



Post-Combustion Capture – Chilled Ammonia / Clean Coal

Project Leader:

TransAlta Corporation

Project Title:

Pioneer Project

CO₂ Source:

**Coal-fired electricity
power plant**

CO₂ Storage Type:

**Enhanced Oil Recovery
(EOR) and sequestration in
saline aquifer**

Location:

**Wabamun Lake area plant,
located west of Edmonton,
Alberta**

Project Description

Pioneer is a large-scale carbon capture and storage (CCS) project proposed for one of the company's Wabamun Lake area plants. TransAlta is proposing to construct one of the world's first large-scale CCS facilities that will perform several functions: integrate leading-edge, post-combustion, chilled ammonia capture technology with a power plant to capture one Mt per year of CO₂; transport the CO₂ for use in enhanced oil recovery and to a permanent geological storage site; demonstrate safe, secure, large-scale permanent storage in saline aquifers; and deliver significant reductions in CO₂ emissions by 2012.

Expected Outcomes

TransAlta will construct the world's first large-scale CCS facility that will integrate a competitive, leading-edge capture technology with a power plant to capture 1 Mt per year of CO₂; transport CO₂ to a permanent geological storage site and for use in enhanced oil recovery; prove out safe, secure, large-scale permanent storage in saline aquifers; and deliver significant, real reductions in CO₂ emissions by 2012.

Company Profile

TransAlta is a power generation and wholesale marketing company. The company generates electricity — fueled by coal, natural gas, water, geothermal energy and wind — and sells it to wholesale customers in various regions of Canada, the U.S. and Australia. TransAlta has been in the power business for almost 100 years. Total output from more than 50 power plants is more than 8,000 MW, enough to power 7 million homes.

Project Web Sites

www.transalta.com

www.projectpioneer.ca



Aussi disponible en français sous le titre :
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