

# CONTEXT

*Energy Examined.*

## THE *ROAD* AHEAD



Q1 PRESIDENT'S  
MESSAGE

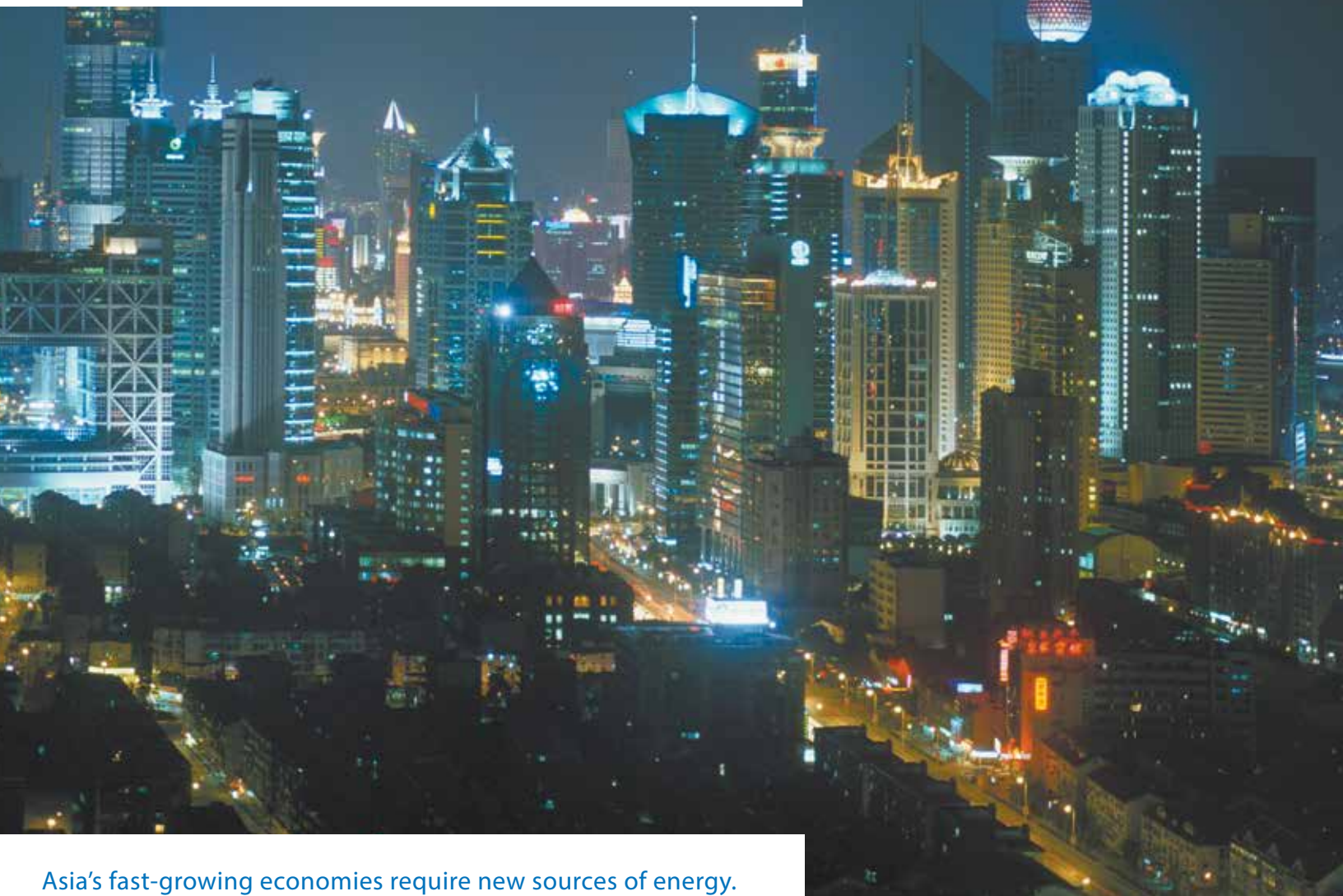
WHAT'S UP AT  
CAPP

Q&A WITH BP'S  
CHRISTINA  
VERCHERE

**CAPP**  
CANADIAN ASSOCIATION  
OF PETROLEUM PRODUCERS

Publication Number: 2013-9201

**Asia needs energy. BC has huge  
reserves of cleaner-burning  
natural gas.  
The next step is natural.**



Asia's fast-growing economies require new sources of energy. BC's natural gas could create high-paying jobs and generate government revenues, while providing people in both BC and Asia with cleaner-burning energy. Canadian natural gas – fuelling the BC economy and contributing to global economic growth. The answer is natural.

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PERMANENT



## Doing Our Part

3711 LBS. OF RECYCLED MATERIAL SAVED:

19,703 GALLONS  
OF WATER

138,216 BTU  
OF ENERGY

4,082 LBS.  
OF GREEN HOUSE GASES

1,187 LBS.  
OF SOLID WASTE

37 TREES

Natural gas production in Western Canada for the first quarter of 2013 is down 0.6 bcf/d from the same period a year ago. Alberta accounted for 0.4 bcf/d of the total decrease and British Columbia, the remainder.

Horizontal wells accounted for 70% of all approvals by governments in Western Canada.

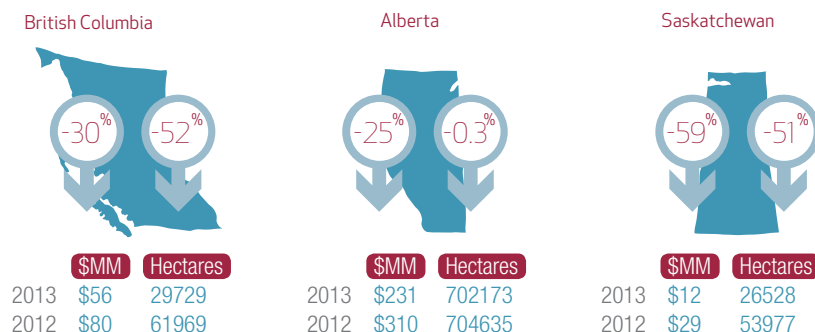
A reversal of the recent trend shows gas well licences approved rebounding by 4% from a year ago, while oil-directed wells were off by 7%. Oil well approvals were up in Alberta but down in Saskatchewan and Manitoba.

The WTI/WCS differential widened in the first quarter 2013 from a year ago to US\$32.01/b in Q1/2013 versus US\$21.80/b in Q1/2012. However, the differential has since narrowed to the US\$15.00/b range.

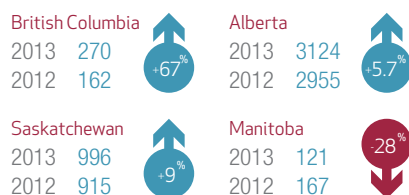
*Note: All data is year-to-date versus the same period in 2012.*

### Land sales in Western Canada

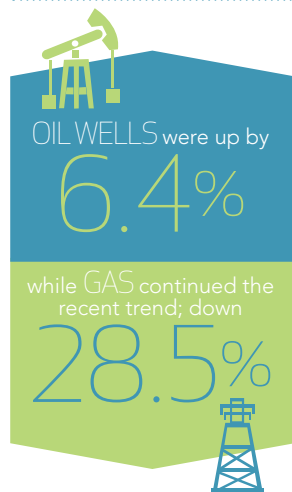
Crown land sales in Western Canada grossed \$300mm in Q1/2013; down 30% from a year ago.



### Well Licences Issued:



Commodity Price	WTI US\$/b	WCS C\$/b	Cdn Par C\$/b	AECO C\$/Mcf
2013	94.37	62.96	88.16	3.20
2012	102.93	81.61	92.23	2.15
	-8.3%	-23%	-4.5%	+48.5%



### Wells Drilled:

Wells completed in Canada for Q1/13 were basically flat relative to last year.

	Oil	Gas
Alberta	+8.1%	-26%
British Columbia	—	-20%
Saskatchewan	flat	—
Manitoba	+23%	—

WTI = West Texas Intermediate; WCS = Western Canadian Select; Cdn Par = Canadian Par; AECO = Alberta Energy Company; MM = million; /b = per barrel; /Mcf = per thousand cubic feet bcf/d = billion cubic feet per day

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# Welcome to *CONTEXT*, CAPP's new quarterly members' magazine.

» The tagline of this magazine is "Energy Examined." Inside these pages, we will examine Canada's oil and gas industry from a number of perspectives: business, policy, social license, technology, and public opinion.

As a member-based organization, our first priority for this magazine is to provide engaging, relevant and timely content for the staff and executives of CAPP member companies, who together are responsible for 90 per cent of Canada's upstream oil and gas production. This includes **What's Up at CAPP**, a section which updates members on CAPP priorities and activities on companies' behalf.

As many of you know, CAPP works to promote competitiveness and social acceptability for Canada's oil and gas production sector on multiple fronts, including market access, pipeline tolls, communications and outreach, fiscal and environmental policies, regulations, workforce issues advocacy, and health and safety issues. Published once a quarter, *Context* provides a one-stop, one-window approach for you to catch up on CAPP's activities, our advancement on annual priorities, and our progress against our goals. Those of you who have received the CAPP Quarterly President's Report and *Upstream Dialogue* in the past will recognize some of the material here. *Context* is designed to replace those publications, providing updates, stats and facts, and broader, more comprehensive issues analysis and background, all in one place.

*Context* also provides lively and engaging **feature articles**, with authoritative insider voices on industry trends and topics. Our goal is not to replace or compete with other industry or business news. Our aim is to provide the clear industry association perspective as analyzed and discussed at the various CAPP committee tables and among regulatory and policy specialists so

you know what the industry experts are saying.

This first issue we've entitled "**The Road Ahead**" and included two feature stories on priority issues the industry is facing: market access and growth, and workforce opportunities and challenges.

Given the diversity of companies that comprise CAPP and the variety of people within, *Context* also offers **educational content**; this issue features a primer on hydraulic fracturing, and an Ask an Expert Q&A with Michael Culbert of Progress Energy on the subject of liquefied natural gas (LNG). Canada's oil and gas industry employs people of many talents and specialties, and for those of you seeking a better understanding of the topics and technologies affecting our industry, *Context* endeavours to provide clear answers in thoughtful and interesting ways.

So, hope you enjoy our new approach, and hope you take a moment to let us know what you think.

One final note, please also check out [www.capp.ca/context](http://www.capp.ca/context). Our online companion to *Context* features fresh, interactive content, as well as a link to a digital edition that can be viewed on computer or tablet.



**Janet Annesley**  
**Vice President Communications,**  
**Canadian Association of Petroleum Producers**



Environmental Performance,  
Economic Growth and  
Energy Security and Reliability.

3Es



» As a member-based organization, the Canadian Association of Petroleum Producers (CAPP) is focused on value delivery to our members.

**This value is encapsulated in our mission statement:**

*To enhance the economic sustainability of the Canadian upstream petroleum industry in a safe and environmentally and socially responsible manner, through constructive engagement and communication with government, the public and stakeholders in the communities in which we operate.*

We accomplish this by focusing on two broad strategic outcomes. The first is improving the competitiveness of the Canadian upstream oil and gas industry and access to domestic and export markets to enable production growth. The second is maintaining or enhancing industry's social licence, to enable both growth in production and exports for Canada.

- The increasing dependence on integrated communications and performance along the value chain to maintain or enhance industry's reputation and social licence; and
- Competitive pressures in the form of price differentials, rising costs and workforce challenges.

The external environment is further complicated by the potential for political change, notably an election in British Columbia on May 14, and political uncertainty in Ontario.

In light of these trends, the CAPP Board of Governors has endorsed CAPP's Short-List Priorities for 2013, which include the following:

**Competitiveness:**

- A stay-the-course approach to fiscal policy with no substantive negative fiscal actions by provincial or federal governments;
- Ensure continued implementation of federal and provincial regulatory reform initiatives in a timely manner;
- Provide input on reform of Species-At-Risk and National Conservation Plan legislation, and on proposed federal climate policy, that

*Together with our members, we operate within a dynamic and increasingly complex external environment.*

Together with our members, we operate within a dynamic and increasingly complex external environment. A number of key trends are influencing industry in 2013, and these include:

- The need for market diversification and growth, both for oil and natural gas. Flowing from this is the need to enable infrastructure development that faces increasing opposition;
- Increasingly polarized public policy dialogue regarding our industry;
- Heightened expectations by Canada's First Nations regarding their role in resource development projects;



## CAPP's Short-List Priorities for 2013

aligns with CAPP objectives;

- Successfully implement market access and growth strategies inclusive of U.S., eastern Canadian and Asian markets;
- Provide input on pipeline tolls to promote decisions and agreements that maintain or improve the competitiveness of members;
- Provide input to Alberta and federal governments on constructive engagement with Aboriginal Peoples;
- Implement CAPP's workforce strategy while engaging with Enform to enhance delivery of safety results relevant to CAPP members;
- Engage in the Canadian Energy Framework process to provide impetus and ensure broad alignment with CAPP priorities.

### Social Licence to Develop and Operate:

- Take the Responsible Canadian Energy Program to the next phase of design and reporting with improved metrics;
- Further develop the Hydraulic Fracturing Principles and Operating Practices and monitor implementation;
- Improve line of sight to jobs, economic benefits and quality-of-life benefits arising from the oil and gas industry;
- Facilitate full value chain integration and broader coalitions; and
- Encourage a consistent and aligned industry message (i.e., "One Voice") as part of an integrated communications and outreach program.

Our goal is to deliver progress throughout the year on these priorities and to be accountable to you, our members, at every stage.

Though it is still early in the year, there have already been some key outcomes. On the competitiveness front, the National Energy Board's decision to disallow TransCanada's proposal to restructure its natural gas Mainline and shift almost \$500 million per year in costs to shippers was a major positive milestone for the industry. However, on the fiscal front, while the 2013 federal budget contained no negative news, CAPP was disappointed that the budget did not include a proposed tax reclassification of liquefied natural gas (LNG) facilities that would have leveled the playing field with U.S. and Australian competitors.

A clear priority for CAPP this year is improving market access, diversity and growth, and CAPP is moving forward on strategies to facilitate access to the West Coast, the Gulf Coast and eastern Canada. A delegation of industry CEOs and CAPP executives met with an array of key U.S. policy influencers in Washington D.C. for discussions which were constructive and timely, with U.S. decision makers showing greater interest and awareness of Canada-U.S. energy issues than on previous

visits. CAPP also released its Natural Gas Forecast, an analysis and presentation that will be used to articulate the benefits if proposed LNG projects move forward, and the economic consequences if they do not.

CAPP was encouraged by movement toward federal energy regulatory reform, and by the announcement by the Government of Alberta of the creation of a single Alberta Energy Regulator (AER). CAPP will continue to provide input to ensure process efficiencies and cost savings for our members are realized.

From a social licence perspective, CAPP continues to place emphasis on enhancing its Responsible Canadian Energy (RCE) Program. The RCE awards dinner held in March was a well-attended event that recognized industry success in environmental, health and safety performance. Attended by industry, political leaders, First Nations and media, the event helped raise awareness of our industry's focus on performance improvement. Meanwhile, integrated communications and outreach strategies are ongoing, with an emphasis on grassroots engagement at regional and local levels, both in places where CAPP members operate, and in places where we need to be to facilitate market access.

Finally, we've also had a few changes internally here at CAPP. Among them is the hiring of Alex Ferguson to take over CAPP's Policy and Environment portfolio. At the same time, responsibility for Northern and Atlantic Canada have been moved under Policy and Environment. This change better aligns files involving engagement with the federal government. Responsibility for the Canadian Natural Gas Initiative, meanwhile, has been consolidated into the Communications group.

Another change, of course, is the creation of *Context*, the new quarterly member publication you are now reading. *Context* replaces the Quarterly President's Report and features both a comprehensive quarterly update on CAPP activities as well as industry content we hope will engage you as a member of Canada's oil and gas family. As with all member communications, our goal is to provide transparency and accountability through engagement—to ensure you know what CAPP is doing on your behalf, how we are doing it, where we have succeeded and where we can improve. I hope that you enjoy the first edition of *Context* and will look ahead to the next edition in summer 2013.

Sincerely,



**Dave Collyer,**  
**President, Canadian Association of Petroleum Producers**

Alberta announces creation of a single regulator. The Alberta Energy Regulator (AER) will combine the regulatory functions of the Energy Resources Conservation Board and the Ministry of Environment and Sustainable Resource Development. The AER will start up in June 2013 with priorities of regulatory streamlining and process efficiencies designed to save industry and government time and money, and provide certainty of timelines for the regulatory process. However, the province also plans to shift 100 per cent funding of the new AER to industry (a change from today's shared funding model). Gerry Protti, former oil and gas executive and the founding president of CAPP has been appointed the AER's board chairman.

TransCanada announced a proposal to convert existing natural gas pipelines and build new capacity and facilities to create the proposed 4,400 kilometre Energy East Pipeline that would take as much as 850,000 barrels a day from Western Canada to Montreal, Quebec City and New Brunswick. "It is in the national interest to replace higher-cost foreign crude with lower-cost Canadian crude to consumers and refiners in Quebec and Atlantic Canada," said Canada's Minister of Natural Resources, Joe Oliver, during a press conference.

The federal government announced its 2013 budget on March 21. The budget was positive in its emphasis on addressing the growing skilled labour shortage, including the creation of a Canada Job Grant program which provides up to \$15,000 per person for training for in-demand jobs. On the downside, the government elected not to address industry's proposal for reclassification of liquefied natural gas (LNG) export facilities as manufacturing and processing facilities for tax purposes, a move that would have made Canadian LNG export facilities more competitive with other jurisdictions supplying the Asia-Pacific region.

On March 22, by a vote of 62 to 37, the U.S. Senate approved language that encourages development of the Keystone XL Pipeline. The vote is nonbinding but sends a strong signal of bipartisan (Democrat and Republican) support for the project. However, the pipeline continues to face very vocal opposition from some interests in the United States.

## Ad Controversy ➤

On March 17, 2013, the Alberta government published a print ad in the *Sunday New York Times*. The half-page ad headlined "Keystone XL: The Choice of Reason" was intended to bolster public support for the pipeline, which is currently undergoing review by U.S. lawmakers. It outlined Alberta's record of environmental responsibility, including financing of clean-energy projects, while emphasizing the economic and jobs growth potentials of Keystone for Americans.

The ad, which cost \$30,000, sparked some debate regarding its use of public money. Stefan Baranski, spokesperson for Alberta Premier Alison Redford responded: "It's important for Alberta to get the facts on the table as widely as possible."

## Petroleum Human Resources Council and Enform Canada merge

Safety, training and human resources services in the Canadian oil and gas industry are now part of one organization following the merger of the Petroleum HR Council of Canada with Enform Canada. The move takes the form of an acquisition of the Council by Enform. Effective April 1, the Petroleum HR Council operates as part of Enform.

"We are looking forward to this new relationship with our Council colleagues," said Cameron MacGillivray, President and CEO of Enform. "This move will be good for both organizations and for our industry."

The Council has a long-standing close relationship with Enform, which supports and promotes the highest safety standards in Canada's upstream oil and gas industry through innovative training, certifications, services and resources.

"This is a positive initiative for Canada's oil and gas industry," said Cheryl Knight, Executive Director and CEO of the Council. "It will re-organize important industry services within one organization, and provide new opportunities to meet industry needs."

The main programs and services of the Council will continue, primarily focusing on two key areas of priority: labour markets information and careers in oil and gas.

Logo: courtesy Enform/PHRC; Keystone XL ad: courtesy Government of Alberta

# Keystone XL: The Choice of Reason

After more than four years of comprehensive and exacting economic and environmental review by the U.S. State Department, the Obama administration will soon make the decision about whether to approve the Keystone XL pipeline from the oil sands in Alberta, Canada to refineries in America's Gulf Coast.

America's desire to effectively balance strong environmental policy, clean technology development, energy security and plentiful job opportunities for the middle class and returning war veterans mirrors that of the people of Alberta, Canada.

And these joint values reflect the actions of the Government of Alberta, Canada. This is why choosing to approve Keystone XL and oil from a neighbor, ally, friend and responsible energy developer is the choice of reason.

The State Department has indicated that Keystone XL will not have a significant impact on the environment. Yet some still argue Keystone should be decided on emotion rather than science and fact about Canada's responsibly developed oil sands resource.

Learn more about the oil sands and Alberta's environmental track record at [oilsands.alberta.ca](http://oilsands.alberta.ca)

### Why Keystone XL is the choice of reason:

- More energy from an ally with a strong environmental track record
- Less gas in the tank from unstable foreign regimes
- 42,100 direct and spinoff jobs for Americans during construction\*
- An average of 138,000 American spinoff jobs per year for the next 25 years from continued oil sands development\*\*

### Did you know?

- Alberta, Canada was the first place in North America to legally require all large industry to curb greenhouse gas emissions, and Alberta already has a \$15 price on carbon.
- Alberta, Canada is committed to pushing the bar higher on its leading climate change policy that already includes a \$1.3 billion investment in carbon capture and storage and a fund that is helping to finance more than 40 clean technology projects.
- Canada and the U.S. share the world's closest trading relationship. For every dollar of oil the U.S. imports from Canada, 90 cents returns to the U.S. economy through Canadian imports of goods produced in the U.S. This compares to 33 cents for Saudi Arabia and 46 cents for Venezuela.
- Greenhouse gas emissions from the oil sands in Alberta, Canada make up just over 1/10th of one per cent of the total.

\*Source: U.S. State Department  
\*\*Source: Canadian Energy Research Institute, July 2012 (CERI)

Alberta Canada



## WORKING TOGETHER: Oil and Gas and Rural Municipalities

An example of industry working collaboratively and constructively with communities was displayed when Devon Energy representatives met with Elrose, Saskatchewan councillors in 2012 to talk about the company's development program for the area. In the course of discussions, Devon realized town officials had a problem in which Devon was uniquely positioned to assist. Kevin Stark, Devon's manager of surface land and construction, had heard from the townsfolk that their lagoon, which holds treated sewage water, was at capacity.

"It was a major community concern," says Stark. "They were looking at drilling a water-disposal well to address the capacity issue, but it was an expensive option and they did not have much technical expertise in this area."

Stark, along with Completions Engineering Leader, Rod Ternes, proposed a creative solution: Devon would use the Elrose lagoon water for its local operations. Up to that point, Devon had been trucking in as much as 4,200 cubic metres of fresh water a year from Swift Current, about 120 kilometres away.

By using the town's lagoon water, Devon was able to reduce its reliance on fresh water for local drilling operations by 70 per cent. Meanwhile, the lagoon was drained by about 20 per cent, eliminating the overflow problem. Reducing its reliance on water from Swift Current also meant that Devon could take over 100 trucks off the road. This translated to a GHG reduction of 51t CO<sub>2</sub>E per year (the equivalent emissions produced by the consumption of 5,717 gallons of gasoline). It also meant less dust, traffic congestion, and nuisance for local residents.

✚ Devon turns non-potable lagoon water into an environmental win



✚ Laricina Energy's Saleski Pilot solvent-cyclic SAGD facility

## INNOVATION: Laricina Energy and SAGD

One of the technologies for reducing the visible environmental footprint of oil sands development is steam-assisted gravity drainage, or SAGD. A proponent of SAGD is Laricina Energy, who in the fall of 2010, completed construction of its Saleski Pilot near Wabasca, Alberta. The project is the first Grosmont carbonate oil sands project using SAGD.

In July, 2011, the project was selected by the Alberta government as one of six innovative energy projects to receive funding under the province's Innovative Energy Technologies Program.

The Saleski Pilot is unique because it enhances industry-proven SAGD extraction methods. In traditional SAGD, high-pressure steam is continuously injected into the upper of two horizontal wells that are drilled into the oil reservoir. The steam heats the oil and reduces its viscosity, causing the heated oil to drain into the lower wellbore, where it is pumped out. At Saleski, Laricina engineers have found that cyclic-SAGD (C-SAGD), which uses a single horizontal well to steam and produce bitumen in cycles, is more effective at extracting oil from the Grosmont reservoir. As well, they are testing solvents with the steam that assist in reducing viscosity. This process is called solvent-cyclic SAGD (SC-SAGD), and it has the potential to reduce operating steam-to-oil ratios by 30 per cent. Less steam conserves water while reducing energy consumption and GHG emissions.

The main goal of the Saleski Pilot is to understand how to optimize commercial development of the Grosmont carbonate formation, which includes the application of solvents to the reservoir. Laricina is currently seeking regulatory approval for Phase 1 expansion at Saleski from 1,800 barrels per day (bpd) to 12,500 bpd.

## What do you think of Context?

Share your opinion on our online poll by visiting [www.capp.ca/context](http://www.capp.ca/context)

A copy of the Keystone XL ad can be viewed at <http://news.nationalpost.com/2013/03/17/alberta-new-york-times-keystone/>



## DID YOU KNOW?

*Canada is the world's third-largest producer of natural gas. It was first discovered in 1859 in New Brunswick where it was flared as a waste product. Canada's first offshore discovery was made south of Sable Island, Nova Scotia, in 1967.*

## Markets and Oil Sands

### CAPP CEO Delegation Visits Washington D.C.



On February 26 to 27, CAPP took a CEO delegation to Washington to meet with key U.S. policy influencers and discuss relevant Canada-U.S. energy issues. Their goal was to demonstrate oil sands as an environmentally responsible source of oil supply, in particular, highlighting GHG emissions improvements through technology. The team also emphasized Canada's key role in enabling a future of North American energy self-sufficiency, while clarifying facts surrounding the Keystone XL pipeline proposal.

The delegation included CEOs from companies prominently involved in oil sands development as well as senior CAPP representatives.

Over the course of one and a half days, the delegation was involved in more than 30 meetings with stakeholders, principally key Democrat and Republican congressmen and senators, and prominent policy influencers. The delegation also hosted a lively dinner discussion at the Canadian Embassy with over 10 key energy and environmental think tanks and met with Canada's Ambassador to the United States, Gary Doer, and the newly appointed Alberta Government representative, David Manning.

"The delegation found that the visit was timely as the level of interest and awareness of Canada-U.S. energy issues was higher than on previous visits," said Kay She, Government and Policy Advisor at CAPP. "There was a particularly high focus on the environmental dimension of energy issues, and the delegation was able to provide a credible voice in highlighting the strength of Canada's environmental regulations along with recent advances in environmental performance."

Kay She notes that the delegation also underscored the significant benefits of the oil sands in terms of jobs and economic growth for American companies, both direct and along the associated supply chain.

The visit is part of an ongoing strategy employed by CAPP on behalf of members to ensure American policy makers are made aware of Canada's environmental policies and environmental performance innovations from credible and knowledgeable sources.

### Natural Gas Forecast: Creating Informed Dialogue



To encourage an informed dialogue on the issue of Canadian natural gas production, CAPP has produced its annual natural gas forecast that examines future prospects for the industry. This year's forecast analyzes two scenarios: a market constrained case where there is no liquefied natural gas (LNG) export development, and a market opportunity case where Canada's LNG potential is realized.

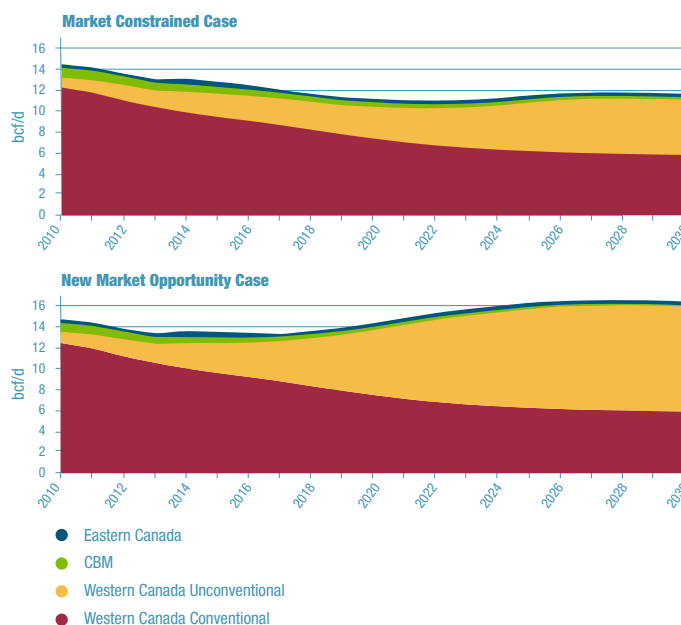
The analysis, which uses aggregate industry data, highlights some key points. In either scenario, market constrained or market opportunity, Canadian exports to the United States are predicted to fall due to increasing production south of the border. Growth in oil sands production and resultant demand growth for natural gas forms a significant part of the overall demand. Without new markets such as LNG exports to Asia, the use of natural gas for power generation, and a marked expansion in the adoption of natural gas vehicles, Canadian production is projected to steadily decline from its current level of 14 billion cubic feet per day (bcf/d) to under 12 bcf/d by 2020. However, if these new markets can be accessed, Canadian natural gas production is expected to begin a recovery later in this decade to levels upwards of 16 bcf/d by 2030.

"The forecast analysis assumes that Canadian natural gas production is less constrained by resource base than by market conditions," notes Mark Pinney, Manager Markets and Transportation at CAPP, "which seems reasonable in light of the rapid growth of unconventional shale gas exploration and development."

Moving forward, CAPP will use this forecast to engage stakeholders and decision makers on the importance of new markets like LNG to the Canadian natural gas industry—an industry that produced estimated total revenues of \$15.5 billion in 2012.

For more information on the CAPP Natural Gas Forecast, contact Mark Pinney, Manager Markets and Transportation, [mark.pinney@capp.ca](mailto:mark.pinney@capp.ca)

### Canadian Natural Gas Production Forecast



## Pipeline Regulatory

*Pipeline Progress: Three Key Decisions Improve Competitiveness and Certainty for Industry*

### Trans Mountain Three-Year-Toll Settlement



A three-year-toll settlement has been reached for the Trans Mountain pipeline that transports oil from Edmonton to the West Coast. Trans Mountain is currently the only pipeline from Western Canada that has coastal access, delivering oil to both regional and offshore consumers. Through coordinating the efforts and expertise of a working group selected from its Trans Mountain Committee, CAPP facilitated the settlement between Kinder Morgan and industry that provides shippers with toll certainty over the three-year timeframe leading up to the planned Trans Mountain expansion.

The key elements of the settlement include:

- Return on equity set at 9.5 per cent (50 basis points lower than 2012);
- Interest rate on debt set at 5.5 per cent (50 basis points lower than 2012); and
- A capacity incentive to encourage Trans Mountain to maximize their throughput by holding out the potential for earning additional revenue if the pipeline makes deliveries above a specified benchmark

In the past two years, CAPP has negotiated one-year settlements with Kinder Morgan. "This latest negotiated settlement provides certainty on the tolling for the existing Trans Mountain pipeline, and provides a way to motivate Trans Mountain to deliver as many barrels through its pipeline as possible prior to their proposed expansion timing," notes Beth Lau, Manager Oil Supply and Markets at CAPP.

For more information, contact Beth Lau, Manager Oil Supply and Markets, [beth.lau@capp.ca](mailto:beth.lau@capp.ca).

### ATCO Pipelines Decision



In a ruling favourable to shippers, the Alberta Utilities Commission (AUC) has ordered a reduction in ATCO Pipelines' approved capital expenditures from an applied-for \$153 million to about \$82 million. The decision aligns with CAPP's position that ATCO Pipelines' rate base should not include projects that have been cancelled, replaced or are not yet in service. The decision will also result in a reduction in ATCO Pipelines' revenue requirement for 2012, the exact amount of which will be determined in a subsequent proceeding.

According to Ritch Fairbairn, Manager Natural Gas, Markets and Oil Sands at CAPP, "This decision may also help us in other proceedings regarding future capital projects and rate base. It should assist us in moving ATCO from a forecast rate base to an actual rate base." Stakeholders and CAPP are in the midst of a hearing on an application by ATCO Pipelines for 2013 and 2014 revenue requirements.

### TransCanada Restructuring Decision



In March, the National Energy Board released its decision on TransCanada's proposal to restructure its natural gas Mainline. A major issue for producers was TransCanada's intention to shift the costs and risks of the underutilization of its Mainline and Foothills pipelines to NOVA Gas Transmission Ltd. (NGTL) pipeline by way of a proposed Alberta System Extension. CAPP argued on behalf of its members that the extension would unfairly impose Mainline costs on NGTL shippers. The proposal would have shifted almost \$500 million per year of costs, and would have increased the NGTL cost of service by 33 per cent.

The National Energy Board (NEB) decision closely aligned with CAPP's position by denying the Alberta System Extension. "This decision is entirely consistent with the established regulatory treatment, which treats each pipeline as a separate business," said Nick Schultz, Vice President of Pipeline Regulation at CAPP. The decision means a massive shift of costs and risks that would have disadvantaged western Canadian natural gas producers has been avoided.

Other highlights of the NEB decision include:

- Adoption of a multi-year fixed toll methodology with a built-in incentive mechanism, as proposed by CAPP;
- Denial of the depreciation cost transfer from the Northern Ontario Line; and
- The toll for the Empress to Dawn section has been lowered to \$1.42/GJ; under the traditional approach, the toll would have been \$2.58/GJ.

## CAPP's Strategic Outcomes

CAPP STRIVES TO DELIVER FOR OUR MEMBERS  
IMPROVED COMPETITIVENESS IN:



**Fiscal**



**Environmental Policy and Regulations**



**Market Access and Growth**



**Pipeline Tolls**



**Aboriginal Consultation**



**Workforce**



**Safety**



**Canadian Energy Framework**

ENHANCED SOCIAL LICENCE TO DEVELOP AND  
OPERATE THROUGH:



**Performance**



**Communication and Outreach**



## Communications

### Post-Media Partnership Delivers



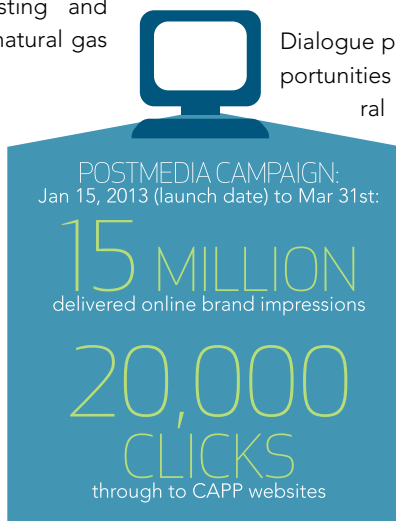
CAPP continues to see success creating public awareness and informed dialogue on energy issues through its print and online media partnership with Postmedia. The partnership extends across all Postmedia markets — Vancouver, Calgary, Edmonton, Saskatoon, Windsor, Ottawa, and Montreal — including its flagship publication, the *National Post/Financial Post* Energy section. Online Energy news coverage by Postmedia features CAPP social media links, videos and advertising, CAPP's resource centre with links to relevant industry information, CAPP commentaries, and news releases, plus a featured link section highlighting a relevant theme each month (April, for example, is Responsible Canadian Energy month).

Postmedia also runs weekly print insertions with newspaper partners and participates in monthly Joint Venture pieces aligned with the *Financial Post* editorial themes.

On February 28, An Energy Special Report section on Energy Transportation was featured in *Financial Post* editions nationally. The section spanned 14 pages and examined how Canada's growing energy industry depends on existing and proposed pipelines, rail service and liquefied natural gas (LNG) projects.

On February 28, CAPP's Oil Sands Today branding was featured on the home pages of all Postmedia online newspapers across Canada. During that single day, CAPP received over six million impressions and almost 2,200 clicks-through to CAPP's recently launched Oil Sands Today website.

To receive the monthly FP Energy News: CAPP E-Newsletter, please email Christina Rontynen, Special Projects Advisor at CAPP, [christina.rontynen@capp.ca](mailto:christina.rontynen@capp.ca).



together senior representatives from the natural gas full value chain to have open discussions with Canadian business, environmental, sustainability, academic, Aboriginal, and community leaders on what the future holds for the production, transmission and use of natural gas in Canada.

The natural gas Dialogues program forms a key part of efforts to involve Canadians in a larger discussion of the economic, environmental, and energy security and reliability dimensions of natural gas. Meetings were held in various communities, with focus on major producing and operating areas, and key policy centres and consumer markets.

CNGI has published a summary of the of the Dialogues report, together with industry's collective response, found here:

**ENGLISH:**

[www.canadiannaturalgas.ca/media-library/naturalgasdialogues](http://www.canadiannaturalgas.ca/media-library/naturalgasdialogues)

**FRENCH:**

[www.gaznaturelcanadien.ca/medias/a-propos-du-gaz-naturel](http://www.gaznaturelcanadien.ca/medias/a-propos-du-gaz-naturel)

"We believe this report can serve as a foundation for further dialogue, and additional impetus to advance solutions that are in the interests of all Canadians," said CAPP President Dave Collyer.

Dialogue participants broadly recognized the economic opportunities and environmental benefits presented by natural gas as the cleanest-burning hydrocarbon. Challenges were also voiced, including impacts on the local environment and communities as the result of development, and concerns about Canada's competitiveness in global natural gas markets.

For more information, contact Patricia Adams, Manager of Natural Gas Communications, [patricia.adams@capp.ca](mailto:patricia.adams@capp.ca)

### Engaging Canadians, The Natural Gas Dialogues



The Canadian Natural Gas Initiative (CNGI) has released its Natural Gas Dialogues report. The Dialogues are a comprehensive outreach program spearheaded by CAPP, the Canadian Gas Association and the Canadian Energy Pipeline Association, in partnership with the Canadian Society for Unconventional Resources and the Canadian Natural Gas Vehicle Alliance.

In recognition of the changing market dynamics for natural gas and the challenges and opportunities these bring, the goal of the Dialogues was to gain a better perspective about the variety of views Canadians have of the natural gas industry. In 2012, a series of eight Dialogue sessions were held across Canada, bringing

### MemberNet Update



CAPP's member-only website, MemberNet is undergoing a redevelopment to enhance cohesion with existing software solutions and introduce new features not currently available, such as new collaboration tools for committees, a key messages repository and a more robust search tool.

The revamped MemberNet will launch in the second quarter of 2013. Orientation sessions for the new MemberNet will be made available to all members — these sessions will be remotely accessible. Dates are forthcoming. Questions and comments can be directed to Danelle Wettstein, CAPP Communications Advisor, [danelle.wettstein@capp.ca](mailto:danelle.wettstein@capp.ca), 403.267.1131.

**membernet**  
[membernet.capp.ca](http://membernet.capp.ca)



« Keynote speaker Chief Jim Boucher of the Fort McKay First Nation addresses audience at CAPP's RCE awards dinner.

## Newfoundland and Labrador Update



Starting in April, CAPP launches its integrated 2013 **communications campaign** endeavoring to maintain the sense of pride Newfoundlanders and Labradorians have in their offshore oil and gas industry by portraying the wide range of expertise and leadership roles they hold in the industry. Safety will be emphasized through the program featuring two television ads, three print ads, as well as digital ads and online interviews of industry employees discussing their perspectives on offshore safety.

In 2012, CAPP ran a campaign that focused on improving the public's perception of the offshore industry with an emphasis on safety, while also building trust by demonstrating that Newfoundlanders and Labradorians are working at all levels in the industry.

"Polling results demonstrated to us that a foundation of awareness has been laid, and the public in Newfoundland and Labrador has been educated in the important role Newfoundlanders and Labradorians play in their oil and gas industry," says Jill Piccot, CAPP Advisor, Communications and Policy, Atlantic Canada. Polls found that 91 per cent of Newfoundlanders and Labradorians are proud of their offshore oil industry. To view the campaign materials, visit: <http://www.capp.ca/environmentCommunity/healthSafety/NLOffshore/Pages/2012Campaign.aspx>

## Responsible Canadian Energy Awards Celebrated



The 2013 Responsible Canadian Energy Awards dinner took place March 20 at the Westin Hotel in Calgary. This event recognizes outstanding projects and initiatives in the areas of environment, health and safety and social performance. The event featured keynote speaker Chief Jim Boucher from the Fort McKay First Nation. The event also included speeches by Alberta Premier Alison Redford and City of Calgary Mayor Naheed Nenshi. More than 550 people attended the annual event hosted by CAPP and set a record by selling out 10 days prior to the event. (For more on the RCE Awards, see our environment feature on page 26)

## Oil Sands Communications Program Provokes Positive Response



CAPP oil sands advertising was back in market March 1. Print, television and online commercials featured member company employees telling the story of their companies' efforts to improve environmental performance and to highlight the economic benefits connected to oil sands development. Also featured were businesses from outside Alberta discussing the benefits of oil sands development to them.

CAPP's oil sands advertising campaign has helped the industry make an emotional connection with Canadians, but it's just one component in a broad-spectrum communications program that includes government relations, social media, a website, media relations, sponsorships and community outreach.

Polling commissioned by CAPP at the end of November 2012 confirms the program has captured the attention of Canadians. "Opinions towards the oil sands have been improving since CAPP began investing in a major communications initiative," says Canadian pollster Bruce Anderson, principal, Anderson Insight. "Canadians are showing greater confidence in the environmental performance of the sector, and greater understanding of the economic and other benefits that accrue to the country."

While noting the program's success against objectives, Anderson notes additional gains are becoming harder to get, and headwinds, primarily centered around the risks versus rewards of expanded pipeline infrastructure and oil tankers, are strong.



« Energy day at Noia's Oil and Gas Week

CAPP also partnered with the Newfoundland and Labrador Oil & Gas Industries Association (Noia), government and the education sector in holding **Oil and Gas Week** from February 23 to March 1 in St. John's, NL. Oil and Gas Week includes a scholarship program, career education events and initiatives for junior high and high school students, plus an industry food drive and fundraiser which has raised close to 230,000 kilograms of food and \$500,000 for the Community Food Sharing Association since its inception. More than 1,200 students participated directly in Oil and Gas Week programs and events, including Energy Day, a one-day career exploration event that gave high school students the opportunity to meet people working in the oil and gas industry.

## Policy and Environment

### The Species at Risk Act and Federal Regulatory Reform

Canada's *Species at Risk Act* (SARA) was created in 2003 as regulation intended to protect species at risk for extinction and their habitats.

"CAPP supports the broad intent of the *Species at Risk Act* (SARA), however in its current form we consider SARA to be ineffective," notes Manager Federal Regulatory Affairs at CAPP, Phil Langille. "Canada's approach to species at risk needs to be undertaken in a balanced policy context that concurrently advances environmental performance, economic growth and energy security and reliability — 'the 3 Es'." A number of groups, including CAPP, are working with government on potential changes to legislation to deliver balanced outcomes. In its present form, SARA lacks consistency and timely regulatory process, thereby impairing economic growth and energy security — without providing meaningful improvement to the status of species at risk.

CAPP's position is that to be effective, SARA must be amended to:

- Consider socio-economics in all stages of implementation so that decision makers may consider the broad public interest;
- Create flexibility in measures to address species survival and recovery over appropriate time frames; and
- Enable greater reliance on existing measures being undertaken under other federal, provincial or territorial regimes.

"CAPP will continue to closely monitor developments related to this important file while providing focused and clear positioning to influence an outcome that focuses on necessary legislative change to achieve balanced outcomes," says Langille.

### Climate Policy Update

In early 2011, Environment Canada (EC) publically outlined the federal government's intention to regulate GHG emissions from the oil and gas sector. This aligns with EC's sector-by-sector approach to the regulation of GHG emissions, which has already addressed GHG emissions from transportation and coal-fired electricity.

CAPP has been consulted by EC and Alberta Environment and Sustainable Resource Development (AESRD) to provide input on the design of the GHG regulations for the upstream oil and gas sector. The upstream oil and gas sector is focused on a carbon policy that broadly aligns with the federal government's preference for a regulatory system and that would be implemented under equivalency agreements with the provinces.

"CAPP has consistently promoted two fundamental elements that must underpin Canada's approach to GHG policy for the oil and gas sector — competitiveness and technology and innovation," says Jenna Dunlop, Manager Climate Change Policy at CAPP, "These two elements must form the basis for the policy architecture and stringency," Dunlop adds that a technology fund is an essential element of the CAPP recommended architecture, both to accelerate deployment of new technologies and to provide flexibility in compliance mechanisms.



## Operations

### eGSO: New Safety Orientation Standard

In February 2013, Enform, the safety association for Canada's upstream oil and gas industry, launched the free, online general safety orientation video known as eGSO. The 30-minute video is designed to engage today's young workforce while meeting the requirements of the General Safety Orientation Guideline introduced in 2012 to replace IRP16. The goal is for the eGSO to be a consistent, industry-recognized tool for general safety orientations. It also has the potential to streamline and reduce costs for employers.

The eGSO is the culmination of an effort encouraged by CAPP in response to member concerns over inconsistency and repetition of general safety orientations given to staff and contractors. In particular, it was noted that contractors visiting different job sites were often forced to go through the same non-specific safety information over and over again, sometimes to the detriment of absorbing important site-specific issues.

"We wanted to reduce the redundancy," notes Claudette Fedoruk, Health and Safety Analyst at CAPP, "enabling operators to refocus their orientations on important site-specific matters, like emergency protocols including the location of emergency equipment and muster points — the stuff that can really make a difference."

Having contractors and staff receive their general safety orientation one time through an effective teaching tool like the eGSO (with compliance tracked by Enform) will ensure general safety issues are communicated through a qualified, standardized source. It is expected that 2013 will be a transition year as companies incorporate the eGSO as their orientation standard. The eGSO is available at [www.enform.ca/eGSO](http://www.enform.ca/eGSO).

### Regulatory Enhancement Project Update

In 2010, the Regulatory Enhancement Project (REP) was created out of the Alberta government's desire to position Alberta as one of the most competitive jurisdictions in North America for up-





« Enform's eGSO helps standardize general safety orientation

Photo: courtesy Enform

stream oil and gas development. The REP was created to examine ways of ensuring Alberta's regulatory system for upstream oil and gas is modern, efficient, performance based and competitive, while maintaining Alberta's commitment to environmental management, public safety and responsible development.

CAPP has worked with the REP task force, which is sponsored by Alberta Energy, since its inception. CAPP consultations ensure industry-based knowledge and recommendations are strongly considered in regulatory changes.

There have been two recent key developments arising from the REP. The first is the move to a single regulator model: Bill 2 — the Responsible Energy Development Act (REDA) — received Royal Assent on December 10th, 2012. This legislation will create the **Alberta Energy Regulator (AER)**, which will have unified responsibility for regulating energy resource development in the oil, natural gas, oil sands and coal industries, including authorizations relating to air, water, land, mine and facility. The AER is expected to be operational by June 2013 and will combine the regulatory functions of the Energy Resources Conservation Board and the Ministry of Environment and Sustainable Resource Development.

A single, streamlined regulator has been a CAPP objective, and CAPP is providing ongoing input regarding the structure of the AER to ensure process efficiencies and cost savings for industry that are aligned with the competitiveness principles of the REP. CAPP also facilitated a coordinated industry response to a government online survey tool looking for feedback on AER regulations, and drafted a key message document that was made available to industry representatives participating in the public consultation sessions on the AER regulations.

The second development is the announcement that the Alberta Department of Municipal Affairs will be opening the **Municipal Government Act (MGA)** for a comprehensive review. CAPP has launched the Municipal Enhancement Project (MEP), a business alliance that intends to seize on the opportunity created through the opening of this Act, to address municipal funding models that are increasingly turning to industry to augment revenue through fees, permit requirements and property tax increments that are, in some instances, inequitable and unsustainable.

Through the MEP, CAPP will identify issues, and engage stakeholders and government, seeking legislative and policy changes that strengthen the competitiveness of industry and Alberta municipalities.

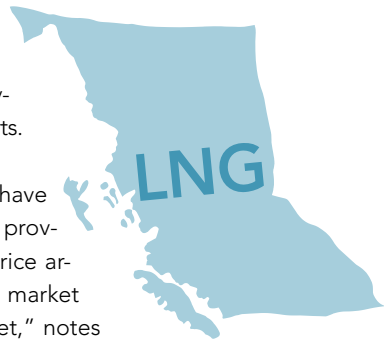
The MEP is an alliance of associations representing business with province-wide interests and includes CAPP, the Calgary Chamber of Commerce, CEPA, EPAC, PSAC, CAODC, CAGC, the Retail Council of Canada, the Canadian Federation of Independent Businesses, and the Urban Development Institute. Consultation on the MGA is slated to begin this summer.

## Responding to B.C.'s LNG Tax Proposal




In its 2013 Speech From the Throne, the British Columbia government outlined it was looking at options to collect additional revenues from liquefied natural gas (LNG) exports.

"Details on the government's proposal have not been provided, but we understand the province intends to capture a portion of the price arbitrage it anticipates from the global LNG market versus prices in the North American market," notes Geoff Morrison, Manager British Columbia for CAPP. If the additional LNG tax proceeds, according to one B.C. Government commissioned consultant report, the government expects to collect between \$79 billion and \$224 billion in tax and royalty revenues from natural gas production, exports and related employment over 20 years. This is based on the government assumptions of between 82 MTA to 120 MTA of LNG exports (MTA = Million tonnes annually) between 2018 and 2020.



The underlying assumptions and economic model have not been made public, but CAPP is working to understand the assumptions and methodologies behind the publicized numbers. Global LNG markets are highly competitive and the LNG industry in British Columbia must be able to compete against well-established suppliers to Asian markets to secure the billions of dollars of investment needed to establish the LNG facilities proposed for B.C.'s West Coast.

"LNG projects in Canada are already at a competitive disadvantage in terms of discrete tax treatment," says Morrison, noting that in its 2013 budget, the federal government failed to include a proposed federal tax reclassification for LNG facilities that would have leveled the playing field with U.S. and Australian competitors. "British Columbia's treatment of the LNG industry must factor in cost, competitiveness and the significant geographical and technical challenges faced by the industry."

CAPP is looking forward to additional consultation with the B.C. government regarding how best to support the creation of a competitive LNG industry in British Columbia. 

# BUILDING A WORKFORCE FOR THE *FUTURE*

WORKFORCE CHALLENGES FACE THE ENTIRE OIL AND GAS INDUSTRY. WE EXAMINE THE CASE OF THE OIL SANDS AND HOW COMPANIES, ASSOCIATIONS, GOVERNMENT AND EDUCATION ARE HANDLING THE INDUSTRY'S WORKFORCE NEEDS.

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by Diane L.M. Cook

» Canada's oil industry is expected to double in size by the year 2030.

Much of that growth will be driven by expansion of Alberta's oil sands, which is forecast to triple its current production of 1.6 million barrels per day (bpd) in 2011 to 5 million bpd by 2030. Natural gas, though currently suffering the negative price effects of abundant supply in North America, could also experience substantial growth if proposed liquefied natural gas projects can open up new Asian markets.

However, with success, comes challenge: in particular, the need to attract, train, and retain tens of thousands of new skilled workers over the next several decades.

The challenge cuts across all segments of the oil and gas industry. A shortage of skilled workers in a variety of trades categories, technical, and professional backgrounds, combined with a trend towards retirements due to an aging workforce, are forcing employers throughout the industry and across the country to deal with increased com-

petitiveness in the labour market. As the sector seeing the greatest growth, the oil sands provides a relevant case study into current workforce challenges and opportunities.

The Petroleum Human Resources Council's April 2013 labour market update paints a picture of big challenge for oil sands employers. It predicts that the oil sands sector must add another 16,000 new jobs between 2013 and 2022 to meet growing oil sands production. Currently, there are more than 22,000 workers employed by the sector.

The Petroleum Human Resources Council of Canada is a national group that addresses human resource issues within the petroleum industry. (It recently merged with Enform, the safety association for Canada's upstream oil and gas industry.) Among the Council's key functions is the publication of timely, validated and relevant labour market information designed to inform human resources decision making and strategic workforce planning.

## Federal Focus

In the federal government's 2013 budget announced in March, the government placed emphasis on the "chronic and growing skilled labour shortage" in the oil and gas industry. Measures to address the issue include:

- Canada Job Grant program: provides up to \$15,000 per person for skills training for in-demand jobs.
- Programs encouraging students to seek education in high-demand fields, including skilled trades, science, technology, engineering and mathematics.
- Grants to First Nations youth for skills and training required to participate in large projects near their communities.



According to Cheryl Knight, Executive Director of the Council, “A few of the main factors that are impacting the industry now and in the future are growth and expansion of the oil sands in situ development, new technologies that drive the demand for new and more complex skill sets, and competition for natural resource workers both domestic and globally.”

In addition to providing up-to-date human resources intelligence, Knight says the Council is addressing workforce challenges by developing and disseminating career tools and resources to increase the level of career literacy, connect Canadians to jobs, and ensure a better match of labour and skills with demands in the oil and gas industry. Much of this is via the Council’s website [www.careersinoilandgas.com](http://www.careersinoilandgas.com), which receives over 30,000 unique visitors every month from people around the world interested in petroleum careers.

Ken Chapman is Executive Director of the Oil Sands Developers Group (OSDG)\*, which represents oil sands operators and works in cooperation with stakeholders in the Athabasca oil sands region to address oil sands development issues. Chapman says one of the OSDG’s main areas of interest is workforce issues.

According to Chapman, there are four main workforce challenges. “First, the oil sands sector is short of highly skilled tradespeople for work on the construction side. Second, we need safe communities and workplaces to attract and retain people. Third, the oil sands sector needs to start recruiting from places other than Alberta and Canada. And finally, the sector needs to address the obvious challenge of trying to replace the Baby Boomers who are set to retire over the next decade.”

The Boomer dilemma certainly adds to the problem. According to the PHRCC’s data, in the oil sands sector alone, 30

per cent of the current workforce will be eligible to retire during the next decade. This age-related attrition could create an additional 6,500 job vacancies.

Meanwhile, the trades professions are where the labour crunch is being felt most acutely. According to Alberta Apprenticeship and Industry Training (AIT), the trades strongest in demand in the oil and gas industry include: electricians, plumbers, boiler-makers, carpenters, steamfitters, pipefitters, welders, and millwrights. Positions requiring specialized skills, such as sub-surface thermal production operations, asset integrity specialists, and construction managers are also in demand.

Chapman observes that oil sands developers and contractors are recognizing the challenges and are becoming more collaborative and creative when it comes to recruiting skilled trades workers.

An example is Canadian Natural Resources Limited. Tim Reed, Vice President of Human Resources at CNRL, says “Certainly, recruitment has become an increasing challenge. We are starting to see the impact of Baby Boomer retirements.”

Some of the workforce strategies that CNRL has employed to recruit new employees has included Internet advertising and working closely within the communities where CNRL operates, including First Nations and local colleges, to support development of skill sets that are needed today and into the future.

Reed says that he believes the oil sands sector is still in the process of pioneering “best practices” when it comes to workforce strategies. “There is a lot of experimentation going on in the oil sands sector, some of which we don’t like to share yet because companies see it as a potential competitive advantage. But at the same time, we also see more collaboration today among companies along with government partners to address big picture workforce issues.”

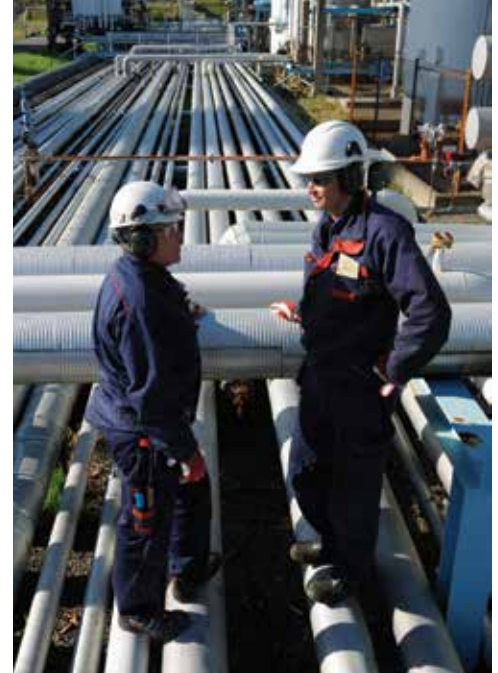


Photo: courtesy Enform/PHRC

An example of industry collaboration can be found in the creation of the Association for Construction Workforce Acquisition (ACWA), a not-for-profit organization established by eight oil sands owners. ACWA leverages collective industry clout to encourage forward-thinking labour hiring practices among contractors.

Some of ACWA’s initiatives include requiring contractors to use a minimum of 20 per cent apprentices (an equal mix of first through fourth year apprentices) on all projects; encouraging contractors to set target percentages for employment of females on all projects; requiring contractors to dramatically increase employment of Aboriginals on all projects; and requiring contractors to engage youth through AIT’s Registered Apprenticeship Program (RAP).

Meanwhile, higher education is endeavouring to do its part to meet the rising workforce challenge. Alberta’s two post-secondary technical schools, SAIT and NAIT, both offer training for 33 of Alberta’s 50 registered trades.

In September 2012, SAIT opened its Trades and Technology Complex, creating capacity for an additional 8,100 full and part-time students each year. The Cenovus Energy Centre will allow SAIT to more than triple its number of power engineering graduates by 2016. SAIT currently has more than 7,800 students registered in its trades programs.

## Thirty per cent of the current workforce will be eligible to retire during the next decade.

SAIT is also introducing new courses specific to the heavy oil and oil sands sector, including its new Water Treatment Operator (WTO) course. The WTO course is the first of its kind in North America, and will address the need for high levels of expertise to operate complex water treatment plants associated with Steam-Assisted Gravity Drainage at oil sands sites. SAIT is looking at developing a whole water program as well as developing curriculum for mini courses on topics such as hydraulic fracturing.

NAIT, meanwhile, has the capacity to train over 15,000 apprentices annually. Last fall, NAIT launched its Trades to Degrees pathway. The pathway is among the first of its kind in North America and allows certified tradespeople the opportunity to move directly from a trades certificate to the third year of a Bachelor's of Business Administration degree program. This pioneering program is in response to workforce demand for trades workers with managerial, leadership, and entrepreneurial skills. The pathway will be expanded to other degree programs in the future.

Are all of these efforts enough? Chapman points out that the oil sands will be here for the next 100 years, so the sector needs to produce and operate with a longer-term workforce strategy. "Some of the other solutions to these challenges include increasing the success rate of those who are in apprenticeship training; improving the essential skills capabilities of our current trades workers; recruiting more trades workers from non-traditional areas like women and Aboriginals; and retaining and converting our temporary foreign workers into citizens and lifelong workers."

For Reed, some of the challenges lie outside the oil sands sector's control. He says getting facts on the oil and gas industry to influencers of young people, such as parents, teachers, and guidance counsellors so young people get a balanced, factual view of the industry, would be helpful. "We need young people to be considering careers in the oil and gas industry. Some of the projects we are building today will still be operating long after the youth who are about to enter the workforce have retired!"

The need for a long-term, comprehensive strategy that leverages these disparate initiatives is why, in the fall of 2012, in collaboration with other stakeholder industry associations\*\*, CAPP completed a comprehensive review of current workforce initiatives among industry, government and education. The goal: to identify gaps and opportunities and formulate a strategic response for industry designed to address projected skilled labour shortages.

The goal will be to increase the skilled labour pool, both to meet the oil and gas industry's needs, as well as the needs of local communities and the workforce at large. "Increasing the overall number of skilled workers helps to ease the pressure of competition within the oil and gas industry as well as competition among other industries such as mining, construction, and manufacturing," says Andrea Dubé, Manager Workforce Strategy at CAPP.

"To successfully address the projected skilled labour shortages, the Government of Alberta and industry will have to continue to work collaboratively with the federal and provincial governments to

address barriers to interprovincial mobility, increase awareness and understanding of the oil and gas industry, and engage with educational institutions to ensure students are graduating with the skills employers are seeking," adds Dubé.

The development of industry's strategic response is targeted for the end of June 2013, and will include proposals for industry-focused areas of response, priorities within each area, actions to be taken, and responsibilities. **C**

### Apprenticeship & Industry Training

Alberta Apprenticeship and Industry Training (AIT) was established by the government of Alberta to set the standards and requirements for training and certification in apprenticeship and industry training programs.

AIT supports a number of programs to attract more apprentices and skilled tradespeople, including:

- Registered Apprentice Program (RAP), an apprenticeship program that offers real-world, on-the-job training for high school students as they complete their diplomas.
- RAP Scholarships to encourage students to continue their apprenticeship training after completing high school. More than 900 scholarships are available to apprentices and occupational trainees each year. In the past 10 years, more than \$5 million has been awarded in apprentice scholarships.
- The Blue Seal Program, for trades professionals wishing to move into supervisory and leadership roles. To obtain a Blue Seal Certificate, a trades professional must complete a program of study approved by AIT or complete 150 hours of study in one or more subject areas provided by an approved training provider.

\* Ken Chapman was executive director of the Oil Sands Developers Group (OSDG) at the time of the writing of this story; he resigned effective April 30, 2013, but intends to remain involved in the energy industry

\*\* Other industry associations participating are: PSAC (Petroleum Services Association of Canada), SEPAC (Small Explorers and Producers Association of Canada), CAGC (Canadian Association of Geophysical Contractors), CAODC (Canadian Association of Oilwell Drilling Contractors), CEPA (Canadian Energy Pipeline Association), and the PHRC (Petroleum Human Resources Council of Canada)



For more information on AIT programs, visit <http://tradesecrets.alberta.ca>



PRODUCTION IS FORECAST TO SOAR TO

6.2  
MILLION BARRELS  
PER DAY

BY 2030, MORE THAN DOUBLE  
THE 3.0 MILLION OF 2011.

U.S. GULF COAST REFINERIES  
ARE CALLING FOR

ALBERTA'S  
BITUMEN  
CRUDE TO REPLACE  
DWINDLING MEXICAN CRUDE  
AND UNCERTAIN SUPPLIES FROM  
VENEZUELA.

TECHNOLOGICAL INNOVATIONS  
ARE INJECTING LIFE INTO THE  
WESTERN  
CANADA  
SEDIMENTARY  
BASIN'S CONVENTIONAL  
AND UNCONVENTIONAL CRUDE  
OIL PRODUCTION.

# Developing New Markets for CANADIAN OIL



Proposed Canadian and U.S. Crude Oil Pipelines  
Source: CAPP



Keystone XL is regarded by industry as a vital project, as seen by this ad that appeared in the *National Review*



» Western Canada's crude oil production outlook sounds very positive. But there's a major stumbling block: the need for more transportation infrastructure. Existing oil distribution pipelines are approaching capacity.

Growing Canadian oil supplies are, together with the strong growth in tight oil in North Dakota, filling existing pipeline capacity to the U.S. Midwest. They are restricted by transportation capacity from reaching world market prices. This is seen in the current bottleneck at Cushing, Oklahoma, where the well-published North American oil index West Texas Intermediate (WTI) price is set. Crude oil locked behind this bottleneck is being discounted compared to world oil prices just south of there on the U.S. Gulf Coast to the amount of around \$20 per barrel. With close to 2.5 million barrels per day of exports, this discount is costing the Canadian industry about \$50 million per day.

A solution is to build new pipelines and rework existing ones to push past the low-price U.S. Midwest market and access new markets. A number of proposals aimed west, south and east of the Alberta oil sands are now before Canada's National Energy Board and U.S. regulators.

Looking to the West Coast and beyond, "there are two main market growth areas," says Greg Stringham, V.P. Markets and Oil Sands at CAPP. "California refineries in San Francisco and especially Los Angeles were designed for their own domestic heavy oil produced in California. In Asian markets, demand is growing significantly. We can go to California and further afield to Asia. It's a first step in market diversity and being part of the global market."

Pipeline companies Enbridge Inc. and Kinder Morgan Canada are poised to provide the means to access these new markets for Canadian crude.

Enbridge has been in National Energy Board hearings for its 1,177 kilometre, 525,000 barrel per day (bpd) Northern Gateway pipeline from Bruderheim, near Edmonton, to Kitimat, British Columbia, targeting a 2017 startup.

Kinder Morgan wants to twin its existing 1,200 kilometre Trans Mountain Pipeline. Doubling capacity would allow Kinder Morgan to continue supplying crude for 80 per cent of the B.C. Lower Mainland's gasoline demand plus fill tankers at Port Metro Vancouver bound for refineries in Washington State and Asia, according to Kinder Morgan President, Ian Anderson.

The B.C. government has identified five conditions for their support for an oil pipeline to the West Coast. These relate to the regulatory process, pipeline integrity and safety, marine safety, First Nations consultation, and economic benefits to British Columbia.

"We have to ensure the risk is reduced as much as possible and the benefits are recognized," Stringham says.

It signals a major change for the Canadian oil and gas industry that growth markets are now primarily beyond North America,



Stringham adds. "We are seeing a pivot to global market diversity. We think many other industries will follow that pivot."

Looking south, even though demand for gasoline is flat, demand for oil is growing. ExxonMobil in 2006 reversed its 1,380 kilometre Pegasus line to flow from Illinois to Texas, and in 2009 upgraded it to carry 90,000 bpd of mostly western crude. TransCanada Corp. has regional projects underway in the south, and is awaiting the U.S. government's decision on the Keystone XL (KXL) route to the Gulf Coast. The 1,897 kilometre, 530,000 bpd pipeline from Alberta's Hardisty oil hub past the Bakken oilfield in Montana and North Dakota to Steele City, Nebraska, has contended with regulatory delays and route changes.

Keystone could be a game changer for many producers. Gulf Coast refineries are paying prices well above West Texas Intermediate for imported oil — so much so that junior oil sands players like Southern Pacific Resource Corp. have actually found it more profitable to move product 4,500 kilometres there by rail rather than settle for the discounted prices they get shipping by pipeline to Chicago. "That's how we've managed to circumnavigate the restrictions in pipeline capacity," notes Southern CEO Byron Lutes, though he adds that rail probably wouldn't work as well for larger producers. Keystone, on the other hand, would

Canada's upstream oil and gas industry invested

**\$61**  
BILLION  
into the Canadian economy in 2012

go a long way to eliminating the price differential while providing a long-term solution what would work for both large and small producers. "That's why we need this approval," says Lutes.

Finally, looking east, operators are seeking permission to reverse several oil lines that carry imported crude to refineries around Sarnia and onward into the United States. They also propose to convert under-utilized natural gas pipelines to carry Alberta oil eastward.

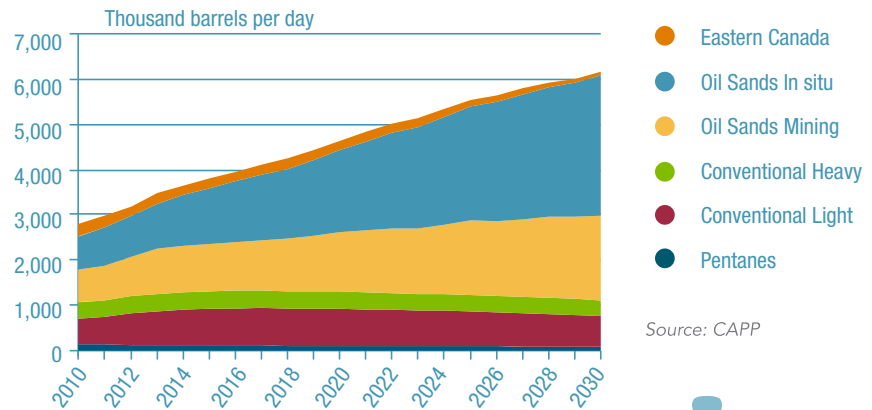
Canada sells two-thirds of its production to the United States. "The biggest untapped areas for Canadian oil are Quebec and Atlantic Canada, which import 680,000 bpd from the United Kingdom or Africa," Stringham says.

At an economic summit in Halifax, the Quebec and P.E.I. premiers welcomed the idea of access to Alberta oil. Quebec's National Bank Financial calculates the province could save \$3 billion a year, and even if access and competition reduced the price differential, both provinces would gain.

In both Canada and the United States, environmental non-governmental organizations (ENGOS) blame oil sands production for exacerbating climate change. Bitumen has become a symbol vastly larger than its actual proportion of greenhouse gas emissions and environmental risks.

"I think people realize Canadians have been building pipelines for decades and we are good at it," says Janet Holder, V.P.

Canadian Oil Production Forecast



Western Access at Enbridge. "I don't think there's a lot of challenge on our ability to be a world-class pipeline. It's more the ENGOS challenging the development of the oil sands — we are seen as enabling further development."

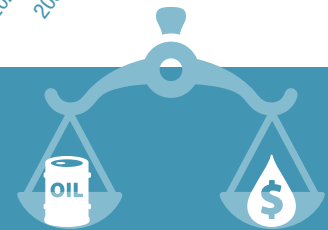
Enbridge is therefore engaging the general public in a bid to overcome resistance. "We have always relied on the very robust regulatory process and let the regulator make the decisions," Holder says.

People with safety concerns are asking questions on Enbridge's educational blogs, especially in British Columbia where residents aren't familiar with the oil industry, she adds. They're learning about pipe characteristics, marine travel safety measures and route design.

Philippe Reicher, V.P. External Relations with the Canadian Energy Pipeline Association (CEPA), explains, "We definitely have better procedures now to minimize the impact and footprint of construction. Epoxy coating is exceptionally robust and provides tremendous protection of the pipe. Safety of the workers is significantly better.

"On river crossings, we have directional drilling under the riverbed as opposed to placing the pipe at the bottom of the bed. We do a better analysis of the geology, and geotechnically find a better spot to do the drilling."

"This is a highly regulated industry," he emphasizes, "with very, very specific requirements for taking care of the full life cycle of the pipeline through inspections,



## A Primer on Price Differentials

There's a lot of discussion about price differentials for oil in North America. The most prominent is the one caused by the bottleneck in transportation capacity which has caused the West Texas Intermediate (WTI) price to fall below world oil prices to the amount of around \$20 per barrel.

In addition to this "capacity constrained" world price discount, there are two other price differentials that are affecting Canadian crude oil. First there is the price difference between light oil (WTI) in the United States and light oil in Edmonton (Edmonton Par). While this differential is normally close to the cost of transportation between the two locations, tight capacity in this corridor can impact it. Second, is the light-to-heavy differential. This is a quality differential in that it requires cost and energy to upgrade heavy oil into light oil — so it will always exist. But it moves higher and lower depending on how much heavy oil supply is on the market and how much heavy oil refining/upgrading capacity is looking for that type of oil. In the last few months, this light/heavy differential or discount rose to its widest level (near \$30 per barrel in February 2013) in several years, but has more recently come down to around \$20 per barrel.



At 174 billion barrels, Canada has the

**THIRD HIGHEST  
CRUDE OIL RESERVES**

in the world, next to Venezuela and Saudi Arabia

*"Resistance is not about reason. You see public poll after poll showing two-thirds of Americans support building the pipeline."*

- CINDY SCHILD

audits and specific design criteria. Safety — of the pipeline, the personnel, the public — is a fundamental part of the whole life cycle of the pipe. Those pipes, big embedded infrastructure, are built to be reliable and safe at all times."

Another specific concern is building relationships with First Nations whose land Northern Gateway would cross. "There's a need to engage First Nations early in the planning," Holder says.

"We have been engaging them for over 10 years. We're trying to understand what each group is interested in, what they do that's of value to us and what we need to do that's of value to them. That can be as simple as skills training and education or as complex as creating new businesses."

The federal government has appointed Vancouver lawyer Doug Eyford to study barriers to Aboriginal participation in resources development. Bands want to be partners in resource development, Chief Jim Boucher of the Fort McKay First Nation near Fort McMurray says.

## Proposed Pipelines

Pipeline	Who	Where	How Much (barrels/day)	When
AB Clipper Expansion	Enbridge	Hardisty, AB to Superior, WI	350,000	2016
Connected to: Seaway Twin	Enbridge/Enterprise	Cushing, OK to Freeport, TX	450,000	2014
Eastern Gulf Coast Project	Enbridge/Energy Transfer	Patoka, IL to St. James, LA	420,000 to 660,000	2015
Northern Gateway	Enbridge	Bruderheim, AB to Kitimat, B.C.	525,000	2017
Trans Mountain Expansion	Kinder Morgan	Edmonton, AB to Lower Mainland, B.C.	590,000	2017
Keystone XL	TransCanada	Hardisty, AB to Steele City, NE	830,000	2015
TransCanada Energy East	TransCanada	Hardisty, AB to Quebec City, QC and Saint John, NB	500,000 to 850,000	2017


Speaking to a CAPP gathering this spring, Chief Boucher said his 700-member community's Fort McKay Group of Companies LP employs 4,000 people in oil patch services ventures and bills \$100 million a year. But, he added that transition takes time. Fort McKay has a 30-year head start over B.C. bands along the Northern Gateway route.

Meanwhile, ENGOs are a different story. Cindy Schild, Senior Manager, Refining and Oil Sands for CAPP's U.S. counterpart, the American Petroleum Institute (API), notes: "KXL has been a symbol for an off-oil agenda, a climate agenda. This is not about Keystone, it's about the development of oil sands, climate and oil in general."

She mentions a letter to the editor from Greg Stringham published in the *New York Times* that spells out how small a proportion of greenhouse gases (GHG) comes from oil sands (0.16 percent of global GHG emissions). "Resistance is not about reason," Schild says. "You see public poll after poll showing two-thirds of Americans support building the pipeline and even more support receiving oil. In Congress, bipartisan support is growing.

"But opponents to oil sands development, climate and oil aren't going to go away. I hope we can spend more time working with folks in Canada doing general education, talking about technical progress and what this means to consumers and to our two countries.

"We certainly would like more oil from Canada. We've seen a decline in imports from Venezuela and Mexico, and Canada has been filling in the gap. The heavy nature of [bitumen] crude is a good fit with our state-of-the-art refineries in the Gulf Coast; we've been investing for that. We have seen quite a ramp-up in our domestic production, but we're still not producing enough to meet demand." Canada supplies one-quarter of U.S. imports and is a valued partner because it returns up to 89 cents per dollar in trade, Schild says. That supports employment, as would building KXL.

API calculations based on government data suggest the United States and Canada together could meet 100 per cent of U.S. liquid fuel needs within 11 or 12 years. "We just need to have the politics get out of the way," Schild says. 



# 317,000 JOBS

(DIRECT, INDIRECT AND INDUCED) ACROSS CANADA BY 2035.

This is almost double the 172,000 natural gas jobs in 2010. Source: CERI 2011

## What is it?

Hydraulic fracturing is sometimes described as a new technology. It isn't. While methods and equipment are constantly being improved, the basic technique has actually been used for more than 60 years in Canada. What is relatively new is that hydraulic fracturing is now being implemented in multiple stages along a horizontal well bore. It is the advent of multi stage fracturing in horizontal well bores that has changed the North American energy industry.

The fracking process begins by drilling a well to reach shale or other formations that are often two to three kilometres below the earth's surface. As the drill bit descends, drilling fluid is constantly circulated into the well bore to lubricate and cool the bit, while stabilizing the well bore and transporting cuttings to the surface at the same time. Steel casing is inserted and cemented in place along the way, creating a solid barrier between the well and any underground fresh water sources. Drilling continues far below these zones until the drill bit is steered horizontally through the gas-bearing shale formation. At the well's final depth, another layer of casing is secured throughout the full length of the well bore.

Fracking begins once the drilling process is completed. While the drilling process typically takes about 20 to 30 days (dependent on depth), fracking a single well can be completed in significantly less time (often less than a week).

The first step in the completion process is to perforate the well bore casing that lies horizontally in the shale formation. When these perforations are made, the rock cracks. Once the cracks in the shale have been created, frack fluid is pumped down the well under pressure, which continues to propagate fractures in the shale. These

fractures usually extend between 60 and 125 metres from the horizontal leg of the well bore. The extent and magnitude of the fractures is a function of the rock properties and the design of the fracture program.

The frack fluid is a mixture made up of 98.5 per cent water and sand, with the remainder comprised of additives, many of which are found in household products. These additives are used to reduce friction in the well bore and allow transport of the proppant. The sand props open the fractures to provide a pathway for the natural gas to flow into the well bore more easily.

When the fracking is finished, natural gas begins to flow up the well bore. These wells can then produce for up to 30 years without having to be hydraulically fractured again. Once hydraulic fracturing is completed, all fracking equipment is removed.

Multi-stage hydraulic fracturing, combined with horizontal drilling enables production of natural gas and oil from reservoirs previously considered uneconomic to produce due to low permeability. These tight reservoirs (referred to as unconventional reservoirs) are usually found in low porosity/permeability rocks that form massive stratigraphic layers deep underground.

Many of the largest unconventional resources of natural gas are found in shale rock layers that are several kilometres deep. Significant shale gas resources have been identified in the Horn River Basin in northeastern British Columbia and the Montney shale formation straddling the border between British Columbia and Alberta.

## So what are the benefits and challenges of fracking?

Hydraulic fracturing is essential to developing Canada's abundant unconventional natural gas reservoirs. It's estimated that the shale and siltstone formations in northeastern British Columbia alone hold an estimated 1,000 trillion cubic feet of natural gas resources. To put this in perspective, natural gas consumption in Canada totalled 2.8 trillion cubic feet in 2011.

Similarly large shale gas discoveries in the United States have led to an oversupply of natural gas in North America. As a result, Canadian natural gas exports to the United States have dropped 16 per cent over the past five years and are projected to drop further.

This situation has created an urgency to find new markets for Canadian natural

## KEY TERMS

**Additives:** Chemicals added to the injection fluid to reduce friction in the well bore. Additive use is regulated by government.

**Fracking:** A term sometimes used to describe the process of hydraulic fracturing.

**Horizontal Drilling:** Uses flexible drilling pipe and a steerable motorized bit to turn a vertical well onto a horizontal plane at a measured depth.

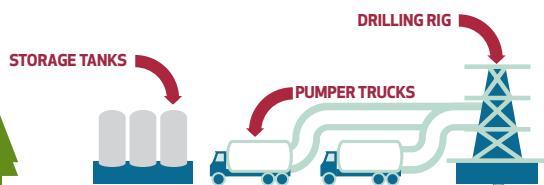
**Micro-seismicity:** A very slight earth tremor — often so slight that it can only be measured by sensitive seismic recording equipment.

**MMBTU:** One million BTUs (British Thermal Units), a standard unit of measurement used to denote the amount of heat energy in fuels. One MMBTU is comparable to the energy contained in 1,000 cubic feet of natural gas.

**Proppant:** Sand or similar particulate matter suspended in a fluid that keeps a fracture open.

**Tight Gas, Tight Oil:** Natural gas and oil reservoirs consisting of low permeability rock.

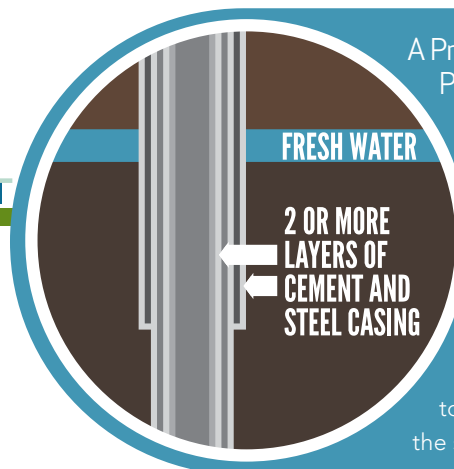
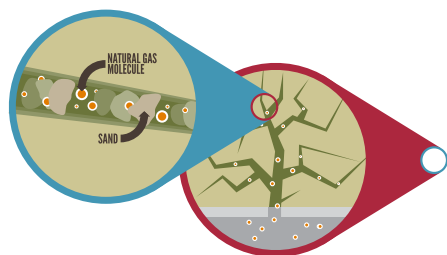
**Well Bore:** A hole drilled for exploration or extraction of natural gas or oil.



gas. Much of the focus has centred on Asia, where demand and prices are significantly higher. For example, average prices for liquefied natural gas (LNG) in Japan exceeded \$15 USD/MMBTU in 2012. While this price includes significant costs needed for natural gas liquefaction and transport, Canadian producers anticipate that the Asian market offers sustainable long-term profitability. A number of LNG plants along the B.C. coast are being proposed to realize this opportunity (For more about LNG, see our Ask an Expert story on page 30).

Electricity generated by natural gas has  
**50 % FEWER  
GHG EMISSIONS**  
than coal-generated electricity.

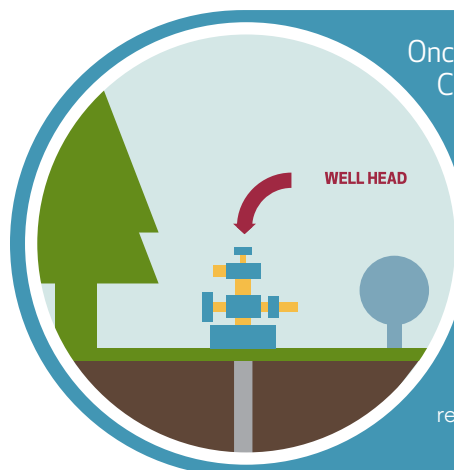
There have also been some concerns regarding the impact of hydraulic fracturing on the environment. These concerns centre on the potential for drinking water contamination and seismic events. However, more than 175,000 wells have been hydraulically fractured in Western Canada over the last 60 years without any harm to drinking water. **C**



## A Properly Constructed Natural Gas Well Protects Our Water

In Canada, water use is regulated by stringent government regulations and industry best operating practices. Most shale or tight gas reserves are found two to three kilometres below the Earth's surface. Freshwater aquifers tend to be less than 300 metres deep. Underground fresh water sources are protected by two or more layers of cement and a steel casing to ensure that no gas or fluids can leak into the surrounding geology.

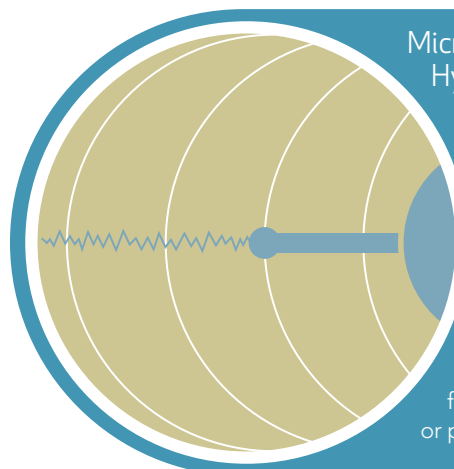
WATER



## Once Completed, A Single Natural Gas Well Can Take Up Even Less Space than a Typical Two-Car Garage

Advances in horizontal drilling and the use of multi-well drilling pads have reduced the area of land disturbed by drilling operations. Once a well is no longer producing, the surface is reclaimed as required by regulation. The process includes plugging and capping the well, removing equipment, replacing topsoil and re-planting the site with native vegetation.

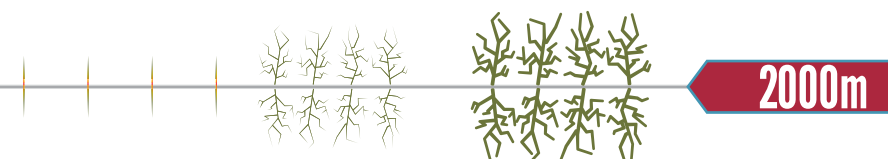
FOOTPRINT



## Microseismic Activity Induced by Hydraulic Fracturing

The energy released by the fracturing of deep underground shale formations causes microseismic activity. Scientific evidence indicates that microseismic activity associated with hydraulic fracturing is rarely felt on the surface. Anomalous seismicity can occur when fluid injection occurs near pre-existing faults; these are carefully monitored. Seismicity related to hydraulic fracturing has not caused any injury to property or posed any risk to the public or environment.

SEISMIC ACTIVITY



## Visit CAPP Online



Go to <http://www.capp.ca/canadaIndustry/naturalGas/ShaleGas/Pages/default.aspx> for more information, including a video demonstrating the step-by-step process of hydraulic fracturing. Also find CAPP's guiding principles and operating practices for hydraulic fracturing for shale gas and tight gas, an industry standard for safe, responsible water management.



▲ CAPP recognizes Responsible Canadian Energy

## Recognizing Responsible Canadian Energy

The Responsible Canadian Energy (RCE) awards program identifies and highlights leading practices in people, air, water and land performance by the upstream oil and gas industry. The 2013 RCE Awards recognized company successes in three categories: Health and Safety, Environment, and Social performance. The Chair's Award was given to a smaller oil and gas company that demonstrated excellence in any of the three categories, and the President's Award was given to a company demonstrating excellence in one or more of the categories. The RCE Advisory Group, an independent panel of experts on industry safety, environment and social performance issues selects award winners (see sidebar).

This year's award recipients were announced at the 2013 RCE Awards dinner held on March 20th in Calgary. A total of 570 guests attended the sold-out event, including representatives from oil and gas companies, as well as representatives from all levels of government (including provincial representatives from Alberta, British Columbia and Saskatchewan), various industry associations, and the media.

Speakers included Alberta Premier Alison Redford and City of Calgary Mayor Naheed Nenshi, both of whom spoke of a sincere commitment to developing Canadian energy responsibly. Keynote speaker Chief Jim Boucher, Chief of the Fort McKay First Nation for 23 of the past 27 years, spoke about long-standing partnerships with the oil and gas industry, and the important role collaboration plays in the social and economic development of Fort McKay. Chief Boucher noted the importance of economic growth for First Nations which is possible while maintaining and preserving Aboriginal culture and traditional ways of life. Quick-witted and positive in his speech, the Chief ended on a serious note, challenging the industry on its tailing reclamation record, which he said needs to be improved.

"The overall RCE Program, and the awards tonight, provide us an opportunity to demonstrate our progress, to be candid about our challenges, to share new ideas and practices, and to promote collaborative and innovative solutions within our industry and with like-minded partners," said Dave Collyer, President of CAPP.



CAPP members submitted a record 33 projects for consideration of an award exemplifying responsible energy development. To view all 33 submissions, and videos profiling the five award recipients, visit [www.capp.ca/rce/awards](http://www.capp.ca/rce/awards).

### Health and Safety Award: Chevron Canada Limited, Beaufort Sirluaq Seismic Program

From August to early October 2012, Chevron Canada Limited conducted a three-dimensional marine seismic program (Chevron 60 per cent, Statoil 40 per cent), on an exploration site situated 240 kilometres northwest of Tuktoyaktuk, Northwest Territories, in the Beaufort Sea. Chevron faced numerous challenges in executing the program incident free, including staging the operation in an isolated location remote from support services, aligning all participants in their commitment to safe-work practices, enabling local benefits, managing high winds and rough seas as well as the ever-present threat of pack ice. Nevertheless, with early and thorough planning, effective stakeholder consultation and relentless care and collaboration during execution, Chevron and its contractors completed the program without incurring a single recordable safety or environmental incident (over 54,600 exposure hours), engaged local services and suppliers, kept all local communities informed of the project status, and captured a record 3,658 square kilometres of data (140 per cent of scope) ahead of schedule and on budget.

*"The project was an ambitious and challenging one. We knew all along that we were doing the right things; consulting with the local communities, following sound health, environment and safety procedures, and investing a tremendous amount of time into planning and engaging everyone — from leaders to front line workers. In the end we were able to acquire a high quality seismic data set, on schedule and on budget. Most importantly, we accomplished all of this with no harm to people or the environment."* Kevin Williams, Exploration Operations Manager, Chevron.



Safety training at Chevron's exploration site near Tuktoyaktuk NWT; photo: courtesy Chevron Canada Limited



## Environmental Award: Cenovus Energy Inc., SkyStrat™ Drilling Rig

The SkyStrat™ drilling rig is a new rig Cenovus developed to improve stratigraphic drilling programs in the oil sands. It is approximately two-thirds the size of a conventional rig and can be transported by helicopter, allowing Cenovus to access remote drilling locations year-round. To date, the SkyStrat™ drilling rig has drilled 18 wells in the oil sands. Transporting the SkyStrat™ drilling rig by helicopter eliminates the need for temporary roads, which significantly reduces the surface land footprint. It also has the potential to reduce water use for drilling operations by up to 50 per cent. Further reductions in water use are achieved by not having to use additional water to freeze-in winter roads. Cenovus plans to drill approximately 25 stratigraphic wells with the SkyStrat™ drilling rig in 2013.

*"At Cenovus, we feel the status quo is unacceptable. We're always looking for ways to improve how we're developing energy resources. We're proud of the SkyStrat™ drilling rig in that we're able to reduce our surface footprint and water use, create long-term job opportunities for rig workers, and foster a strong safety attitude both on and off the job."* Al Krawchuk, Senior Staff, SkyStrat™ Drilling Project at Cenovus.

Elementary kids learn about environmental stewardship as part of the David Thompson Corridor Visitor Services Program; photo: courtesy Suncor Energy Inc.



## Social Award: Suncor Energy Inc., David Thompson Corridor Visitor Services Program

The David Thompson Corridor Visitor Services Program is a five-year partnership (2009 - 2014) between Suncor Energy and Alberta Parks. Building upon a long-term cooperative relationship between Suncor, its predecessor companies and Crimson Lake Provincial Park, Suncor is providing funding for over five years to benefit a number of program deliverables including:

- Raising awareness of and fostering stewardship for the parks and protected areas within the David Thompson Corridor;
- Providing opportunities to engage the public in nature-based, hands-on experiential learning;
- Increasing the park staff presence in the David Thompson Corridor, and;
- Fostering collaborations and partnerships to strengthen the visitor services program and reach common goals.

To date, a full-time visitor services program supervisor has been hired, environmental education programs have been provided to regional students, public interpretive programs have been delivered and numerous partnerships in support of Alberta Parks have been established.

*"Suncor is proud of what the David Thompson Corridor Visitor Services Program has achieved since its initiation in 2009. This is an excellent example of how an energy company can achieve corporate stewardship goals through an innovative partnership with a government department such as Alberta Parks."* John Kerkhoven, Sr. Advisor, Stakeholder Relations, Suncor Energy.



The SkyStrat™ drilling rig allows access to remote drilling locations year-round; photo: courtesy Cenovus Energy Inc.

## President's Award: Encana Corporation

Encana was honoured for its collective work on three different programs:

### 1 RESPONSIBLE PRODUCTS PROGRAM

Encana implemented a companywide program to manage chemical additives used in hydraulic fracturing. The Responsible Products Program allows Encana to assess its hydraulic fracturing fluid systems for potential impacts to human health and the environment using widely accepted toxicological criteria. Encana identifies any required operational controls to allow for the responsible use of the additives or eliminate them from use entirely. The program has been shared with CAPP in support of the Fracturing Fluid Additive Risk Assessment and Management Operating Practice.

### 2 HORN RIVER BASIN RECYCLING PROGRAM

To reduce the amount of material being diverted to local landfills, in 2009 Encana began a waste-reduction program in its work camps located in northeastern British Columbia's Horn River Basin. Recyclables were collected at the camps and stored in 50-foot trailers before being transported to the town of Fort Nelson and donated to local community groups. In 2012, Encana and the Northern Rockies Social Planning Council went further, creating a sorting facility where individuals with barriers to employment, fundraising groups and others in need, are able to sort the containers and return them for cash. To date, Encana has diverted 20 trailers of for-deposit containers from the landfill, while providing over \$60,000 in revenue to the community.

### 3 RACE AGAINST HUNGER

Encana's support of rural lifestyles and western Canadian heritage was the premise for developing the Race Against Hunger program, a partnership between Encana and the World Professional Chuckwagon Association, that benefits local food banks in Encana's operating areas in Alberta and British Columbia. The program raises food, funds and awareness for local food banks. Now in its third year, the Race Against Hunger has received overwhelming support from local businesses and community members, raising more than \$100,000 and almost 5,500 kilograms of food in 2012.

*"Responsible development is a key component of our business model throughout our operations and it's important that we as an industry continue to improve our performance in that regard. These types of initiatives help support our business, improve our relationships with important stakeholders and help continually raise the bar on our environmental, safety and social performance."* Mike McAllister, Executive Vice President and President, Canadian Division.



Encana staff help raise food, funds and awareness for local food banks; photo: courtesy Encana Corporation

## Chair's Award: ARC Resources Ltd, Dawson Gas Plant Low-Emissions Facility

When embarking on plans to construct a new gas plant at its Dawson field operations in northeast British Columbia, ARC pursued the decision to build the plant as a low-emissions facility, as a long-term investment that would have significant benefits for operations and the surrounding residents. The facility's low-emissions design incorporates a number of emissions-reducing practices, such as electrification, high efficiency motors, and acid gas injection. By installing these components, greenhouse gas emissions have been reduced and the plant's overall carbon footprint has decreased by approximately 60,000 tonnes per year — equivalent to the emissions generated by approximately 9,700 households in the period of one year.

The unique combination of high efficiency and low emissions makes the Dawson gas plant a leading example in terms of greenhouse gas efficiency per unit of output. The project demonstrates ARC's commitment to minimizing its environmental impact, industry leadership and to creating long-term value for stakeholders.

*"From the beginning of the project we wanted to build the facility to be extremely reliable, efficient and clean. ARC saw the low-emission design as a long-term investment that would not only benefit the ease of operations but also the nearby residents. Everyone at ARC is very proud of what we accomplished at Dawson and to be recognized by CAPP and our peers is a true honour."* Al Roberts, Vice President, Production at ARC Resources.



ARC's Dawson gas plant incorporates a number of emissions-reducing practices, photo: courtesy ARC Resources Ltd



## What is RCE?

The Responsible Canadian Energy (RCE) program represents a collective commitment by CAPP's member companies to continuously improve, measure and report performance in the areas of people, air, water and land, and engage collaboratively with the communities in which industry works.

A key element of earning and maintaining social licence is being able to objectively and transparently measure industry performance along key metrics, including health and safety, environmental impact and socioeconomic effects.

Publication of industry performance promotes awareness of industry's successes and opportunities for candid dialogue on areas requiring improvement. This is accomplished through the RCE annual progress report. The 2012 RCE annual progress report can be viewed at [www.capp.ca/rce](http://www.capp.ca/rce).



## WHAT DOES RESPONSIBLE ENERGY MEAN TO YOU?

*"I think it's very important that we raise the awareness of what we do to manage the environment at the public level. I think we need to be more vocal about what we do and what we're trying to achieve to reduce our footprint."*

- Claude Chamberland, Shell Canada

1. City of Calgary Mayor Naheed Nenshi
2. Ken Olgilvie, RCE Advisory Group Chair and Environmental Policy Consultant
3. [left to right] The Honourable Robin Campbell, Alberta Minister of Aboriginal Relations; Allen Knight, Past Chair of CAPP; Jonathan Koehli, Manager, Alberta Government Affairs; Brian Schmidt, Chair of CAPP
4. [left to right] Dana Woodworth, Alberta Environment and Sustainable Resource Development Deputy Minister; Graham Thursfield, Visitor Service Specialist, Government of Alberta; John Kerkhoven, Senior Advisor, Stakeholder Relations, Suncor Energy; The Honourable Anne McLellan, Bennett Jones, LLP
5. [left to right] Dave Collyer, President of CAPP; The Honourable Alison Redford, Premier of Alberta; Chief Jim Boucher, Chief of the Fort McKay First Nation and RCE awards keynote speaker

2



3



4



*"To me, RCE is about environmental sustainability. Industry has been leaders in setting standards, but also in terms of assuring we're able to have a record to talk about. Of course everything that we're working on with the government right now is around market access and it's really wonderful that we're able to talk so proudly about what our record has been over the past 40 years of resource extraction."*

- Alison Redford, Premier of Alberta

5





# LIQUEFIED NATURAL GAS

OUR EXPERT: MICHAEL CULBERT, PRESIDENT AND CEO, PROGRESS ENERGY

**Q: What is LNG?**

**A:** Liquefied natural gas, or LNG, is a safe, clean energy source that is easily transportable. We take natural gas, which is one of the cleanest burning fossil fuels, and by bringing it down to -162 degrees Celsius we convert it to a liquid state. By doing so, we can transport it in large LNG carriers over vast distances, such as across the Pacific Ocean, and ultimately to end users that in most cases don't have their own domestic natural gas supply.

**Q: What are the prospects for LNG?**

**A:** Canada has strong potential to enter the global LNG industry, to be a participant and diversify our exports and participate ultimately in a very different pricing regime than we're seeing in North America. There are half a dozen different LNG projects between Kitimat and Prince Rupert, British Columbia, being proposed, but like any large project, everything has to come together: the resource has to be there, the financial capability of the sponsors or partners has to be there. In addition, they have to secure the markets, and these are 20 to 25-year long term contracts that underwrite multibillion dollar investments. So will all of them go ahead? I think technically Western Canada has the natural gas to supply all of the proposed projects. But will they all go ahead, probably not. Will there be consolidation? Possibly.

**Q: How is LNG economically viable?**

**A:** Well, really, it's economic because of the market dynamics and the fuels that are being utilized in Asian and European countries. Right now, just as an example, the Japanese crude cocktail price, which is close to the Brent price is resulting in the LNG market running in the \$16 - \$18 per mcf [thousand cubic feet] compared to an Alberta market, which is in the \$3 to \$4 per mcf range. So that spread is really what you are trying to capture with the investment into LNG industry. By directing the capital into the development of natural gas supplies, pipeline infrastructure and LNG facilities here in Canada and then adding in the transportation costs for the carriers to ship LNG to market, there's a difference to be shared.

**Q: What's the market like?**

**A:** The challenge that we face is that Canada is a new entrant into the LNG market. So we have to be able to compete with countries that are already exporting LNG. We also need to compete against other alternatives, whether it be a Russian gas pipeline into parts of Asia, or African LNG. The market is there—if we can secure markets and commit to the construction of these projects within the next two to three years. But Canada has to be in a position to export LNG in advance of 2020 to truly be a global LNG participant.

**Q: Why by 2020?**

**A:** That's the supply demand window that looks to be in an imbalance where there's not quite enough supply to meet the projected demand. By entering into contracts in the next year or so, that will enable us to position ourselves, build the facilities and deliver when that shortfall is predicted to be there.



*Michael Culbert is President and CEO of Progress Energy Canada Ltd., a subsidiary of PETRONAS. Mr. Culbert also has responsibilities for the development of liquefied natural gas projects on the West Coast of Canada through Pacific NorthWest LNG*

Photo: courtesy Progress Energy

**Q: What are the challenges to LNG?**

**A:** There are many obstacles. First of all, is that price spread there and is that spread going to last? How much of that spread is it going to cost you for all of these different components to get the gas to the LNG markets? From a drilling perspective, how efficient can we be? That's where unconventional gas comes in, especially the Montney [shale formation], which is sweet gas. It's one of the lowest cost sources of gas in North America. I believe we've a very good infrastructure and pipeline asset base in North America and the ability to be effective and efficient builders of infrastructure. The LNG facility itself is a very large capital component: we're estimating between \$9 and 11 billion for the LNG facility itself, so again how do we do that at a cost that allows us to be competitive with other alternatives? And then the shipping is also a cost component. We also must have a competitive tax and royalty system in Canada relative to the other jurisdictions we're competing with. So the question is: can we as an industry get all of these things together, keep the cost down and move ourselves into the market in a timely fashion with the regulatory approvals and the financing required to go ahead with these projects?

**Q: In your opinion can you?**

**A:** Well, I get up every day trying to do it. There are a lot of obstacles, but I think we have the ability in Canada to be a player in the LNG world and bring this new industry to Canada. **C**

## Fast Facts on LNG

- In its liquefied form, natural gas takes up just 1/600th the volume of its gaseous state
- LNG is lighter than water, odourless, colourless, non-corrosive and non-toxic
- Key markets include Japan, South Korea, China and India



# CHRISTINA VERCHERE

PRESIDENT AND CEO, BP CANADA

Christina Verchere was appointed President and CEO, BP Canada Energy Group ULC on April 1, 2012. Christina was formerly V.P. Upstream Program Management Office in Houston, where she successfully led the upstream business through a major reorganization. She has held key leadership roles in BP's North American, Gulf of Mexico, and North Sea oil and gas business.

Christina holds a M.A. Honours degree in Economic Science from the University of Aberdeen. She was born in the United Kingdom to a British father and an American mother. She grew up in Hong Kong, Tokyo, the United States and United Kingdom.

## INDUSTRY Q&A

### 1. What attracted you to the oil and gas industry?

I joined Amoco in London a couple years out of university and soon after that BP and Amoco merged. I have been working around the world for the company for 20 years.

I have always been interested in global issues and macroeconomics. I believe the oil and gas industry is one of the most exciting — and crucial — industries in the world economy.

Energy is fundamental to how the world operates — we provide light, heat and transportation. These are fundamental to the quality of people's lives. Energy matters — it makes a difference.

### 2. What do you think is the biggest challenge facing your organization?

BP has been in Canada for over 100 years, and we have a strong future here. We've recently been through many changes with the divestitures of our NGL and gas busi-

nesses. We have the benefit of our deep Canadian roots, but we feel new, energized and excited as we tackle our oil sands business, our exploration businesses in the Beaufort and Nova Scotia, and our supply and trading business.

I guess I would say one of our greatest challenges is that when we divested, many thought BP had left Canada. It's quite the opposite. We're growing in Canada and as we grow, we need people to know we're here. We need the workforce to know we're here and that we offer rewarding, exciting career opportunities.

### 3. What do you think is the greatest opportunity in the industry that not enough people are aware of?

There is a huge breadth and diversity of opportunities. It is a global industry that is here in our backyard opening up possibilities for local careers — or global ones. Our industry needs people of varied backgrounds, the sciences, math, finance, and the social sciences. It offers continuous learning and growth as the industry strives to better itself in all areas of performance. What this industry offers is essential. Energy is essential in everything we do every day. We have an opportunity to continuously improve this industry, ensuring we strive to make it safer and more efficient with less impact.

### 4. You are originally from the United Kingdom. What has surprised you the most about the working climate here in Canada?

I was struck by the number of women in leadership roles in Canada. Forty-five per cent of the premiers in Canada are women, and I am proud that 50 per cent of my leadership team at BP Canada is female. It is uncommon to see those numbers in the

rest of the world and in the rest of the oil and gas industry.

### 5. What industry accomplishment are you proudest of?

I am very proud of COSIA — watching industry come together, recognizing that while we are competitors, in some arenas, it is better for everyone when we work together. COSIA is a great example of industry recognizing that we need to work as a collective to find the best answers for the environment. [COSIA is Canada's Oil Sands Innovation Alliance, [www.cosia.ca](http://www.cosia.ca)]

## Quick Hits



**Favourite Restaurant:** In Calgary — Vin Room on 4th St; around the world, Casa Tua — great Italian restaurant in Miami.




**Top Travel tip:** If you park a lot at the airport it's easy to forget where you left the car (or confuse it with a prior trip) ... take a picture of the nearest parking lot sign on your phone (much easier to do than writing it down when you're unloading the car and carrying bags).

## THE PERSONAL SIDE

### What personally inspires you?

I believe the total is greater than the sum of the parts — watching teams work together to deliver results. Making a difference to the teams I work with; having fun while delivering outstanding results — I think they go hand in hand.

### If you weren't in oil and gas, what do you imagine you would be doing right now?

If I wasn't working in the oil and gas industry, I'd really like to work for one of the global charitable foundations focused on solving big societal issues in the world. 

## MAY 2 - 3, 2013

**Western Canada Immigration and Diversity Forum 2013: Translating Diversity into Business Advantage**  
Learn how to source talent and make the internal changes needed to take advantage of an increasingly diverse workforce.

- 📍 Hyatt Regency, Calgary, Alberta
- 🌐 <http://goo.gl/sdyMC>

## MAY 5 - 10, 2013

**Enform Petroleum Safety Conference**  
Canada's premier oil and gas safety conference and tradeshow.

- 📍 Banff Centre, Banff, Alberta
- 🌐 <http://www.psc.ca/>

## MAY 5 - 11, 2013

**North American Occupational Safety and Health Week (NAOSH)**

Events and activities are coordinated by local, provincial and/or regional committees who share a focus and vision of safer workplaces and communities.

- 📍 Canada-wide
- 🌐 Link: <http://www.naosh.ca>

## MAY 9, 2013

**Petroleum Accountant Society of Canada Education Day**

- 📍 Calgary, Alberta
- 🌐 <https://securegs.com/pasc/>

## MAY 13, 2013

**Institute for Public Economics: Alberta - Future Challenges Conference**

Challenges presented at the conference include: a national energy strategy; energy infrastructure; upgrading resources; the environment and energy resource development; labour shortages and how Alberta is viewed from outside its borders.

- 📍 Westin Hotel, Edmonton, Alberta
- 🌐 <http://goo.gl/aPwFT>

## MAY 13 - 16, 2013

**33rd Annual Conference of the International Association for Impact Assessment: The Next Generation**

The conference theme embraces the impact of current global change now and in the coming decades, and how impact assessment itself will evolve as a result.

- 📍 Calgary Stampede BMO Centre, Calgary, Alberta
- 🌐 <http://www.iaia.org/conferences/iaia13/>

## MAY 14 - 15, 2013

**2013 BC Career, Education and Recruitment Fair**

Organizers anticipate over 8,000 career seekers (of which about 2,000 will be Aboriginal) will attend the fair over the two days.

- 📍 Vancouver Convention Centre, Vancouver, British Columbia
- 🌐 <http://goo.gl/JrILV>

## MAY 21 - 22, 2013

**Bitumen - Adding Value: Canada's National Opportunity**

Emphasis will be on supply and demand issues emanating from the anticipated increase in available bitumen from the oil sands and the challenge of transporting it and derived value-added products to markets worldwide.

- 📍 Sarnia, Ontario
- 🌐 <http://canadabitumen.com/>

## MAY 21 - 22, 2013

**2nd Edition Accelerate Oil & Gas: The Brazilian Oil & Gas Development & Investment Expo-Forum**

Meet buyers, suppliers, service providers, local and foreign investors and facilitators to explore a vast range of project opportunities, technological solutions, financing vehicles and issues crucial to the formation and implementation of O & G based projects.

Special discounted rates to CAPP members of 15%, use code: CAP1012 when registering.

- 📍 Rio De Janeiro, Brazil
- 🌐 <http://www.accelerateoilandgas.com/>

## JUNE 4 - 5, 2013

**BC Natural Gas Symposium**

Up-to-the-minute project updates and the latest economic, regulatory and technical information.

**Renaissance Vancouver Hotel**

- 📍 Harbourside, Vancouver, British Columbia
- 🌐 <http://www.canadianinstitute.com/BCNG>

## JUNE 5 - 8, 2013

**Skills Canada National Competition**

An opportunity for young Canadians studying a skilled trade or technology to be tested within exacting standards and against their peers.

- 📍 Vancouver, British Columbia
- 🌐 <http://www.skillsontario.com/index.php/en/competitions/national>

## JUNE 5 - 6, 2013

**Financial Reporting Conference for the Oil and Gas Industry, Calgary, Alberta**

This conference will discuss the interpretation and application of the new and anticipated standards, and other key standards impacting the industry, along with sessions addressing broader areas of interest.

- 📍 The Metropolitan Conference Centre, Calgary, Alberta
- 🌐 <http://www.cpd.cica.ca/OilGas/>

## JUNE 5 - 6, 2013

**Saskatchewan Oil and Gas Show**

The show provides the service and supply segment of the industry the opportunity to show and display their wares and latest technology applicable to the oil and gas industry.

- 📍 Weyburn Exhibition Grounds, Weyburn, Saskatchewan
- 🌐 <http://www.oilshow.ca/>

## JUNE 5 - 6, 2013

**National Energy Board Safety Forum**

Oil and Gas Industry Safety Management Issues to Be Discussed: Building and Maintaining a Safety Culture; building Effective Management Systems; and performance Measurement Role in Risk Management

- 📍 BMO Centre, Stampede Park, Calgary, Alberta
- 🌐 <http://goo.gl/yZ8Zg>

## JUNE 10 - 12, 2013

**Inuvik Petroleum Show**

Host to over 500 participants including delegates and exhibitors from across Canada and beyond.

- 📍 Inuvik, Northwest Territories
- 🌐 <http://www.inuvikpetroleumshow.com/>

## JULY 14 - 19, 2013

**Pacific NorthWest Economic Region**

Join key business leaders, legislators and government leaders to address major policy issues impacting the region.

- 📍 Dena'ina Civic and Convention Center, Anchorage, Alaska, United States
- 🌐 <http://pnwer.org/2013summit/Home.aspx>

## JUNE 17, 2013

**Noia Conference 2013**

Newfoundland & Labrador Oil & Gas Industries Association Annual Conference, the region's largest oil and gas industry event.

- 📍 The St. John's Convention Centre, St. John's, Newfoundland
- 🌐 <http://www.noia.ca/News-Events/Upcoming-Events/?type=C&id=54>

## JUNE 17 - 19, 2013

**Canadian Responsible Investment Conference**

This year's theme, *Engaging for Change*, explores the role of stakeholders in building sustainable markets and opportunities to achieve better outcomes for investors and the world.

- 📍 Vancouver Marriott Pinnacle Downtown Hotel, Vancouver, British Columbia
- 🌐 <http://www.socialinvestment.ca/conference/>

## JULY 18, 2013

**PSAC Education Fund Golf Classic**

- 📍 Calgary Elks Lodge and Golf Club, Calgary, Alberta
- 🌐 <http://www.psac.ca/events>

## SEPTEMBER 15 - 18, 2013

**Canadian Society of Safety Engineering (CSSE) Professional Development Conference**

Health, safety and environmental practitioners from around the world gather to listen to leaders in the safety industry.

- 📍 Fairmont The Queen Elizabeth, Montreal, Quebec
- 🌐 [http://www.csse.org/annual\\_conference](http://www.csse.org/annual_conference)

## OCTOBER 1 - 2, 2013

**The Maritimes Energy Association: Core Energy Conference**

Learn about the latest advances and developments in the east coast energy industry.

- 📍 Pier 21, Halifax, Nova Scotia
- 🌐 <http://www.maritimesenergy.com/eventdetails.asp?ID=92>

## OCTOBER 20 - 23, 2013

**63rd Canadian Chemical Engineering Conference**

Fredericton Convention Centre and the Fredericton Playhouse, Fredericton, New Brunswick

- 🌐 [http://www.chemistry.ca/index.php?ci\\_id=3217&la\\_id=1](http://www.chemistry.ca/index.php?ci_id=3217&la_id=1)

## OCTOBER 22 - 25, 2013

**4th World Petroleum Council Youth Forum**

Providing a global perspective on industry best practices, technological advancements, corporate social responsibility, financing, as well as the opportunity to develop solutions to current key issues and foreseeable challenges.

- 📍 Telus Convention Centre, Calgary, Alberta
- 🌐 <http://www.wpcCanada.com/youthforum/>

➤ Attend the B.C. Natural Gas Symposium June 4, 5 in Vancouver, B.C.; photo: Courtesy Canadian Institute





# Making a DIFFERENCE

» For Shunmugam (Sam) Vaitheeswaran, helping his co-workers is simply a way of life, whether it's ensuring the workplace is safe or helping a newcomer to Alberta find a home.

Originally from Chennai, Madras, in southern India, Sam came to Canada in 2007. Since then, he's worked in the Alberta oil and gas industry, and has discovered that this is one of the best and safest places in the world to work and live.

Sam should know. An experienced pipefitter and welder, Sam has worked on construction sites and in oilfields far and wide for the better part of 27 years, including stints in Singapore, Bahrain, Saudi Arabia and various countries in Asia. Prior to his arrival north of the border, Sam spent seven years working in the United States.

Canada, however, has proven to be a unique land of opportunity for Sam. Arriving as part of the Temporary Foreign Workers program, Sam did face some initial challenges—he wasn't able to find work for his first six months here. He got by, living with friends, and eventually was able to qualify for his Alberta Journeyman Certificate as a pipefitter and welder by passing the challenge exam. He then found work with Lockerbie & Hole, an Edmonton-based construction company. Since then, he hasn't looked back, continuing to find good work with various oil and gas companies and construction contractors, including Suncor, Syncrude, Canadian Natural Resources Limited and PCL.

What has impressed Sam most in his time working in the Alberta oil and gas industry is the strong safety culture here. "I've never seen safety emphasized like it is here; this is the best country in the world to work safely," he says. It's something that he is glad for, contrasting sharply with some of his experiences elsewhere around the world. At times, Sam has encountered dismal, even exploitative working conditions consisting of

"low salary, no job security, and no focus on safety." In Alberta, Sam relishes the opportunity to learn, share and mentor others on the importance of safety in the workplace.

Prior to coming to Canada, Sam had been warned that there would be no job security and "too much cold weather" here. Instead, he has found that if you are capable at your job and willing to work conscientiously, the Alberta oil and gas industry offers some exceptional opportunities for work, training and advancement. He's also found friendship and acceptance among his co-workers. "If you do the job safely and well, they treat you very well here. Like brothers."

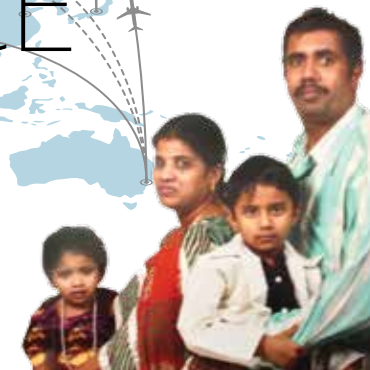
Sam credits much of his success to the Plumbers and Pipefitters Union Local 488, who helped him get settled, challenge for his Journeyman Certificate, and find work.

After decades of globetrotting, Sam has decided to settle down here in Alberta. In 2009, he applied for and was granted permanent residency and his wife and young son soon joined him in Canada. His wife was pregnant at the time, and they've since had a new addition to the family, a Canadian-born daughter. The young family has settled in Edmonton, buying a home in the district of Mill Woods. The transition has been eased by the support of the large, local East Indian community in Edmonton, but Sam and his family have also made many friendships beyond this community, particularly among his co-workers and with other newcomers to the oil and gas workforce.

*"I've never seen safety emphasized like it is here. This is the best country in the world to work safely."*

Appreciative of the chance he has been given, and because helping is a part of his nature, Sam has gone out of his way to assist the many other newcomers arriving in Alberta to find work in the oil and gas industry. Sam has helped friends arriving from India, as well as workers coming from places not quite so far afield, like eastern Canada. Sometimes, this help can be giving these newcomers a place to stay for a few days, or using his contacts to source a home or apartment, even buy a car. He's also happy to use his connections to match the skills of these newcomers to the job needs of employers. "Helping is not a big deal," Sam shrugs modestly, "I grew up like that."

Sam does admit that it can sometimes be a challenge working outdoors in the middle of a cold Canadian winter: but it's one that he says can be dealt with, so long as you make sure to get good quality, warm construction gear. These days, Sam can be found working on an Enbridge site in Fort McMurray. **C**



## New to Alberta?



Visit [www.albertacanada.com/immigration.aspx](http://www.albertacanada.com/immigration.aspx) for information on both immigrating to and working in Alberta.

# In Closing

By Alex Ferguson

» I have only recently joined CAPP, but my arrival has coincided with some changes to our organization, including the Policy and Environment group that I have been asked to lead.

Responsibility for facilitating the work of the Northern Canada Executive Policy Group (EPG) and committees now rests within our group. We will continue to engage with territorial and federal governments and stakeholders in response to a growing interest in potential opportunities for responsible resource development in this region. Although historical and current investment activity in the North is modest relative to other jurisdictions in Canada, the combination of resource potential, governments' intent and focus for success, and our membership's collective investment interest in the area, the North presents an excellent opportunity to once again demonstrate the critical importance our sector holds to the Canadian economy.


I want to highlight two key recent events concerning the North.

- On March 11<sup>th</sup> of this year, the federal and North West Territory governments (along with several Aboriginal communities) announced a commitment to "devolve" specified petroleum resource management authorities from the federal government to the territorial government.
- On March 20<sup>th</sup> of this year, Chevron was recognized at the Responsible Canadian Energy awards dinner with an award under the Health and Safety category for their efforts with a major seismic program in the Beaufort.

These events, among others, indicate that there is keen interest in identifying and developing resource opportunities in Canada's North.

CAPP's organizational response is intended to maximize our effectiveness in advocating with governments, Aboriginal communities, and stakeholders. Our goal is to achieve a highly effective and efficient framework for our members to continue with needed investments to responsibly develop the abundant resources of the north. Through informed policy and regulatory advocacy, we will work to ensure northern development adheres to CAPP's strategic priorities of environmental performance, economic growth and energy security and reliability.

The devolution initiative in the NWT, for example, provides an opportunity to develop regulatory and policy elements that can inform other jurisdictions across Canada.

In his 1958 "A New Vision" speech, Prime Minister John G. Diefenbaker, identified the North as a key Canadian priority, not least for the opportunity to "develop those vast hidden resources." He saw the development of the economic and social fabric of the north as a foundational litmus test of Canadian imagination, pioneering spirit and resolve. Although significant challenges exist, it may be that this grand vision is at long last gaining momentum. 

**Alex Ferguson**  
Vice President for Policy and Environment  
Canadian Association of Petroleum Producers

*Our goal is to achieve a highly effective and efficient framework for our members to continue with needed investments to responsibly develop the abundant resources of the north.*



*In March, Alex Ferguson started as Vice President, Policy and Environment at CAPP. Ferguson's oil and gas background includes work as Senior Advisor, Global Ventures for Apache Corporation, and Commissioner and Chief Executive Officer for the B.C. Oil and Gas Commission.*

*Changes at CAPP involve moving responsibility for Northern Canada and Atlantic Canada into the Policy and Environment group, with the objective of better aligning files that involve engagement with the federal government. At the same time, responsibility for the Canadian Natural Gas Initiative has been consolidated into the Communications group.*



Eddie Lui  
Imperial Oil



Lars Christian Bacher  
Statoil



Joanne Hogg  
Canadian Natural



Tony Bessey  
Shell Canada



Shelley Powell  
Suncor Energy



Jana Dagsvik  
Cenovus



John Parr  
Canadian Natural

**Energy from the oil sands means opportunities for people all across Canada, and here at home.**



Pooja Meda  
ConocoPhillips



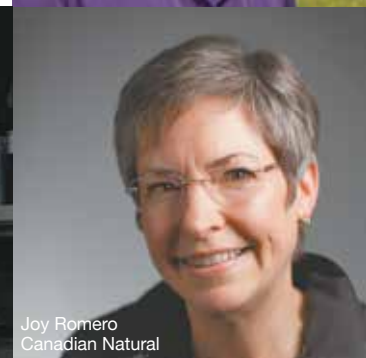
Chelsie Klassen  
Imperial Oil



Steve Gaudet  
Syncrude



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Shell Canada



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Garrett Brown  
ConocoPhillips

**Celebrating the men and women making a difference every day in today's oil sands.**

**Energy at work for all Canadians.**  
A message from Canada's Oil Sands Producers.

   [oilsandstoday.ca](http://oilsandstoday.ca)

The Canadian Association of Petroleum Producers (CAPP) represents member companies that produce about 90 per cent of Canada's natural gas and crude oil, including Canada's Oil Sands Producers.



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