



WOODROW WILSON CENTER CROSS-BORDER FORUM ON ENERGY ISSUES



Woodrow Wilson
International Center
for Scholars
Canada Institute



Canadian Centre
for Energy Information



A Sustained Dialogue

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

The third iteration of the successful cross-border forum series marked the culmination of successive opportunities for dialogue into a full-fledged series of gatherings between the energy sectors in both the United States and Canada. 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—questions. As such, the forums are intended to foster and sustain an ongoing dialogue between 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 the broad business relationship 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 and Enbridge to plan a follow-up forum in September 2004 on “**The Challenges in Canada-U.S. Energy Trade.**” The forum coincided with the launch of the second issue of the *One Issue, Two Voices* publication series, featuring authors Daniel Yergin and Paul Ziff. A high-level panel, comprising the two authors as well as industry experts and government representatives, 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 Woodrow Wilson Center’s ***Cross-Border Forum on Energy Issues***. The series has come to focus on specific segments of the North American energy market, with the third forum examining the security of continental 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, policy and regulatory developments, infrastructure projects, and investment trends.

Closing the Gap: Creating a Collaborative Cross-Border Business Environment

Calgary, Alberta, March 2, 2004

The Canada Institute of the Woodrow Wilson International Center for Scholars
Enbridge
EnCana Corporation

Rozsa Centre, University of Calgary
Global Public Affairs
National Public Affairs
Essentialtalk

On March 2, 2004 the *Woodrow Wilson Center Forum on Cross-Border Issues* was held in Calgary, Alberta. Under the sponsorship of Patrick Daniel, President and CEO of Enbridge Inc., and Gwyn Morgan, President and CEO of EnCana Corporation, the forum brought together a blue ribbon panel of Canadian and U.S. government and business leaders to discuss current cross-border issues, with a particular focus on energy.¹ The panel included:

Hon. Scott Brison, Parliamentary Secretary (Canada-U.S.) to the Prime Minister
Nancy Hughes-Anthony, President and CEO, Canadian Chamber of Commerce
Pierre Alvarez, President, Canadian Association of Petroleum Producers
Thomas d'Aquino, President and CEO, Canadian Council of Chief Executives
Barry Worthington, Executive Director, U.S. Energy Association
John Felmy, Chief Economist, American Petroleum Institute
Stephen Gallogly, Director, International Energy and Commodity Policy, U.S. Department of State

The Woodrow Wilson International Center for Scholars is a non-partisan institute for advanced study and as a key element of its mandate provides a neutral forum for open, serious, and informed dialogue. The Center brings together leaders from government, academia, and business to try to bridge the gap between the world of ideas and the world of policy.

This forum was designed to stimulate broader, inclusive discussion and information exchanges on

cross-border issues and their possible solutions. The forum and subsequent similar events in Washington, D.C. are intended to set the stage for ongoing collaboration between business and government aimed at closing the information gap, and launching a new commitment on both sides of the border to share resources, plans, and programs.

The forum was particularly timely as trade disputes, such as those over softwood lumber and beef, continue to create tensions between Canada and the United States. Since September 11, 2001, concerns over domestic security and the security of energy supplies have grown and continue to dominate policy discussions. Tim Moro presented recent public opinion data by Ipsos-Reid that reflect this trend. The importance of addressing such issues was emphasized at the outset by Scott Brison, who noted, "There is no area of foreign policy that is of greater importance for our government than Canada-U.S. relations."

Energy security: our common issue

Pierre Alvarez observed that over the last 30 years the development of the North American continental energy market has been a success story. The result has been open access to abundant energy, regardless of source, with prices set solely by market forces. This smoothly functioning continental energy market has, in turn, provided the secure, economically priced energy that has underpinned the unparalleled economic success of both countries over the last three decades. But despite these past successes, both countries continue to share concerns with respect to their future energy security.

Domestic energy demand in the United States continues to significantly outstrip domestic sup-

ply, even though it has among the world's highest energy production levels. Stephen Gallogly noted that America's dependence on politically and economically insecure foreign sources of energy continues to grow, despite U.S. efforts to diversify the country's energy supply portfolio. The events of September 11, 2001 only served to increase the nation's concerns. The relative security of Canadian energy supplies have therefore made them particularly attractive.

For Canadians, national energy supply still greatly outstrips national demand. Nevertheless, energy resources such as oil sands and northern gas are often difficult or costly to extract. Significant, long-term capital investments will be required in order to ensure future energy resources remain available to Canadian consumers at acceptable prices. But without secure, long-term access to the larger markets in the United States, these investments are much less likely to occur, as the necessary capital seeks better returns elsewhere around the globe.

For both countries, then, maintaining the existing continental energy marketplace and, where possible, enhancing the open, free movement of energy across North America is vital to ensuring their respective energy and by extension, economic security—and even strengthening national sovereignty. Brison noted that in spite of Canadians' concerns over sovereignty and social independence from the United States, economic security and national sovereignty were inextricably intertwined; without economic security, he said, no country could afford the programs, such as health care, that help define Canada as a nation.

Many of the forum participants noted that despite their disparate sizes, the close linkage of the two countries' economies now make it almost impossible for one economy to change substantially without having a corresponding effect on the other. The impact of global competition on the economies of both countries, they argued, made it increasingly important to consider continental economic strategies.

Risks to meeting our common goals

The forum identified a number of interrelated challenges that pose risks to achieving the two countries' common goals of protecting the present

continental energy market and developing a continental energy strategy.

The first was the general lack of public (and to some degree, political) understanding of energy issues. Because energy issues are complex, there is a real risk that pressures from the often ill-informed public (on either side of the border) could cause politicians to make expedient but not always beneficial decisions, whose impact could be detrimental to energy markets and energy security.

Without economic security no country could afford the programs, such as health care, that help define Canada as a nation.

The second concerned the risk that other trade issues, if not resolved, could begin to spill over and have a significant negative effect on energy trade. Lingering and often acrimonious trade disputes, such as softwood lumber, pose a real risk to the continental energy market, either directly, if energy were to become a bargaining chip in these disputes, or indirectly, by acting as a barrier to progress on a range of trade issues, including energy. The absence of an effective dispute resolution mechanism was considered a key element of this concern.

The third challenge was best characterized at the forum by Nancy Hughes-Anthony as the risk of "benign neglect." The continental energy market was seen in some ways as a victim of its own success. Because the market is working well, there is little impetus to address often "politically loaded issues," such as the need for increased energy infrastructure. Unfortunately, given the long lead times needed to develop new infrastructure, the

Lingering and often acrimonious trade disputes, such as softwood lumber, pose a real risk to the continental energy market.

lack of proactive planning can be particularly problematic. Another related concern was the recurring risk of local public resistance upsetting large new energy developments (the "not-in-my-backyard" or NIMBY syndrome). Unnecessarily complex, misaligned, and overlapping regulatory requirements were another barrier to improving the continental energy marketplace.

The need for leadership

A common view at the forum was, more than anything else, the critical importance of strong political leadership, supported by equally committed business leadership, to ensure that the continental energy market continues to prosper and grow.

Within North America, the next new significant sources of energy, such as oil sands, offshore oil, and northern gas, as well as the transportation networks and refining capacity needed to deliver them to the marketplace, will all require significant investments of capital. For these investments to take place, however, requires a framework for economic, political, and regulatory predictability and stability. Such a framework, in turn, depends on strong political leadership sustained by industry support.

Political leadership is essential to set the required policies and guidelines for regulators to streamline requirements within jurisdictions and harmonize procedures between jurisdictions; to ensure longer term planning for new energy transportation corridors and refining capacity; and to ensure that other trade issues are not allowed to boil over and thus potentially put the energy trade at risk.

Raising the profile

From an industry perspective, there is a recognition that progress has been made in recent years in addressing some of the current energy issues. However, the rate of change has often been slow and sporadic; and the changes, while helpful, have

appears to remain relatively low on the political horizon, despite their fundamental importance to economic and national security. Another energy crisis would undoubtedly stimulate the needed political interest, but decisions made during crises are often not optimal. Moreover, given the long planning horizons of new projects, reacting only after such a crisis occurs will almost certainly be much too late. Therefore, a mechanism to engage political leaders on both sides of the border as soon as possible is necessary.

There is also recognition that the level of importance assigned to trade issues differs between Canada and the United States. From the Canadian perspective, the disparate size in the trading relationship ensures that intercontinental trade issues, including energy, remain a priority. However, while both national and energy security are clearly U.S. priorities, the concept of a continental approach to addressing these issues is not as well established in U.S. thinking. As Barry Worthington noted, despite the critical importance of energy to the United States' well being, the hugely diverse range of local and national issues that U.S. political leaders must address makes it difficult for them to keep a focus on energy issues, particularly during an election year. Any mobilization of political leaders must be sensitive to these differences.

Forum participants were also cautious with respect to how the required changes should be implemented. There was a general concern that the legislative process was at best cumbersome and always at some risk of being hijacked by other issues. Change, wherever possible, was therefore advocated at the operational level, through process improvements (e.g., regulations) and mutual agreements, rather than through treaties and legislation.

Conclusion and next steps

The current geopolitical environment has placed an increased emphasis on nations to protect their economic and physical security and creates a unique opportunity for the energy industry to set the stage for further energy development in North America. For the energy industry to be successful in meeting its goals, however, will require effectively engaging political leaders on both sides of the border.

The level of importance assigned to trade issues differs between Canada and the United States.

not always been particularly substantive. The issues that the industry now faces, such as the development of northern natural gas and oil sands, the drilling of new wells in environmentally sensitive federal lands and offshore deepwater environments, the exploitation of unconventional gas resources, and the expansion of pipelines and power lines in the face of local resistance, are complex. For these issues to be addressed in a timely fashion requires a more aggressive approach, beginning with strong political leadership.

However, such leadership will only emerge if politicians themselves recognize the need. Unfortunately, the profile of energy issues



To accomplish this will, in turn, require significant leadership and cooperation on the part of industry. Forum participants recognized this and outlined actions their respective associations and organizations were undertaking to inform, assist, and motivate political leaders. The panel recommended further gatherings like this one—only suggesting that they be progressively more

action-oriented and focused on specific areas of possible improvement.

Notes

1. This overview presents highlights of various presentations on the current and future challenges of cross-border energy trade. The full range of issues covered at the forum and the recording of the proceedings are available at www.essentialtalk.com/public/woodrowwilson/index.html.

Moving Toward Dialogue: Challenges in Canada-U.S. Energy Trade

Washington, D.C., September 27, 2004

The Canada Institute of the Woodrow Wilson International Center for Scholars

Enbridge

Introduction

The Woodrow Wilson Center's Canada Institute and Enbridge convened a forum with two of the world's leading energy analysts on September 27, 2004 to discuss the Canada-U.S. energy market. Paul Ziff, CEO of the Ziff Energy Group, and Pulitzer Prize-winning author Daniel Yergin, Chairman of Cambridge Energy Research Associates, discussed essays each had written on the bilateral energy market with specific emphasis on energy infrastructure. The essays were published as part of the second issue of the Canada Institute's *One Issue, Two Voices* publication series. Ziff and Yergin presented their papers to an invitation-only, senior-level group of industry and government officials from both the United States and Canada at the forum, which was held at the Wilson Center in Washington, D.C.

The event was convened as a follow-up to the *Woodrow Wilson Forum on Cross-Border Issues* held in Calgary in March 2004, which explored

concrete solutions to improve cross-border relationships in the energy sector, and concluded with a commitment to pursue joint solutions through future collaboration.

This event on the challenges in the Canada-U.S. energy trade represents the Canada Institute's commitment, alongside Enbridge and other partners in Canada, to sustain a cross-border dialogue between key stakeholders from the energy sector. The success of this type of high-level forum, bringing together people in business and government, provides a model for future encounters of this sort. As such, this forum marks the beginning of a full-fledged series, to continue as the Woodrow Wilson Center's *Cross-Border Forum on Energy Issues*. Accordingly, this event is presented as the *2nd Cross-Border Forum on Energy Issues*, "Moving Toward Dialogue: Challenges in the Canada-U.S. Energy Trade."


Background and issues

Canada is the world's third largest natural gas producer. It is also the world's ninth largest crude oil producer, and as production increases from its oil sands, its ranking is expected to rise. Canada is the leading supplier of oil to the United States, ahead of Saudi Arabia, Mexico, and Venezuela. During the first five months of 2004, Canadian oil exports to the United States averaged almost 17 percent of total U.S. oil imports. And during the past 15 years, Canadian gas exports to the United States have increased by 80 percent.

Participants in the forum discussed the numerous factors that influence the efficiency of energy trade between Canada and the United States. Upon analysis, the issues fall into three general categories: compatibility challenges, regulatory challenges, and environmental challenges.

This event represents the Canada Institute's commitment, alongside Enbridge and other partners in Canada, to sustain a cross-border dialogue between key stakeholders from the energy sector.

the broad business relationship between Canada and the United States. The Calgary forum, entitled "**Closing the Gap: Creating a Collaborative Cross-Border Business Environment**," underscored the need for continued cross-border cooperation and the promotion of a vision of North America as an integrated business community. The meeting was an opportunity for key government and business leaders to discuss



Challenges to oversight and regulatory compatibility

Discussion at the forum capitalized on the momentum created by the Memorandum of Understanding (MOU) that had been signed by Canada's National Energy Board (NEB) and the United States' Federal Energy Regulatory Commission (FERC) in May 2004. Participants echoed the MOU's call for joint action, highlighting the part of the document that recognized that coordination of efforts "could promote the public interest through increased efficiency, expedited and coordinated action on significant infrastructure projects."

Canada and the United States have two distinct and separate approval processes for oil and gas projects. In Canada, projects must be approved by the NEB; in the United States, projects must be approved by the FERC. While both of these boards have essentially the same purpose, they differ in their methods and procedures for reviewing and approving projects.

The NEB process tends to be more formal and lengthy, with a panel of board members presiding over public hearings. The FERC process uses Administrative Law Judges (ALJs) to hear presentations from interested parties; there is broad interpretation of who can participate in the process. The ALJ subsequently forwards a recommendation to the FERC commissioners, who make their decisions in monthly public or periodic internal sessions based upon the written record. The FERC is also more political than the NEB, since the U.S. president appoints the five commissioners, no more than three of whom may be from the same political party. The NEB is more independent politically, with the government appointing board members as well as a number of staff.

One speaker remarked that when looking at the relative mandates of the NEB and FERC, it is important to note that their functions diverge in a few key areas. While there is overlap in the area of regulation, the NEB also has a number of technical functions, particularly regarding market supply. The NEB moved to Calgary from Ottawa a decade ago to be closer to its stakeholders; the FERC remains in Washington. These differences must be considered when investigating possible areas of collaboration.

Additionally, given that cross-border projects must be approved by both regulatory agencies, the duplication of efforts in the approval process remains a hindrance to bringing projects on line. Differences in the federal systems of each country also inhibit increased collaboration. In Canada, the federal government has a great deal of power in the approval process and the NEB tends to take a leading role. On the other hand, in the United States more power resides at the state level, and the FERC delegates much more to the states and local communities than is the case in Canada. As a result, the approval of cross-border projects can be slow given the different agency requirements for information. The lack of similar and consistent tolling in cross-border pipelines systems presents another challenge.

Canada is the leading supplier of oil to the United States, ahead of Saudi Arabia, Mexico, and Venezuela.

Environmental assessments of major energy infrastructure projects also present significant challenges. Canada created the Canadian Environmental Assessment Agency about a decade ago to establish a standard federal environmental assessment process. The issue of regulating CO₂ emissions also remains an uncertain proposition, especially since Canada signed the Kyoto Protocol whereas the United States did not. In the United States, the FERC tends to make project approvals conditional on obtaining other environmental approvals, while in Canada, environmental issues are dealt with early in the approval process. Bilateral collaboration to address these differences in the approval process would benefit producers and consumers alike.

Regulatory challenges

Almost every presenter expressed serious concern with the slow-moving, tedious approval process for new projects. The evaluation process has become much longer in recent years, driven in part by the increasing number of stakeholders and regulatory boards that are now involved in the approval process, from the genesis of a project's concept to the eventual start-up.

Some participants suggested that the increase in the number of interventions and regulatory boards stems from the way in which the federal government of Canada resolved land claims by First Nations. While much applauded for involving First Nations in the decision-making process, the land claims settlements have also resulted in the formation of dozens of new land, water, and environmental regulatory boards. One speaker suggested that some of these new boards might have too much power, since they can veto a project even after the main regulatory bodies have granted approval.

Many of these new boards have inadequate and rotating staff. Such boards have important legislative powers and can create significant challenges for proponents of new projects, such as the Mackenzie Valley pipeline. In a large region with fewer than 100,000 people, the large number of these independent regulatory agencies is proving to be a major obstacle to the Mackenzie Valley project, which will have noteworthy positive benefits for the local populations.

One presenter decried the high cost of the approval process. Companies are reluctant to invest significant financial capital in the planning phase of a project only to have it rejected for non-technical reasons. Another challenge to long-term contracts has been the unbundling of the local distribution company (LDC) markets, especially when the residential and commercial sectors have been split from the traditional LDC supply sector. One speaker suggested that perhaps the split LDC markets could be reintegrated, at least informally, to secure more long-term contracts.

The slow approval process, coupled with powerful interveners and regulatory boards, makes for an over-regulated system. As such, many new and crucial projects are not proceeding as planned, which in turn limits available supply, spurring high and volatile prices.

Environmental challenges

One of the primary challenges for the natural gas industry is that although its product is seen as efficient as well as environmentally friendly (suggesting strong demand for it over other sources of energy), natural gas is most often found in remote or restricted areas. In other words, while the repu-

tation of natural gas as a clean fuel will encourage the promotion of new natural gas projects, market forces risk undermining such projects as less expensive alternatives are explored. Other factors come into play when calculating the pros and cons of such projects; one particularly potent variable is the influence of public opinion. As a rule, the public pays more attention to environmental issues than to energy issues, and has more sympathy for the environment than for energy supply.

In this regard, several participants raised the issue of the use of natural gas in oil sands production. Given the tight supply of natural gas, it could make sense to use alternative sources of fuel (which are often heavier than natural gas, producing more carbon dioxide). With increasing concern over carbon dioxide emissions and heightened awareness of climate change issues, however, the public is unlikely to support replacing natural gas for use in oil sands production with a heavier fuel. At the same time, continued use of natural gas in oil sands production will exacerbate current supply shortages and result in increased price volatility.

Participants discussed the potential of liquid natural gas (LNG) as a way to combat the supply shortage. Several participants raised concerns about siting LNG terminals and their location as potential terrorist threats. Others voiced related concerns about the reliability of electricity systems, and the availability of capital and skilled labor, all of which compound the supply constraints witnessed in the energy sector as a whole.

Finally, several speakers brought up the issue of NIMBY-ism (“not-in-my-backyard,” a concept generally referring to reluctance by local residents and municipalities to allow industrial projects in their vicinity). Consumers are unhappy with the unpredictable prices of gas and the increasing occurrence of blackouts, yet they are unwilling to facilitate projects (particularly LNG projects, which require special terminals) that would serve to increase supply and reduce price volatility. NIMBY-ism has recently driven opposition to siting key LNG projects in New England and eastern Canada, despite the significant demand for energy in that region. In short, negative impacts tend to be viewed more locally, while potential benefits of a project are dispersed over a much broader level.



Solutions

Forum participants suggested possible solutions to the challenges highlighted above.

Solutions for oversight and regulatory compatibility

While there is already a large degree of cooperation between Canada and the United States, more cross-border cooperation on energy issues is clearly needed. There was broad consensus among forum participants to hold joint NEB-FERC hearings on cross-border projects as a possible first step toward greater collaboration on energy infrastructure. Participants felt that the notion of holding joint hearings was worth pursuing, as it would avoid duplication and shorten the hearings process. For an NEB-FERC joint hearing, there might be co-chairs from each country and technical support staff from each agency. Harmonizing information requests would also streamline the process and make it more efficient.¹ However, the current FERC and NEB hearings processes differ to such an extent that establishing joint hearings may create its own set of challenges.

Regulatory solutions

There was broad consensus among participants for the need to streamline the project approval process. Participants favored increased predictability and transparency, as well as new policies to provide flexibility in the process.

Participants suggested establishing a two-part process: first assessing the social demand underpinning a project, and then conducting analysis and review, thus targeting projects with higher social priority for swifter access to streamlined mechanisms. One speaker suggested that if a project was deemed to be in the national interest, the government should mobilize a “super panel” representing both regional and national interests in order to ensure the project would proceed.

Participants suggested specifically that regulators take a national perspective when looking at the pros and cons of a project, and that legislatures empower regulators with the authority to supersede other agencies as a way to remove unnecessary regulatory hurdles. One speaker noted that the FERC already has this capability;

the FERC makes non-environmental, economic decisions in what is called a “preliminary determination of non-environmental issues.” In this case, usually within the first six months of the filing of an application, the routing is concluded first and an environmental review follows. Another FERC filing process involves beginning

The slow approval process, coupled with powerful interveners and regulatory boards, makes for an over-regulated system.

the environmental review work before the application is made with the commission. Project proponents and stakeholders meet before the application is filed in order to identify concurrent decision-making processes in the hope of arriving at a final decision more quickly. Canadian participants pointed out that the NEB did not currently have the mechanisms to perform this kind of early or concurrent review.

One speaker suggested that in order to streamline the approval process, regulators should revert to the prior method of preparing and submitting a complete application, followed by a set of discussions from the big picture down to the details. This method would be more cost-effective and could save project proponents from spending large amounts of money on a project prior to its approval.

Environmental solutions

One speaker suggested three possible solutions to the price volatility problem:

1. For utilities, the development of effective customer education programs and flexible gas procurement mechanisms;
2. For the power sector, greater fuel flexibility; and,
3. For individual users, developing hedging and process efficiencies, and re-examining capital investment plans.

Forum participants encouraged regulators to resist linking energy trade with other issues, especially when reviewing environmental and NIMBY questions.

Many speakers asked why there was such a high level of public resistance to natural gas projects, despite the clear necessity for their development. Some believed that the energy industry suffered from a “credibility gap”: communications by and on behalf of the industry were often not seen as credible. Other participants proposed that the industry embark on a campaign to educate the public about the natural gas industry, with the goal of building public confidence over time. The objective would be to engage and involve consumers early on, and thus encourage the public to attend hearings to speak in support of natural gas projects.

Conclusions

Participants expressed their views regarding the critical goals to be achieved in devising a balanced energy policy:

1. **Economic competitiveness:** energy policy must account for the true value of energy resources while encouraging competitive, market-oriented pricing;
2. **Energy security:** energy policy should focus on safeguarding supply and protecting infrastructure against terrorism and other disruptions; and,
3. **Sustainability:** energy policy should take climate change into account, enhance research and development, decrease dependency on fossil fuels, and support the development of alternate fuel sources.

One participant viewed a push toward a continental energy market in North America, and the eventual integration of global energy markets, as integral to the solution of bilateral issues. Presenters wanted to see a genuine commitment on behalf of the two national governments and the industry to develop long-term energy resources.

In his concluding remarks, Enbridge CEO Patrick Daniel summarized the discussion noting substantial agreement among panelists regarding the challenges of market inefficiencies: high prices, high volatility, slow regulatory approval processes, and significant time lags in adjusting supply to demand. Highlighting key points from each presentation, Daniel referred to the “unvirtuous circle”:

high prices and high volatility result in public distrust of the energy industry, thus making it more difficult to proceed with any alterations or systemic improvements. Daniel also recognized that the public often erroneously believes that energy projects should be stalled to protect the environment—and keep the energy industry at bay; but, he added, the public neglects to note the cost of such delays to the consumer. He predicted that soon the public would wake up to the need for gas, perhaps after a cold winter with high and volatile prices. He also argued that sustainability and climate change are important issues for Canada and the United States to address together. Discussions about energy policy go hand-in-hand with sustainability and climate change, issues that should be incorporated into fair, efficient, and realistic policy. He underscored the importance of the Canadian government’s “Smart Regulation” platform to enhance the process for project development.

In closing, Daniel said that the answer to these problems all came down to the consumer:

We need to get the consumer engaged, involved, and coming to our hearings in support of projects—not opposing projects—because the vast majority of the projects initiatives that we’re talking about are a huge benefit to society in general, and there isn’t an understanding of that. It’s a huge undertaking to get out and provide that public education, to get the people coming forward to support initiatives, but it shouldn’t be the ‘big bad energy industry’ against the consuming public when the true beneficiaries are the consuming public.

Paul Ziff concluded the forum discussion by stating that communication on issues and process can go a long way to avoid discontinuities between decisions; communication, he said, also leads to better coordinated timing and agenda-setting of the two regulatory schedules, which in turn facilitates the regulatory process.

Notes

1. See Paul Ziff, “Cross-Border Regulatory Collaboration in its Context: Energy Balances and Energy Policy,” *One Issue, Two Voices*, issue two (September 2004), pp. 2–15.

The Security of Continental Natural Gas Supply

Washington, D.C., March 21, 2005

**The Canada Institute of the Woodrow
Wilson International Center for Scholars
EnCana Corporation**

The Canada Institute of the Woodrow Wilson International Center for Scholars hosted the third *Cross-Border Forum on Energy Issues* in conjunction with EnCana Corporation 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, D.C. and addressed “**The Security of Continental Natural Gas Supply.**”

The forum brought together a group of more than 50 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, Canadian Gas Association

Gerry Protti, Executive Vice-President, Corporate Relations, EnCana Corporation,

**The Canadian Centre for Energy
Information**

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 North American 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*.¹

Natural gas production in all three NAFTA countries is predicted to grow significantly by 2012,² 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:

New exploration and extraction techniques have created significant opportunities for exploiting unconventional sources.

1. The geological outlook and the role of technology in determining continental natural gas supply;
2. The role of government and regulatory issues;
3. Public education and communications strategy on the part of the industry.

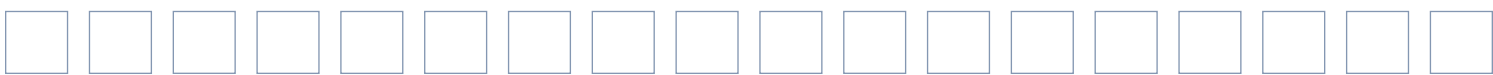
Natural gas production forecasts in light of geology and technology

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 encouraged production from these new gas fields and have prompted companies to look closer at more remote areas such as the Arctic region and deep-water 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.³ 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 of 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. 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 explains how relatively modest local opposition has successfully blocked pipeline routes from Canada's Maritime Provinces to New England and New York as well as proposed LNG installations in the United States.⁴ Yet opposition is not uniform everywhere: 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 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. 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 compound 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.

The impetus for carbon regulation appears to be gathering momentum at the state; level such a bottom-up approach to regulation may herald new opportunities for industry.

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 at least as much 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 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 exploit new sources of energy. A key role for industry would be to put forward initiatives that policymak-

The energy industry needs to harness public support in order to effectively influence opinion leaders and decision makers.

ers can pick up on and pursue further. Such an approach could yield positive results regarding land access and siting issues, fiscal incentives, and helping maintain public confidence. Cavaney outlined specific recommendations in this area: (1) increase access to onshore reserves 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, Stringham noted that there is also much scope for government and industry to cooperate in protecting 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.

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.

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

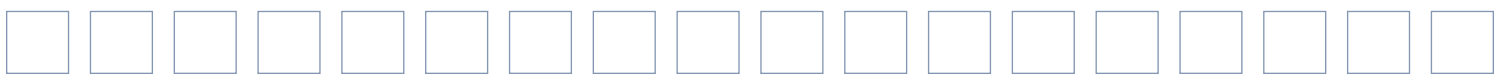
14

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. 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 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 recast 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 NIMBY-ism (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.

The challenge for the industry is twofold: promote natural gas as a sustainable source of energy, and encourage a more balanced view of “sustainability.”

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.

There is thus an opportunity to promote the use of natural gas as an essential component of a sustainable energy policy.

Notes

1. North American Energy Working Group, Expert Group on Natural Gas Trade and Interconnections, *North American Natural Gas Vision*, January 2005.
2. 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.
3. 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 19th 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.
4. 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).

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