



HydroGraph Announces Two Patent Application Filings for its Innovative Graphene Application

New patent applications to offer lightweighting and strengthening properties to material composites used in the automotive, marine and aerospace industries

VANCOUVER, British Columbia, Sept. 04, 2024 -- [HydroGraph Clean Power Inc.](#) (CSE: HG) (OTCQB: HGRAF) (FRA: M98) (the “Company” or “HydroGraph”), a sustainable commercial manufacturer of pristine graphene, has announced the filing of two new US patent applications for graphene-coated hollow glass microsphere technology (HGMS).

The first patent covers HGMS coated with pristine graphene whilst the second focuses on HGMS coated with reactive graphene. These two patents represent HydroGraph’s effort to innovate within large scale application areas by offering improvements in both sustainability and performance. As a stand-alone product, HydroGraph’s coated microspheres have already received customer attention and are effectively a drop-in solution for numerous application areas seeking lightweighting or strengthening capabilities.

HydroGraph’s technology can produce two types of graphene coated bubbles, using uncoated hollow glass bubbles, which are industrial commodity material. The finished graphene coated bubbles may be used in composites, such as lightweight electromagnetic interference (EMI) shields and lightweight filler in plastic parts across industries such as automotive, marine and aerospace. Glass bubbles can also be used in the production of lightweight, high-strength concrete. The rising demand and extensive use of this innovative technology have the potential to further increase the demand for glass microspheres, with estimates for the bare glass bubbles approaching \$8 billion annually in 2024¹.

“Our new patent applications demonstrate our dedication to pushing the boundaries of what’s possible with graphene to deliver cutting-edge, customized solutions to meet the evolving needs of our partners,” said [Kjirstin Breure](#), president and interim CEO of HydroGraph. “This innovation opens new possibilities for lightweight, high-strength materials, representing a significant leap in material science.”

The graphene coating converts the white insulating glass bubbles into black, electrically conducting, free-flowing powder. HGMS are mostly made of air and a thin glass spherical shell, so light in weight, they are able to float on water. The size of the glass shell is typically less than 100 microns thick, making HydroGraph’s nanoscale graphene the ideal coating material for preserving HGMS’ low-density feature. HGMS are extremely small in size, so are often mixed with resin to make lightweight composites. Because HGMS are spherical, they can also act as lubricants in flow. Graphene’s integration as a coating on bubbles can be thought of as a support material for graphene nanostructure, potentially useful as an absorption media of contaminants, thus, showing filtration capability. Graphene-coated bubbles are a multifunctional version of the bare HGMS and HydroGraph’s first stand-alone industrial product.

Currently, HydroGraph has 11 patent applications filed in the US and globally with two patents granted for its FGA-1 pristine graphene.

For more information about HydroGraph and how the company is producing sustainable, pristine graphene, 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.

CONTACTS

HydroGraph Investor Relations Contact

Salisha Ilyas, Target IR

salisha@targetir.com

Kjirstin Breure, HydroGraph President and Interim CEO

kjirstin.breure@hydrograph.com

408.267.2556

HydroGraph Media Contact

Raven Carpenter

hydrograph@fox.agency

646.665.1107

¹ [Coherent Market Insights, Microspheres Market Size and Trends, 2024.](#)