

Alberta Natural Gas and Conventional Oil Investment Competitiveness Study 2009

Stakeholder Briefing Document

I. Overview

Our Vision:

- 1) Alberta is a vibrant and attractive place to live, work, and invest, with outstanding opportunities for current and future generations.*
- 2) Alberta's fiscal and regulatory structure helps enable the natural gas and conventional oil sector to be competitive, successful, and sustainable, delivering maximum value for Albertans.*
- 3) Alberta's resource management framework reflects trusting and lasting relationships among all stakeholders.*

A vibrant and successful natural gas and conventional oil industry is critical to Alberta and Canada's economic prosperity. The natural gas and conventional oil sector is the economic engine of Alberta, contributing to a standard of living for the province's citizens and for all Canadians that is among the highest in the world. A study by the University of Calgary shows that the oil and gas sector alone represents one-half of Alberta's economy.¹ Without the natural gas and conventional oil sector, our economic standard of living would most certainly be lower and the necessary tax burden would be higher.

North America's natural gas and conventional oil sector is at a crossroads. This means that Alberta's industry is also at a crossroads. Environmental responsibilities, rising costs due to a variety of factors including shortages of key labor skills and investment inputs ranging from steel to engineering and management, and the transformation of Alberta's largest market for natural gas from a net importer where supply is constrained to a situation where some at least speculate that the U.S. could become a net exporter, are just some of the recent developments that make it necessary to ensure that Alberta has the appropriate regulatory and fiscal environment to remain competitive for natural gas and conventional oil investment.

¹ "Energy and the Alberta Economy: Past and Future Impacts and Implications", Institute for Sustainable Energy, Environment, and Economy, December 2006

While there are most certainly competitive challenges, Alberta is fortunate to possess vast resources of natural gas (both conventional and unconventional) and huge conventional oil potential.² There is every reason to believe that Alberta will continue to be an attractive and competitive place to invest. What is critical at this juncture, however, is that a more strategic, inclusive and planned approach be taken to facilitate ongoing investment and success for Alberta. In an increasingly dynamic and competitive market economy, we cannot afford to assume that what clearly worked well in the past will remain appropriate for the future. It is critical to celebrate our past successes, and there are many, but it is prudent to plan for our future. Our past successes have not come from being passive observers. We must review our practices and investment strategies and take responsibility for our economic and financial future. This is why a competitiveness review is so important at this time.

It is Alberta Department of Energy's goal to have the fiscal and regulatory structure that helps enable Alberta's natural gas and conventional oil sector to remain vibrant and sustainable, and to deliver maximum value for Albertans. As key stakeholders, we need to work together to answer the fundamental question:

What does success look like for Alberta's natural gas and conventional oil future?

The challenges facing us demand that we work cooperatively. To do this we need a common understanding of the value of our resources, and recognition that both investors and resource owners need to benefit from the development of Alberta's natural resources. Success, therefore, has the following three components:

1. A common understanding of the value of our resources and the challenges in developing them;
2. Positive working relationships and constructive dialogue; and
3. A regulatory and fiscal framework that:
 - Facilitates the maximum production from the widest possible range of exploration and development opportunities, at the lowest possible costs, consistent with good conservation and environmental practices;
 - Recognizes that investors need to realize a reward for their investment and ingenuity, consistent with the level of risks undertaken; and

² The Alberta Research Council found that use of CO2 enhanced recovery technology yielded additional recovery of oil in place of about 9 per cent "CO2 Enhanced Hydrocarbon Recovery – Final Report Incremental Recovery and CO2 Storage Potential in Alberta", March 31, 2009. Extending that finding across all light and medium oil resources in Alberta could yield additional oil recovery of up to 4.8 billion barrels.

- Recognizes that resource owners deserve to receive a competitive level of compensation for granting the right to develop and profit from their natural resources – the economic rent.

Alberta's history is characterized by a dynamic entrepreneurial spirit including the courage to adapt our key economic sectors to global realities in order to remain competitive and attractive for investors. Now is the time to once again revisit our strategy and ensure that we have the regulatory and fiscal environment to enable our natural gas and conventional oil sector to be vibrant and sustainable, and profitable for all stakeholders.

II. Rationale

To determine the investment competitiveness of Alberta's natural gas and conventional oil resources, in order to arrive at a common understanding of resource economics and re-establish positive working relationships between the Alberta Department of Energy and industry.

III. Compelling Questions

The compelling questions requiring your input are as follows:

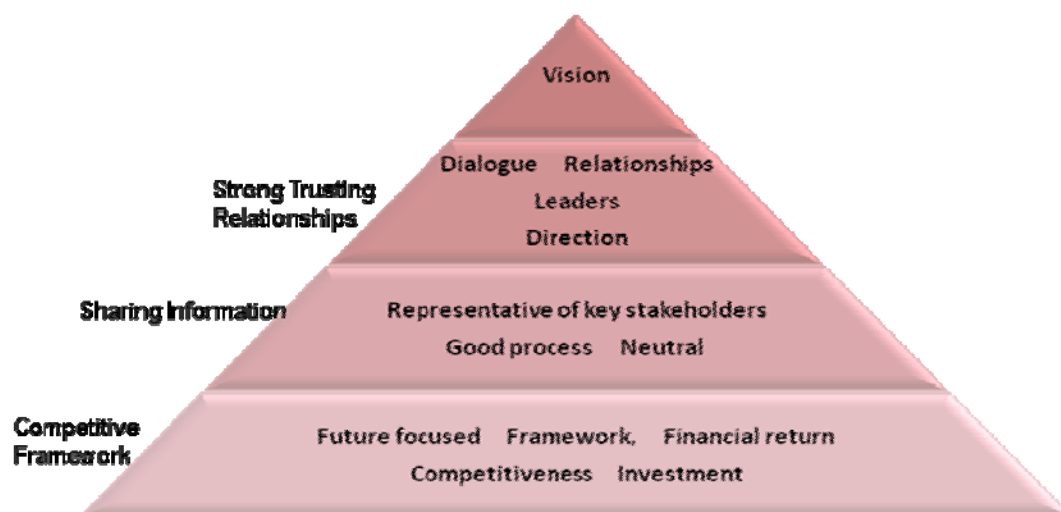
How should we (DOE and industry) position Alberta's natural gas and conventional oil sector for ongoing success, in order to remain profitable, sustainable and competitive for the future?

What is industry's role? What is the Department of Energy's role?

IV. Guiding Principles

- Constructive dialogue among stakeholders is essential;
- Positive relationships need to be maintained and developed between industry and DOE;
- Industry deserves to be rewarded for their investment consistent with the level of risks undertaken; and
- Resource owners deserve to be compensated for granting the right to develop and profit from their natural resources.

To ensure that the positive relationships between the Department of Energy and industry are facilitated, it is necessary to keep the following touchstones in mind:



Only through strong trusting relationships, the sharing of leading-edge data and a future-focused competitive framework can the ADOE and the natural gas and conventional oil industry help to shape the foundation and future of Alberta and position Alberta for success.

V. Approach

Our approach is based on the belief that the success of this study can only be achieved through constructive interaction and dialogue. This will be done by talking directly to the key stakeholders utilizing methods such as interviews, focus groups and workshops. In addition, we will develop a reporting back process to the key stakeholders to ensure that we build positive relationships. We will communicate to the key stakeholders who participated in the process and the ideas generated in the discussions. Issue resolution and risk management strategies will also be employed to ensure that the project remains on task and that stakeholders' contributions are noted as required.

Two-levels of stakeholder engagement will be required to ensure that both an executive and technical analyst perspective will be represented in the investment competitiveness study. These two-levels of stakeholder engagement will take the form of interviews, focus groups and a cross-sector workshop made up of the government, industry, and banks. The executive group will include high-level administrators from government, natural gas and conventional oil industries and the financial sector in Alberta. This group will provide high-level strategic, economic and financial advice on Alberta's investment competitiveness and will also be a forum for continued improvement of relationships between industry and the Alberta Department of Energy. The second level of stakeholder engagement will be the technical (data) analysts who will use their technical

expertise and data knowledge to assist in informing the executive group and in examining the suggestions relating to Alberta's future investment competitiveness within the natural gas and conventional oil sector.

VI. Scope

The Alberta Department of Energy will lead a focused investment competitiveness study that will compare the investment competitiveness of Alberta's natural gas and conventional oil sector with that of appropriate competing jurisdictions, both domestic and international.

The study will take into account conventional oil, conventional gas, and unconventional gas (coal bed methane, shale gas and tight sands). Oil Sands will not be included in the scope of this work.

Recognizing that Alberta companies have opportunities nationally and internationally to invest, the study will provide details about competing jurisdiction's resources and production profiles; resource conditions, market conditions; finding, development, and operations costs; fiscal terms; and regulatory environment. Such details will include:

- Oil and Gas Reserves, Pool Sizes, Production Profiles, Drilling Success Rates and Future Potential
- Resource Conditions – Depth, Location, Reservoir Characteristics, Access Restrictions
- Market Conditions – Transportation Costs and Netback Prices
- Costs - Finding, Development, and Operations:
 - Well Drilling – Drilling, Completion, Equipment, and Tie-In
 - Regulatory
 - Land Access and Seismic
 - Lifting, Gathering, and Compression
 - Processing Costs
 - Overhead, and General and Administrative Costs
- Fiscal Terms – Royalties, Corporate Income Taxes, other Taxes (including Severance Taxes and Property Taxes) Rentals and Fees, and Bonuses
- Regulatory Environment
- Tenure process (fragmentation)
- Well licence approval process (time lines)

- Well density regulations (Pad Drilling)
- Commingling regulations
- Resource management data requirements
- Surface Access
- Municipality Restrictions and Approvals (e.g. Sour Gas, Letters of Credit)
- First Nations Process
- Other Environmental Compliance (e.g., groundwater testing, minimum distances from dwellings, GHG, Air, Land, Water, etc...)
- Impacts / overlap of Federal Regulations

The Investment Competitiveness study will involve key stakeholders including other Government Departments, the Energy Resource Conservation Board, Canadian Association of Petroleum Producers (CAPP) and the Small Explorers and Producers Association of Canada (SEPAC).

For the purposes of this investment competitiveness study:

- Dialogue will be limited to the economic and financial aspects of investment competitiveness, including investors' perceptions.
- While tenure and regulatory issues are being addressed in separate processes, the related economic and financial aspects will be assessed in this study.
- We recognize that there are other stakeholders, however, the purpose of this study is to gather essential information around investment levels and competitiveness

VII. Methodology

Under the guidance of a Project Management Office and the Executive Director of Economics and Markets for the Department of Energy, interviews, focus groups and workshops will be held with stakeholders to identify issues, confirm inputs/methodology, identify work/ information requirements, review, analyze and make recommendations for the preparation of the final deliverable.

Investment competitiveness will be determined on the basis of discounted cash-flow analysis and established and accepted investment criteria for measuring profitability, risk, and fiscal system performance. Measures of Investment Competitiveness include:

- Rate of Return (IROR)
- Net Present Value (NPV)
- Expected Monetary Value (EMV) – Risked NPV
- Profitability Ratio (PFR)
- Risked PFR
- Price / Cost Ratio
- Cost per Unit (Barrel of Oil or Mcf of Natural Gas)
- Payout time (months)
- Resource Owner Share
- Degree of Fiscal Front End Loading
- Incremental Investment Impacts; e.g., Company Taxable Position – full credit vs. stand alone, new entrants)
- Fiscal System Performance: Equity, Efficiency, Neutrality, and Robustness

Cost information to be used in the analysis will be limited to those directly related to the associated reserves. Other measurement criteria and competitiveness indicators will be incorporated as identified through the stakeholder engagement process.

VIII. Critical Success Factors:

The following factors are tantamount to a successful process whereby the project objectives and questions will be debated, deliberated and achieved.

- Industry and other project stakeholders fully understand the process, deliverables and implications of the Investment Competitiveness Study.
- Advisors are brought onto the project early in the process and provide effective support to the industry and DOE teams.
- Project risks and issues are managed proactively.
- Project is managed effectively and key milestones are met.
- Active participation and support from Ministry, Industry Associations and industry senior management in communicating value of study to peers and subordinates.
- Appropriate time is provided to government to fully respond to the report once it is completed.

IX. Key Project Stakeholders

To facilitate the process of stakeholder engagement and ensure that Government, industry and the financial sectors are equitably represented; the following key stakeholder groups have been identified.

Stakeholder Category	Stakeholder Group
Government of Alberta	Executive Level (Premier, Cabinet, Ministers, Deputy Ministers and Special Committees) Department of Energy Department of Finance & Enterprise Treasury Board Alberta Environment Energy Resources Conservation Board
Federal Government	National Energy Board
Pipelines Sector	TransCanada Enbridge
Conventional Oil and Natural Gas Producers	Industry Associations (CAPP, SEPAC) Large CAPS (CEO level) Small Producers/ Juniors and Mid-Caps Working Groups oil and natural gas
Financial Sector	Bankers: Corporate and Investment Banking Investors: Public, Private and Institutional

X. Our Promise

Our promise, based on the aforementioned identified objectives, is to collaborate with our stakeholders. This means that we will look to you for data, information, advice and innovation in formulating solutions and incorporate your advice into our recommendations to the maximum extent possible.

XI. Key Deliverables

Deliverables from the review will include:

- A comprehensive comparison of the economic value of Alberta's natural gas and conventional oil resources by area and resource type, including a comparison of Alberta's competitiveness relative to that of competing jurisdictions.
- A thorough comparison of the characteristics of Alberta's natural gas and conventional oil resources relative to competing jurisdictions, with particular focus on British Columbia, Saskatchewan and on-shore United States; e.g., Texas.
- An identification of the key attributes of oil and gas producers in Alberta going forward.
- An assessment of the regulatory framework to identify potential impacts on investment competitiveness (e.g. impacts on costs and resource recovery) and to identify key enablers and barriers for future natural gas and conventional oil development in Alberta.
- Recommendations for consideration by the Minister of Energy and Executive Council.
- Where appropriate, other recommendations for future studies and / or policy considerations.

XII. Resources Required

The resources required to inform this study, and participate in it include:

1. Financial and economic data provided by the industry including the producers, the financial sectors and other key stakeholders to support their perspectives;
2. Financial and economic data provided by the Department of Energy; and
3. Non-economic factors that influence the study such as human, technology-based and cultural factors.