

## **Building Tomorrow**

July 8, 2008

## Alberta surges ahead with climate change action plan

# \$2 billion invested in carbon capture and storage; \$2 billion in public transit

Calgary... The Alberta government is surging ahead on its climate change action plan with two new funds totaling \$4 billion to reduce greenhouse gas (GHG) emissions equal to taking more than a million cars off the road each year.

The province will create a \$2-billion fund to advance carbon capture and storage (CCS) projects while a second \$2-billion fund will propel energy-saving public transit in Alberta.

"We're tackling both sides of the emissions challenge on behalf of Albertans and all Canadians," said Premier Ed Stelmach. "We're reducing the impact of industrial emissions with carbon capture and storage and investing in public transit to reduce the impact from our tailpipes."

Stelmach said while other jurisdictions talk, his government's Climate Change Strategy has legislated real targets and real action. "With this announcement we will continue to demonstrate leadership and encourage the federal government and Alberta industries to make real investments in carbon capture and storage."

Funds will be allocated to encourage construction of Alberta's first large-scale CCS projects. The province has issued a request for expressions of interest to begin identifying those CCS proposals with the greatest potential of being built quickly and those which provide the best opportunities to significantly reduce greenhouse gas emissions. With the potential to reduce emissions at facilities such as coal-fired electricity plants and oil sands extraction sites and upgraders, the \$2-billion fund will support CCS projects that are expected to reduce emissions by up to five million tonnes annually. That is the equivalent of taking a million vehicles off the road, or one-third of all vehicles registered in Alberta.

In addition, the equivalent of thousands more Alberta vehicles will be taken off streets and highways through \$2 billion in public transit investments. The Green Transit Incentives Program (Green TRIP) will promote the use of local, regional and inter-city public transit. The program will support new public transit alternatives throughout the province that will significantly reduce the number of vehicles on Alberta roads and reduce GHG emissions.

Funds for the two initiatives will come from this year's surplus, which the province expects will be significantly larger than predicted due to higher-than-forecast oil and gas prices.

Alberta's Climate Change Action Plan, which will cut projected GHG emissions in half by 2050, is based on three key areas: carbon capture and storage; energy conservation and efficiency; and greening energy production.

### Plan

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July 8, 2008

## Questions and Answers about Carbon Capture and Storage

#### 1. What is carbon capture and storage?

Carbon capture and storage (CCS) is a scientifically proven technology to reduce greenhouse gas emissions by permanently injecting and sealing them in deep underground rock formations. CCS is supported as a safe and viable climate change solution by groups including the United Nations Intergovernmental Panel on Climate Change and the International Energy Agency. The same unique geology that developed the abundance of hydrocarbon resources in Alberta also makes it ideally suited for permanent storage of emissions through CCS.

#### 2. Is CCS a safe and viable technology?

Experience in Canada and around the world has shown that CCS can be done safely and produce positive environmental results. In Alberta, the CO2 will be injected one to two kilometres deep into an empty rock formation. It will be injected, sealed and monitored by experts to ensure there is no leakage or impact on public safety or the environment.

Since 2000, more than seven million tonnes of CO2 have been successfully injected into a depleted oil field near Weyburn, Saskatchewan without adverse effects. &nbspOther CCS projects are being pursued around the world in a variety of countries including Norway, the United Kingdom and Australia.

### 3. What kind of results do you expect this funding will help Alberta achieve?

An investment in three to five large-scale projects has the potential to permanently store up to five million tonnes of CO2 per year by 2015, which is the equivalent of one million cars off the road each year (or one third of all the cars registered in Alberta or about 200,000 more cars than are currently registered in the City of Calgary).

## 4. Why is the government investing in carbon capture and storage?

A provincial investment in CCS is essential in helping to meet the goals of Alberta's Climate Change Strategy to reduce emissions, while also allowing the economy to continue to grow and provide jobs for Albertans.

This economic growth, as well as the potential for value-added industries and enhanced oil recovery through CCS, also provide significant taxes and energy royalties, which are invested into priority programs for Albertans, such as health care and infrastructure. Albertans have said clearly they expect government to find a balance between development and protection of the environment.

This provincial investment is intended to accelerate the development of projects and encourage the necessary investment from industry to make CCS viable in Alberta.

#### 5. What is enhanced oil recovery?

Additionally, injecting carbon dioxide (CO2) into existing conventional oil fields could increase recoveries from those fields by an estimated 500 million to two billion barrels. This enhanced oil recovery (EOR) will create new opportunities for the province's conventional oil sector, resulting in additional jobs and increased royalties for Albertans. CO2 injection also offers significant potential for enhanced recovery of coal-bed methane and potential to reduce the amount of water currently used in

enhanced energy recovery projects.

#### 6. How does CCS encourage value-added development in Alberta?

CCS projects will encourage new value-added projects to proceed in Alberta (rather than in jurisdictions without emissions targets) on the basis that they will be able to meet the province's emissions standards for large industrial facilities. Value-added projects such as bitumen upgraders, gasoline refineries and petrochemical facilities provide sustainable jobs for Albertans.

#### 7. How will this money be allocated? What are the next steps?

The province has issued a request for expressions of interest to begin identifying those CCS proposals with the greatest potential of being built quickly and that which provide the best opportunities to significantly reduce greenhouse gas emissions.

Building on the continuing work of the Alberta Carbon Capture and Storage Development Council, a request for proposals will be issued later this year. This process will be used to determine specific details about how the funding will be allocated.

#### 8. What kind of investment has the province made in alternative energy sources?

Recognizing that renewable and alternative energy sources are becoming an increasingly important part of the energy mix, Alberta has made a significant investment in alternative energy through its \$239 million bioenergy initiative, which has led to more than \$850 million in additional private investment to date in renewable energy projects.

Private investment by industry has also made Alberta the nation's leader in wind-generated electricity.

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Note: A CCS Fact sheet is posted on the Alberta Energy website at www.energy.alberta.ca

## Media inquiries may be directed to:

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# **Questions and Answers about the Green Transit Incentives Program (Green TRIP)**

#### 1. How will the new transit funding be used?

The Green Transit Incentives Program (Green TRIP) will provide \$2 billion in funding assistance and incentives to improve and expand local, regional, and inter-city transit systems. The program will support new public transit alternatives throughout the province, which will significantly reduce the number of vehicles on our roads and reduce greenhouse gas emissions.

#### 2. Who qualifies for the new funding?

The program is open to all municipalities, regional entities, non-profit organizations, and private sector groups.

#### 3. How will the Green TRIP funding be allocated?

Funding for the program will be allocated on a project-specific basis. There is no per-capita formula. The aim is to generate creativity and innovation and to fund projects that will significantly reduce the amount of vehicles on our roads and reduce greenhouse gas emissions.

#### 4. What types of projects would qualify for funding?

The program will focus on initiatives aimed at reducing carbon emissions and the number of vehicles on Alberta roads. Some examples of eligible projects include:

- purchase of transit vehicles (hybrids, diesel, natural gas, fuel cells, etc.);
- transit systems that provide service to regional communities and reduce commuter traffic;
- Light Rail Transit (LRT) and inter-city commuter rail systems;
- new public transit projects such as LRT extensions;
- planning for and acquisition of transit or commuter rail corridors;
- park and ride facilities to enhance public transit;
- planning and design of transit-oriented developments in new residential areas; or
- construction of regional transit terminals and facilities.

## 5. Is this funding a part of the federal Public Transit Trust Fund?

This new funding is separate and in addition to the Public Transit Trust Fund established earlier this year by the federal government.

## 6. How does this program fit with Alberta's climate change strategy?

Green TRIP is a prime example of how Alberta is using the revenue from our energy resources to invest in green initiatives that will help contribute to Alberta's climate change strategy. The emphasis will be on regional transportation initiatives that make public transit more accessible to Albertans. In this way, the Government of Alberta is taking advantage of a unique opportunity to foster Alberta's growth in a responsible, environmentally-conscious way.

#### 7. When will the program details and application forms be available?

Complete information on funding criteria will be developed by Alberta Transportation in consultation with stakeholders and details will be announced in fall 2008.

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July 8, 2008

# Questions and answers about Alberta's action on climate change

#### 1. What is Alberta's Climate Change Strategy?

Alberta announced its new Climate Change Strategy in January 2008. The goal of this strategy is to ensure environmental protection while maintaining Albertans' quality of life and allowing continued economic growth. Under the strategy Alberta will cut projected greenhouse gas (GHG) emissions in half by 2050.

#### 2. What is being done besides carbon capture and storage to combat climate change?

Alberta's climate change plan is based on three key areas: carbon capture and storage, energy conservation and efficiency, and greening energy production.

#### Energy efficiency and consumer incentives

- Alberta will provide incentives for energy efficiency to help Albertans reduce their greenhouse gas emissions. Details on incentive programs will be announced at a later date.
- Government will develop energy efficiency standards in building codes for homes and commercial buildings.
- The plan includes support for municipalities and other groups in finding ways to reduce emissions, including land use planning.
- Strategies to help the agricultural and forestry sectors to reduce emissions will also be implemented.

### **Greening energy production**

- The updated plan includes increased investment in clean energy technology. For example:
- Funding projects that will help reduce the cost of separating carbon dioxide from other emissions in order to support carbon capture and storage.
- Supporting research on new oil sands extraction processes that use less energy, less water and reduce tailing ponds.
- A focus on testing and implementing new clean energy technologies will be included in the Climate Change and Emissions Management Fund.

## 3. &nbspWhat is Alberta's record on climate change?

• Alberta developed and implemented the first comprehensive climate change action plan in Canada (2002);

- became the first province in Canada to require large industry to report greenhouse gas emissions (2004);
- implemented a system where 90 per cent of electricity to power government-owned buildings comes from green sources (2005);
- held comprehensive consultations with public, stakeholders and experts to gather input for new climate change plan (2007);
- legislated mandatory greenhouse gas emissions reductions across sectors becoming the first in North America to do so (2007);
- became the first in Canada to institute an emissions levy with the Climate Change and Emissions Management Fund (2007);
- announced new Climate Change Plan that will cut projected emissions by 50 per cent through carbon capture and storage, consumer incentives and greener energy production. This plan will result in a reduction of 200 megatonnes of emissions by 2050 (2008);
- reduced emissions from large industrial emitters by over 2.6 million tonnes of actual reductions through operational changes and practices including better use and re-use of energy and investing in verified offsets created by other Alberta projects. The reduction is equivalent to taking 550,000 vehicles off the road in a year (2008);
- collected approximately \$40 million for the Climate Change and Emissions Management Fund, which will invest in projects and technology to reduce greenhouse gas emissions in Alberta (2008); and
- launched Carbon Capture and Storage Council, to develop a roadmap for implementing carbon capture and storage in Alberta (2008).

#### 4. How has the province supported Albertans' efforts to address climate change?

- Alberta created Climate Change Central, a public-private partnership, helping Albertans cut emissions (1999);
- provided more than \$30 million in interest-free loans for 60 projects to increase energy efficiency in municipal buildings (2003-2006);
- helped Albertans replace more than 5,700 old furnaces with energy efficient models, cutting greenhouse gas emissions by 90,000 tonnes (2004/2005);
- helped nearly 14,000 Albertans switch to Energy Star qualified clothes washers (2005/2006); and
- launched Alberta's new Conservation Team to encourage Albertans to commit to One Simple Act to conserve energy and water and reduce waste (2008).

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