

HydroGraph and Gulf Cryo Begin Initial Steps to Bring Pristine Graphene to the Middle East

Initial planning and market assessment phases to focus on composites, plastics, resins, lubricants, cement and concrete applications

VANCOUVER, British Columbia, May 21, 2024 -- [HydroGraph Clean Power Inc.](#) (CSE: HG) (OTCQB: HGCPF) (the “Company” or “HydroGraph”), a commercial manufacturer of pristine graphene, announced today that it has entered into a memo of understanding (MOU) signed May 13th, 2024, with Gulf Cryo LLC (“Gulf Cryo”), a leading provider of industrial, medical and specialty end-to-end gas solutions in the Middle East and Africa (MEA) region, to collaborate in the production, distribution and selling of HydroGraph’s pristine graphene to the Middle East region.

Under the terms of the MOU, HydroGraph and Gulf Cryo will work together to assess the local market, as well as to identify placement and operation of a commercial-scale graphene production unit (Hyperion System™). HydroGraph will contribute technical, operational and application expertise while Gulf Cryo will bring the essential business development and operating resources.

The partnership will cover key markets in the region, among them the United Arab Emirates (U.A.E.), [Bahrain](#), [Kuwait](#), [Oman](#), [Qatar](#), Jordan and Egypt, and it will focus on the areas of lubricants, resins, bottling and concrete, with the planning and market assessment phases expected to last three to five months.

“We made an initial investment in HydroGraph in November 2023 and now are looking forward to extending the relationship to leverage the enormous investment focus in the region on innovative and sustainable technologies such as graphene,” said Amer Huneidi, executive chairman and CEO of Gulf Cryo. “Given that HydroGraph’s graphene uses oxygen and acetylene as raw materials, and there is a broad range of potential graphene applications in this region, this is a unique opportunity to extend our product line into new areas, creating value for our customers and shareholders, while we play our role in supporting the sustainability goals.”

“We are excited to begin this partnership with Gulf Cryo as we see several mutually beneficial opportunities,” said HydroGraph President and Interim CEO Kjirstin Bruere. “In addition to being a leading provider of acetylene to the Middle East and offering the required feedstock to HydroGraph’s high-purity graphene production process, Gulf Cryo has strong operational capabilities and shares many of the same target customers as us. Importantly, they have an established operating footprint within the region with steadfast relationships.”

The initial planning and market assessment phases will focus on:

- **Composites, plastics and resins (including bottling):** HydroGraph’s graphene has been shown to increase the yield strength by over 18% and increase breakage strength by over 100%. This will result in bottles using 20% less plastic, consuming 20% less energy to produce and substantially reduce distribution costs. These are all valuable features for the region’s robust petrochemical industry and growing use of composites, plastics and resins.
- **Lubricants:** HydroGraph’s engineered graphene mixed in with lubricants, both grease and oils, has shown to decrease the coefficient of friction by 70% (lowers resistance between moving parts), reduce wear by 80% and extend the life of the lubricant by over 24 times. The region’s lubricant market will benefit from longer product life (less oil changes, less machinery downtime) with less wearing of mechanical components.
- **Cement and concrete:** Third-party tests confirm that HydroGraph’s graphene improves compressive strength by over 24%. This is a major benefit for the region, which is experiencing significant infrastructure growth. HydroGraph’s graphene also will reduce the amount of aggregate material and water required in concrete and shorten the curing period for both cement and concrete.

About Gulf Cryo

Gulf Cryo is a leading provider of industrial, medical and specialty gas solutions in the MEA. The company manages an end-to-end value chain as it produces, distributes and markets industrial gases, including acetylene, with a focus on innovative sustainable solutions for various industries. Gulf Cryo has a network of acetylene and oxygen production facilities across the region, giving it the ability to supply all of the raw materials and operational requirements for HydroGraph’s production unit. In addition, Gulf Cryo’s technical sales team is experienced in selling value-added applications, with many of its existing customers being high-potential graphene users.

The company’s new partnership with HydroGraph is aligned with its commitment to support the region’s sustainability. Gulf Cryo is known to have pioneered CCUS in the region when it built one of the first carbon capture plants in the region as early as 2014. Today, the company is considered the largest CCUS solution provider for the merchant market in the MEA, serving clean CO₂ to a wide range of industries. Gulf Cryo is also working on deploying its hydrogen in several sustainable

applications, such as clean power and mobility.

For company updates, please follow Gulf Cryo on [LinkedIn](#) and [Instagram](#).

About HydroGraph

HydroGraph Clean Power Inc. was founded in 2017 to fund and commercialize green, cost-effective processes to manufacture pristine graphene and other strategic nanomaterials in bulk. Publicly listed on the Canadian Securities Exchange in December 2021, the Company acquired the exclusive global license from Kansas State University to produce both graphene and hydrogen through its patented detonation process. More information about the Company and its products can be found on the HydroGraph website: www.hydrograph.com.

For company updates, please follow HydroGraph on [LinkedIn](#) and [X](#).

The Canadian Securities Exchange has not reviewed and does not accept responsibility for the adequacy or accuracy of the content of this news release.

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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.