



Demonstrating Carbon Capture and Storage in Canada

Last year in Hokkaido, Japan, G8 leaders committed to supporting an objective to launch 20 large-scale carbon capture and storage (CCS) demonstrations globally by 2010. This action was identified as a crucial element for the world to address the climate change challenge. Canada will host G8 nations during their 2010 meeting when this commitment is due, and we are doing our part to achieve this objective.

Moving ahead with implementing CCS on a worldwide basis is essential. It is now crucial that CCS technology be demonstrated. According to the International Energy Agency (IEA), CCS is “the only technology available to mitigate GHG emissions from large-scale fossil fuel use.” The IEA suggests that CCS could account for 14–19 percent of the total GHG reductions needed by 2050.

As pointed out by the IEA and other organizations, significant work has already been done on CCS research, policy and regulatory support, and much needs to be done in all of these areas during the coming years. What is crucial now, however, is that CCS technology be demonstrated in large-scale and integrated operations. These demonstrations are now the most important milestone in the development of this technology as a viable climate change mitigation measure.

Canada, with its world-class geological storage potential for CO₂, is doing its part to contribute to the G8 commitment, and we have been doing so since the beginning of the CCS concept. The Weyburn-Midale project in Saskatchewan — one of the first large-scale efforts in the world — was launched in 2000. This project involves capturing CO₂ emissions in North Dakota, transporting the CO₂ across the Canada–US border and delivering it for enhanced oil recovery operations. This site also serves as the location for the IEA Weyburn-Midale CO₂ Monitoring and Storage Project. As a founding member of this initiative, Canada, and its many private and public sector partners, is contributing to one of the largest international CO₂ measuring, monitoring and verification projects in the world.



In addition to their contributions to the IEA Weyburn-Midale CO₂ Monitoring and Storage Project, Canadian governments have committed more than \$3 billion (CDN) to CCS initiatives over the last two years, which could lead to five to seven large-scale demonstration projects in Canada. This funding is provided through a number of federal and provincial programs, such as the Government of Canada's recently created Clean Energy Fund, which will provide \$1 billion (CDN) over five years for clean energy research and demonstration projects, including CCS.

Canada's ecoENERGY Technology Initiative provides funding for nine CCS projects that will demonstrate how CCS can reduce emissions associated with fertilizer production, gas processing, coal-fired electricity generation and eventually oil sands operations. The Government of Canada also made a \$240-million (CDN) investment in a CCS demonstration at Boundary Dam in Saskatchewan. This project is one of the world's first and largest full-scale CCS demonstrations at a coal-fired electricity plant. Additional information about Canada's CCS demonstration projects is provided in this kit folder.

Canada's provincial governments have also made important investments in CCS demonstrations. In 2008, the Government of Alberta announced a \$2-billion (CDN) program to fund large-scale CCS demonstrations. The Governments of Saskatchewan and British Columbia have also provided funding for projects at Boundary Dam and Fort Nelson, respectively.

In the coming years, G8 leadership will be critical to fostering the widespread implementation of large-scale CCS demonstrations around the globe. In particular, the G8 nations' 2010 commitment will support the emergence of essential knowledge that will enable all of us to reduce GHG emissions on a global scale and facilitate a transition to low-carbon economies. Canada looks forward to 2010, when we will be able to showcase our significant contributions to achieving this important objective. For our part, we aim to be ready.

Canada's Geological Storage Potential

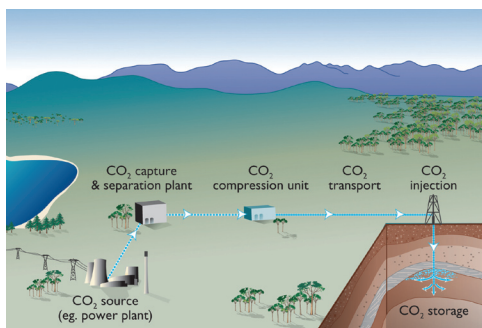


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