

EVENT Montréal Council on Foreign Relations
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*Merci pour cette introduction. C'est un réel plaisir d'être à Montréal aujourd'hui.
Bonjour à tous. Je m'appelle Tim McMillan et je suis le président et chef de la direction de
l'association canadienne des producteurs pétroliers.*

I appreciate your indulgence as I address you today in English.

I am here to talk with you on "Innovation, Environment and the Future of Canadian oil."

Yes, there is a future for Canadian oil. A bright one!

And judging from the number and of distinguished guests in the room today it is clearly a future that will be shaped by Québécois to benefit Québécois.

It's an energy future that is going to be more global.

It's an energy future that will come with lower prices, lower costs and lower carbon.

And as the world develops, Canada has the opportunity to become the world's preferred supplier of energy.

To make this happen, our energy future needs more of Québec's talent its leaders, its thinkers, its builders, its innovators and entrepreneurs to create our energy future, and to benefit from it.

You may not realize it, but here in Québec we are on the doorstep of the world oil market. Québec is already the most globally-connected oil province in Canada.

In Montréal and Lévis there are two refineries that process 376,000 barrels of oil per day – refineries that are connected to the international market.

More than 60 per cent of that oil is imported.

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It is oil that today comes by pipeline from the United States or by tanker from Saudi Arabia, Algeria, Norway or Nigeria

These refineries are important, as they support a \$9-billion petrochemical sector that is critical to Québec's economy and a partner to its top global industries, such as aerospace, plastics, and pulp and paper.

Quebec businesses are also already highly connected to Canadian production. There are 385 companies across Québec that do \$1.2 billion in business every year with the oil sands.

Half of these companies are concentrated in Montréal and Québec City – but half of them are spread in all regions across the province.

Companies such as Prevost Coach Manufacturer of Saint-Claire, which sells up to 45 coaches every year to companies in the oil sands.

Over the next 20 years, Québec businesses such as Prevost are projected to sell more than \$70-billion in goods and services to Canada's oil sands.

And then there are technology entrepreneurs – companies here today such as GHGSat or CANSolv – who are partners with Canada's Oil Sands Innovation Alliance (COSIA).

These are Québécois generating innovation to lessen the impact of Canada's oil and gas industry on the environment.

These technologies will help here at home, but they will also create global opportunities. Ultimately, The largest impact Canada may have on global emissions will likely be through the technology advancements that can be used elsewhere

So today I want to touch upon three topics:

- First, The growing demand for more energy around the world – more energy that can come from Canadian oil and gas.
- Second, the Surprising and changing nature of global energy supply competition – and what it means for Québec.

- And lastly, a vision of our future – the innovation underway to be more cost-and-carbon competitive ... to produce more energy with less impact.

Because here in Canada we have everything to get the future of oil right – the people, the resources, the ideas – to balance the energy needs of citizens around the world with the environmental needs of the planet.

With more innovation and leadership from Québec, Canada can help the world to break the link between energy growth and emissions growth ... for a more secure and cleaner energy future.

THEME #1 – Growing GLOBAL DEMAND

The world is getting bigger and more connected. And with more people comes the need for more energy.

The International Energy Agency estimates the world will need 31 per cent more energy in 2040 than we use today.

Specifically they predict the growth will be in developing nations like India and China. For the more than 3 billion citizens of the planet who tonight will have to burn wood or dung cook food for their families ... let alone to heat their homes or cool their homes or drive or fly or wear clothes made with polyester or use iPhones made with oil.

That means more energy – in all forms.

Fortunately Canada is blessed with abundant energy resources that are among the largest in the world. We have more than we need – enough to share with the world.

Energy such as Canada's hydro power that is a source of both economic and traditional environmental strength.

We are the fifth largest producer of natural gas in the world with 300 years of supply

We have the third-largest oil reserves in the world, behind only Saudi Arabia and Venezuela.

Certainly, our global energy mix is changing. Renewables have and will continue to grow significantly in the decades ahead. They will double, triple, maybe even quadruple. If renewables quadruple, they will represent about 20% of the world's energy mix.

Even in a lower-carbon future, the world is going to need more energy from oil and gas.

By 2030, India will be the #1 importer of oil in the world, ahead of China and the United States. Today India imports 3.8 million barrels per day – or as much as we make in all of Canada. That will only grow.

In fact, India and China will need an additional 11-million barrels of oil per day by 2040.

But how many barrels of oil does Canada send to India today? Or China?

Zéro.

So there is opportunity and challenges for Canada to be the supplier of choice in this changing world

THEME #2: GLOBAL COMPETITION

We live in turbulent times.

Just ten years ago people were putting forward the concept of peak oil.

Now, technology (the shale revolution) has changed everything and the world seems awash with low cost hydrocarbons, sending the world into a period of re-adjustment

This revolution is being led by our largest customer the USA.

During the Obama years, innovation helped American oil production jump by 4.4 million barrels a day. That's more than all the oil we make in Canada.

And that increase has made the United States the second-largest oil producer in the world – second only to Saudi Arabia. On top of that in the last two years, we've seen a series of structural changes in the energy markets around the world.

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- OPEC and Russia keep producing at record-high levels to counter the north American growth and defend their market share.
 - Sanctions on Iran have been lifted and it is supplying millions of new barrels.
 - Mexico has opened its oil sector to private investment in an effort to sell more oil to the United States, in direct competition with Canada.

This over supply has led to the steep fall in world prices,

These are global changes that Canada must be particularly thoughtful about.

For decades, we've sold our energy exclusively to the United States, Sadly at a discount to world prices. We are stuck in a "continental trap."

Canada produces 4-million barrels of oil per day but we sell 3-million barrels – or 75% of what we make – to the United States.

But today our #1 customer is our #1 competitor.

American oil exports are flowing into Canada at an increasing rate every day.

That's right, Canada imports American oil.

Here in Québec more than half the oil used every day is imported.

It comes by pipe up across the border from the United States, or it comes by tanker down the St. Lawrence River from Saudi Arabia, Algeria, Angola, or Nigeria.

Canada has the 3rd largest reserve of oil in the world – yet last year we paid \$14 billion to import oil from other countries.

I am sure that is one trade deal that makes President Trump happy.

Our #1 customer is now our #1 competitor.

And under the Trump administration, the competition is only going to get tougher.

So how should we respond to this competitive challenge?

In my opinion, there are three things we need to do.

First, we need a "Team Canada" approach. All industries. All regions. All governments.

Trade concerns with the United States are bigger than just the oil-and-gas industry. These concerns affect every industry in every part of the country, from Chilliwack to Chicoutimi.

At a recent energy conference, the CEO of Hydro-Québec said he was concerned about “market access” – about the struggle to build transmission lines to export Québec energy to American consumers.

Trust me, I know how he feels.

Second, we need to build pipelines to reach more customers safely in Canada and growing markets around the world.

Our existing pipeline network is already congested.

So the approvals last November by Prime Minister Trudeau of – the Trans Mountain expansion and the re starting of the Energy East NEB process are very positive developments.

And third, I want to talk about innovation and the environment – for I believe innovation and technology can create a competitive advantage for Canada on the world stage.

That’s right. I believe how we manage the environment can be our global definer.

THEME #3: INNOVATION TRANSITION

The world is moving into a lower-price, lower-cost, lower-carbon future that needs more Canadian innovation.

It was Canadian resourcefulness that found a way to take the oil out of the sand.

It will be Canadian resourcefulness to find a way to take carbon out of the barrel.

Imagine that: a carbon-neutral barrel of Canadian oil sands.

We’re working on it. There’s steel in the ground today, making it happen.

And given the trend of technology, a carbon-neutral barrel of Canadian oil from the oil sands is not only possible, it is inevitable.

So we are not just in an energy transition. We are in an innovation transition.

The world’s energy future needs it – and Canada is uniquely positioned to delivering it.

The good news is this innovation and environmental leadership is already underway in the oil sands – and could become a long-term competitive advantage for Canada.

But before we talk about where we are going, let's truly understand where we are.

Canada produces about 2% of the world's greenhouse gases every year.

Within Canada, the oil sands produce 9.3% of Canada's total GHGs.

That means the oil sands produce 0.18% or about one-tenth of one-percent of the world's total emissions.

That's means the oil sands produce less emissions in Canada than buildings ... less emissions than farming ... less emissions than electricity.

And how do Canada's oil sands stack up against other oils around the world?

With technology such as Imperial's new Kearl mine, the oil sands can produce a barrel of oil with the same emissions as your average barrel of American oil – and be cost competitive.

But with respect, I believe the oil sands are different from other sources of oil.

The oil sands are different because Canada produces oil under the strongest environmental rules in the world. And we invest heavily into technology and innovation.

And we work with others to lead on climate change.

Alberta today has a Climate Plan recognized around the world as tough. Coal is out. The price of carbon is doubling to \$30 per tonne. New performance standards and an emissions limit, (are being developed) to drive continuous improvement, year ...after year ... after year.

So the oil sands are committed to action on climate change – through innovation to break the link between energy growth and emissions.

Imagine that – benefitting from our world-class energy for decades while making less of an impact on the environment.

Innovation and technology could become Canada's greatest contribution to fighting climate change globally.

Four years ago, 13 companies formed Canada's Oil Sands Innovation Alliance – or COSIA. This is a unique partnership that's committed to achieving better environmental performance in 4 key areas: water; land, tailings; and greenhouse gases.

And to do that, they've set aggressive targets. They're working with some of the world's top scientists. And they've put their money where their mouth is.

Already they've invested more than \$1.3 billion to develop and share more than 900 technologies and innovations. And the work is impressive.

Imagine making concrete that eats carbon. That's right, carbon-negative concrete. In Canada's oil sands, we can. COSIA and NRG have partnered with the prestigious XPRIZE Foundation to award \$20 million to develop innovative technologies that convert CO₂ into valuable products.

Carbcrete of Montréal is one of the finalists from around the world with a technology to make cement-free, carbon-negative concrete.

Today, cement production generates about 5% of the world's total greenhouse gases. Imagine an energy future where you can lay the foundation for new buildings without creating new emissions – but in fact can absorb it from other sources.

Imagine using satellites to monitor greenhouse gases more accurately from outer space. In Canada's oil sands, we can. Imperial Oil is working with GHGSat of Montréal and launched a satellite named "Claire" into space last summer.

Claire is travelling around the earth keeping a close watch – so we can measure, monitor and reduce GHGs cheaper, more safely and more accurately.

Imagine combining CO₂, waste heat and water, adding light and algae to make bio-oil strong enough to fly jets overseas. In Canada's oil sands, we can. CNRL is working on algae tech with Pond Technologies of Markham.

The potential for emission reductions from algae tech is huge. CNRL expects algae bio-refining to cut more than 1.5 million tonnes of its CO₂ emissions from just 2 of its facilities –

the same as taking 300,000 cars off the road.¹ Imagine that across Canada, or across the world.

These and hundreds of other innovations are taking place right now in Canada's oil sands. This is breakthrough science at work.

The oil sands are driving the world's lower-carbon energy future, today.

More energy, less carbon

That's the energy of tomorrow. That's the future of oil.

In the last 20 minutes or so, I hope I've shown you Canada has what the world needs for its energy future.

Our challenge – and our opportunity – is to compete for that future.

The world is growing and will need more energy, in all forms.

Our #1 energy customer is now our #1 energy competitor.

So we need to build links to more customers in more markets. To do that, we need more energy infrastructure.

But innovation is the key.

Innovation will break the link between energy growth and emissions.

The world needs more Canada and Canada needs more Québec.

We need your entrepreneurs and innovators, your engineers and environmental scientists, your ideas and your capital.

Because Québec is Canada's global frontier when it comes to the future of oil.

Merci

¹ 15% GHG reduction @ Horizon mine; 30% GHG reduction @ Primrose in-situ