

Exshaw, AB January 11, 2018

LAFARGE HOSTS MAJOR LOWER CARBON FUELS RESEARCH PROJECT WITH ACADEMIC AND NGO PARTNERS

Lafarge Canada Inc. and its partners -- University of Calgary, Queen's University, and Pembina Institute -- are conducting a million-dollar study on the environmental benefits of introducing lower carbon fuels at its Exshaw Cement Plant. Building from previous research, this multi-partner, multi-site lower carbon fuels project is the most significant of its kind in Canada.

"Our estimates show each 20 percent incremental replacement of natural gas at the Exshaw Cement Plant with lower carbon fuels could result in the elimination of nearly 75,000 tonnes per year of CO₂. This is the equivalent of taking over 16,000 cars off the road annually. While these are preliminary estimates, this research project will assess these figures precisely and in the local context," said Rob Cumming, Environmental Director, Lafarge.

Eight lower carbon fuels will be researched, including construction renovation/demolition waste, non-recyclable plastic, carpets and textiles, shingles, treated wood products, wood products, rubber and tire derived fuels. These sources of fuel have been successfully used at other Lafarge cement plants in Canada and around the world.

Air quality and traffic impact studies predict minimal changes with introducing lower carbon fuels at the Exshaw Cement Plant. Additional research by the partners will measure the environmental components associated with the sourcing, processing and full-scale commercial operation of each lower carbon fuel compared to fossil fuels. The project will also measure the benefits of diverting materials from landfills and determine optimal points in the cement manufacturing process to inject each fuel.

"Lab simulations, environmental studies, economics and logistics reviews are already underway. All research will be finalized by December 2019 with regular updates provided to the neighbouring communities via a Public Advisory Committee," comments Jim Bachmann, Exshaw Plant Manager.

In addition to Lafarge's support, research funding is being provided by Alberta Innovates, Ontario Centres of Excellence (OCE), Emissions Reduction Alberta (ERA), and the Natural Sciences and Engineering Research Council of Canada (NSERC). It includes research by Millennium EMS Solutions Ltd., Geocycle, and WSP Global Inc.

In alignment with LafargeHolcim's 2030 Sustainability Plan, Lafarge aims to replace 30 to 50 per cent of fossil fuel use at its Canadian cement plants with lower carbon fuels by 2020.



Partner quotes:

“This project is an important step forward in understanding the opportunities for reducing GHG emissions at cement plants in Alberta and across Canada. The partnership between industry, two provinces, and the federal government represents an example of the collaborative efforts required to advance low-carbon innovation.”

Steve MacDonald,
CEO, Emissions Reductions Alberta
Contact: csollows@eralberta.ca

“NSERC is proud to support this Collaborative Research and Development award that connects Canada’s brain trust and companies like Lafarge Canada to develop innovative solutions to decrease Canada’s carbon footprint in the cement industry by exploring new fuel pathways. This collaboration will be a major contributor to reducing greenhouse gas emissions, providing significant environmental and economic benefits to Canada.”

Bert van den Berg,
Acting Vice-President, Research Partnerships, NSERC
Contact: Rhiannon.Renaud@NSERC-CRSNG.GC.CA

“This project is a great example of collaboration. It leverages research, funding support and industry expertise that will help Alberta and Canada develop new lower carbon opportunities for products that currently form the backbone of our economy. We all have a responsibility to play a part and we’ll be better if we work together.”

Rollie Dykstra,
Vice President, Investments, Alberta Innovates
Contact: kevin.duncan@albertainnovates.ca

“Achieving Canada’s commitments under the Paris Agreement requires all parts of the economy to cut their emissions. With the cement industry contributing nearly five per cent of global greenhouse gas emissions, it’s encouraging to see Lafarge proactively seeking to reduce their emissions. Using lower carbon fuels in cement manufacturing is a great way to quickly achieve meaningful reductions.”

Ben Israel,
Analyst, Pembina Institute
Contact: suzyt@pembina.org

“For Ontario, this investment will lead to job growth in the fuel supply sector, training of highly qualified personnel within Queen’s University and will maintain a competitive advantage for Ontario in the implementation and operation of lower carbon fuel plants. Ontario is a part of a global cleantech innovation ecosystem, and at OCE one of our goals is assisting researchers and their partners as they work to solve challenges related to climate change and developing breakthrough technologies that can reduce greenhouse gas emissions.”

Dr. Tom Corr,
President and CEO, Ontario Centres for Excellence
Contact: Andrew.robertson@oce-ontario.org



"Lowering carbon emissions is important for both Ontario and the world's future sustainability, and this collaborative research effort is a major step towards that goal. Our government is proud to support it through the Ontario Centres of Excellence and I look forward to seeing the results of this initiative."

Reza Moridi,
Minister of Research, Innovation and Science, Government of Ontario
Contact: Andrew.robertson@oce-ontario.org

"Our Queen's research team is excited to collaborate with our colleagues from the University of Calgary in expanding ongoing research to a new cement kiln technology and at significantly higher fossil fuel replacement rate than in previous tests. The potential benefits to the Canadian greenhouse gas emissions reduction are immense, reducing carbon emissions by over 1 million tonnes per year if the entire industry adopts the use of lower carbon fuels."

Darko Matovic,
Professor at Mechanical and Materials Department, Queen's University

"Alberta faces a big challenge in transforming to a low carbon economy. My team and I, along with our colleagues from Queen's University, see this project as an important step in moving cement manufacturing and other thermal industries to lower carbon operations. This project will also enable us to place lower carbon fuel use into a Province-wide context to yield, ultimately, greater economy-wide benefits."

Joule Bergerson,
Assistant Professor, Department of Chemical and Petroleum Engineering, University of Calgary
Contact: (michael.platt@ucalgary.ca; smcginni@ucalgary.ca)

ABOUT LAFARGE CANADA INC.

Lafarge is Canada's largest provider of diversified construction materials and a member of the global group, LafargeHolcim. With 6,000 employees and 400 sites across Canada, our mission is to provide construction solutions that build better cities and communities. The cities where Canadians live, work, and raise their families along with the community's infrastructure benefit from the solutions provided by Lafarge consisting of aggregates, asphalt and paving, cement, precast concrete, ready-mix concrete and road construction.

Through LafargeHolcim's 2030 Plan, Lafarge is committed to providing solutions using sustainable manufacturing practices and improving the environment in and around its operations. The company has a sixty year history in Canada and works continually to reduce carbon dioxide emissions, restore wetlands for native plants and animals, and identify waste materials that can be recycled and used in our operations.

For more information: www.lafarge.ca

CONTACT

Jennifer Lewis
Director, Communications
Lafarge Canada Inc.
403-723-7151 or jennifer.lewis@lafargeholcim.com