

Memorandum of Understanding (MOU) Between Parties on Enhancing the Pace and Direction of Innovation, Research and Technology Development, Demonstration and Deployment (IRD3) in the Upstream Petroleum Sector

I. Purpose

All of the parties agree to more closely coordinate and collaborate on the formulation and delivery of a strategic research and innovation agenda to develop, demonstrate and deploy technology for the upstream petroleum energy sector. The long-term success of the industry in Canada depends on the collective advancement of this agenda between all stakeholders.

II. The Parties

The Canadian Association of Petroleum Producers (CAPP) represents 150 companies that explore for, develop and produce natural gas, natural gas liquids, crude oil, oil sands, and elemental sulphur throughout Canada. CAPP member companies produce more than 98 per cent of Canada's natural gas and crude oil. CAPP also has 125 associate members that provide a wide range of services that support the upstream crude oil and natural gas industry. Together, these members and associate members are an important part of a \$90-billion-a-year national industry that affects the livelihoods of more than half a million Canadians.

The Petroleum Services Association of Canada (PSAC) is the national trade association representing the service, supply and manufacturing sectors within the upstream petroleum industry. PSAC represents a diverse range of over 260 member companies, employing more than 37,000 people and contracting almost exclusively to oil and gas exploration and production companies. PSAC member companies represent over 80 per cent of the business volume generated in the petroleum services industry.

The Small Explorers and Producers Association of Canada (SEPAC) represents the unique interests of emerging and junior conventional oil and gas companies to the public, governments and other sectors of the energy industry. Supporting more than 400 member companies, SEPAC is a powerful lobbying voice for this segment of the energy industry.

PTAC Petroleum Technology Alliance Canada (PTAC) is an association that facilitates innovation, collaborative research, and technology development, demonstration and deployment for the Canadian upstream petroleum energy industry. PTAC's objective is to improve the industry's financial, environmental and safety performance through the application of new technology and research to the petroleum sector's issues and opportunities. Approximately 228 members representing large and small producers, service companies, research providers, individuals, and numerous government funders provide resources to enable PTAC to identify opportunities and provide co-ordination and pooling of resources for technology development and broad industry application. PTAC members produce approximately 77% of Canada's crude oil and natural gas.

The Associations refers to CAPP, PSAC and SEPAC collectively. In the future, the objective is to bring other associations to the table that share similar principles and goals.

III. Basis for MOU

There is consensus that these points form the basis of a revitalized relationship between PTAC and the Associations.

1. PTAC and the Associations recognize the need to work together to influence IRD3 outcomes in a structured way to improve resource access and global competitiveness
2. The Associations recognize PTAC as the upstream petroleum industry's facilitator of choice for IRD3 and are committed to collaborate with PTAC to provide strategic direction, core funding, and broad support for important IRD3 initiatives.
 - Improved strategic direction from the Associations to PTAC will help ensure long-term success for the upstream petroleum industry
3. Core PTAC funding shall be shared between the Associations and the membership of PTAC
 - Core PTAC funding requirements have been defined by PTAC's Financial Sustainability Committee
 - Consideration shall be given to Association members of PTAC on general membership dues

4. PTAC and the Associations will develop a communications framework, as described below to define and guide the internal and external communications roles and responsibilities of PTAC and the Associations with regard to IRD3.
 - Improved linkages between PTAC and the Associations will facilitate improved communications
5. This MOU does not change the strategic direction of PTAC, which is set by the PTAC Board. Any need to revise these priorities in light of this MOU will be discussed and approved by the PTAC Board of Directors.

IV. Vision

A prosperous upstream oil and gas industry achieving socially and environmentally responsible recovery of Canada's petroleum resources through effective, market-driven collaboration, innovation, research, and technology development, demonstration and deployment resulting in less environmental impact, improved resource utilization, enhanced public and worker safety, improved financial performance and cost effective resource development.

PTAC and the Associations recognize the need for focused and additional IRD3 funding in order to ensure the long-term success of the industry.

PTAC and the Associations welcome the renewed focus on research and innovation by the petroleum industry and other stakeholders.

V. Principles

Canada has world-class petroleum resources second only to Saudi Arabia. Recent high commodity prices for fossil fuels, geopolitical instability, and surging global demand have rekindled interest in potential new fossil fuel sources, as well as, enhancing the economic recovery of maturing conventional supplies. In order to continue to derive economic, environmentally responsible benefits for the people of Canada and maintain a vital and growing upstream petroleum sector, research and innovation will be an essential part of this success.

1. IRD3 should be an important part of any overarching national or provincial energy strategies
2. IRD3 supports access to existing and future resources, and improved policy and regulation
3. Canada's global competitiveness will be enhanced by:
 - New, economically viable technology to improve petroleum resource utilization, and recovery processes
 - Improved energy efficiencies for recovery and processing of conventional and unconventional resources
 - Improved access to resources

VI. Roles & Responsibilities

The Associations

- Provide strategic direction to PTAC through board representation
 - Identify long-term cross-industry issues and opportunities (rather than company-specific issues) that need be addressed and provide to PTAC
 - Foster linkages between Association committees and other industry advisory panels to assist in providing specific IRD3 priorities to PTAC
- Provide assured sustainable core funding for PTAC and jointly develop with PTAC a mechanism to formulate and fund projects of broad potential benefit to industry
 - Core funding is based on an estimate of the minimum funding required to maintain a functioning organization
 - Core funding will be used for "core expenses" such as salaries of core staff and minimum operating costs (e.g., office space, operating costs, insurance etc.) – see Appendix I.

- Core funding will be provided at the beginning of each calendar year with the understanding that where PTAC revenue generation allows for all or some of the 'core expenses' to be paid, and consequently all or some of the core funding is not required, then the difference will be applied against the next year's core funding requirements.
- Core funding requirements will be reviewed every 3 years
- Sponsor PTAC to facilitate the identification of the "best ideas" to solve particular industry issues or opportunities
- Advocate for government resources and support of the industry's strategic IRD3 priorities
- Advocate for IRD3 policy change where need has been identified
- Manage external communications (Public and government relations), consistent with their mandates and member direction, to place a renewed emphasis on IRD3 and its critical role in the long-term success of the industry.
 - Communicating this strategic direction to various levels of government in a cohesive fashion will be essential
 - The Associations' ability to effectively communicate with governments and the public will be enhanced and supported by PTAC-facilitated IRD3
 - CAPP Stewardship will provide leverage in advancing messages about the importance of IRD3 in responsible development and continuous improvement

PTAC

- Reconstitute PTAC Board composition to include designated Association representatives
- Ensure sustained or increased value for members
- Manage intra-membership communications as directed by the Board
 - IRD3 communication
 - IRD3 dissemination
 - Identification and communication of IRD3 policy priorities that arise as the result of their collaborative projects
- Coordinate and facilitate industry input to IRD3 initiatives and groups (e.g., EnergyINet and Petroleum Research Atlantic Canada (PRAC)). See Appendix 1 for a list of IRD3 providers and funders.

Collective Communications Role

- Jointly develop a communication framework to manage the communication responsibility and execution of the IRD3 message by the Associations and PTAC as broadly defined above.
- There may be situations when IRD3-related priorities emerge that need to be communicated on a coordinated, collective basis. This framework will guide this collective voice and maintain the spirit and intent of this MOU.

VII. Governance

- The current PTAC governance model will remain with the addition of designated Association representation on the PTAC Board of Directors, which must be PTAC members.
- An IRD3 sub-committee will be established under the PTAC Board
- The PTAC Board will have designated representation on relevant Associations' IRD3 Committees.
 - The PTAC Board member representative must also be a member of the relevant Association

VIII. PTAC Strategies

1. PTAC's membership will include a sufficiently large number of stakeholder organizations so that PTAC is clearly seen as the focal point for collaborative innovation, research, development, demonstration,

and deployment of technologies (IRD3) for the responsible development of the upstream petroleum energy industry in Canada.

2. PTAC will build on its strengths, continuing to encourage collaboration on IRD3 while enhancing its image as the organization that can bring together the interests of the many stakeholders.
3. PTAC will work to become the preferred vehicle to facilitate government/industry IRD3 initiatives such as EnergyINet.
4. PTAC will identify and help shape all provincial and federal government initiatives that promote energy research, and create roadmaps that will assist industry in accessing these programs.
5. PTAC will monitor the direction of industry and government and proactively adjust its mandate in order to provide service to stakeholders as new directions develop. Examples of new directions would include coal bed methane, in-situ heavy oil, greenhouse gas emissions and carbon dioxide transportation and injection.
6. PTAC will keep abreast of changing composition of the industry and adjust its strategies to ensure continued involvement of emerging companies and energy royalty trusts.
7. PTAC will pursue IRD3-related revenue generating alternatives on a cost recovery basis from participants

IX. Timeframe for Implementation of the MOU

- The implementation of the MOU will occur upon the approval of the PTAC, CAPP, PSAC and SEPAC Boards
 - Full core funding may not be available until 2007 due to budget cycle issues
- The MOU will be reviewed 12 months from its approval to ensure implementation is proceeding as intended by the Parties.
-

(Approved by CAPP R&I Committee, March 9th 2006)

X. The effective date of this MOU is May 1, 2006.

Agreed to and acknowledged by:

CAPP _____

PSAC _____

SEPAC _____

PTAC _____

Appendix I: Core PTAC Budget

The annual core budget is estimated at \$392,950 including the dual membership discount

	Annual Core Budget	2005 Actual	2006 Budget	Core Budget Assumptions
Revenue				
Membership	\$ 551 050	\$ 467 339	\$ 551 050	Membership revenue based on membership as at Nov. 30/05
estimated dual membership discount*	\$ (50 000)			
Events	\$ -	\$ 816 809	\$ 339 875	
Projects**	\$ -	\$ 1 249 255	\$ 484 144	
Services	\$ -	\$ 452 305	\$ 748 122	
Interest	\$ -	\$ 9 443	\$ 4 000	
TOTAL REVENUE	\$ 501 050	\$ 2 995 151	\$ 2 127 191	
Expenses				
Salaries and Benefits	\$ 567 300	\$ 922 729	\$ 976 860	Full-time Staff: President, Manager, 2 Coordinators, Web site and Administration Coordinator; Contract Staff: Part-time Accountant
Training	\$ 10 000	\$ 9 504	\$ 18 000	
Third Party Event Costs	\$ -	\$ 540 423	\$ 158 000	
Third Party Service Costs	\$ -	\$ 64 273	\$ 51 512	
Audit and Legal	\$ 12 000	\$ 8 458	\$ 15 000	
Bad Debts	\$ -	\$ 9 900	\$ 2 000	
Bank Charges	\$ 3 000	\$ 2 654	\$ 3 500	
Computer Consulting and Website	\$ 17 000	\$ 12 819	\$ 27 000	Includes \$10K to integrate new accounting software to on-line registration
Entertainment, Marketing and Travel	\$ 35 000	\$ 47 953	\$ 57 000	
Knowledge Centre	\$ -	\$ -	\$ 11 378	
Insurance	\$ 4 600	\$ 4 624	\$ 4 600	
Office Lease and Operating	\$ 211 100	\$ 133 548	\$ 201 400	Lease costs based on 4500 square feet @ \$35.00/sq. ft = \$157K; 2006 lease costs are lower due to existing sub-lease however \$60K included for one-time tenant improvement costs
Printing and Publications	\$ 20 000	\$ 19 299	\$ 31 949	
Third Party Project Costs*	\$ -	\$ 1 085 736	\$ 401 643	
TOTAL OPERATING EXPENSES	\$ 880 000	\$ 2 861 920	\$ 1 959 842	
SURPLUS	\$ (378 950)	\$ 133 231	\$ 167 349	
Amortization	\$ 14 000	\$ 15 197	\$ 14 000	
SURPLUS WITH AMORTIZATION	\$ (392 950)	\$ 118 034	\$ 153 349	
Capital Expenses				
Computer Hardware & Software Additions	\$ 15 000	\$ 4 965	\$ 24 295	Includes new accounting software licenses
Furniture	\$ 5 000	\$ 3 261	\$ 5 000	
TOTAL CAPITAL	\$ 20 000	\$ 8 226	\$ 29 295	
<i>Note:</i>				
* Dual membership discount: members of CAPP/SEPAC or PSAC to receive a discounted PTAC membership (estimate based on approximately 10% reduction in dues).				
** TERE budget project revenue and expenses of approximately \$2.6M not stated here				

Appendix II

IRD3 Providers

- AERI-ARC Core Industry (AACI)
- Alberta Research Council (ARC)
- Alberta Sulphur Research Ltd.
- CANMET Energy Technology Centre (CETC)
- Dalhousie University
- Gas Technology Institute
- HydroQual Laboratories Ltd.
- Memorial University of Newfoundland
- National Centre for Upgrading Technology (NCUT)
- Petroleum Research Atlantic Canada (PRAC)
- Saskatchewan Research Council (SRC)
- Saskatchewan Research Council's Petroleum Technology Research Centre (PTRC)
- Porous Media and Process Tomography Research Group
- Queen's University
- University of Alberta
- University of Calgary (ISEEE)
- University of Regina, Faculty of Engineering
- University of Saskatchewan
- University of Waterloo
- Other Canadian Universities

IRD3 Funders

- Alberta Energy Research Institute (AERI)
 - Industry Research Program
- Core funding to AERI-ARC Core Industry Program (AACI) and to the National Centre for Upgrading Technology (NCUT)
- Alberta Ingenuity Fund
- Alberta Research Council
- Alberta University Research and Strategic Investments (URSI)
- Business Development Bank of Canada (BDC)
- Canada Foundation for Innovation (CFI)
- Canada Research Chairs (CRC)
- CANMET Energy Technology Centre (CETC)
- Environment Canada – Innovative Solutions Division (ISD)
- Environmental Studies Research Fund (ESRF)
- Environmental Research Advisory Council (ERAC)
- National Research Council – IRAP
- Natural Resources Canada (NRCan)
- National Science and Engineering Research Council (NSERC)
- National Centre for Upgrading Technology (NCUT)
- Oil and Gas Commission Environmental Fund
- PERD – Program of Energy Research and Development
- Petroleum Research Atlantic Canada (PRAC)
- Revenue Canada's Scientific Research and Experimental Development Tax Incentive Program
- Saskatchewan Petroleum Research Incentive (SPRI)
- Saskatchewan Research Council and the Petroleum Technology Research Centre (PTRC)
- Technology Early Action Measures (TEAM)
- Technology Partnerships Canada (TPC)
- The Foundation for Sustainable Development Technology in Canada