

**ALBERTA - BRITISH COLUMBIA
MEMORANDUM OF UNDERSTANDING (MOU)**

**COLLABORATION IN ENERGY RESEARCH, TECHNOLOGY DEVELOPMENT
AND INNOVATION**

THIS MEMORANDUM OF UNDERSTANDING executed this 28th day of April, 2006.

AMONG:

GOVERNMENT OF BRITISH COLUMBIA, as represented by the
BRITISH COLUMBIA MINISTRY OF ENERGY, MINES & PETROLEUM RESOURCES
("BCMEMP")

And

BRITISH COLUMBIA MINISTRY OF ADVANCED EDUCATION
("BCMAE")

And

GOVERNMENT OF ALBERTA, as represented by the
ALBERTA MINISTRY OF ENERGY
("AE")

And

ALBERTA MINISTRY OF INNOVATION AND SCIENCE
("I&S")

The British Columbia Ministry of Energy and Mines (BCMEMP) and the British Columbia Ministry of Advanced Education (BCMAE) on behalf of the Province of British Columbia, and the Alberta Ministry of Energy (AE) and the Alberta Ministry of Innovation and Science (I&S) on behalf of the Province of Alberta, and on the advice of the Alberta Energy Research Institute (AERI), would like to achieve the following:

I. PURPOSE:

The purpose of this MOU is to promote an integrated and collaborative strategic approach to energy research, technology development and innovation, which will benefit both provinces and serve as a model for bilateral and multi-lateral collaboration between the provinces, territories and the federal government.

In so doing, the Parties will:

- Share market intelligence;
- Share non-confidential project information, evaluation and analysis;
- Participate in and jointly fund projects or programs;

- Leverage resources and involve other participants from governments and industry; and,
- Undertake any other activities that reduce overlap and duplication and ensure a complementary approach to energy research and innovation.

II. OBJECTIVES:

The objective of this MOU is to build the framework for collaboration on energy research, technology and innovation in accordance with the goals of the British Columbia and Alberta Governments and in alignment with the goals developed for the Council of Energy Ministers and EnergyINet Inc. including:

1. A focus on ensuring a competitive energy supply to maintain the Canadian advantage while ensuring environmental protection.
2. Taking advantage of the shifts in energy systems
 - From conventional to unconventional oil and gas;
 - From conventional coal combustion to advances in near emission-free clean coal technology; and,
 - Transitioning from a relatively low to significantly higher mix of renewable and advanced energy technology options.
3. Positioning Canada at the forefront of integration between energy systems, taking advantage of the opportunities that emerge through the consideration of the energy sector as an integrated whole.

III. DIRECTIONS:

To meet the objectives of this MOU, the following strategic directions are envisaged:

1. Sharing funding for energy innovation to support the priority technology and innovation areas of the British Columbia and Alberta Governments.
2. Finding opportunities and engaging industry and research providers in collectively shaping a sustained innovation agenda in energy and environment.
3. Funding mission-oriented (fundamental, applied and demonstration) projects or programs that are supported by business plans while respecting the investment strategy of each government.
4. Building trust, creating synergies and a win-win approach that will benefit all participants.
5. Developing a portfolio approach for jointly managing public sector investments and working towards greater efficiency and effectiveness in intelligence gathering, proposal evaluation, proposal approval mechanisms, and project or program monitoring and knowledge disseminations.
6. Jointly engaging in public advocacy and external communications.

**IV PROCESS, KEY AREAS OF INTEREST AND STATEGIC DEVELOPMENT,
AND SUPPORTING INITIATIVES**

The process, key areas of interest and strategic development and supporting initiatives are outlined in the Appendix to this MOU.

V DURATION AND AMENDMENTS:

This MOU becomes effective when it has been executed on behalf of the British Columbia and Alberta Governments and will continue in effect until March 31, 2010, unless terminated prior to that date by either Party. Either Party may terminate this MOU on thirty days written notice to the other Parties. This MOU can be extended or amended by mutual agreement. This MOU does not commit the Parties to any financial commitment of any kind.

Signed:

The Honourable Victor Doerksen
Minister of Innovation and Science
Government of Alberta

The Honourable Richard Neufeld
Minister of Energy, Mines and
Petroleum Resources
Government of British Columbia

The Honourable Greg Melchin
Minister of Energy
Government of Alberta

The Honourable Murray Coell
Minister of Advanced Education & Minister
Responsible for Research and Technology
Government of British Columbia

APPENDIX

I. PROCESS:

Either Party may identify initiatives in support of this Memorandum of Understanding. The following process for implementation will be followed:

1. To implement this agreement, officials from the BCMEMPR and BCMAE and I&S/AERI and AE will develop initiatives with input from other appropriate stakeholders. To the greatest extent possible, proposals will be developed strategically in the context of the overall strategic priorities of BCMEMPR and BCMAE and I&S/AERI and AE (both current and new) for the duration of the agreement.
2. Specific action plans, budgets and criteria to measure performance and effectiveness will be developed for each project or program to be considered for funding. Furthermore, appropriate measures and effort will be exercised by stakeholders, and recipients of funds, to ensure that potential tangible benefits can be recorded and monitored.

II KEY AREAS OF INTEREST AND STATEGIC DEVELOPMENT:

Currently, the Parties have identified an integrated energy strategy which addresses six, interrelated innovation challenges:

- **Clean Coal:** Demonstrate that it is feasible to utilize coal to produce energy with minimal environmental impact, and to produce steam, hydrogen, synthetic natural gas, and chemicals from coal and other feedstocks (oil sand, forestry, and agricultural waste).
- **Alternative and Renewable Energy:** Develop, improve and adapt alternative and renewable energy technology in areas such as hydrogen, fuel cells, bio-energy, geothermal, wind and solar.
- **Enhanced Recovery:** Maximize the recovery of conventional oil and gas and unconventional oil and gas resources (such as bitumen and coal bed methane) and do so in an environmentally responsible manner.
- **CO₂ Management:** Reduce greenhouse gas and other emissions by developing technology to capture, transport, store and/or use carbon dioxide, for example, to increase oil and gas recovery, and release methane from coal beds.
- **Oil Sands Upgrading:** Develop technologies that will enhance the value of products produced from heavy oil and oil sands. Increase the efficiency of upgrading operations, while decreasing the amount of energy required in the process, and reducing greenhouse gas emissions.

- **Water Management:** Support the development of technology to reduce use of fresh water by the energy industry and implement cost-effective water re-use and recycling systems.