

# **3<sup>RD</sup> CROSS-BORDER FORUM ON ENERGY ISSUES**

## **The Security of Continental Natural Gas Supply**

**The Canada Institute of the Woodrow Wilson International Center for Scholars  
EnCana Corporation  
The Canadian Centre for Energy Information**

**Washington, D.C.  
March 21, 2005**

### **The Cross-Border Forum on Energy Issues: A Sustained Dialogue**

The Canada Institute's Third Cross-Border Forum on Energy Issues marks the culmination of successive opportunities for dialogue into a full-fledged series of gatherings between the energy sectors in both countries. What began as a dialogue on a range of business issues between senior industry, academic, and government representatives on both sides of the border evolved into a regular, structured exchange of views on the challenges confronting the energy sector in North America.

To ensure substantive discussion and interaction, the format for the forums revolves around a closed-door discussion among participants, who also hear presentations by guest panelists. Participation is limited to a select group of industry and government representatives, whose knowledge of the issues and interest in cross-border energy trade ensure a candid exchange of opinions and thorough discussion of key—and sometimes difficult—issues. As such, the forums are intended to foster and sustain an ongoing dialogue between key stakeholders in each country's energy sector.

The Canada Institute has worked alongside corporate sponsors Enbridge and EnCana Corporation as well as with partner organizations such as the Canadian Centre for Energy Information in Calgary to organize these forums.

The first forum, “**Closing the Gap: Creating a Collaborative Cross-Border Business Environment**” (presented as the Woodrow Wilson Center Forum on Cross Border Issues), held on March 2, 2004, followed the Woodrow Wilson Awards Dinner in Calgary. It dealt with a broad range of issues affecting business relationships between Canada and the United States, with a particular focus on the energy sector. The Canada Institute released a poll commissioned from Ipsos-Reid on U.S. and Canadian attitudes toward energy questions to coincide with the forum in Calgary. One of the most noteworthy outcomes was the recognition of the need for further dialogue. Participants singled out the energy sector, which despite close cross-border links remains an area of economic activity in need of sustained dialogue to better address common challenges. Indeed, joint approaches to the challenges facing North American energy issues are critical, as are joint efforts to ensure a strong, functional, and reliable continental energy market.

The success of the Calgary forum led the Canada Institute to plan a follow-up forum in September 2004 on “**The Challenges in Canada-U.S. Energy Trade**” to coincide with the launch of the second issue of the *One Issue, Two Voices* publication series. Authors Daniel Yergin and Paul Ziff discussed their papers and a high-level panel explored a host of environmental, regulatory, and infrastructure challenges that characterize bilateral energy trade.

The third forum completed the final phase in the initial series, now presented as the Cross-Border Forum on Energy Issues. The series has come to focus on specific segments of the North American energy market, and the third forum examined the security of natural gas supply. A fourth forum, planned for October 17, 2005, will explore possibilities for secure North American petroleum production, with an emphasis on Canada’s oil sands, from the perspective of market dynamics (supply and demand), policy and regulatory developments, and infrastructure projects and investment trends.

### **The security of continental natural gas supply**

The Canada Institute of the Woodrow Wilson International Center for Scholars hosted the third Cross-Border Forum on Energy Issues in conjunction with EnCana and the Canadian Centre for Energy Information on March 21, 2005. The third iteration of the successful cross-border forum series took place at the Wilson Center in Washington and addressed “**The Security of Continental Natural Gas Supply.**”

The forum brought together a group of more than fifty high-level Canadian and U.S. representatives from government, the private sector, academia, and industry to discuss current challenges affecting the supply of natural gas in North America, and explore possible solutions. The invitation-only event featured presentations by six panelists, which were webcast live, followed by a closed roundtable discussion. The opening panel included:

**Red Cavaney**, President, American Petroleum Institute

**Greg Stringham**, Vice-President, Markets and Transportation, Canadian Association of Petroleum Producers

**Graham Flack**, Associate Assistant Deputy Minister, Energy Policy, Natural Resources Canada

**James Slutz**, Deputy Assistant Secretary for Oil and Natural Gas, U.S. Department of Energy

**Skip Horvath**, President, Natural Gas Supply Association

**Mike Cleland**, President of the Canadian Gas Association

**Gerry Protti**, Executive Vice-President, Corporate Relations, EnCana Corporation, moderated the ensuing discussion, during which panelists and forum participants weighed in on critical issues of geology, technology, regulation, public education, and communication with the public. The forum concluded with a luncheon hosted by the Embassy of Canada. **Michael J. Tims**, Chairman, Peters & Co. Limited, delivered the keynote address, in which he provided a comprehensive overview of the financial markets and transactions that have characterized the energy sector over the past two decades.

EnCana Corporation sponsored the forum and the Embassy of Canada hosted the closing luncheon. The organizers benefited from financial support from the Government of Canada's John Holmes Fund.

## **The North American natural gas market**

In his remarks to the forum, James Slutz, Deputy Assistant Secretary for Oil and Natural Gas, U.S. Department of Energy, said: "Energy is the cornerstone of a strong U.S.-Canada relationship." The 1988 Free Trade Agreement between the United States and Canada and the 1994 North American Free Trade Agreement (NAFTA) accelerated the trend toward greater integration of the natural gas markets in both countries. The resulting interdependence has led to the consolidation of a functional, continental market. Pricing of natural gas now occurs in real-time throughout both countries; an extended network of pipelines ensures seamless distribution across the U.S.-Canada border, and investment flows between the two countries over the past decade have underpinned a series of cross-border mergers and acquisitions leading to an integrated North American energy market.

Skip Horvath, President of the Natural Gas Supply Association, aptly remarked that the North American gas industry has become the most robust in the world. This success can be attributed in large part to the structure of the market, which evolved from a culture of competition to one of cooperation. Such cooperation happens not just between governments but also between industry players; this has allowed the market for natural gas to flourish with much less regulation than other energy markets, such as electricity.

Canada currently exports about half of its gas production to the United States, representing approximately 16 percent of total U.S. gas consumption. Panelists noted that the North American Energy Working Group offered a comprehensive overview with detailed statistics and data for the natural gas market in its recently released report, *North American Natural Gas Vision*.<sup>1</sup>

Natural gas production in all three countries is predicted to grow significantly by 2012<sup>2</sup>, yet challenges abound for supplying the market in the future. Panelists and participants discussed a number of noteworthy trends in the North American gas market as well as the challenges both Canada and the United States face in order to improve the security of continental natural gas supply. The discussion revolved around three main themes:

- a) The geological outlook and the role of technology in determining continental natural gas supply;
- b) The role of government and regulatory issues;
- c) Public education and communications strategy on the part of the industry.

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<sup>1</sup> North American Energy Working Group, Expert Group on Natural Gas Trade and Interconnections, *North American Natural Gas Vision*, January 2005.

<sup>2</sup> The report notes that demand for natural gas is expected to rise by an additional 21.2 Bcf per day by 2012, from 72.6 Bcf per day in 2001 to 93.8 Bcf per day in 2012. *North American Natural Gas Vision*, p. 14.

## **Natural gas production forecasts in light of geology and technology**

North America's indigenous supply of natural gas faces a host of impediments as mature, conventional sources of supply level off and bottlenecks—both regulatory and infrastructure—constrain access to known, but off-limit gas deposits. Nevertheless, technological breakthroughs help balance the overall supply picture, as new exploration and extraction techniques have created significant opportunities for exploiting unconventional sources (e.g., tight sands, shale, coalbed methane). New developments in technology have also allowed for significant oil sands production in Alberta. Higher gas prices have underpinned production from these new gas fields and have prompted companies to look closer at more remote areas such as the Arctic region and deepwater reserves in the Gulf of Mexico.

Canada has played a leading role in developing such unconventional sources. As a result, Canada's overall supply of natural gas and the resulting exports to the United States have proven robust, despite concerns of decline among some of the more mature, conventional gas fields.<sup>3</sup> Yet, several speakers refuted the notion that natural gas reserves and production are declining in Canada. Both Greg Stringham, Vice-President of the Canadian Association of Petroleum Producers, and Graham Flack, Associate Assistant Deputy Minister for Energy Policy at Natural Resources Canada, dismissed the predictions the imminent demise of Canada's natural gas supply as greatly exaggerated and false. Stringham explained that Canada's basin is approximately 10 to 15 years behind the United States in terms of exploitation. In other words, there is much more gas to be found and prospects for incremental growth of natural gas production are good. New natural gas wells have recently been drilled (e.g., Talisman Monkman and Shell/Mancal Tay River). Moreover, the development of new, "non-traditional" sources of natural gas in Western Canada such as coalbed methane is an increasingly important contribution to overall Canadian natural gas production. Graham Flack also noted the important potential of methane hydrates.

Supply constraints, however, persist on both sides of the border, leaving the industry unable to tap the full potential of continental natural gas reserves because of legal, environmental, and regulatory impediments as well as grassroots, NIMBY ("not-in-my-backyard") opposition. As a result, significant onshore and offshore natural gas sources remain untapped. Other supply constraints include insufficient infrastructure to accommodate growing liquid natural gas (LNG) imports.

In his keynote address to luncheon guests, Michael Tims, Chairman of Peters & Co. Limited, argued that NIMBY activism constitutes a significant impediment to major energy projects, in large part because of landowner concerns about pipeline projects. The importance of property rights comes to the fore when such concerns become prevalent in weighing the costs and benefits of a pipeline project. Other experts concur, noting that the NIMBY syndrome accounts for relatively modest local opposition successfully blocking pipeline routes from Canada's Maritime Provinces to New England and New York as well as proposed LNG installations in the United

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<sup>3</sup> A recent U.S. government report noted that despite its high level of natural gas production, Canada's proven natural reserves (56.1 Tcf as of January 2005) rank 19<sup>th</sup> in the world. These reserves have decreased by 13.3% since 1996, and at current rates, production will deplete existing reserves in 8.6 years. See Energy Information Administration, U.S. Department of Energy, *Canada Country Brief*, February 2005.

States.<sup>4</sup> Yet opposition is not uniform everywhere: Graham Flack noted that various communities in Canada are welcoming LNG terminals, which would suggest that in some areas the NIMBY syndrome is rather the exception. NIMBY protests stem not only from environmental concerns, but also from resistance on the part of NGOs, civil society, and local authorities who operate in areas that pipelines must cross to serve markets beyond their vicinity.

Remedies to these challenges that were discussed during the forum include streamlining licensing requirements; increasing access to significant proven reserves of natural gas, both onshore and offshore; and developing new capacity to import, store, and distribute LNG. Canada, meanwhile, is developing ever more “non-conventional” natural gas reserves, which account for a growing share of total Canadian supply. As far as technological developments, some participants argued for a more coordinated, long-term vision between the United States and Canada.

### **Role of government and regulatory issues**

The North American energy industry is mainly driven by market forces, and as Graham Flack noted in his presentation, the government should endorse a market-based energy policy. Skip Horvath, President of the Natural Gas Supply Association, warned that there is nevertheless a danger of complacency. Regulatory obstacles persist, constraining continental supplies of natural gas. Indeed, Red Cavaney, President of the American Petroleum Institute, remarked that U.S. energy policy sends contradictory signals to the market, encouraging demand for natural gas on the one hand, while discouraging supply on the other. The latter effect derives from the regulatory burden on industry. Michael Tims stressed the imperative need for further deregulation despite significant advances witnessed throughout the 1990s; others concurred. Cavaney explained that one of the main obstacles in developing new natural gas supplies within the United States is the tedious process for obtaining the required permits. Meanwhile, legal uncertainties resulting from overlapping federal, regional, and municipal jurisdictions have only compounded the problem. The key to resolving these challenges, Cavaney argued, was to work closely with counterparts in Canada to successfully push for increased access to these resources.

One of the challenges is developing common standards and similar regulations, since Canada and the United States have at times adopted different regulatory approaches. A case in point is Canada’s obligations under the Kyoto Protocol (which focuses on quantities of emissions rather than industry efficiency), whereas the United States developed its own framework in the shape of the Clear Skies Act. These need not be sticking points, however; several participants observed that the United States has done as much if not more regarding emissions reductions as has Canada. The impetus for carbon regulation appears to be gathering momentum at the state level (e.g., California vehicle emissions standards, which other U.S. states and some Canadian provinces are taking a close look at); such a bottom-up approach to regulation may herald new opportunities for industry. Participants underscored the need for efforts to promote natural gas as a source of energy compatible with the goals outlined in each country’s environmental and emissions reductions strategy. Furthermore, another avenue for cooperation between the two countries is to maintain and strengthen international cooperation initiatives, such as the North

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<sup>4</sup> See Joseph M. Dukert, “Yellow Alert for North America on Natural Gas,” *William E. Simon Chair in Political Economy Occasional Contribution*, no. 1 (Washington, D.C.: CSIS, April 2005).

American Energy Working Group. Other bilateral regulatory initiatives that have proved effective include the Smart Regulation Initiative, the Atlantic Energy Roundtable, and the Mackenzie Valley Cooperation Plan.

Flack and Cleland both emphasized the importance of ensuring policy support on the part of the industry to encourage both governments to open exploitation of new sources of energy. A key role for industry would be to put forward initiatives that policymakers can pick up on and pursue further. Such an approach could yield positive results regarding to land access and siting issues, fiscal incentives, and helping maintain public confidence. Cavaney outlined specific recommendations in this area: (1) increase access to onshore reserved not already protected as national parks or wildlife refuges; (2) streamline the costs and procedures for obtaining the required permits; (3) lift constraints on key offshore areas with high resource potential; (4) expand access to world gas supply, including liquefied natural gas; and (5) expand infrastructure to deliver natural gas supplies to consumers. On this last point, Greg Stringham noted that there is also much scope for government and industry to cooperate to ensure the physical security of the energy system in both countries. For this, clear lines of communication are imperative. He suggested increasing cross-border cooperation both at the federal and provincial level as well as better emergency response and crisis prevention mechanisms within the industry.

Overall, participants agreed on the importance of maintaining and enhancing cross-border dialogue to ensure compatible regulatory guidelines and industry strategies for the natural gas sector.

### **Public education and communication strategies**

Participants agreed that the greatest challenge in both countries is to improve public information and education in order to increase public support for the region's energy priorities. Polling results have consistently demonstrated that the public does not share the industry's perception of energy issues. Put more succinctly, "the energy industry needs to do more to tell its story." As a result, the U.S. Congress does not get the necessary pushing and prodding from the public on key energy issues. It is thus up to the government to take the lead in explaining energy priorities. Red Cavaney further stressed the importance for the industry of putting forward outreach and communication strategies to educate the general public.

There was debate, however, as to whether education efforts should be broad-based, or targeted to specific audiences, such as opinion makers. Some participants were unconvinced that the general public would ever grasp the complexities of the natural gas market, and would instead continue to form opinions based on more tangible indicators such as fluctuations in heating costs and other household uses of natural gas. Furthermore, some participants voiced concerns about the industry's credibility to communicate new messaging on energy priorities. Others disagreed, urging stakeholders in the industry, government, and other sectors to make the case for natural gas to a broad range of audiences, from Congress to schools. Ultimately, the energy industry needs to harness public support in order to effectively influence opinion leaders and decision makers, and thus, policymaking. Caution is in order, however, since altering consumer thinking is very expensive. Yet, some encouraging examples of altering public perceptions about the energy sector exist, with one participant recalling British Petroleum's successful advertising

campaign to reposition its brand name as “Beyond Petroleum.” A targeted approach directed at opinion leaders is likely to pay more dividends and be more cost-effective than a broad-based attempt to influence public opinion.

Congressional representatives at the forum enquired about the underlying reasons for the public’s preference for renewable energies (polls show 80% of respondents want renewables); indeed, what lessons can the industry learn from public attitudes towards renewable energies? The public’s generally positive views of renewables go hand in hand with its perceptions regarding energy priorities, which differ from those of the industry. The challenge for the industry is twofold: promote natural gas as a sustainable source of energy, and encourage a more balanced view of “sustainability.”

The concept of sustainability has increasingly become a guiding element in policymaking. Cleland underscored the need to reposition natural gas as a component of sustainability. One participant acknowledged, “how you talk about it matters” (e.g., “coalbed methane” does not resonate with the same positive connotation as “natural gas”). Outreach and communication efforts should consistently “brand” natural gas as a clean, sustainable source of energy, lest it be displaced by other “renewable” fuels in the court of public opinion as the key ingredient for sustainable energy policies. Natural gas is indeed in danger of being perceived as less environment-friendly than several other renewable energy sources that have benefited from successful lobbying efforts and education campaigns. To remedy this, Cleland suggests focusing the industry’s message on the attributes of natural gas such as environmental performance, inherent efficiency, reliability, and adaptability to the continent’s long-term security.

There is also a need for more concerted efforts to promote a more balanced view of sustainability. One participant noted that educational efforts on energy issues are marked by a strong polarization between the industry and the supporters of renewable energies. Recent studies have shown that renewable energies are no panacea. In the case of wind power, for instance, optimal production locations are often far from potential markets and urban centers to be cost-effective, and those that are closer to consumers fall prey to NIMBYism (e.g., Nantucket, Massachusetts). Certain biofuels (e.g., ethanol) are not cost-effective either, but receive significant federal subsidies nonetheless. There is thus an opportunity to promote the use of natural gas as an essential component of a sustainable energy policy. In addition, a less confrontational approach toward renewable energies could prove beneficial: sustainable energy policies need not be grounded solely on the dichotomy between conventional and renewable sources of energy (“good” vs. “bad” fuels). Rather, it will be important to put forward a vision of multiple dimensions of sustainability, accommodating natural gas alongside renewable fuels.

Participants agreed that further dialogue was warranted—indeed necessary—especially between business and government on the one hand, and business and the public-at-large on the other hand. Forward-looking dialogue is necessary, especially to inject more long-term appreciation and forecasts of energy needs and resources into both policymaking and privately funded investments in research and development.