Zentek Provides Corporate Update

written by Raj Shah | October 4, 2023

October 4, 2023 (Source) – **Zentek Ltd.** ("Zentek" or the "Company") (NASDAQ:ZTEK)(TSXV:ZEN), a graphene technology development and commercialization company is pleased to provide a corporate update and recap of its ZenGUARD™ commercialization efforts and other aspects of its operations over the past several months.

"Zentek has made significant strides on our ZenGUARD™ platform over the last number of months as we continue to push toward successful commercialization. The top priority is ZenGUARD™, and while the Pest Management Regulatory Agency in Canada reviews our ZenGUARD™-coated HVAC filter product submission, the team is focused on targeting potential customers, distributors and manufacturers in the HVAC space, while also ensuring all internal processes are optimized for a successful product launch" commented Greg Fenton, CEO of Zentek. "I'm incredibly proud of all the work our team has done to establish a foundation on which we believe we can capitalize on our patented and compelling ZenGUARD™ value proposition. Sustainable, growing revenue generation is our focus, and the entire organization is committed to making this a reality."

ZenGUARD™

Patent

ZenGUARD™ received full patent status in Canada and applications have been made in 47 countries as Zentek prepares for possible expansion into other markets. The patent provides protection until 2041. The Company believes this will give its products –

and the products of its partners – a competitive advantage in numerous countries around the world.

New Product Development Framework

Over the past year Zentek has established a formal new product development framework to guide evaluation, design, and development of products for commercialization. The process follows an industry-accepted, phase-gate approach that is crucial in supporting the successful development and commercialization of new products. The time and effort required to bring a new product to market like ZenGUARD™-enhanced HVAC filters is substantial, and this framework ensures that the Company's efforts are focused on activities that fully validate a differentiated and compelling value proposition like our simple and effective solution to improve indoor air quality. The Company believes this framework will be a cornerstone of driving maximum long-term value not just from ZenGUARD™ products, but potentially from its other technologies as well.

Innovative Solutions Canada ("ISC") Testing Stream Contract

The Company successfully completed Phase 2 HVAC filter testing with the National Research Council of Canada (NRC) in a unique bioaerosol facility simulating a real-world classroom environment. This testing in a purpose-built facility, and the ZenGUARD™ results, are helping reshape the narrative around HVAC filters to prioritize viral filtration efficiency (VFE) and people's health in addition to particle filtration efficiency. Through this project, Zentek is eligible to apply to ISC's new Pathway to Commercialization pilot program, which gives successful Canadian small and medium-sized enterprises like Zentek the exclusive opportunity to sell their innovation directly to the Government of Canada through Public Services Procurement Canada.

ZenGUARD™ HVAC Filter Dust Loading Testing

Building on its robust testing data from the NRC, the Company completed a study with LMS Technologies Inc. (LMS) comparing the VFE of its ZenGUARD™-enhanced Minimum Efficiency Reporting Value (MERV) 9 filters to an uncoated MERV 9 filter. The study found that ZenGUARD™-enhanced filters achieved an average increase in VFE of 56% compared to uncoated filters over 6 months under typical dust loading conditions. Until this point, the impact of dust on the effectiveness of ZenGUARD™ was one of the main unknown variables requiring clarity for industry and user groups interested in potentially adopting the technology.

ParticleOne ZenGUARD™ HVAC Return on Investment Study

Leveraging its third-party test results from the NRC and LMS, Zentek engaged an independent consultant, ParticleOne, to assess the performance of Zentek's ZenGUARD™-enhanced filter technology compared to a standard MERV 9 filter. An evaluation of the filters' effectiveness in removing infectious particles from the air was used to determine the potential return on investment of enhanced viral filtration using ZenGUARD™ technology. The analysis indicated that using a ZenGUARD™-enhanced MERV 9 filter resulted in a substantial reduction in annual absenteeism costs ($15,016.95) compared to a regular MERV 9 filter in an office space of 10,000 square feet with 75 occupants.

Targeting Customers, Manufacturers and Distributors

While all required testing of its ZenGUARD™ HVAC platform is conducted, Zentek has initiated marketing of its patented technology to both government and corporate potential clients, including attending trade shows to develop relationships with potential manufacturers, distributors, and clients within the HVAC industry.

Guelph Operations

The production facility for ZenGUARD™ in Guelph, Ontario has completed all commissioning work for both the ZenGUARD™ production line and the coating line to apply ZenGUARD™ on both HVAC and surgical mask material. The facility is fully licensed including ECA, OHSA and TSSA certification. The production team has been training for scaling up production and will continue to incorporate best practices to minimize downtime and optimize production levels.

ZenGUARD™ Surgical Masks Distribution

As disclosed in its press release dated January 19, 2023, Zentek entered into a Distribution Agreement with Southmedic Inc. for the distribution of Zentek's patented ZenGUARD™ surgical masks for Canadian hospitals, general practitioners, private surgery centers, long-term care facilities, and nursing homes. Southmedic is a prominent distributor of medical devices in Canada and has a presence in over 80 countries globally. While the Canadian market has been dealing with an oversupply of surgical masks recently, the Company believes this is a meaningful step toward securing volumes in a market segment with stable demand for surgical masks long term.

In addition, as disclosed in its press release dated August 24, 2023, the Company entered into a Distribution and Supply Agreement with Henry Schein, Inc. for the distribution of ZenGUARD™ surgical masks in Canada and the United States. Henry Schein is a global leader in healthcare solutions for dental and medical practitioners and will market and distribute the ZenGUARD™ surgical masks to dental practices in Canada. Zentek recently delivered its first surgical mask order to Henry Schein for their Canadian clients in the dental industry. Similar to hospitals, long-term care and general medical practitioners, the

Company believes the dental industry is a market segment with stable demand for surgical masks long term. As part of the product launch with Henry Schein, ZenGUARD™ surgical masks will be featured on the cover of Henry Schein's October product catalogue to create awareness of availability across Canada. Subject to receipt of FDA approval, Henry Schein would also be able to market ZenGUARD™ surgical masks to their US clients.

ZenGUARD™ Surgical Masks Quality Management System ("QMS")

Zentek, achieved the ISO 13485:2016 QMS certification standard, granted by the British Standards Institution. Alongside this, Zentek also received the Medical Device Single Audit Program ("MDSAP") certificate # 777967. These certifications affirm Zentek's commitment to maintaining a robust QMS, ensuring the safety, reliability, and quality of its products. The ISO 13485:2016 is an internationally recognized standard for the medical device industry, supporting the quality of medical device design, development, and production. The MDSAP is recognized by Canada, the U.S., Japan, Australia, and Brazil.

ZenARMOR™ Corrosion Platform

Zentek has prepared and shipped the first corrosion paint samples to the NRC for the first round of testing as part of the ISC – Testing Stream – Military Call for Proposals. NRC's Aerospace Research Centre's Aerospace Manufacturing Technologies Centre will be testing Zentek's nanopigment in military grade chromate-free paints for evaluation in its first of three rounds of testing. ZenARMOR™ has the potential to provide a corrosion protection solution that is environmentally friendly and uses up to 99% less corrosion additives by weight compared to other corrosion protection paints.

ZenARMOR™ is a patent-pending technology and a Patent Cooperation Treaty ("PCT") application was filed on June 13,

2023. The publication of the PCT application is expected in December 2023.

Zentek's Icephobic Technology

Zentek, in collaboration with Pattern Energy Group LP has begun work with the Anti-Icing Materials International Laboratory to utilize its graphene-based silicone icephobic technology for the wind turbine industry. Ice accumulation on wind turbines remains a significant challenge for the industry leading to reduced efficiency and health and safety risk. Solving this issue would lead to increased green energy creation and safer operating conditions.

The Company also continues to develop its strategy to bring this technology to the drone market as this coating has demonstrated an ability to maintain thrust and hence flight in icing conditions.

Zentek has been advised that a positive opinion of patentability on its icephobic technology is expected with the International Preliminary Report on Patentability and is evaluating in which markets it will seek to protect this innovation.

Zentek's Fire-Retardant (Intumescent) Technology

The Company has received a positive opinion on patentability for its fire-retardant paint technology. The PCT application published on September 28, 2023, and the Company is currently evaluating options to move this technology forward following this positive opinion on patentability.

Albany Graphite Project

As disclosed in its press release dated May 23, 2023, the Company's Albany Graphite Project was transferred to its wholly-owned subsidiary Albany Graphite Corp. The Albany Graphite

deposit is a rare hydrothermal graphite deposit and, due to its unique formation, exhibits high thermal stability and corrosion resistance as per Ballard Power's testing as reported in the Company's August 12, 2015, press release.

As disclosed in its press release dated July 26, 2023, Zentek reported an updated mineral resource estimate for the Albany Graphite Project, prepared by SLR Consulting (Canada) Ltd ("SLR"). SLR estimated Indicated Mineral Resources to total 22.9 million tonnes ("Mt") at an average grade of 4.1% graphitic carbon ("Cg"), containing 933,000 tonnes of Cg. In addition, Inferred Mineral Resources were estimated to total 13.1 Mt at an average grade of 2.9% Cg, containing 375,000 tonnes of Cg. The report (the "Technical Report") entitled "Technical Report on the Albany Graphite Project, Ontario, Canada, Report for NI 43-101" dated July 31, 2023, was filed to SEDAR+ on September 1, 2023.

Zentek has also engaged Green Graphite Technologies (GGT) to assess the Albany graphite material with its patented process GraphPure™, a low-cost, modular, environmentally friendly technology to purify natural graphite. In an initial scouting study, this process was able to upgrade an 86% flotation concentrate of Albany graphite to over 99.9% purity. The company will continue to work with GGT to optimize this process and produce spheronized, coated anode material for cycle testing in Lithium-Ion Batteries. GGT's GraphPure™ process is environmentally sustainable with in-situ reagent regeneration, no liquid effluent, minimal solid waste, and the potential for zero carbon footprint.

Any scientific and technical content of this news release was reviewed, verified, and approved by Peter Wood, P.Eng., P.Geo., Vice President, Development of Albany Graphite Corp., and a Qualified Person as defined by Canadian Securities

Administrators National Instrument 43-101 – *Standards of Disclosure for Mineral Projects*.

About Zentek Ltd.

Zentek is an ISO 13485:2016 certified intellectual property technology company focused on the research, development and commercialization of novel products seeking to give the Company's commercial partners a competitive advantage by making their products better, safer, and greener.

Zentek's patented technology platform ZenGUARD™, is shown to have 99% antimicrobial activity and to significantly increase the bacterial and viral filtration efficiency of both surgical masks and HVAC (heating, ventilation, and air conditioning) systems. Zentek's ZenGUARD™ production facility is in Guelph, Ontario. Zentek's patent pending ZenARMOR™ technology platform is focused on corrosion protection applications.

Zentek also has a global exclusive license to the Aptamer-based platform technology developed by McMaster University which is being jointly developed by Zentek and McMaster for both the diagnostic and therapeutic markets.

For further information:

Investorrelations@zentek.com

Francis Dube
Tel: (289) 821-2820
Email: fdube@zentek.com

To find out more about Zentek, please visit our website at www.Zentek.com. A copy of this news release and all material documents in respect of the Company may be obtained on Zentek's SEDAR+ profile at http://www.sedarplus.ca/.

Forward-Looking Statements

This news release contains forward-looking statements. Since forward-looking statements address future events and conditions, by their very nature they involve inherent risks and uncertainties. Although Zentek believes that the assumptions and factors used in preparing the forward-looking information in this news release are reasonable, undue reliance should not be placed on such information, which only applies as of the date of this news release, and no assurance can be given that such events will occur in the disclosed time frames or at all. Zentek disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, other than as required by law.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

SOURCE: Zentek Ltd.