OPI NEWSLETTER

THE VOICE OF THE ONTARIO OIL AND NATURAL GAS INDUSTRY

SUMMER 2016

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Hugh Moran, Executive Director Lorraine Fillmore, Office Manager

Encouraging responsible exploration and development of the oil, gas, hydrocarbon storage and solution-mining industries in Ontario

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OPI 54th Annual Conference & Trade Show

The OPI 54th Annual Conference & Trade Show "DISCOVER THE FUTURE" was recently held at the DoubleTree by Hilton in London.

A special thank you goes out to all our exhibitors, sponsors, speakers and delegates for making the show a success.

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The Collingwood Shale Core Workshop was put on by Allan Phillips at the Library



Some of the Speakers



Some of our Exhibits





Conference Fun!

Message from the Executive Director

It's a pleasure to again have an opportunity to share with you the activities and work being done by the OPI. As part of Canada's energy sector there isn't much that happens that doesn't in some manner or another impact OPI members. Exploration, prices, pipelines, renewable energy and climate change are all front and centre in the daily life of all us involved in developing, in our case, Ontario natural resources.

On the production front while the OPI continues to work on addressing the challenges brought on by declining production and prices it's encouraging to see in recent weeks the price of oil has climbed steadily to, at the moment of this writing, the \$50.00 U.S. range for WTI crude oil with natural gas trading near \$3.00 U.S.

Developments in recent weeks indicate that despite the challenges, an air of optimism exists within the Ontario industry. The 2016 OPI Conference and Trade Show – Discover the Future which was held in early May had the delegates hear from an interesting array of speakers on a range of topics from exploration to a First Nations perspective on sharing resources, to a discussion on unconventional technologies and ideas on a Canadian Energy Strategy.

The Government of Ontario was well represented at the Conference with Bob Delaney, Parliamentary Assistant to the Minister of Energy, and Bill Thornton, Deputy Minister of Natural Resource and Forestry giving keynote addresses. In his remarks Mr. Delaney indicated that Ontario's next long-term energy plan will include input from the province's producers. Mr. Thornton emphasized that the Ministry will continue to work with the industry on a regulatory structure that enhances production.

The OPI Board of Directors has met twice since the last newsletter with the various committees working on a range of industry issues. The Producers Committee is developing a proposal for updating Ontario geological studies, looking at changes to marketing natural gas, and reviewing potential adjustments to the municipal assessment of production assets.

The Membership Committee is discussing ideas to increase membership including the OPI hosting a series of information meetings in locations central to where members reside. In addition to members, invitations would be sent to any non-member well license holders

as well as to employees of all the companies active in that specific area. The Governance Committee is studying the OPI By-laws to determine potential changes on how the OPI is governed.

The Ontario Oil, Gas and Salt Resources Trust which involves the OPI in the management of the Ontario Oil, Gas and Salt Resources Library recently released its 2016 audited financial statement. For the third consecutive year the Trust will report a surplus.

Please enjoy this issue of the OPI Newsletter and contact me anytime at 519-630-4204 or at hughmoran@ontpetroleuminstitue.com.

Hugh Moran, Executive Director

OPI Talking Points

Ontario Cabinet shuffle affects oil and natural gas industry

Premier Kathleen Wynne's recent Cabinet shuffle adds two new players to Ontario's oil and natural gas industry. The Ministry of Natural Resources and Forestry has a new minister with the appointment of the Hon. Kathryn McGarry, MPP Cambridge. Sudbury MPP Glenn Thibeault was appointed Minister of Energy replacing the Hon. Bob Chiarelli who was in the role since the 2014 Provincial Election and now is Minister of Infrastructure.

OPI Web Site

A program is being developed to market the OPI web site for its value in offering sponsorship advertising opportunities for companies and individuals to promote prospects, partnerships, services, etc. The OPI site has generated a very high level of activity for an organization of its size. Full details on the contacts and connections to the site are available through the OPI's Google Analytics.

Energy East Pipeline Project

The OPI has received intervenor status for the National Energy Board's hearing on the TransCanada Pipelines application for the conversion and extension of their Energy East Pipeline from natural gas to oil for transport from Alberta to the Irving Refinery in Saint John, New Brunswick.

Michigan Oil and Gas Conference and Trade Show

The OPI and the Ontario Oil, Gas and Salt Resources Library attended the Michigan Oil and Gas Association (MOGA) Conference and Trade Show on April 21st, 2016 in Traverse City, Michigan. It's a one day event with a trade show and technical sessions as the main items on the program. As there is a good bit of interaction between OPI and MOGA members and companies the conference has very good value from a public relations perspective.

AAPG Annual Convention and Exhibition 2016

The OPI attended the American Association of Petroleum Geologists convention held at the BMO Centre, Stampede Park in Calgary from June 19-22, 2016. The Convention attracted geologists from around the world to participate and attend technical sessions and view exhibits on various aspects of the petroleum industry. The conference was an opportunity for the OPI and the Ontario Oil, Gas and Salt Resources Library to promote oil and natural gas exploration and production - the Ontario Advantage.

OPI Annual Golf Tournament

This year's OPI Annual Golf Tournament is scheduled for Wednesday, September 14th at the Oakwood in Grand Bend. We hope you can join your fellow members and friends at the tournament with prizes and fun for everyone.

From The Newsroom

Natural gas is a key piece of Canada's climate puzzle

As part of the Paris climate treaty, Canada has signalled its collective commitment to do its part to tackle global climate change. This is no small task. But it's doable, and natural gas has a strategic role to play for the long term.

It will require realistic, achievable solutions at home at the provincial and federal levels. It will also require our industry to continue its focus on continuous environmental performance improvement. And we can take action globally by exporting some of our abundant energy, produced under one of the most stringent regulatory systems in the world, to countries that need it. Here's how.

Natural gas is a complementary energy source to wind and solar, and acts as a backup to ensure reliable power-generation capacity and thus encourage growth in renewable power. Ontario and Alberta, for example, are committed to increasing the share of renewables in their energy mix. Natural gas can help achieve this ambition. Ontario Premier Kathleen Wynne addressed a group of Calgary-based business professionals recently and was clear that natural gas will play an important role beyond 2030. She emphasized that natural gas will be part of Ontario's entire energy mix for decades.

Natural gas is the single largest form of energy used in Canadian homes. It's abundant, easily transported and affordable. More than six million homeowners use it to heat houses and water. Homes are also enjoying the benefits of increasingly efficient natural gas furnaces and appliances. In Ontario, about 70 per cent of homes are heated with natural gas, and it meets about 27 per cent of the province's energy needs. Other countries, particularly in Asia, are not using natural gas as widely, but they'd like to use more. Global natural gas demand is increasing. The International Energy Agency forecasts that global demand for it will increase 46 per cent by 2040, driven primarily by rapidly expanding Asian economies.

This is an export opportunity for Canada. We can help fuel cleaner power generation in countries that rely on coal and thus help slow the rate of growth of global greenhouse gas emissions. This is consistent with Canada's commitment to global action on climate change.

Take a look at China. Natural gas represented just 5 per cent of China's primary energy consumption in 2013, according to the IEA, while coal represented 68 per cent. This mix is gradually changing, as the Chinese government plans to cap coal use at 62 per cent of its total primary energy consumption by 2020. Over the same period, China plans to double its use of natural gas and enable more renewables. As a result, China is now the world's third-largest importer of liquefied natural gas.

Making more Canadian natural gas available to China will lower the amount of carbon in its energy mix, a positive Canadian contribution to addressing global climate change. It would also allow our country to benefit economically at a time when North American natural gas markets have changed fundamentally.

Even a modest West Coast LNG industry, exporting about 30 million tonnes a year, would boost Canada's economy by an average of \$7.4-billion a year over the

next 30 years, according to a Conference Board of Canada study. The increased economic activity from natural gas development and exports would increase national employment by an annual average of 65,000 jobs, the study says. This increased international trade would also generate substantial new government revenue through royalties, taxes and land tenure payments.

Natural gas is not the only answer to how Canada can help tackle global climate change. But it is a key part, because greater use of it can reduce reliance on less environmentally sound energy sources, help support renewable energies and make energy available to countries as an alternative to getting that energy from countries with less stringent regulations than Canada's.

Tim McMillan, Chief Executive Officer, Canadian Association of Petroleum Producers Contributed to The Globe and Mail. June 2016

Ontario can cut GHG emissions by producing more natural gas, industry group argues

The Ontario Petroleum Institute also argues that 'locally produced natural gas should receive additional carbon credits since minimal fuel and transmission is required to reach the end user.'

Ontario's fossil fuel sector sees an opportunity to direct cash and carbon credits from the coming cap-and-trade system toward strengthening the province's homegrown natural gas supply, which it predicts will reduce greenhouse gas emissions.

The Ontario Petroleum Institute made the case in a recent Ontario Energy Board filing. The group told the regulator that increasing the amount of natural gas Ontario produces - which fell from 16 billion cubic feet in 1995 to 5.5 billion in 2015 - would bode well for the provincial economy.

"Equally important, provincially produced natural gas supports the stewardship of the environment by reducing Ontario's carbon footprint by the amount of imported natural gas transported from Western Canada and the Northeastern United States," reads the OPI's June 16 submission to the OEB, which regulates the natural gas sector.

Furthermore, the petroleum industry wants Ontario's coming cap-and-trade system to help the cause. The OPI argues that "locally produced natural gas should receive

additional carbon credits since minimal fuel and transmission is required to reach the end user."

The OEB's proceeding is on expanding natural gas service to communities that are currently off the grid. The OPI says building that new infrastructure "would enable Ontario companies to develop the province's natural resources through increased production for the benefit of Ontario citizens." But the OPI, which is concerned about Ontario natural gas exploration companies being priced out of the program if utilities are allowed to pass off the costs to their rate base, also argues that increased access would reduce GHGs by driving down fuel imports.

"The OEB needs to provide cap and trade incentives to local customers who contract for local natural gas supplies," adds the group. "By contracting for locally produced natural gas significant carbon emissions are eliminated.

Under cap and trade, companies will have to purchase carbon-burning credits to keep plying their trade, passing their costs on to the customer as they go. The government estimates cap and trade will raise about \$1.9 billion annually for the province, and it will start next year with no transition period for fossil fuel distributors and suppliers. The government has projected that its carbon-pricing scheme, when linked with that of California and Quebec, will cost households an extra \$13 a month on their energy bills.

In Ontario, 76 per cent of buildings are heated with natural gas, and they are one of the largest sources of GHG emissions, along with the industry and transportation sectors. To address this, the government plans to update the building code to inspire new "net zero carbon emission small buildings."

Yet the OPI points out there is still an estimated 550 billion cubic feet of natural gas reserves in the province that is possibly undiscovered, and that Ontario is importing most of its energy supply. Ontario has been harvesting natural gas since the 1880s.

"Ontario's oil and natural gas production can contribute to the greening of the province's energy supply through its capability to utilize offset credits for the cap and trade program," said the OPI. "We would urge the government to designate funds raised from the program be directed to the Ontario petroleum industry to enhance its ability to contribute to the reduction of GHGs."

Ontario has yet to finalize what offset credits it will make available.

But the OPI says 50 per cent of Ontario's "potentially recoverable" natural gas – approximately 1.45 trillion cubic feet – has yet to be developed.

"This means that Ontario could contribute approximately 18% of the province's yearly natural gas requirements, 18 billion cubic feet, for the balance of this century," says the OPI. "However, recovering this potential will require a significant financial investment for exploration and development.

The group says there were 1,221 wells producing natural gas last year in southwestern Ontario, "a significant portion" of which are in Lake Erie.

"In 2015 – Ontario companies' produced 400,000 barrels of oil and 4.6 billion cubic feet of natural gas valued at \$77 million with 700 full-time employees and an additional 3800 employed indirectly through support services," states the OPI.

In a separate OEB proceeding, a coalition of environmental groups says the regulator needs to give more weight to the benefits of cap and trade. The Green Energy Coalition, which includes Greenpeace Canada, the Sierra Club of Canada Foundation and the Pembina Institute, was opining on an OEB discussion paper considering how to set natural gas rates that include the costs of carbon pricing.

"GEC suggests that the inclusion of all such benefits be explicit," states the group's June 16 submission. "Further, there may be societal benefits, beyond the primary benefit of GHG reduction, that are external to the utility and its customers, such as widespread commodity cost reductions that should similarly be counted."

Geoff Zochodne

Queens Park Briefing (news service monitoring political activity at the Ontario Legislature)
June, 2016 (edited excerpt)

A renewable reality: Fossil fuels aren't going anywhere

The artwork for Ontario's Climate Change Action plan shows Ontario, circa 2050, as a paradise of cyclists, electric cars, wind turbines, solar panels, dense urban environments and homes powered by geothermal energy. Renewable energy industries could not have been happier.

These industries have been growing fast, their products becoming cheaper, their subsidies continuing, their consumers still paying higher-than-market rates. They are the way of the future, sort of, but the future is rather far away.

Sort of, because renewables are beginning their climb to market dominance they foresee from so far behind. No matter how rich and many the subsidies for renewables from governments such as Ontario's, industrial societies don't change very rapidly.

BP's 65th Statistical Review of World Energy, a yearly signpost document used throughout the world, just came out showing how far renewable energies have come, but how very far they have to travel.

In 2015, world oil consumption was about 4.3 billion barrels; natural gas consumption was the equivalent of 3.1 billion barrels of oil, coal 3.8 billion and renewables 364 million.

Around the world, renewables account for only a sliver of energy consumption. The sliver is growing. In 2014 and 2015 renewables accounted for about half the world's new power generating capacity. As the International Energy Agency reported, however, "supportive government policies and related subsides continue to be critical to the capacity deployed." In other words, renewables are growing while still needing government help.

Governments such as Ontario's are big on biofuels, except that depending on where the calculation of the life cycle of producing a litre of, say, ethanol starts and ends, biofuels don't reduce greenhouse gas emissions. And they are more expensive than conventional gasoline, especially cellulosic biofuels. Biofuel production actually dropped in Canada from 2014 to 2015.

Nuclear energy, of course, is carbon-free and therefore an excellent energy source for limiting greenhouse gas emissions — except that most environmentalists hate nuclear power.

They love renewables, especially hydro, except that they usually dislike at least some of the dams needed to produce the hydro, and some of the transmission lines needed to transport it. Moreover, hydro capacity in Canada has been more or less flat since 2008.

Renewables – the Holy Grail for Ontario's energy future – comprise energy from wind, geothermal, solar, biomass and waste. As a share of total Canadian energy consumption, renewables are growing – to about 2 per cent overall.

Worldwide, renewables reached 2.8 per cent of energy consumption in 2015, up from 0.8 per cent a decade ago. Oil, by contrast, accounted for 32.9 per cent of global energy consumption, coal for 29.2 per cent and natural gas for 23.8 per cent. So the world relied on various fossil fuels for 85.9 per cent of its energy needs, compared with 2.8 per cent for renewables, according to the BP Statistical Review.

From renewables' very low base, imagine how long it will take for them to become the dominant energy sources, as depicted in the Ontario drawing. That projection leaves aside public opposition to some forms of renewable energy such as wind turbines, plus the high cost of renewable energy from such sources as offshore turbines.

The good news worldwide is the decoupling than began to be noticed in 2014 between overall increases in energy demand and carbon emissions. These used to rise in lockstep, but no more, largely because of declines in energy use in Europe and North America, and the replacement of coal by natural gas.

Energy conservation, another favourite of environmental activists, is a pipe dream. Worldwide energy use is expected to grow by one-third between now and 2040, with consumption rising everywhere except in some advanced industrial countries.

An estimated 1.2 billion people in the world remain without electricity, 240 million of them in India, where energy growth is expected to be 5 per cent a year. Coal will be a major source of energy in some countries, notably India. Where coal declines, its market share might be absorbed by natural gas, another fossil fuel, although a less polluting one than coal.

Renewable sources have their place, and a growing place, in the world's and Canada's energy future. Governments can subsidize and prod and regulate for more renewables. Rent seekers in renewable industries will clamour for more help, but across the world, and in Canada, fossil fuels will dominate for a long time.

Jeffrey Simpson The Toronto Globe and Mail June, 2016



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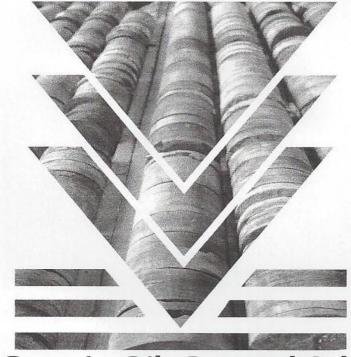
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Ontario Oil, Gas and Salt Resources Library

OGSR Library is the centre for information related to subsurface geology, petroleum resources, salt, and hydrocarbon storage in Ontario.

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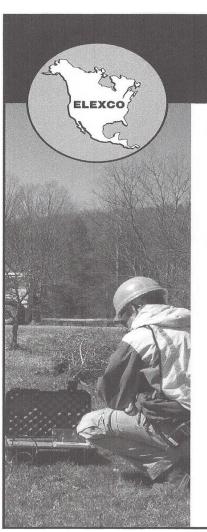
2016 Upcoming Events

OPI Board of Directors Meeting

Friday, July 8, 2016 Enbridge Gas Storage, Mooretown

OPI Golf Tournament

Wednesday, September 14, 2016 Oakwood Resort, Grand Bend



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