

La Société Géologique de France vous invite à une conférence :

**« Unconventional Gas Production in Canada »**

**Par Mike Dawson**

President of the Canadian Society for Unconventional Resources

***Au Com'Square, Paris - La Défense***

***Le 16 Octobre de 10 h à 12 h***

*(un café sera servi à partir de 9 h 30)*

***La participation étant limitée à 50 personnes, merci de vous inscrire par avance***

accès : <http://www.nci-lescentresdaffaires.com/images/plan-com-square.jpg>

**Abstract:**

The application of key technologies such as horizontal drilling coupled with multi-stage fracture stimulation has unlocked the vast natural gas resource potential within Canada. It is estimated that nearly 4000 Tcf of natural gas lies within the defined unconventional reservoirs excluding gas hydrates. Marketable gas resources are estimated to be between 700 and 1300 Tcf, enough gas to meet Canada's domestic and exports needs (at current production rates) for well over 100 years. The size of this resource base enabled Canada to consider natural gas as a key foundation fuel in the country's energy strategy.

While the unconventional natural gas resource base has been a boon to Canada's energy future, the development of these resources has led to a number of challenges that has impacted the economic prosperity of the oil and gas sector. In Canada, much of the natural gas potential lies within the landlocked Western Canada Sedimentary Basin and in the Arctic regions which lacks development and transportation infrastructure. In Western Canada, approximately 50% of natural gas production is exported to United States. The substantial growth of shale gas production within United States has led to a dramatic reduction in commodity prices within North America and created a significant differential between North America and International pricing for natural gas. At present there is no transportation infrastructure in place to participation est limitée à 50 personnesenable Canada to capture a share of the international market although plans have been proposed to build a number of pipelines and LNG export facilities on the west coast of the country. In response to the downward pressure on natural gas pricing in North America, the oil and gas sector has shifted much of its focus away from dry gas production to higher priced commodities such as tight oil and liquids rich natural gas. Similar exploration and development technologies to unconventional gas has enabled rapid growth in these areas. In essence, industry is responding to low natural gas prices by shifting capital to higher prices.

As unconventional resource development expands into regions that have not been traditionally considered for hydrocarbon exploration, industry is facing a higher degree of scrutiny by communities, stakeholders and environmental groups. Concerns have been raised about the technological processes of hydraulic fracturing and cumulative impacts of resource development. Industry has responded by becoming more forthcoming with information about the technology processes, as well as developing innovative solutions for specific issues (for example utilizing formation water for fracture stimulation fluids and disposing of fracture fluids in deep geological formations).

In the longer term, the prospects for profitable and sustainable natural gas production in Canada are very good although in the short term (next 5 years), it is projected that there will be continued volatility in the industry, driven primarily by the impact of supply and demand dynamics. The industry will need to continue to improve its communication efforts towards stakeholders and develop and deploy innovative technological solutions to address their continuing environmental concerns in order to maintain the societal license to operate.