

*March 11, 2011*

## **International expertise to guide carbon capture and storage regulatory review**

*Edmonton...* Experts from around the globe will help guide Alberta's carbon capture and storage Regulatory Framework Assessment. This process will examine in detail the environmental, safety and assurance processes for carbon capture and storage (CCS) that exist and determine what, if any, new processes need to be put in place for commercial scale deployment of this technology.

"This review is the first step in creating a world-class regulatory framework that will ensure carbon capture and storage activities are properly managed in Alberta," said Ron Liepert, Minister of Energy. "We are very fortunate to have this dynamic group of people, who bring substantial international expertise in developing energy and environmental policy, guide this initiative."

The six-member expert panel will be co-chaired by Stefan Bachu, Distinguished Scientist for CO<sub>2</sub> Storage with Alberta Innovates Technology Futures and Don Thompson, President of the Oil Sands Developers Group.

"Sharing information and expertise through initiatives like this is key to ensuring CCS is deployed safely and effectively," said Bachu, who co-shares the 2007 Nobel Peace Prize that was awarded to the Intergovernmental Panel on Climate Change. "By working together and building linkages with likeminded organizations across the globe, we will advance this technology and help further the world's efforts in combating climate change."

Currently, regulatory requirements applicable to CCS are spread out over many pieces of legislation and directives. This review will look at the existing regulatory regime in Alberta as well as CCS frameworks from other jurisdictions. The review will focus on a number of areas including regulatory, environmental, geological and technical considerations as well as measuring, monitoring and verification requirements.

"The process will build on the decades of regulatory experience Alberta has in managing the oil and gas sector," said Thompson. "By moving forward with CCS, Alberta is positioning itself as a key player in the use of this technology and a continued world leader in the energy sector."

In addition to the expert panel, which will provide advice and peer review findings, a steering committee will oversee the process and guide the scope of the review. Working groups will develop recommendations for the steering committee's consideration. The remaining expert panel, steering committee and working group members represent a broad range of expertise from the scientific, academic, regulatory, industry and public administration fields. Several other international experts are participating in this process, as well as representatives from the governments of British Columbia and Saskatchewan and the federal government.

The panel will report back to the Minister of Energy in the fall of 2012.

-30-

**Background:** List of expert panel members and biographies; list of international steering committee members and biographies

**Media inquiries may be directed to:**

Alberta Energy Communications  
780-427-0265

To call toll free within Alberta dial 310-0000.

March 11, 2011

## Expert panel and steering committee member bios

### Expert Panel

#### **Dr. Stefan Bachu (Co-Chair)**

Dr. Stefan Bachu is the Distinguished Scientist for CO<sub>2</sub> Storage at Alberta Innovates - Technology Futures in Alberta. For almost two decades, he has focused his research interest and efforts on the potential for, and risks of, CO<sub>2</sub> storage in geological media as a mitigation strategy for reducing greenhouse gas emissions in the atmosphere. Bachu co-shares the 2007 Nobel Peace Prize that was awarded to the Intergovernmental Panel on Climate Change Special Report on CO<sub>2</sub> Capture and Storage for his work as lead author. He has represented the Alberta Energy Resources Conservation Board on the Interstate Oil and Gas Compact Commission Task Force on CO<sub>2</sub> Storage and served on the Technical Working Group of the Canada-Alberta EcoEnergy Task Force on Carbon Capture and Storage. Since 2004, Bachu has represented Canada on the Technical Group of the Carbon Sequestration Leadership Forum, where he chaired a task force on CO<sub>2</sub> storage capacity estimation. Bachu is Associate Editor of the International Journal of Greenhouse Gas Control. He has published more than 175 papers in journals and conference proceedings, made more than 280 presentations and written more than 90 professional reports, of which more than half are on the subject of CO<sub>2</sub> sequestration in geological media as a climate-change mitigation strategy.

#### **Don Thompson (Co-Chair)**

Don Thompson is president of the Oil Sands Developers Group. He has worked for Syncrude since 1979 and became Corporate Secretary and General Manager of Environment, Health and Safety. He was appointed as an officer in 1988 and remained in that position until 2007. Over this period, he focused on Syncrude's regulatory and external affairs with emphasis on environmental and external relationship challenges and mentoring the next generation of Syncrude expertise. Since 2007, Thompson has focused on his role as president of the Developers Group, while remaining on active duty with Syncrude. He served as Executive Director of the Alberta CCS Development Council and the Chair of the CCS Council Advisory Group. Thompson has extensive experience with the oil sands industry in combination with a strong educational background in forestry, zoology, executive and financial management.

#### **Lawrence E. Bengal**

Lawrence Bengal holds a degree in geology from the University of Wisconsin and, in more than 30 years in the public and private sector, has held positions as a researcher with the Illinois State Geological Survey; a geologic consultant on mining and petroleum projects throughout the U.S.; Manager of the Illinois Class II Underground Injection Control Program and Supervisor of the Illinois Oil and Gas Division. He currently serves in the Cabinet of the Arkansas Governor as the Director of the Arkansas Oil and Gas Commission and as a Commissioner on the Arkansas Pollution Control and Ecology Commission. Bengal has previously served as the Governor's representative for Illinois and currently serves as the Governor's representative for Arkansas to the Interstate Oil and Gas Compact Commission, as Chairman of the Carbon Capture and Geologic Storage Task Force. Bengal has testified before U.S. Senate and House Committee's regarding regulatory frameworks for geologic storage of CO<sub>2</sub> and served as a state representative to a U.S. Environmental Protection Agency Internal Work Group developing federal regulations for the geologic storage of CO<sub>2</sub>.

### **Dr. Andrew Chadwick**

Dr. Andrew Chadwick has an MA in Geology from the University of Oxford and a DSc in Geophysics from the University of Durham (UK). He is currently head of CO<sub>2</sub> storage research at the British Geological Survey. Chadwick has 30 years of experience in most aspects of seismic geophysics and basin analysis. He has been involved with CO<sub>2</sub> storage since 1998 participating in many European CO<sub>2</sub> storage projects, with specific interests in storage site characterization and monitoring and regulation. Chadwick has advised a number of national and international regulatory bodies and is particularly interested in developing pragmatic integrated monitoring systems and strategies for industrial-scale sites that meet anticipated regulatory requirements. In recent years, he has published more than 30 scientific papers on a range of CO<sub>2</sub> storage topics, including site characterization, time-lapse seismic analysis, reservoir flow simulation, site monitoring strategies and regulatory issues. He was also central to the development of the web-based monitoring decision support tool for the International Energy Agency Greenhouse Gas Programme.

### **Dr. Peter Cook**

Dr. Peter Cook is the Chief Executive of the Co-operative Research Centre for Greenhouse Gas Technologies (CO<sub>2</sub>CRC). He has been a researcher, senior executive, consultant and academic in Australia, the United Kingdom, the United States and France. Cook co-shares the 2007 Nobel Peace Prize awarded to the Intergovernmental Panel on Climate Change Special Report on CO<sub>2</sub> Capture and Storage for his work as a co-ordinating lead author. He has written more than 130 publications on resource, energy, environmental and sustainability issues. Cook is a Fellow of the Academy of Technological Sciences and Engineering and has been awarded the Commander of the Order of the British Empire, the John Coke Medal, the Centennial Medal, the APPEA Lewis G. Weeks Medal, the Order of Merit of France, the Leopold van Buch Medal and the International Energy Agency's Greenman Award.

### **Dr. Edward S. Rubin**

Dr. Edward Rubin is a professor in the Department of Engineering & Public Policy and the Department of Mechanical Engineering at Carnegie Mellon University. He holds a chair as the Alumni Professor of Environmental Engineering and Science and was founding director of the university's Center for Energy and Environmental Studies and the Environmental Institute. His teaching and research are in the areas of energy use, environmental control, technology innovation and technology policy interactions with a particular focus on issues related to coal use, carbon sequestration and global climate change. He is the author of more than 200 technical publications and a textbook on engineering and the environment. He has served on advisory committees to state and federal agencies and on various committees of the National Academies. He co-shares in the 2007 Nobel Peace Prize that was awarded to the Intergovernmental Panel on Climate Change for his work as a co-ordinating lead author of the Special Report on CO<sub>2</sub> Capture and Storage. He also serves as a consultant to public and private organizations with interests in energy and the environment. Rubin received his bachelor's degree in mechanical engineering from the City College of New York and his Masters degree and Ph.D. from Stanford University.

### **Steering committee**

In addition to several local government and industry representatives, the following international experts are participating on the steering committee.

### **Dr. Jeff Chapman**

Dr. Jeff Chapman is Chief Executive of the Carbon Capture & Storage Association (CCSA) in the U.K. The objective of the association is to represent the interests of its members in the business of capture and geological storage of carbon dioxide. He has more than 30 years of management experience in a variety of areas, specializing on business opportunities in the energy sector that arise from climate change mitigation. He has been a significant contributor

to the establishment of London as the world centre of emissions trading. Recognizing the enormous potential of carbon capture and storage to control global greenhouse gas emissions and the consequent opportunities for business, Chapman established an industry interest group with support from UK Trade & Investment in 2001 which became the foundation of the CCSA in 2006. From its base in London, the CCSA brings together specialist companies in manufacturing & processing, power generation, engineering & contracting, oil, gas & minerals as well as a wide range of support services to the energy sector such as law, banking, consultancy and project management.

### **Barry Jones**

Barry Jones is the General Manager of Policy and Membership for the Global CCS Institute. He is responsible for the institute's work on CCS economic, policy, legal and regulatory issues, capacity development, and membership relations. Jones has extensive senior executive experience in policy, research and delivering business services gained over many years in a number of Australian government departments and agencies. He has worked in the fields of energy and resources, climate change, tourism, industry policy, and small and medium enterprise issues. Jones' past roles include head of Enterprise Connect; Chief Executive Officer of Invest Australia; and head of the Bureau of Tourism Research. He has Bachelor of Science and Master of Public Policy degrees from the Australian National University.

-30-

### **Media inquiries may be directed to:**

Alberta Energy Communications  
780-427-0265

To call toll free within Alberta dial 310-0000.

[Alberta Government](#) | [Newsroom](#) | [Ministries Listing](#) | [Energy Home Page](#) | [News Releases](#) | [Top of Page](#) |

---

[Send us your comments or questions](#)

Copyright(©) 2011 Government of Alberta

