July 14, 2011



Innovative strategies benefit generations of Albertans

The Energy Innovation Strategy is designed to respond to the future energy needs of Alberta by investing in research, technology and innovation that create commercial value and achieve high environmental standards. The Innovative Energy Technologies Program (IETP) is the major component of this strategy.

The IETP represents a \$200-million commitment by the Alberta government to provide royalty adjustments to a number of specific pilot and demonstration projects that use innovative technologies to increase recoveries from existing reserves and encourage responsible, development of oil, natural gas and in situ oil sands reserves.

The program objectives are:

- increasing the recovery from oil and gas deposits resulting in incremental production and
- finding a flexible commercial technical solution to the gas over bitumen issue that will allow efficient and orderly production of both resources http://www.energy.alberta.ca/OilSands/578.asp;
- improving the recovery of bitumen resources by in situ technologies;
- improving recovery of natural gas from coal seams; and,
- disseminating technology and information developed through the projects supported by this program.

Successful applicants in the program are provided with a royalty adjustment of up to a maximum of 30 per cent of approved project costs. Industry must provide the remaining 70 per cent or more of total project costs.

Under the terms of the IETP, successful applicants must submit the following reports:

- annual and final technical reports; and
- annual and final intellectual property reports on any new technology developed through an IETP project.

It is anticipated that successful technologies supported by this program will enhance resource recovery and increase royalties to fully recover, over time, the program costs.

To view a complete list of successful projects as well as additional information on the IETP go to: http://www.energy.alberta.ca/Oil/768.asp.

Media inquiries may be directed to:

Tim Markle Alberta Energy Communications 780-427-0479 Tim.Markle@gov.ab.ca To call toll-free within Alberta dial 310-0000



Successful round four and five Innovative Energy Technologies **Program projects**

Round 4

Encana Corporation

Project Title: Horseshoe Canyon Coalbed Methane (CBM) High Well Density Study

Location: East of Calgary

Amount Approved under IETP: \$2,950,000

Project Summary: Encana is undertaking two high well density/reservoir continuity projects, each with 25 coalbed methane wells. These projects will improve the understanding of natural gas recovery from coal beds in relation to the distance between wells or well spacing, and variation in the geology of the coal beds.

Contact: Rick Solinger (403-238-5596)

Round 5

Cenovus Energy Inc.

Project Title: Air Injection & Displacement for Recovery with Oil Horizontal (AIDROH)

Location: Cold Lake Region

Amount Approved under IETP: \$2,430,000

Project Summary: Cenovus has demonstrated in a previous Innovative Energy Technologies Project that, in a confined area, air can successfully be injected into a reservoir and through low temperature combustion, increase reservoir pressure, displace natural gas and generate heat into the underlying bitumen. The AIDROH project is expected to expand this knowledge and technology by providing information about the distance from an injector that reservoir pressure can be maintained and how the underlying bitumen (oil) can be produced through a horizontal well.

Contact: William Hogue (403-766-6738)



Encana Corporation

Project Title: Deep Basin Development & Measurement of Marginal Zones

Location: Encana's Bighorn Area near Grande Cache

Amount Approved under IETP: \$5,000,000

Project Summary: Encana is developing a method to understand zonal natural gas production performance in the deep basin. This can lead to increased production from marginal zones and the gas reserves from the Bighorn area.

Contact: Matthew MacDonald (403-645-8637)

Laricina Energy Ltd.

Project Title: Saleski Steam Assisted Gravity Drainage (SAGD Pilot) Project – Phase 2

Location: Southwest of Ft. McMurray

Amount Approved under IETP: \$10,000,000

Project Summary: Based on the results of a previous Innovative Energy Technologies program pilot, Laricina is moving from the laboratory to a field project with the objective of demonstrating SAGD bitumen recovery in the Grosmont carbonate reservoir. While SAGD has been demonstrated as a successful production method within the McMurray reservoirs, the application of SAGD to a carbonate environment presents different challenges and remains untested.

Contact Deepa Thomas (403-718-8810)

Pengrowth Corporation

Project Title: Bodo East Associative-Polymer Pilot Flood

Location: South of Lloydminster

Amount Approved under IETP: \$1,514,000

Project Summary: Chemical floods are seeing increased interest as a way to enhance oil recovery. In this project, Pengrowth will be using an "associative polymer" that is brine tolerant. Current primary and waterflood recovery has achieved only 4% recovery of the original oil in place and the expectation is that incremental oil recovery using polymers could be improved by 2-3 per cent over waterflooding. Polymer use is also expected to reduce water requirements.

Contact: Larry Stewart (403-213-3706)



PennWest Petroleum Ltd.

Project Title: Horizontal Multi-stage Fracturing for Improved Water Flood Recovery from Low

Permeability Sandstones

Location: South-west of Drayton Valley Amount Approved under IETP: \$5,645,340

Project Summary: Industry has demonstrated success with applying horizontal multi-stage fracture technology in Cardium pools. PennWest has designed a pilot test to extend these trials into low permeability, low water flood recovery areas of the Pembina Cardium Pool. Using vertical well technology, the recovery to date from the estimated original oil in place (OOIP) is 12 per cent. Multistage fracture technologies and flooding programs could lead to ultimate recovery of 16 per cent OOIP.

Contact: Brendan McGowan (403-777-3320)

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