Zentek Completes Case Study on HVAC Total Cost of Ownership Savings for the City of Toronto

written by Raj Shah | May 7, 2024

May 07, 2024 (Source) – **Zentek Ltd.** (“ **Zentek** ” or the “ **Company** “) (NASDAQ:ZTEK)(TSXV:ZEN), an intellectual property development and commercialization company is pleased to announce that it has completed a case study based on the City of Toronto highlighting the economic and environmental benefits related to using MERV 9A filters compared to using MERV 13 filters. The study quantifies cost savings and reductions in carbon emission and waste assuming the City of Toronto is currently using MERV 13 filters in all its buildings and switches to MERV 9A filters.

Key Findings

- Annual cost savings of over $40 million from:
  - Significantly reduced labour costs due to filters being changed every six months rather than every three months
  - Reduced expenditures on air filters from replacing filters every six months rather than every three months
  - Reduced energy requirements and costs due to improved air flow
  - Lower waste disposal costs from fewer filters being used

- Reduced energy requirements and associated carbon

emissions of 3,029 tonnes of CO_2 equivalent – an amount that takes 49,976 newly planted tree seedlings growing for 10 years to absorb [1]
- Reduced landfill waste by ~947 full dumpsters

“Keeping people safe indoors while also being mindful of building decarbonization is incredibly important and presents a unique challenge to property managers. To help address this we need simple, scalable, carbon-conscious solutions that can control infectious aerosols and keep people safe,” remarked Greg Fenton, CEO of Zentek. “Our aim is to help control infectious aerosols within existing HVAC systems without significantly increasing energy consumption and emissions. We believe our latest study does an excellent job of highlighting the potential benefits of using MERV 9A filters compared to MERV 13 filters for Canada’s largest city.”

ZenGUARD ™ Overview

Zentekaims to provide property managers with the ability to use a MERV 9A filter instead of a MERV 13 filter in HVAC systems to keep patrons safe from pathogens, with the additional benefit of reducing costs, waste, and emissions.

Case Study Assumptions

- City of Toronto has 102,257,149 square feet of building space [2]
- Energy calculations are from previously referenced in-house models using third-party validated data [3] , [4]
- CO_2 measured in terms of 10,000 square foot spaces and extrapolated to total square footage
- Any emissions data was calculated in accordance with EPA guidance [5]
- Waste savings measured using the volume of a standard

four-yard dumpster
- Filter size of 24″x24″x2″ used in all buildings
- One filter per 2,000 square feet of building space

The ZenGUARD™ Enhanced Air Filter product is currently being assessed for registration under the *Pest Control Products Act* (Canada).

It cannot be manufactured, imported, distributed, or used in Canada at this time, unless explicit authorization has been obtained from Health Canada to use this product for the purpose of conducting research under the Pest Control Products Regulations.

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-per-cent anti-microbial activity and to significantly increase the viral filtration efficiency for surgical masks and aims to do the same for HVAC (heating, ventilation, and air conditioning) filters. Zentek's ZenGUARD™ production facility is in Guelph, Ontario.

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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.

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[1] https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results

[2] https://www.toronto.ca/services-payments/water-environment/environmentally-friendly-city-initiatives/greening-city-operations/green-city-buildings/

[3] https://www.zentek.com/news/zentek-completes-study-quantifying-energy-and-emission-savings-of-zenguardtm-enhanced-hvac-filters/

[4] https://www.zentek.com/news/zenteks-zenguard-enhanced-filter

s-demonstrate-robust-return-on-investment-in-particleone-study/

[5] https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results

SOURCE: Zentek Ltd.