

Opinion

Alberta CCS Development Council Got it Right

By Eric Beynon

The Alberta Carbon Capture and Storage Development Council's recently-released report has set the stage for action in developing carbon capture and storage in Alberta.

Initiated in April 2008 in support of Alberta's Climate Change Action Plan, the Council's mandate was to determine a blueprint for implementing carbon capture and storage (CCS) to significantly reduce greenhouse gas emissions (GHG) from industrial sources and locking them safely and permanently underground in deep rock formations. The report looks at a number of actions and steps to implementing an integrated CCS system that encourages industry and government financial investment in its critical initial development phase.

CCS can form a significant part of an integrated and sustainable energy strategy by focusing on technology and investment in Canada. It can play a major role in reducing the environmental footprint of both the oil sands industry and electrical generation plants powered by fossil fuels. The Intergovernmental Panel on Climate Change has determined that CCS technology can reduce the world's large-scale greenhouse gas emissions created by electricity generation and industrial activity by 55 per cent in this century.

Alberta's climate change action plan aims to cut projected GHG emissions in half by 2050. CCS can play a significant role in helping Alberta meet its GHG emission targets while contributing substantially to the achievement of Canada's targets. CCS is also high on the agenda in the United States.

Carbon capture and storage has the potential to create some economic value as well. In addition to providing a revenue source to reduce the cost of capture, the development of an Enhanced Oil Recovery (EOR) industry that would use the CO₂ to improve recovery of aging oil fields in Alberta would have many economic benefits. These include job creation and potentially increased revenues for both provincial and federal governments.

It is crucial that society follows many paths to reducing greenhouse gases, including developing new and better methods to foster greater energy efficiency and growing the use of lower carbon energies such as bioenergy, wind, solar power, hydrogen and geothermal energy. However, the world will remain dependant on fossil fuels during the transition to these lower carbon energy sources and CCS is a bridging technology that can help significantly reduce CO₂ in the near term.

As its report shows, Alberta's Carbon Capture and Storage Development Council understands that the right policies, regulations and incentives must be put in place to close the CCS infrastructure cost gap. The provision of clear and supportive project-based incentives will be a key tool in the development of CCS in Alberta. The report states, "CCS represents a unique opportunity to balance future energy needs and continued economic growth, while making a significant contribution to meeting Alberta's, Canada's, and the world's GHG emission reduction targets."

The members of the Integrated CO₂ Network (ICO₂N) industry initiative are optimistic that the CCS Development Council's implementation plans will set the stage for CCS deployment – and we are involved in helping make that happen. ICO₂N is a group of 18 industry participants demonstrating climate change leadership by supporting the development of a framework for carbon capture and storage development in Canada.

Coupled with CCS funding program established by the Governments of Alberta and Canada, our members believe strongly that Alberta has a unique opportunity to implement a broad-based CCS network, given the large number of single point GHG emission sources and potential reservoirs into which carbon can be stored in this province. Because of a long-established structure to oversee and govern its energy industry, Alberta also has an excellent existing base of regulatory experience from which to grow a carbon capture and storage regulatory framework.

Those are significant advantages. CCS has been proven to reduce the carbon footprint of development, allowing us to maintain an economic advantage for Albertans and all Canadians. The great challenge for nations around the world, including Canada, is how to reduce their greenhouse gas emissions without destroying continued economic security and progress. The present economic downturn makes large-scale CCS development even more challenging for government, industry and the public. It is important that industry and government continue to work together to set a viable path forward.

The Development Council identifies the need for ongoing support for CCS after the provinces initial commitment. Recent federal announcements are in the right direction, but much work is still needed in Canada and around the world to make CCS happen.

Canadian industry will be spending real money and is leading the way on CCS deployment. CCS is not, as some have claimed, a tactic by industry to delay addressing climate change and offers the most significant reduction of CO₂ in the near term for meeting Canada's greenhouse gas reduction targets.

Alberta's CCS Development Council has begun to meet that challenge with its report and recommendations. It is a complex task given the direct linkages between economic growth, fossil energy use, and GHG emissions. Large-scale CCS will take time to properly implement, but it is critical that all of us engage in a coordinated national effort to successfully adopt CCS technology in Canada. Canada can and should be a world leader in carbon capture and storage.

Mr. Beynon is Director of Strategy and Policy for the multi-industry ICO₂N group, an industry group supporting an integrated Canadian carbon capture and storage network. More information about carbon capture and storage is available at www.ico2n.com.