



PTAC

**PETROLEUM
TECHNOLOGY
ALLIANCE
CANADA**

Introduction to PTAC

Facilitating Innovation, Collaborative Research and Technology Development, Demonstration and Deployment for a Responsible Canadian Hydrocarbon Energy Industry

October 3, 2007



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Mission, Objectives and Role

- } To facilitate innovation, collaborative research and technology development, demonstration and deployment for a responsible Canadian hydrocarbon energy industry**
- } To improve the environmental, safety, and financial performance of the industry**
- } To facilitate the creation of value through innovation**
- } PTAC is a not-for-profit association with a volunteer board comprised of representatives from producers, technology suppliers, researchers, government, inventors and individuals**
- } PTAC is a neutral facilitator or matchmaker for oil and gas innovation, technology transfer and collaborative R&D**

Members

- } PTAC's 223 members include those involved in R&D from invention to commercialization including**
 - 28 producers**
 - 5 transporter / midstream processors**
 - 158 service & supply organizations**
 - 14 research providers and learning institutions**
 - 10 individuals and inventors**
 - 5 government members**
 - 1 venture capital**
- } PTAC members produce approximately 78% of Canadian conventional oil and gas**

Technical Contacts (Proprietary Database)

} Over 11,000 Technical contacts in the following areas:

- Coalbed Methane/Unconventional Gas (2,215)
- Completion, Stimulation and Workover (1,041)
- Drilling (1,128)
- e-Business(1,247)
- Emissions Reductions and Eco-efficiency (1,020)
- Energy Efficiency (887)
- Environmental (2,024)
- Fundamental Research (888)
- Health and Safety (811)
 - Driving Safety (566)
- Heavy Oil (1,224)
- Inactive Well Management (1,008)

Technical Contacts (Proprietary Database)

- **Innovation (987)**
- **Instrumentation/Measurement (760)**
- **Natural Gas Production, Processing and Transportation (1,236)**
- **Oil Production and Transportation (1,023)**
- **Oil Sands (933)**
- **Pipelines (918)**
- **Reservoir Recovery/Geoscience (1,022)**
 - **CO2 Enhanced Hydrocarbon Recovery (EHR) (931)**
- **R&D Funding (806)**
- **R&D Legal (704)**
- **R&D Tax and Incentives (859)**
- **Telecommunications/Wireless (797)**
- **Security (482)**

How PTAC Works

- } Inventors or researchers may propose projects for funding**
- } Service/supply firms may request help in testing or commercializing their ideas**
- } Producers may invite help in solving problems or sharing on new initiatives**
- } Technical Steering Committees may invite proposals for R&D on specific challenges**
- } Technical Steering Committees, project committees or working groups may provide project direction**
- } Members assist in planning projects, events and workshops**
- } Stakeholders provide input at events and workshops on R&D priorities**

Services

- } Problem and Opportunity Definition Workshops**
 - } Request for Proposals (RFPs)**
 - } Forums and Conferences***
 - } Technology Information Sessions***
 - } Launch Projects**
 - } Web site – www.ptac.org**
 - } Newsletter**
 - } Knowledge Centre and Services**
- * Presentations require an industry or government co-sponsor to confirm content is worthy of consideration by the industry**

Financial and Human Resources

2007 budget - \$2.67 Million

- } Funded primarily by membership, contract, and event revenue generated from attendees and partners**
- } Membership cost varies with size and financial strength of organization (\$330 to \$24,200 per year)**
- } PTAC does NOT fund R&D**
- } 11 staff and key contractors: President, Director Technology Transfer, Director Increased Recovery, Director Operations; Manager Environmental Research Initiatives, Manager Environmental Technology Initiatives, two Coordinators, Manager, Knowledge Center, Controller, Operations and Web Site Administrator, Accounting Assistant/Registration Coordinator**

Committees and Working Groups

- } **Air Issues Technical Steering Committee**
- } **CO2 Enhanced Hydrocarbon Recovery Steering Committee**
- } **Drilling Innovators Advisory Group**
- } **Driving Safety Working Group**
- } **Ecological Research Planning Committee**
- } **EnergyNet Increased Recovery of Oil and Gas Business Case Working Group**
- } **Heavy Oil Transportation Committee**
- } **Resource Access Technology Committee**
- } **Salinity Working Group**
- } **Soil Long Term Planning Committee**
- } **Technology for Emission Reduction & Eco-efficiency (TEREE) Steering Committee**
 - **TEREE Project Evaluation and Marketing Sub-committees**
- } **Unconventional Heavy Oil Steering Committee**
- } **Weathered Hydrocarbon Project Committee**
- } **Water Innovation Planning Committee**

Accomplishments

Facilitation of:

- Approximately 12 workshops and forums, and over 15 Technology Information Sessions per year
- 213 R&D projects valued at \$127.6 million since inception in 1996
- 5 projects enabled by PTAC facilitated pre-pilots totaling \$76 million
- } **Facilitation of Environmental Research Advisory Council process including events, projects, committees and working groups with funding support from CAPP and SEPAC**
- } **Delivery agent for NRCan Industrial Energy Audit Incentive**
- } **Facilitation of TERE Project with widespread support from government and industry**
- } **Facilitation of Air & Soil Research Planning Committees with long term funding support from Environment Canada**
- } **PTAC has become a focal point for upstream oil and gas R&D with many collaborating organizations using a proven model**

Significant Reports and Projects

- } **EnergyINet Increased Recovery of Oil and Gas Business Case**
 - 6 billion bbls oil & 22.5 TCF gas incremental recovery identified
 - Project performer was EPIC with Sproule, Fekete, U of C, ARC
 - Cost was \$ 960,000 for AB, BC and SK - Completed May 2006
- } **Unconventional Gas Technology Roadmap**
 - Published September 2006
 - Scope: CBM, tight gas, shale gas and hydrates
- } **Expanding Heavy Oil and Bitumen Resources while Mitigating GHG Emissions and Increasing Sustainability Technology Roadmap - Published June 2006**
- } **Carbonate Triangle and Conventional Heavy Oil Technology Roadmap – Completion May 2007**

Significant Reports and Projects –con't

- } **Conventional Heavy Oil R&D Needs Including GHG Intensity Reduction**
- } **EnergyNet Oil and Gas Related R&D Information Collection**
- } **Barriers to the Deployment of Environmental Technologies in the Upstream oil & Gas Industry – Published January 2005**
- } **Spudding Innovation - Published October 2003**
<http://www.ptac.org/techinnp.html>

CAPP/SEPAC/PTAC MOU

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

This MOU is expected to result in:

- **Improved identification of industry IRD3 needs,**
- **More effective influence of government IRD3 policy,**
- **A new mechanism for funding IRD3 projects,**
- **Improved association communication on IRD3 and**
- **Greater long-term financial stability for PTAC.**

There will be no change in PTAC's governance or strategic direction as a result of this MOU. However PTAC's Board composition will be reconstituted to include designated representatives from CAPP and SEPAC.

Strategic Plan

- 1. PTAC will continue to demonstrate value to its stakeholders, focusing on collaborative research, development, demonstration and deployment of technologies for the responsible development of the hydrocarbon energy industry.**
- 2. PTAC will continue to be the preferred vehicle to guide, inform and provide an interface between industry, governments, and R&D providers on hydrocarbon energy R&D.**
- 3. PTAC will monitor the R&D needs of industry and government, and adjust its priorities and services to maintain its relevance.**
- 4. PTAC facilitates R&D focused on improving the environmental, economic safety and social performance of the hydrocarbon energy industry.**

2007 Upcoming Events

Spring 2007

- } **Shallow Gas Technology Forum - Mar 29**
- } **Hydrogen, Hydrocarbon Upgrading and Gasification Research for the Energy Industry Workshop – Apr 16**
- } **Driving Safety Technology Forum - Apr 19**
- } **Unconventional Gas Technology Workshop – April 27**
- } **Field Operations/Wireless Forum and Tradeshow - May 23**
- } **Water Innovation Forum – May 29**

Fall 2007

- } **Air Issues Forum**

Membership Benefits

Membership in PTAC provides opportunities to:

- 1. Conduct a Technology Information Session through PTAC to:**
 - Solicit interest, feedback, participation or potential funding for new projects or report on completed projects.
 - Provide information on R&D related services offered by members (such as funding, legal and tax).
 - Market new technology or proven technology that is new to the Canadian oil and gas industry.

Membership Benefits

- 2. Participate in Technology Information Sessions, forums, conferences and workshops at reduced cost**
- 3. Participate in technical steering committees and planning meetings to advance innovation, technology transfer, and collaborative R&D.**
- 4. Participate in RFPs and projects**

Working with other associations

- } We collaborate in ways that make sense and that are of mutual benefit.**
- } Sponsor events**
 - } Forward email invitations**
 - } Newsletter articles**
 - } Display materials in PTAC Knowledge Centre**
 - } Material or posters at PTAC events**
 - } Web links or postings**
- } We may enter into a Memorandum of Understanding (MOU)**
- } We do NOT require “Association” membership in PTAC**

Opportunities/Synergies

- } Take advantage of respective strengths, expertise, connections and reputation to create maximum value for organizations and industry**
- } Continue strong working relationship with producers that minimizes duplication and is of mutual benefit to organizations and industry**
- } PTAC is a recognized leader in providing a neutral forum for all stakeholders (industry, government, technology providers and academia) to address problems and opportunities with innovation, technology and research**

Contact us

We are located at:

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For further Information please see our web site at www.ptac.org

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