

**Hal Kvisle, former president and CEO of TransCanada Corp.
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The Fraser Institute has become a great Canadian institution, consistently ranked Number One among Canadian think tanks and also ranked among the top 25 think tanks in the world.

The Fraser Institute is frequently described as Libertarian, Conservative and somewhat Right of Centre. Popular left wing activists have described the Fraser Institute as an “extreme right wing libertarian organization.”

David Suzuki has from time to time been a vocal critic of the Fraser Institute. No question, I am deeply honoured to be recognized by a Libertarian, Conservative organization that does not see the world through the same lens as David Suzuki!

This evening I would like to take a few minutes to comment on two themes that run through many publications and reports from the Fraser Institute:

- First, the importance of entrepreneurship and innovation as drivers of a successful economy.
- And second, the risks and significant costs of excessive government regulation, and the challenges of overcoming excessive regulation.

First, my thoughts on entrepreneurship and innovation

I have worked in Western Canada's oil and gas industry for almost 40 years. My home town of Innisfail saw a lot of oil and gas activity as I was growing up – there were drilling rigs, big trucks and tough guys running those rigs and driving those trucks.

Some of the first large sour gas plants were under construction and a major gas transmission line was being built by a gas pipeline company known at that time as Alberta Gas Trunk Line.

It was clear, even to a kid from a small town, that these oil and gas people were doing big things – and they sure seemed to know what they were doing. Big projects employing thousands of people were underway and the economy of central Alberta was booming.

Looking back 40 years later, that phase of Alberta's energy development created enormous prosperity without evident or enduring environmental damage. The capable people drilling the wells, building the plants and constructing major pipelines got the job done, with no assistance (or interference) from wealthy American environmental activists such as the Sierra Club or the Natural Resources Defence Council.

My first real summer job was working for Shell Canada at one of the world's smallest but most efficient refineries. That summer job was only open to students entering first year engineering. Shell paid a lot better than the local lumber yard, so I enrolled in engineering and entered the dark and murky world of "Big Oil."

Over the next four decades I came to understand that Canada's energy industry is a world leader in entrepreneurship and innovation. What this industry does in Calgary, in Drayton Valley, in Dawson Creek, in Fort McMurray and in Estevan, Saskatchewan is really quite extraordinary.

Let me highlight just a few of the many entrepreneurial achievements of western Canada's oil and gas industry.

Back in the 1960s, Calgary's tiny gas processing community developed a whole range of sour gas processing technologies to enable production from some of the most difficult sour gas reservoirs on earth.

High concentrations of deadly hydrogen sulfide, extreme cold and eight feet of frozen ground were the norm in places like Ram River, Edson, Kaybob, Fort Nelson, and Zama Lake.

Sour gas is really dangerous stuff but western Canadian companies figured out ways to produce and process sour gas, safely and without attracting a lot of attention.

For example, Nexen and its predecessors have operated one of the world's largest sour gas plants just north of the Calgary airport. That facility has allowed Nexen and others to drain enormous quantities of sour gas from reservoirs located underneath this city. Their work has gone on, quietly and safely, for almost five decades.

Nexen's track record of safety in gas processing has been replicated in dozens of locations across Western Canada, from Estevan to Fort Nelson.

The billions of dollars of economic wealth that has been generated is a real credit to the drillers, process engineers, constructors and plant operators who made it all happen. These are people who know what they are doing and they learned most of what they know right here in Western Canada.

Today, Canada's natural gas industry continues to innovate. We are able to produce and process natural gas so efficiently that we can develop small fields that would not be economic on other continents. Small field development continues to generate economic activity throughout rural Alberta, even at today's depressed prices.

Canadian companies like Talisman, ARC, and Encana are leaders in the development of shale gas, not just in Western Canada but in many parts of North America and in far flung locations like Poland.

On the gas transmission front, my colleagues at TransCanada have led the world in large pipeline and compression technology as they quietly went about building the world's second largest gas transmission system.

The Gazprom pipeline system may be larger, but I'd put my money on Canadian pipeline companies any day.

On the oil side, it's noteworthy that many of the great advances in horizontal drilling were made by heavy oil producers in eastern Alberta and western Saskatchewan.

Similarly, our heavy oil producers led the world in processing oil with a high water content. Remember PanCanadian, Renaissance and my former company, Fletcher Challenge? Those companies invented new ways of doing things that delivered higher oil recoveries, lower operating costs, and huge economic value for the Canadian economy.

Oil sands mining, cyclic steam injection, and steam assisted gravity drainage are remarkable success stories that continue to evolve through the entrepreneurship and innovation of Alberta-based companies, including large operators such as Imperial Oil, Syncrude, Suncor, Cenovus, and hundreds of smaller players in the oil sands service sector.

Our eastern friends often observe that Alberta, Saskatchewan, and BC have been very lucky to inherit such large oil and gas resources. I'd note that most of our oil and gas pools are either small or technically complex, which would render them uneconomic in other parts of the world.

The success of Western Canada's energy industry does not come from luck. Rather, it comes from the technical innovations and commercial entrepreneurship of our geologists, engineers, marketers, and financiers. This has been a story of entrepreneurship and innovation, from Imperial's discoveries at Leduc and Redwater some 60 years ago, through the sour gas era of the 1960s, to the complex resource era that started around 1990 and continues today.

Most recently, the era of shale gas and the oil sands has emerged. We've learned a lot since the Turner Valley and Leduc oil discoveries. We continue to innovate in the oil sands, in shale gas and in tight oil plays. We have made great advances on the environmental front, reducing our footprint while continuing to deliver essential hydrocarbon fuels to the North American market.

But all is not well, and that brings me to my second theme, that of excessive regulation.

Let me state at the outset that I am not here to complain about the regulatory operations of the ERCB, the NEB or the regulatory agencies in Saskatchewan and BC. The leaders of those agencies have acknowledged the complexity of regulatory frameworks and the

enormous time and cost burden that excessive regulation places on responsible operating companies.

ERCB Chairman Dan McFadyen and Alberta's Department of Energy have taken the initial steps to unravel and simplify the regulatory process that energy companies must deal with. At the federal level, the Major Projects Management Office has been created, not to manage major projects, but rather to manage the regulatory quagmire that major projects must endure.

It's important that industry leaders highlight regulatory excesses and work with agencies and governments to peel back regulation to what is really needed, not what activists demand. This is not easy work. Rolling back the regulatory agenda usually requires new provincial or federal legislation, and that has been impossible to achieve in recent years. We need to do more to make sure politicians understand what's at stake.

It's worth stepping back and analyzing: How did all this regulation come about? Why do we have such complex regulatory structures when the need for regulation has not, in many cases, been demonstrated?

I would argue that our current state of over-regulation is the work of environmental activists who frequently have other agendas. Sometimes they are genuinely worried about things that are really not a cause for concern. Sometimes they try to prevent even the smallest environmental impact because they are worried about cumulative effects. And sometimes, they just don't like to see engineers doing what engineers do.

Energy production and pipeline companies are portrayed, by activists, as irresponsible enterprises that must be tightly regulated to prevent environmental disaster. Politicians have reacted by demanding a flood of new rules and regulations, and regulators have complied. The hoops that operating companies must now jump through are orders of magnitude more numerous and complex than was the case 25 years ago.

I now see things much differently than we did in those days. Today, I believe we need to work closely with our regulators to make sure that regulatory rules and requirements make sense. Regulations should be "outcomes based" rather than prescriptive. They should not get in the way of creative innovation and value creation. Today, they do.

If there are companies who are willfully building dangerous facilities or recklessly damaging the environment, we all want to see them reined in.

But that should not mean that responsible companies must go through endless hoops to comply with prescriptive regulations that only apply in a few situations.

Consider the shale gas situation. It's a miracle that engineers and geologists have learned how to extract clean burning natural gas from shales and silts that most of us thought were "tombstone." The breakthroughs we've made deserve recognition – but the press ignores that.

Rather, we read endless negative stories quoting activists who don't know what they are talking about. Activists who sound the alarm bells in places like New York, Washington, Ottawa and Quebec – places where people have no experience with gas production and simply don't know what to believe. In the meantime, shale gas development proceeds with few negative consequences and great economic benefits in traditional energy producing regions like BC, Alberta, Texas and Louisiana.

Similarly, we have global warming activists who sound the alarm bells with the most egregious hyperbole in history. These alarmists demand that internal combustion engines be banned and that coal-fired power plants be shut down immediately. I don't know what the real agenda of these activists is, but I know their demands don't reflect the energy system that keeps North America running.

Consider coal-fired power, which supplies about half the electricity we consume in North America. The activists have demanded legislation requiring a 50 per cent reduction in CO₂ per unit of power produced by every coal fired plant.

If only it were that simple, we could direct our plant operators to trim back the CO₂ emissions by adjusting operations or modifying equipment. But it's not that simple; the only practical way to reduce coal-fired emissions is to bulldoze old plants and replace them with something that is designed to generate electricity with lower emissions.

We need to step back, look at our power generation fleet, and implement a plan to shut down old plants as they reach end of life and replace them with something that is a lot cleaner and more energy efficient. We can do that, but it will take 20 or 30 years of carefully planned work.

Unfortunately, the activists continue to publish alarmist opinions masquerading as scientific fact. They demand political action, but the action we've seen thus far has not gotten us anywhere. In fact, the steps taken by most governments have been counterproductive and we're worse off than if we'd implemented a well-engineered plan back when the activists convinced our politicians to ratify the Kyoto arrangements.

To sum up my remarks this evening:

Western Canada has an impressive history of entrepreneurship and innovation, demonstrated in many industries and clearly evident in oil and gas. This has led to remarkable economic development, with real prosperity for those who live here and without horrendous or permanent damage to the environment.

We enjoy one of the highest standards of living on earth, and we live in one of the most beautiful environments anywhere.

Our federal and provincial governments do appreciate the value of entrepreneurship and innovation. They are moving in the right direction on income tax rates and fiscal responsibility.

But misguided government policy is only as far away as the next election, and our friends the activists continue to pressure elected politicians with misinformation and hyperbole.

It's no longer appropriate for corporate leaders to go with the flow and accept the burden of unnecessary and inappropriate regulation – we need to stand up, state the facts, clarify the benefits of our projects and work with politicians and regulators to deal with the regulatory morass that has built up over many decades.

Most important, we need to engage with political leaders. We need to help them understand the facts; we need to help them avoid the extraordinarily bad decisions that stifle entrepreneurship, innovation and economic activity.

I will leave you with one final thought:

When North America imports a barrel of oil from the Middle East, we pay \$100 for that barrel and about \$10 flows back to North America for equipment and services that we provide.

When a barrel of oil is produced in North America, about \$80 flows back to North American service and equipment providers. For example, \$20 in development costs, \$20 in operating costs, \$10 in corporate overhead, \$10 in pipeline tariffs and \$20 in government taxes and royalties.

When we produce our own oil we generate direct spending here in North America of at least \$70 per barrel.

On one million barrels per day, the direct flowback is more than \$25 billion annually. Applying a typical GDP multiplier of four times, the GDP impact is about \$100 billion annually.

Alaska, the oil sands, the Bakken and the deepwater Gulf of Mexico have the potential to contribute between five and 10 million barrels per day of incremental oil, for decades to come.

If North America wants jobs, I see no better opportunity than self-sufficiency in energy production. The resource base is there and we know how to do it.

Thank you all for attending and suffering through my lengthy remarks. I once again express my sincere appreciation to the Fraser Institute and its Board of Directors for honoring me with the T. Patrick Boyle Founders Award.

Good evening to you all.