [PyroGenesis Canada Inc.](#) and [NOVACIUM SAS](#), new green processes crucial to make the critical materials needed to reach net zero emissions.

HPQ activities are centred around the following four (4) pillars:

- 1) Becoming a green low-cost (Capex and Opex) manufacturer of Fumed Silica using the **FUMED SILICA REACTOR**, a proprietary technology owned by HPQ Silica Polvere Inc. (HSPI) being developed for HSPI by PyroGenesis.
- 2) Becoming a producer of silicon-based anode materials for battery applications with the assistance of NOVACIUM SAS.
- 3) HPQ SILICON affiliate NOVACIUM SAS is developing a low carbon, chemical base on demand and high-pressure autonomous hydrogen production system.
- 4) Becoming a zero CO₂ low-cost (Capex and Opex) producer of High Purity Silicon (2N+ to 4N) using our **PUREVAP™ "Quartz Reduction Reactors" (QRR)**, a proprietary technology owned by HPQ being developed for HPQ by PyroGenesis.

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

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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 ongoing filings with the security's 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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