

Customers, carbon and costs: A new business model now?

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Introduction

Thanks Deborah.

It's obvious that a key driver of our economy – energy – is facing big challenges.

Low commodity prices, opposition to pipelines, lack of tidewater access, climate concerns, and now wildfires.

Those challenges are now a big part of the public discourse.

But the good news is we're finally having a good balanced debate about energy.

If you think back, nobody used to care all that much about pipelines and infrastructure.

And although we're not producers or refiners of oil, we're often on the front lines in the battle . . . for the hearts and minds on energy; convincing people about the merits of energy.

I'll provide my thoughts on our key themes today: Costs, Customers and Carbon, from a North American infrastructure perspective.

I'll begin with the first "C" – Costs.

But you'll see, we're driven more by maximizing the value of the products we deliver.

Costs

First, the days of the regulated utility pipeline model are long gone.

Our company has been at the forefront of a new business model, incentive regulation, which aligns us directly with customers.

This chart shows our pipeline toll from Edmonton to Chicago – about \$4/bbl.

Our focus on costs has kept our toll pretty much flat over the last 5 years – quite a feat.

Regardless of commodity prices, low cost transportation is table stakes, or you don't play.

An important aspect of this new model is system reliability, as unplanned shutdowns are costly to our customers.

Our people are focused on ensuring our systems are available 100% of the time.

But the most powerful impact of what we do is getting production to the <u>best markets</u>.

This is where we can add, <u>not pennies</u>, but dollars/bbl of value.

Gulf Coast Market Access

As part of our market access strategy a few years ago, we extended our system to the # 1 market in the world – the U.S. Gulf Coast.

Today, this is the only large volume path to reach 8+ million bpd of refining capacity (Canada has 1.9 mmbpd).

The U.S. Gulf Coast is a great market for Canadian crude and it represents tidewater access.

The lifting of the U.S. export ban makes this path even more valuable to our customers.

We haven't yet connected to Canadian tidewater but our Line 9 project is a good 1st step because it displaces foreign imports.

So what happens when you open up new markets?

Maya-WCS Spreads

The chart shows the discount (or spread) between a Canadian heavy barrel (WCS) and a similar barrel (Maya) at the Gulf Coast.

When markets are connected with pipelines, the spread between these 2 points should approximate the toll.

That's the pipe-parity dotted line at the bottom at about \$7, while rail parity is the top dotted line at about \$19.

When the WCS-Maya spread is above the pipeline parity line, it means Canada is not receiving full value for its crude.

Prior to 2014, refiners benefitted from low feedstock costs but we left dollars/barrel on the table.

There's a bunch of factors affecting prices, but . . . look what happened when we brought on our expansion and our Gulf Coast path (Flanagan-South) . . . the discount narrowed to about where it should be.

But the job's not done because WCSB production is expected to grow.

And, without new capacity, Canadian crude will face ongoing discounts.

Today, there's a much better understanding of this chart in Canada, and people are starting to care about it.

What's not as evident is the higher cost of building infrastructure that could eat into potential market access gains.

This manifests itself in 3 ways:

Industry Valuation Comparisons

The 1st is obvious – longer timelines add to the cost of building new infrastructure.

Less obvious, and sometimes it's taken for granted, is the magnitude of development capital put at risk to get through the regulatory and permitting process . . . when there's no certainty that a positive regulatory decision will get the project built.

Even less obvious, is today's higher cost of capital.

The chart shows the gap between pipeline equity valuations relative to regulated utility assets.

The higher implied cost of capital is a drag on the competitiveness of the whole industry and consequently, our economy.

Let me be clear on something – we need a rigorous and inclusive regulatory process.

But it's critical that there's predictability to make decisions on multi-billion dollar investments.

Customers/consumers

Moving to the second "C" – the Customer.

Although producers and refiners are our key customers; our business model now includes the end market energy consumer.

The energy consumer has a much bigger voice today – they exercise it through the energy they want and at the ballot box.

Today, consumers want energy and the economic and social benefits that come with it.

They want it at a low cost; and they want it developed in an environmentally sensible way.

Yes, they want it all, and the energy sector needs to <u>listen to that voice</u>.

What's changed is that the industry gets it.

In our case for example, we don't pre-suppose project-support based on local economic benefits.

The economic benefits alone don't cut it.

Changing the way we engage our stakeholders

Today, we start by listening carefully to community concerns and we design our approach to address those issues.

We take advice on how to make our projects better.

On Gateway, we're building a partnership in a way that has never been done before -1/3 ownership by Indigenous peoples . . . and joint governance where producers, First Nations & Metis and Enbridge are equal partners.

As for industry, the Alberta Climate Leadership Plan was a great example of collaboration with . . . government, indigenous peoples and environmental groups . . . it's this kind of collaboration and policy leadership that I believe will improve Canada's brand.

It never used to, but today, brand needs to be part of your business model.

Carbon

Brand is one element of the final "C" - Carbon.

But it's more about strategy and economics.

The question is what does the transition to a lower carbon economy mean and how will traditional energy companies fit into that?

The best way that I can express that is by explaining how we're approaching it at Enbridge.

We think of ourselves as a microcosm of the energy future.

As a company with both pipelines and wind turbines – natural gas and emerging technologies – our role is to provide energy security <u>and</u> lower carbon energy.

So it's <u>not</u> a case of either/or, it's "all of the above".

Existing fuels will continue to play a crucial role in our economy for decades to come.

Changing global supply mix charts

The fact is that we'll need all forms of energy to meet growing global demand – that's a reality we can't ignore.

We also know that renewables and natural gas are the fastest growing sources of supply.

We saw this trend long ago – today we have 2,700 MW of renewable capacity.

We're major players in natural gas and Canada's largest natural gas utility with 2.1 million customers.

The role of natural gas in the transition came up last week with Ontario's draft climate plan.

All-of-the-above supply strategy

We're not sure where this will end up, but media reports suggested it included significant reductions, if not the elimination, of natural gas for home heating.

That's already prompted a passionate debate with consumers.

In our view it's an example of focusing on one approach rather than the "all of the above supply strategy".

We're big promoters of natural gas conservation and reducing emissions.

Through our demand side management programs we've helped consumers save approximately 18 million tonnes of CO₂ emissions.

And we have the largest natural gas vehicle fleet in Canada.

But with any kind of immediate right hand turn on energy, we need to recognize the potential cost to consumers and the impact on security of supply.

Let me illustrate this.

Natural gas pricing

The left hand chart shows the cost advantage of natural gas heating to other fuels – about 75% less with gas than electricity.

(I'm hoping we can expand in the Q&A on why gas is such a strategic fuel of the future.)

Now look at the projection of fuel prices on the right hand chart, and this was before the draft climate change announcement.

The changes reported could potentially triple consumers' heating costs – and that would be on top of the costs of conversion.

Replacing building heat with electricity would require up to \$200 billion – just to duplicate infrastructure that we've spent the last few decades developing.

That would more than double electricity rates, in a province with very high electricity costs.

It's one more reason why we need to have an informed conversation on energy – that takes into consideration not just carbon – but costs and customers.

It appears the government is listening and we look forward to representing our customers in this conversation.

And we are encouraged by reports that the plan will include support for more energy conservation, greening the gas supply through renewable natural gas (for example from landfills) and natural gas for transportation.

Conclusion

Let me conclude with this.

The energy industry in Canada is facing significant challenges.

But if we step back for a moment and cast our thoughts forward, I'm optimistic about the future of energy.

Here's why.

We know world energy demand is growing – by some 40% by 2040.

And we're going to need "all sources of supply" to meet demand; existing fuels <u>and</u> lower carbon sources.

It just so happens that Canada and the U.S. have developed tremendous technology, and the capability to deliver more and more supply.

The Canadian energy industry has always faced challenges (although not so many at the same time).

But with the size of the prize, it's industry's job to overcome those and continue to transition our business models to make it happen.

I think we're doing that in our industry.

Finally, I'll come back to another "C" – Collaboration.

It's been essential in responding to the needs of the people of Fort Mac.

Collaboration among producers, pipeline companies, power suppliers, government and regulators has been critical for Alberta's energy industry and returning to operations.

If there was any doubt that the Alberta and Canadian energy industry is truly world class, that thought has now been erased.