

March 15, 2010

Liquid CO₂ highway to keep GHGs out of atmosphere

Edmonton... A new Alberta research project will explore ways to lessen industry's impact on the environment by compressing captured CO₂ into a liquid, pumping it through a pipeline to efficiently transport materials over large distances, and then storing it underground.

The Alberta government is investing \$1 million of its portion of the federal ecoTrust fund into the CO₂ Slurry Pipeline Project, a research project being led by Enbridge Inc.

"Innovation and technology are keys to improving environmental outcomes and to Alberta's overall success in a global marketplace," said Environment Minister Rob Renner. "As we move to increase our province's competitiveness, projects such as this will also help create investor confidence in Alberta's clean energy future."

The proposed CO₂ Slurry Pipeline Project would transport sulphur, petroleum coke and limestone from the Fort McMurray area to local and international markets. After having served its purpose as a slurry agent, the CO₂ would then be stored underground in a manner similar to carbon capture and storage projects. Provincial funding will go toward Phase 1 of the project, which will involve demonstrating proof of concept and technical viability of building a long-distance CO₂ slurry pipeline.

"A slurry pipeline would benefit the environment in that CO₂ that would otherwise be emitted into the atmosphere will be used to transport goods," said Jim Schultz, Enbridge's Senior Vice President, Green Energy. "In that it would be performing useful work; it would also have the potential to offset some of the costs associated with carbon capture and storage initiatives."

The Canadian government established the Canada ecoTrust for Clean Air and Climate Change in 2007 by distributing \$1.5 billion among all the provinces and territories to assist with clean air and climate change initiatives. Alberta's share of the ecoTrust is \$155.9 million. To date, \$53.45 million has been invested into clean energy research and waste-to-energy projects.

For more information on Alberta's Climate Change Strategy, visit www.environment.alberta.ca.

-30-

Backgrounder: Project details

Media inquiries may be directed to:

Chris Bourdeau
Communications, Alberta Environment

Paula Leslie
Enbridge Inc.

780-427-6267

chris.bourdeau@gov.ab.ca

To call toll-free within Alberta dial 310-0000.

403-508-6563 or toll-free 888-992-0997

Paula.leslie@enbridge.com

March 15, 2010

CO2 Slurry Pipeline Project

A slurry pipeline uses flowing liquid (typically water) to carry entrained solids in a pipeline. The CO2 Slurry Pipeline Project proposes using CO2 instead of water. CO2 at pressure in a pipeline flows as a liquid and is a more efficient carrier fluid than water because it:

- Is less abrasive than water (pipelines can last two to three times longer);
- Can carry a greater volume of material than water; and
- Is cheaper to de-slurry (solids are delivered dry rather than wet).

Phase 1 will consist of the CO2 Slurry Pipeline Research Initiative. This phase will cost between \$1-2 million and take approximately two years. Phase 2 will involve building a CO2 flow loop of sufficient scale to prove slurry and de-slurry capability. The costs and specific timelines for this phase will be determined during Phase 1, and will take approximately three years. Phase 3 will involve commercial operation and market integration.

The pipeline would likely start at Fort McMurray and run to railheads, and to the various markets for sulphur, petroleum coke and limestone. Because the current transportation infrastructure capacity is limited, these products have been stockpiled at their source.

The project is guided by a consortium of organizations with key representatives from industry including: Enbridge (Project Leader), Air Liquide Canada Inc., BP Canada Energy Company, Cimarron Engineering Ltd., EPRI (Electrical Power Research Institute), GE Infrastructure, Hatch Ltd., HTC Pureenergy Inc., Invensys Systems Canada Inc., Snamprogetti Canada Inc., SNC-Lavalin Inc., Stantec Consulting Ltd., Syncrude Canada Ltd., Techint Engineering and Construction, and WorleyParsons Canada Services Ltd.

ecoTrust Program

This is the fourth ecoTrust project announced by the Alberta government. In December 2009, \$25 million was directed to a unique international partnership between the University of Alberta and the Helmholtz Association of German Research Centres to drive innovation towards cleaner energy production, with particular focus on the province's oil sands.

In October 2009, the City of Edmonton was awarded \$7.45 million for a renewable energy project that will transfer residual energy from a biofuels facility to heat a neighborhood in Strathcona County. Also in October 2009, the Otoka Energy Corporation received \$20 million to develop a first-of-its-kind waste-to-energy production facility in the Town of Drayton Valley. The project will turn waste from the forestry sector into sellable electricity.

-30-

Media inquiries may be directed to:

Chris Bourdeau
Communications, Alberta Environment
780-427-6267

chris.bourdeau@gov.ab.ca

To call toll-free within Alberta dial 310-0000.

Paula Leslie
Enbridge Inc.
403-508-6563 or toll-free 888-992-0997
Paula.leslie@enbridge.com

[Send us your comments or questions](#)

Copyright(©) 2010 Government of Alberta

