

Anthropogenic CO₂ Sources in the Williston Basin

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The future of coal as an energy source is an important issue for SaskPower, its customers, employees, contractors and the oil and gas industry. The Boundary Dam 3 ICCS Demonstration project is a \$1.2 billion government-industry partnership between the Government of Canada, Government of Saskatchewan, SaskPower and private industry. This project intends to fully integrate and retrofit an aging coal-fired generation unit with a carbon capture and an enhanced oil recovery operation, resulting in low-emission electricity and carbon dioxide (CO₂) for oil extraction. This leading-edge project will determine the technical, economic and environmental performance of clean coal/carbon capture and storage technology. Boundary Dam is located in the southeast corner of Saskatchewan, and could deliver CO₂ to reservoirs within a 150 km radius of the plant.

Boundary Dam Integrated Carbon Capture and Sequestration (BD ICCS) project:

- *The BD ICCS will fully integrate power generation with the best currently available carbon capture system—first of its kind anywhere.*
- *SaskPower will spend approximately \$350 Million to reconfigure and rebuild Boundary Dam unit 3 to support the integrated carbon capture system by 2013.*
- *The carbon capture system is projected to be in service by early 2014 supporting regional enhanced oil recovery operations.*
- *The carbon capture system is rated for one million tonnes per year of CO₂ production.*

Carbon Capture Test Facility:

- *Intended to reduce costs for future large-scale carbon capture projects.*
- *Proposed facility would evaluate a range of post-combustion capture processes and facilitate commercial transactions around technologies.*
- *Planned to host pilot work for emerging technologies that may lead to second generation clean coal.*

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Michael Monea was appointed vice-president of the Integrated Carbon Capture and Sequestration Projects in October 2008. Prior to his role with SaskPower, Monea was senior vice-president with Canada Capital Energy Corporation. He served as Executive Director of the Petroleum Technology Research Centre at the University of Regina and has held a number of other Executive and technical positions in the oil and gas sector. In 2008 he was appointed into the Society of Petroleum Engineers Distinguished Lecture program as an expert in CO₂ storage. Monea holds professional engineer and geoscientist designations and received a Bachelor of Science from the University of Regina. He serves as a board member with the Petroleum Technology Research Centre and is chair of both the South Saskatchewan Geological Resources Advisory Committee and Saskatchewan Conservation Board.