# HydroGraph's Graphene Delivers Breakthrough in Polyurethane Coating Durability

**Revolutionizing abrasion resistance, UV stability, and corrosion protection**

TORONTO, April 09, 2025 -- HydroGraph Clean Power Inc. (CSE: HG) (OTCQB: HGRAF) (FRA: M98) ("HydroGraph" or the "Company"), a sustainable commercial manufacturer of pristine graphene, has announced new testing results demonstrating the performance benefits of its Fractal Graphene™ (FGA-1) as an additive in polyurethane (PU) coatings. Conducted at the Graphene Engineering Innovation Centre (GEIC) in Manchester, England, the study validates how HydroGraph's graphene improves mechanical durability, UV resistance, and anti-corrosion properties – key factors in extending the lifespan of protective coatings used in harsh environments.

Industrial coatings, a $93B global market in 2024, face significant challenges, including early degradation due to corrosion, UV exposure, and mechanical wear. These issues lead to costly maintenance cycles, particularly in industries like offshore energy, where recoating platforms every 5-7 years can exceed $5 million per installation. With corrosion-related costs estimated at $2.5 trillion annually, the need for more resilient and sustainable coatings has never been greater.

"By incorporating our Fractal Graphene™ into commercial coatings, we are enabling a step-change in performance," said Kjirstin Breure, CEO, HydroGraph. "These results confirm that even at ultra-low dosages, our graphene improves coatings' durability, reducing maintenance needs and offering a compelling value proposition for industries requiring long-lasting protection."

**Unlocking New Performance Levels**

HydroGraph's graphene was tested in commercial polyurethane topcoats – with graphene loading levels of 0% (control), 0.05%, 0.1%, and 0.5%. The coatings were evaluated across key performance metrics:

- **Abrasion Resistance** – Graphene-enhanced coatings outperformed control samples, with the Sigmadur 550 system (0.5% graphene) surviving 1,000 abrasion cycles without failure.
- **Scratch Resistance** – 0.5% graphene loading improved scratch resistance by 13% in the Sigmadur system.
- **Corrosion Resistance** – Graphene-modified coatings showed reduced micro-blistering, improving long-term protection in corrosive environments.
- **UV Stability** – FGA-1 at 0.1% loading retained 77% of its gloss after 1,000 hours of UVA exposure, compared to 59% for control samples.

These findings highlight HydroGraph's ability to simultaneously enhance multiple protective properties of polyurethane coatings, offering a solution to key industry challenges without compromising environmental compliance.

"The results from this collaboration with HydroGraph are very promising," said James Baker, CEO of Graphene@Manchester. "They demonstrate how the GEIC continues to support the commercialisation of advanced materials like graphene through real-world industrial applications. Improving the performance of protective coatings is just one of many ways graphene can deliver meaningful, sustainable impact across key sectors."

With a scalable, cost-effective, and environmentally friendly production process, HydroGraph is positioned to drive the next wave of innovation in protective coatings.

For more information on HydroGraph and its breakthrough products, visit www.hydrograph.com.

**About Hydrograph Clean Power Inc.**

HydroGraph Clean Power Inc is a leading producer of pristine graphene using an "explosion synthesis" process, which allows for exceptional purity, low energy use and identical batches. The quality, performance and consistency of HydroGraph's graphene follows the Graphene Council's Verified Graphene Producer® standards, of which very few graphene producers are able to meet. For more information or to learn about the HydroGraph story, visit: https://hydrograph.com/.

For company updates, please follow HydroGraph on LinkedIn and X.

**Forward-Looking Statements**

This release contains certain "forward looking statements" and certain "forward-looking information" as defined under applicable Canadian securities laws. Forward-looking statements and information can generally be identified by the use of forward-looking terminology such as "may", "will", "expect", "intend", "estimate", "upon" "anticipate", "believe", "continue", "plans" or similar terminology.

Forward-looking statements and information include, but are not limited to: statements in respect of the Private Placement, the use of the net proceeds from the Private Placement, the timing and ability of the Company to close the Private Placement, if at all, the gross proceeds of the Private Placement, the timing and ability of the Company to obtain all necessary regulatory approvals, if at all, and the terms and jurisdictions of the Private Placement; the statements in regards to existing and future products of the Company; the Company's future personnel appointments; the Company's plans and strategies.

Forward-looking statements and information are based on forecasts of future results, estimates of amounts not yet determinable and assumptions that, while believed by management to be reasonable, are inherently subject to significant business, economic and competitive uncertainties and contingencies. Forward-looking statements and information are subject to various known and unknown risks and uncertainties, many of which are beyond the ability of HydroGraph to control or predict, that may cause HydroGraph's actual results, performance or achievements to be materially different from those expressed or implied thereby, and are developed based on assumptions about such risks, uncertainties and other factors set out herein, including but not limited to: HydroGraph's ability to implement its business strategies; risks associated with general economic conditions; adverse industry events; stakeholder engagement; marketing and transportation costs; loss of markets; volatility of commodity prices; inability to access sufficient capital from internal and external sources, and/or inability to access sufficient capital on favourable terms; industry and government regulation; changes in legislation, income tax and regulatory matters; competition; currency and interest rate fluctuations; and other risks. HydroGraph does not undertake any obligation to update forward-looking information except as required by applicable law. Such forward-looking information represents management's best judgment based on information currently available.

No forward-looking statement can be guaranteed, and actual future results may vary materially. Accordingly, readers are advised not to place undue reliance on forward-looking statements.

**About NEI Corporation**

For over 27 years, NEI Corporation has provided advanced material solutions to customers worldwide. NEI excels in designing, developing, and producing application-specific materials. The company offers a comprehensive range of solutions, including cathode, anode, and electrolyte materials for lithium-ion and sodium-ion batteries, as well as extensive in-house materials development, characterization, and testing services. NEI's materials science expertise facilitates close partnerships and seamless product integration.

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