Special

Energy builders

Pipelines, like those constructed by Spectra Energy (top), are the type of infrastructure that's crucial to Canada's oil export efforts, say Energy Roundtable president Jason Langrish (bottom left) and Barry Munro, leader of the oil and gas practice at EY in Canada. SPECTRA; MICHELLE SIU; EY

Canadian crude:

time for new approach to market access

In one of his first media interviews after taking office, Alberta's new premier, Jim Prentice, said he was giving high priority to finding new markets for his province's oil and warned that Canada faced profound economic repercussions unless pipelines were built to open up new trade routes.

He also acknowledged that a new approach by his government to climate change was a key factor in altering the negative global public perception of Alberta's oil.

That was good news to Jason Langrish, president of the Energy Roundtable who believes Canada needs to recognize that other jurisdictions have a political problem in accepting Canadian oil and that we must do something to address that.

"We need to give to get," says Mr. Langrish. "In particular, we need to do something to enhance the environmental profile of Canadian oil sands crude. This could mean changes to greenhouse gas policies, or it could simply mean doing a better job of communicating the efforts that have been made so far."

But with pipeline capacity already near peak and plans to build new pipelines bogged down by political protest in the U.S. and community opposition in parts of Canada, getting Alberta's oil to market is far more than just an infrastructure challenge. Taking steps to address valid public concerns is equally important, as is making sure that the public is fully aware of the steps that have been taken so far.

Barry Munro, leader of the oil and gas practice at EY in Canada, has just completed a cross-Canada tour of speaking and consulting engagements and says he is "pretty impressed" by what the energy sector has done in the past couple of years to address market access issues, and adds that he is optimistic about the future of the industry.

"In the face of adversity, people turn to innovative solutions," says Mr. Munro. "They range from the boom in oil by rail, which, while raising concerns of its own, has in some ways fundamentally changed the energy dynamic, to shipping Canadian oil to Europe via the U.S. Gulf coast as Suncor did recently."

For a long time, he adds, energy companies were logistically competent, but relatively rudimentary at marketing their product.

"They produced it and it went into the pipeline, and they didn't think about the pipeline and markets. Now we are seeing on both the oil and natural gas side quite a bit more sophistication building up," says Mr. Munro.

However, he believes Canada still needs to engage in a more effective countrywide conversation around energy and how we maximize our energy resources.

"That means better ways to get our pipeline and infrastructure approved and, at the end of the day, finding ways to access Asian markets, one way or the other. The answer to every pipeline project can't be no," adds Mr. Munro.

Alternatives to simply exporting Canadian crude overseas may be part of the solution to earning social licence. Three proposals along these lines are currently on the table in British Columbia (see story below). While still in their

Energy, Page EB 2

ENERGY ROUNDTABLE

The Energy Roundtable is a private-sector forum that was launched in 2004 to help define the Canadian energy sector's role in domestic affairs and international oil and gas markets. Founded by the Canada Europe Roundtable for Business, a transatlantic free trade advocacy group, The Energy Roundtable delivers high-level, thematic conferences that:

- Promote Canada as a stable and growing supplier of energy in a resource constrained world.
- Profile innovative ideas on how to sustainably develop Canada's vast energy resources and get them to international markets.
- Explore the commercial opportunities that this presents to investors and service providers.

The annual conference series gathers leaders in Calgary, London and Toronto, whose communities are invested in developing Canada's energy future.

For further information, consult www.energyroundtable.org.

QUOTABLE

"Oil will contribute nearly 50 per cent to the increase in (Canada's) exports over the next two years. However, in 2017-20, its share is forecast to drop below 20 per cent. Canadian firms need to expand and diversify their energy export strategies if Canada is to remain a key player in the global energy market. Rail will be the key driver until 2020, after which research shows that planned pipeline projects have the possibility to address this challenge. If Canada can build the necessary infrastructure, it will be well placed to become a global exporter of oil, rather than one overwhelmingly focused on the U.S."

Linda Seymour *is executive vice president and head of commercial banking, HSBC Bank Canada*

EXPORTS

B.C. firms propose new plans to access Asian energy markets

The skeptics who believe it's not financially viable to build and operate an oil refinery on British Columbia's north coast simply don't understand the business model, says Robert Delamar, CEO of Pacific Future Energy, whose company is planning to do just that.

"We are well past the need to defend the economic viability of our project," he says. "We are not talking about building a 20th century topping plant that sources international feedstock at Brent pricing. We are proposing to build the world's greenest, most technologically advanced export refinery to be fed exclusively with Canadian bitumen."

Mr. Delamar says analysts that the company has spoken to at many of the world's largest investment banks understand that a 21st century refinery, designed to easily modify a product slate in response to changing market demands and oriented to Asia, can be a very lucrative business, and that's the independent analysis and validation driving the company's economic decision-making.

"We are building important relationships with the major Asian trading houses, and expect to have Asia-sourced off take agreements in place long before the first barrel of Alberta bitumen is processed in our refinery."

Robert Delamar
is CEO of Pacific Future Energy

Pacific Future Energy's proposal is one of three currently on the table in B.C. that aim to open a route for product from Alberta's oil sands to Asian markets. The other two are a plan by Kitimat Clean, a company established by Victoria-based businessman David Black, to build and operate an oil refinery in Kitimat in northern B.C., and a proposal by Eagle Spirit Energy Holdings, a First Nations-lead initiative backed by Vancouver's powerful Aquilini family to build a pipeline between an oil upgrader in northern Alberta and B.C.'s north coast from where the partially refined product would be exported.

Like Pacific Future Energy's proposed refinery, Mr. Black says his $21-billion facility with a processing capacity of 550,000 barrels per day of diluted oil sands bitumen would be the cleanest upgrading and refining site in the world and the lowest cost producer of any refinery on the Pacific or Indian Oceans.

Kitimat Clean is also prepared to build a pipeline to transport the product from Alberta to B.C. and pay for a tanker fleet to ship it to Asia, all at an additional cost of $11-billion. Annual revenue would be $25-billion, with a return on investment of 10 per cent after income tax. The $32-billion capital cost would be borrowed, and all loans be repaid within 10 years.

Calvin Helin, chairman and president of Eagle Spirit Energy Holdings, says the company is working to win backing for the project from First Nations

Exports, Page EB 2

INSIDE

ENERGY BUILDERS

OPINION

Accessing global markets remains crucial to Canadian success

Three BMO Capital Markets energy experts weigh in on top issues facing the industry

Shane Fildes heads the global energy group

Aaron Engen is managing director and co-head of the power & energy infrastructure group

Randy Ollenberger is an oil and gas research analyst

Earlier this year, BMO Capital Markets held its inaugural Energy Summit in London. What lessons for Canadian energy companies emerged from the conference?

Shane Fildes: The summit was aimed toward our domestic European energy business and was not attended by Canadian companies. If Canadian companies had attended, I think the lesson would have been that mid-cap development companies are very active in the European energy business. Whereas in the past the perception was perhaps that the European mid-cap space was heavily levered to exploration only; that is certainly not the case today.

What impact have the geopolitical issues in Europe over the past year had on the global energy market and on Canadian companies in particular? Are there new opportunities for Canada in Europe and, if so, what are they?

Shane Fildes: The use of energy supply for political leverage is having hugely important implications for the global energy business. Security of supply is suddenly a critical concept outside of the high-growth Asian economies. Canada's image as a stable source of energy exports should be enhanced by these developments, particularly as Europeans evaluate LNG project opportunities on Canada's east coast. Europe's willingness to consider those projects is being driven by recent natural gas supply uncertainty.

Last year you shared with us that Canada's biggest energy challenge was getting access to tidewater for our crude and gas to sell in Asia and elsewhere. What progress have you seen in addressing that challenge since then?

Shane Fildes: Although Kinder Morgan has filed an application to expand its TransMountain pipeline and TransCanada is expected to do the same shortly for its Energy East pipeline, not much has progressed on this front; we are still in desperate need of market access pipelines. As we have seen many times in the past, the energy industry is taking matters into its own hands with the rapid growth in crude shipments by rail in Canada and the U.S. With the unconventional revolution and resultant production growth, we are going to need both pipeline and rail expansions to get appropriate world prices for our energy.

What's your outlook for oil and gas prices over the next 12 to 24 months?

Aaron Engen: We expect Brent crude oil prices generally to trade in the $95-$110/bbl range over the next 12 to 24 months, broadly consistent with the trading range over the last three years. In the near term, we believe prices could trade at the lower end of the range because of potentially slower global economic growth, due in part to the Russia-Ukraine conflict, and combined with the return of Libyan production. We remain confident that the downside risk to crude oil prices is limited.

For natural gas, weather remains the main determinant of price levels. Over the next 12 months, we believe Henry Hub prices are likely to trade in a $3.50-$4.50/Mcf range. Production in the U.S. northeast continues to grow, and the addition of incremental pipeline capacity out of the region in the fourth quarter of this year and again in mid-2015 should ensure the market remains well supplied. A repeat of the 2013-14 winter heating season would drive prices toward, or through, the top of our trading range. However, we believe that the rally would be relatively short lived.

In your view, what's the single most important factor that needs to be in place to ensure the successful development of B.C.'s LNG sector?

Randy Ollenberger: Government needs to establish an LNG fiscal regime that will support sufficient project returns to enable proponents to sanction their projects. Getting the fiscal regime right requires more than just consideration of the impact of the proposed LNG tax announced earlier this year. Attention should also be given to the carbon, income and property taxes, royalties and other government-related costs that will be borne by the LNG projects. No LNG project will reach a final investment decision before a clear and project economics-supportive fiscal regime has been established.

COLLABORATION

New alliance aims to promote LNG development in B.C.

BG Group's Methane Lydon Volney is an example of the modern, double-hulled vessels that could ship LNG from B.C.'s west coast to Asia. BG GROUP

Six of the firms behind proposals for LNG plants in British Columbia have formed an alliance to promote the development of the industry in the province and ensure that British Columbians better understand the LNG sector and the significant benefits it offers to B.C.

David Keane, newly appointed president of the B.C. LNG Alliance, says the group will advocate for the efficient development of a globally competitive LNG export industry in B.C.

"We are focused on safety, environmental protection, social responsibility and policy matters related to LNG export facilities and marine transportation," says Mr. Keane.

Based on his contact so far with communities, First Nations and other stakeholders, he says enthusiasm and support for the LNG industry is "very strong" in northwestern B.C.

"This is an industry that holds considerable opportunity and promise," he adds.

The alliance comprises Kitimat LNG (Chevron Canada), LNG Canada (Shell Canada, KOGAS, PetroChina and Mitsubishi), Pacific NorthWest LNG (PETRONAS), Prince Rupert LNG (BG Group), Woodfibre LNG and Triton LNG (AltaGas Ltd. and Idemitsu Canada).

Mr. Keane says the six projects represent billions of dollars in investment in B.C., including hundreds of millions that have already been invested.

"These projects could provide new revenues in excess of $4-billion to various levels of government, which would be additional revenues to pay for health care, education and social programs," he adds.

One of the most positive aspects of the LNG industry is the opportunity it provides for First Nations in B.C., says Mr. Keane.

"Many First Nations communities are already benefiting from the project work that is taking place as companies move toward final investment decisions," he says. "As we move forward, more opportunities and partnerships between project proponents and First Nations will emerge."

Mr. Keane acknowledges that while a successful LNG industry will create significant benefits for B.C., the alliance needs to address the challenges of reaching that point, including helping British Columbians better understand the industry as a whole.

"Clearly, there are strong opinions around resource development in B.C.," he says. "However, we know that British Columbians are generally supportive of LNG and want to see us succeed and prosper for the benefit of the province. To reinforce that support, we need to do a better job of explaining how the industry works, and that's a big part of what the alliance will do."

LOOKING FORWARD

Generating jobs and revenue

The B.C. government has committed to having three LNG facilities in operation by 2020, assuming all environmental approvals are granted. Based on current estimates from project proponents, the government says that could mean:

- Over $20-billion in direct new investment
- As many as 9,000 new construction jobs
- About 800 long-term jobs
- Thousands of potential spinoff jobs
- Over $1-billion a year in additional revenues to government

BY THE NUMBERS

$133-billion
Contribution of oil and gas to Canada's nominal GDP in 2013

7.5%
Share of Canada's nominal GDP from oil and gas in 2013

190,170
Direct jobs provided by the Canadian oil and gas sector

74%
Share of Canadian crude oil production that's exported

97%
Share of Canadian crude oil exports that go to the U.S.

57%
Share of Canadian natural gas production that's exported

100%
Share of Canadian natural gas exports that go to the U.S.

$128-billion
Value of Canadian energy exports

29%
Share contributed by energy to total Canadian merchandise exports

$109-billion
Capital spending by the energy sector in 2013

Source: Natural Resources Canada. Energy Markets Fact Book 2014-2015

FROM EB1

Energy: East offers hope

very early stages, they may hold some promise, says Mr. Langrish.

"The two refinery proposals do not fit the traditional model of refining where crude is refined close to end users and easily moved to market," he says. "However, if the Asian market in particular has an appetite for product that is refined in Canada, this could change the calculations behind these decisions."

And with the Northern Gateway pipeline project apparently bogged down by community protest, proposals to refine crude on the west coast before shipping is a compelling part of the narrative, adds Mr. Langrish.

Mr. Munro says it's difficult to tell whether the refinery projects make economic sense or not.

"The challenge with refineries is that they go through periods of making money, but in North America at a structural level they haven't made money for a very long time," he says. "However, they may be an appropriate resource when their feedstock is heavily discounted. Canada is selling the cheapest crude in the world. You could argue that there's an arbitrage opportunity by refining it and selling refined products at a better profit margin."

Mr. Munro says while the B.C. refinery proposals are an attempt to better the value add in Canada and reduce the perceived environmental risk of Canadian crude being shipped from the west coast, he is more excited about projects such as Energy East, which plans to ship Alberta crude to eastern Canada where there are existing refineries.

Having more Canadian crude travel east may also provide additional market opportunities in Europe, which has been shaken by the conflict in Ukraine and its potentially negative implications for energy supply from Russia.

"Europe is clearly interested in deepening relations with a stable supplier like Canada," says Mr. Langrish. "However, assuming all goes well, it would be 2020 before significant oil and gas exports to Europe could occur as current infrastructure constraints need to be addressed."

Mr. Munro says a challenge in accessing the European market is that Europe is apparently not prepared to pay a premium for security of supply even though its gas supply from Russia though Ukraine is at risk.

"It makes perfect sense to export LNG from Eastern Canada to Europe where they have plenty of regasification facilities," he says. "But the pricing parameters have always made it difficult to do so. We have to wait to see if the need for energy security eventually drives Europe toward LNG pricing that would support North American LNG exports."

FROM EB1

Exports: Firms banking on growth in Asian demand

Chevron's facility in Burnaby is one of only two oil refineries currently operating in B.C., but that would change if plans by two other companies come to fruition. CHEVRON CANADA

communities in B.C. and Alberta. At the project's launch in Vancouver earlier this year, he said engagement with First Nations would be ongoing.

"We have a lot of work ahead of us and will continue to be respectful of First Nations protocols and seek their consensus, taking their lead to bring forward amicable solutions for the benefit of all communities," Mr. Helin said.

The company has already signed non-disclosure agreements with a "substantial number" of First Nations in northern British Columbia, according to Mr. Helin.

"These First Nation communities are prepared to work together with Eagle Spirit Holdings to explore alternative solutions to Enbridge's planned Northern Gateway proposal."

Mr. Delamar says his company's proposal is a sensible approach to the ongoing challenge of accessing Asia.

An export refinery on the B.C. coast would become an important global link in the delivery chain for Canadian upstream producers who currently have a small domestic market and only the U.S. as an export market.

"We are building important relationships with the major Asian trading houses, and expect to have Asia-sourced off take agreements in place long before the first barrel of Alberta bitumen is processed in our refinery," adds Mr. Delamar. "Asian demand for petroleum products is forecast to grow by one million barrels per day in 2014 alone."

All three companies are banking on support from British Columbians for proposals to export refined or partially refined products rather than oil sands crude. Public opinion poll results released earlier this year by Pacific Future Energy showed strong support for refining oil in Canada before exporting it because of the perceived economic and environmental benefits.

"An export refinery on the B.C. coast built in full partnership with First Nations would protect the delicate coastal marine ecosystem from the threat of a catastrophic bitumen spill, while creating thousands of good-paying, long-term jobs and opening new markets for Canadian producers," says Mr. Delamar. "Instead of relying on a single export market for Canadian bitumen, we would open the door for new business for Canadian producers in the world's most dynamic economic region, Asia. It is a win for everyone."

High-energy performance

Select Transactions

Mergers and Acquisitions

Enbridge Income Fund — **$1.8 billion**
Acquisition of pipeline assets from **Enbridge**
Sole Financial Advisor
September 2014

Forge Petroleum Corporation — **$154 million**
Sale to **Whitecap Resources**
Financial Advisor
September 2014

Longview Oil Corp — **$429 million**
Sale to **Surge Energy**
Sole Financial Advisor
June 2014

Crescent Point Energy Corp — **$1.1 billion**
Acquisition of **CanEra Energy**
Sole Financial Advisor
May 2014

devon — **$3.1 billion**
Sale of its Canadian conventional upstream position to **Canadian Natural Resources**
Financial Advisor
April 2014

Equity Financing

PrairieSky Royalty Ltd — **$2.6 billion**
Secondary offering of common shares
Joint Bookrunner
September 2014

Crescent Point Energy Corp — **$800 million**
Common Shares
Joint Bookrunner
September 2014

AltaGas — **$460 million**
Common Shares
Joint Bookrunner
August 2014

Oryx Petroleum — **$224 million**
Common Shares
Joint Bookrunner
July 2014

Paramount resources ltd. — **$343 million**
Common Shares & Flow-Through Common Shares
Sole Bookrunner
July 2014

Journey Energy Inc. — **$198 million**
Initial Public Offering of Common Shares
Joint Bookrunner
June 2014

Peyto Exploration & Development Corp. — **$160 million**
Common Shares
Sole Bookrunner
February 2014

TransCanada (In business to deliver) — **$450 million**
Preferred Shares
Joint Bookrunner
January 2014

MEG Energy — **$157 million**
Common Shares
Sole Bookrunner
December 2013

Trilogy Energy — **$200 million**
Common Shares
Sole Bookrunner
October 2013

Debt Financing

CU Inc. (An ATCO Company) — **$1.0 billion**
Senior Notes due in 2014
Joint Bookrunner
September 2014

Canadian Natural — **$1.0 billion**
Medium Term Notes due in 2019 & 2024
Joint Bookrunner
June 2014

Gibsons — **$300 million** / **US$50 million**
Senior Notes due in 2022
Joint Bookrunner
June 2014

AltaLink — **$480 million**
Medium Term Notes due in 2024
Joint Bookrunner
June 2014

Paramount resources ltd. — **$700 million**
Loan Facilities
Lead Arranger, Sole Bookrunner & Administrative Agent
June 2014

Peyto Exploration & Development Corp. — **$1.0 billion**
Loan Facilities
Lead Arranger, Sole Bookrunner & Administrative Agent
April 2014

Trilogy Energy Corp — **$725 million**
Loan Facilities
Lead Arranger, Sole Bookrunner & Administrative Agent
April 2014

Journey Energy Inc. — **$230 million**
Loan Facilities
Lead Arranger, Sole Bookrunner & Administrative Agent
April 2014

TORC Oil & Gas Ltd — **$375 million**
Loan Facilities
Co-Lead Arranger & Administrative Agent
April 2014

Canadian Natural — **$1 billion**
Loan Facilities
Sole Lender
March 2014

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*M&A - Canadian target or seller, credit to acquirer or seller financial advisor only, announced and completed deals, Canadian Oil & Gas E&P and Integrated; Equity Underwriting - Full credit to Bookrunner, announced and completed deals, equity and equity-linked, Canadian Oil & Gas E&P and Integrated; Bloomberg as at 26-Sep-2014.

ENERGY BUILDERS

OPINION

Making Ontario-Quebec energy co-operation work

By Don MacKinnon, President, Power Workers' Union

In August, political discussions about the need for a national energy strategy resurfaced. The Premiers of Ontario and Quebec – motivated by the desire to increase trade and co-operation, address climate change and build new infrastructure – talked about energy trade including the possibility of more electricity imports from "La belle province." Eight days later, the Council of the Federation announced that Canada's provincial and territorial leaders had reached a provisional Canadian Energy Strategy.

On the surface, increased reliance on hydro imports from Quebec may appear to make sense. Advocates claim this is a cheaper, more environmentally friendly option compared to refurbishing Ontario's nuclear fleet, building new nuclear units and investing in the province's vast biomass resources. However, closer scrutiny reveals the importance of integrating Ontario's nuclear advantage into any deal or strategy.

Quebec generates economic revenue and jobs from its electricity exports. It sells into the U.S. marketplace seeking a competitive price. For example, this year, six New England states have been paying an average 10 cents per kilowatt-hour for electricity imports from Quebec. Quebec would expect Ontarians to pay the same market rates for imports as competing jurisdictions.

Ontario hosts most of Canada's $6-billion-a-year nuclear industry with over 160 supply chain companies and 60,000 direct and indirect high-value jobs. For over 40 years, this technology has provided Ontario with reliable and affordable, greenhouse gas (GHG) emission-free electricity and today makes up over half of the province's supply. This has helped give Ontario one of the lowest-carbon electricity system footprints in the world and has also helped make Canada a leader in nuclear medicine as well as materials innovation and development while benefiting our universities and research agencies.

Investing in Ontario's nuclear assets and expertise offers additional opportunities in clean air and climate change action planning. Using this clean electricity to power 'Made-in-Canada' zero-emission vehicles could benefit our province's 400,000 job auto industry while reducing pollution and GHG emissions from the transportation sector.

With the potential for more climate change related events like multi-year droughts, Ontario's reliable 24/7 nuclear generation could play an even more important role in the future and should be leveraged in any negotiations.

The refurbishments of six nuclear units at Bruce Power and four at Ontario Power Generation's Darlington site bring with them thousands of jobs for decades to come and will provide a strong foundation for the future of Ontario's nuclear industry. Although investment in new reactors needed to replace the 3,000 megawatt Pickering Nuclear Generating Station has been deferred, it is only a matter of time until new units will be needed to meet increased demand for low-carbon electricity.

For many years, electricity trade between Ontario and Quebec has been evenly balanced. Ontario's electricity exports to Quebec enable its reservoirs to fill up to produce more power for sale. Quebec imports are often highest in the winter when hydroelectric production is limited and domestic electricity demand in Quebec is at its peak. With the potential for more climate change related events like multi-year droughts, Ontario's reliable 24/7 nuclear generation could play an even more important role in the future and should be leveraged in any negotiations.

While Quebec is blessed with large hydropower resources, Ontario has already developed most of its commercially viable hydroelectric potential. Fortunately, our province has a world-class GHG emission-free nuclear reactor technology and vast forestry and agriculturally sourced renewable biomass resources.

These low-carbon electricity resources can complement each other. Ontario's nuclear generation can deliver GHG emission-free base-load power for Ontarians and overnight off-peak export to Quebec. Hydroelectric generation can produce base-load power for Quebec, and surpluses can be stored and exported to Ontario during peak demand to offset gas generation. Both can be exported to neighbouring states dependent on high-GHG, shale gas and coal generation.

Co-ordinating production from Ontario's nuclear plants and Quebec's hydroelectric generation could: solidify both provinces as low-carbon electricity export powerhouses; offer a hedge against the price volatility of non-renewable fossil fuels; and provide critical tools for addressing climate change. This strategy generates revenue, jobs and innovation opportunities for both provinces, and a better environment for all.