

Daily Oil Bulletin

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Collaborative Technology Development 'Mission Critical' For Oilsands Competitiveness



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BY [PAT ROCHE \(/AUTHOR/PAT-ROCHE/\)](#) – MARCH 1, 2016 – [VIEW ISSUE \(/HEADLINES/2016-03-01/\)](#)

Many have emphasized the need to find less energy intensive oilsands extraction technologies to make the industry more cost competitive and carbon competitive. But how long would it take to commercialize new technologies?

It is estimated that it takes about 13 years from the time a new oil and gas technology is conceived until commercial availability, said **Gord Lambert** a former vice-president of sustainability at **Suncor Energy Inc.**

“We can’t afford that type of cycle time in this business world nowadays. We have to make that much, much shorter—which means bolder effort,” Lambert told the *Bulletin*.

Now retired from Suncor, Lambert chairs **CMC Research Institutes**, a not-for-profit group dedicated to accelerating innovation to cut industrial greenhouse gas emissions. Through its institutes, CMC offers contract research services and sponsorship opportunities to industries, companies, governments and researchers needing to test and develop ways to cut greenhouse gas emissions. The goal is to bridge the gap between early-stage research and commercialization.

Lambert, who served on the recent Alberta Climate Advisory Panel to the province’s environment minister and the premier, is currently the Suncor Sustainability Executive in Residence at the **Ivey School of Business**.

Speaking at a **Milestone GRP** oil and gas conference in Calgary on Monday, the western Canadian oilpatch veteran stressed the value of collaborating to achieve mutual goals.

Rethinking competition

“I do think that we have to rethink the notion of competition,” he said. “Are we competing with one another as firms within Western Canada’s oil-and-gas space? Or are we competing against other oil basins in the world?”

“I think very much the latter,” said Lambert, whose consultancy is called **GRL Collaboration for Sustainability Inc.**

He said producers in the 21st Century need to think about “carbon competitiveness.”

“Jurisdictions that are now being ambitious on carbon policy [are] talking about border carbon adjustments. That is a curious concept, but it’s pretty scary as well,” he said.

If a producer from a jurisdiction that isn’t “showing ambition on carbon policy” is trying to sell into one that is, there are ways in which the latter could try to impose penalties, he said.

Specifically referring to the challenge facing the oilsands sector, Lambert said: “It’s a technology development problem, not a technology deployment problem.

“In other words, we don’t have the successor to SAGD.... There’s some really exciting pilots being developed currently to try and develop that next generation of ‘SAGD technology’ that would be dramatically less energy intensive. But we don’t have that just yet.”

More funding coming?

Besides enabling Alberta to compete with other jurisdictions, he believes the province’s new carbon policy—which puts a price on carbon—will help fund “a collaborative technology development effort that’s going to be bold enough and urgent enough and accelerated enough to serve both the province properly and ourselves as developers.”

While Alberta has some clean oilsands technology funding now, Lambert believes the carbon levy that will be collected by the province offers “even greater capacity to fund [a] collective technology development effort [which] is going to be mission critical for the province.”

When it comes to reducing CO2 emissions in the oilsands, Lambert doesn’t see cutting production costs and cutting CO2 emissions as mutually exclusive. He urged his audience to think of carbon output as a proxy for energy costs.

He said energy input costs are the single biggest cost to the oilsands—“far beyond” even labour costs—so driving down energy consumption—and with it CO2 emissions—will also drive down production costs.

“Your need to innovate is far more urgent and compelling than if you’re at the low end of that supply cost curve. So in other words, can you afford *not* to innovate downwards on supply cost dimension?” he said, adding: “Complacency is absolutely our worst enemy.”

He said: “Think of carbon as just the proxy for producing oil at dramatically lower energy input.”

Fragmented effort

But how is this to be achieved? It takes 13 years to commercialize new production technologies, but oilsands production costs and CO2 emissions need to fall much faster.

Lambert believes a well funded, well co-ordinated technology development collaboration is the answer.

“My definition of collaboration is joint effort to achieve common goals. And I believe that our common goals relate to making oilsands [more] competitive against other oil basins in the world,” he said in an interview after his conference comments.

“To do this, we need to dramatically reduce the energy input required for producing oil from oilsands and, in turn, [reduce] greenhouse gas intensity.”

So does the province and the industry need to launch a collaboration on the scale of the Alberta Oil Sands Technology and Research Authority (AOSTRA)? AOSTRA was a large well-funded, multi-year industry/Alberta government collaboration launched in 1974 to advance oilsands technologies. SAGD was developed with AOSTRA's help.

“AOSTRA is a great example of a legacy initiative where that collaborative effort was undertaken jointly with government support as well — because the owners of the resource should be aligned with developers on these challenges,” Lambert said.

So would more collaboration shorten the time between idea and commercialization?

“I do think we're going to need to rethink how we've organized ourselves to be able to think bolder on innovation. It probably [needs] less fragmented effort, more consolidation of effort. We have a lot of entities that play in that space that were all set up for different reasons at different times,” Lambert said.

“But fragmented effort tends to not be very effective. ... It was part of our [climate change] panel process to recommend that they revisit how we organize ourselves. Is [the answer] another AOSTRA? I won't declare what the answer to that would be. But I think we have to be very open to

challenging some of the current models, and try and put in place something that's much better.”

“With the carbon policy and the economy-wide carbon price, we're going to have much greater funding capability than we've had for many, many years within our sector. ... But are we organized to be able to use that much larger level of funding effectively and wisely?” he said, adding that this is the next question the industry must address.

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