A License to Grow:

Corporate Social Responsibility is Key to Developing Canada's Oil Sands

Bruce March,
Chairman, President and
Chief Executive Officer
Imperial Oil Limited

Canadian Centre for Ethics and
Corporate Policy Luncheon
Oct. 12, 2011
(3,215 words. Approx 25 mins)

Thank you for that introduction. I am pleased to be here in Toronto to speak to the Canadian Centre for Ethics and Corporate Policy, a group committed to raising standards of accountability and corporate social responsibility in the country's business sector.

As one of Canada's largest oil and natural gas producers with 130 years of experience in the energy industry, we know that reliable and affordable energy is essential to human progress in Canada, the United States and across the world. To sustain progress, we must continue to safely expand the world's energy supplies, improve the way we consume energy sources, and also address the accompanying environmental challenges.

The focus on the energy industry has never been stronger. And the global spotlight is on the challenges we face in developing Canada's oil sands in a responsible manner.

We believe that our social license to operate – that is, our ability to maintain the ongoing approval of our stakeholders and the community – is critical every day. To sustain longer-term progress, we need to take our actions further and present a compelling case as to how we will expand our current scope and further develop Canada's oil sands resource.

This social license to grow means that we must recognize certain fundamental truths about the relationship between energy and economic growth, while maintaining a balance with the appropriate environmental protection.

Energy and the Economy

As economies grow, and as billions of people around the world strive to attain a higher quality of life for themselves and their children, the demand for energy rises. Too often, energy policy debates frame the issue in "zero-sum" terms, pitting one energy source against another. The growing energy needs here in North America and around the world make it clear we will need to develop all sources of energy. We will need oil, natural gas, and coal. We will need nuclear power. And we will need alternative energy sources such as wind, solar, and next generation biofuels. It is not one or the other …. It is "all of the above".

In looking at this challenge, it is important to note that hydrocarbon resources, including oil and natural gas, will continue to play a key role. Our projections, along with those of most governments and independent analysts, indicate that hydrocarbons will continue to meet the vast majority of the world's growing energy needs for several decades to come. This is due to their availability, reliability, affordability, and their versatility. Renewable energy resources will achieve high growth rates, but because they start from a very small base, they will continue to comprise a small share of the world's energy portfolio for many years to come.

Canada is well-positioned to support this increase in energy demand. Our country has about 175 billion barrels of oil that can be recovered economically with today's technology. Of that number, more than 97 percent are found in the oil sands.

Today, nearly 80 percent of world's oil is owned or controlled by national governments, many of whom do not welcome foreign investment. Of the oil open to private sector investment, more than half are in Canada's oil sands. People are often surprised when I

point this fact out. Canada's oil sands resource is significant to all people around the world.

There are other advantages too. New production from Canada's oil sands replaces other oil imported to North America, making that energy supply available to the developing world. I hope you can see how new oil sands production helps sustain economic progress and higher standards of living across the world. Much of the world believes that developing Canada's oil sands is a socially responsible action and I hope you also support that conclusion. Our challenge is to grow oil sands production with an ever decreasing environmental footprint. We recognize there are questions and concerns that need to be addressed.

We believe we have a positive story to tell on the progress that is being made in areas such as water use, air emissions and land reclamation. I will talk more later about how our Kearl oil sands project is setting a leading example of the "next-generation" technology coming to the forefront of the oil sands industry.

Developing Canada's oil sands will bring enormous economic benefits for years to come, with spinoffs that extend well beyond Alberta's borders. The Canadian Energy Research Institute estimates that development of the oil sands will contribute more than **two trillion** dollars to Canada's GDP over the next quarter century.

That figure includes government revenues of over $19 billion per year from oil sands activities. That's nearly $500 billion over the next 25 years. The federal government's share of taxes will top $300 billion. That translates into funding for local hospitals, schools, roads and other public spending that helps maintain the standard of living Canadians enjoy today.

In addition, the oil sands currently support the jobs of more than 112,000 people across Canada. Over the next 25 years that number is expected to grow to more than 590,000. After Alberta, Ontario is the province that will feel the biggest economic impact. One in three oil sands-related jobs created outside Alberta will be here in Ontario. Many of those will be manufacturing jobs producing key components such as steel, tires, valves and pumps used in oil sands equipment.

We can make the case for the need to grow oil sands production. And we can demonstrate the economic return. We also understand now that we need to better communicate how we are developing these resources in a more responsible manner and share broadly the technology innovation we are working on to deliver a step-change reduction in environmental impacts.

One of the oil sands industry's most important learnings is that we recognize we have been slow in joining the public discussion and addressing the concerns of oil sands development head on. We are committed to doing a better job of discussing the issues associated with oil sands development in forums like this one.

Since there is so much misinformation in the public about the oil sands, let me now talk a little about what the oil sands are – and what they aren't.

Oil sands are a natural mixture of sand, water, clay and bitumen. The oil is produced through two main methods of recovery: surface mining and in situ – or in place – oil recovery.

Surface mining is similar to techniques used elsewhere in the mining industry. Large trucks and shovels mine the oil sands. Water is then used to separate the bitumen from the sand. Like other mining operations, oil sands mining operations require tailings ponds to separate fine solids from the water used in this primary separation process.

In situ operations look a lot more like conventional oil production. A well is used to inject steam into a reservoir to warm the bitumen so that it can be pumped to the surface. The two most common forms of in situ production - steam-assisted gravity drainage and cyclic steam stimulation - were originally patented by Imperial Oil. In situ operations have no tailings ponds, and they disturb only 15 percent of the land relative to a surface mine.

Eighty percent of Canada's oil sands are located too far below the surface to use mining techniques. And so 80 percent of the resource will ultimately be developed using in situ methods – methods that won't result in tailings ponds, or the images of surface mining that are currently used to mobilize opposition to oil sands development.

So, contrary to widely spread misinformation, oil sands development is not a strip-mining the greater portion of Northern Alberta.

Without question, there are environmental challenges in oil sands development. We take our responsibility to meet these challenges very seriously. And we believe the key is in our commitment to research and innovation to advance technologies that have and will continue to reduce the footprint of development.

We have a good story to tell. Both Imperial and our industry have made major advances in greenhouse gas emissions reduction, water conservation and land reclamation since development began.

For example, as an industry we've already reduced per-barrel GHG emissions by nearly 30 percent since 1990. The key to further improvement lies in advances in oil sands technologies.

We have also achieved significant gains in water efficiency. Today, oil sands producers recycle between 80 and 95 percent of water used, and continue to look for new ways to reduce freshwater use. At Imperial's Cold Lake in situ facility, we reuse about 95 percent of our produced water and use 88 percent less fresh water per barrel than we did in the 1970s.

This work is far from complete. As I mentioned earlier, we must continue to reduce the impacts of oil sands development on water, air and land. As I mentioned earlier, our Kearl project is an example of a next-generation of oil sands facilities that is helping us achieve this goal.

Kearl – Next Generation Oil Sands Technology

At more than $10 billion for the initial phase of development, Kearl will be the largest capital investment in Imperial's 130-year history. Kearl's initial development, scheduled to begin production in late 2012, will supply 110,000 barrels of bitumen a day.

Subsequent expansion will bring the project to its full production of 345,000 barrels a day, with a lifespan of 40 years.

Kearl will raise the bar for oil sands mining performance by utilizing the latest generation of technologies. Many of these were developed at our own research centre in Calgary or through several university research partnerships that we support to drive innovation in oil sands development. At Imperial Oil, over 80 million research dollars are focused each year on developing innovative oil sands technologies. And Imperial is not alone. Many of our industry peers are also making substantial technology investments in this sector.

Technologies to be employed at Kearl include our proprietary paraffinic froth treatment. This patented process will allow us to produce a marketable crude oil without an upgrader. This is significant because the upgrading process is a significant source of the GHG emissions in a barrel of oil-sands derived crude.

At Kearl, our treatment will result in fewer overall GHG emissions because the bitumen only needs to be processed once in a refinery, rather than twice in an upgrader and a refinery. Kearl will also use cogeneration to lower GHGs even further. Cogeneration is an efficient process that produces both electricity and steam for our operations at the same time. We are encouraged by recent reports telling us we're moving in the right direction. These include a report last September by IHS CERA, one of the world's top energy research and analysis firms. The report noted that a project like Kearl, producing diluted bitumen with cogeneration, will produce the same GHG emissions as the average of crudes consumed in the U.S.

Kearl will also employ new technologies to speed up the separation of fine tailings from water. These advanced tailings separation technologies will allow greater recycling of water and reduce freshwater demand. Tailings will be returned to the mined-out areas much quicker than existing oil sands mining sites. Over the life the development, we are also working additional options to reduce the size of the tailings area. Kearl will also reclaim land faster – in fact, we have already started to reclaim land impacted by the project construction.

In fact, reclamation planning began years before the first shovel was put in the ground. We conducted extensive environmental assessments so that we could document the kinds of soils, plants and wildlife that were on site. We engaged local stakeholders, including First Nations' groups, in our progressive reclamation planning. As we seek to apply new research and technology to our reclamation activities, our plans are continually being updated and approved by regulators, We are also working with neighbouring industry peers to coordinate our reclamation efforts to ensure a continuous landscape that meets our ultimate goal of a successful reclamation back to a boreal forest.

Oil Sands Technology Innovation

Another challenge for us is water use. The oil sands industry uses water, as does virtually every other industry today. But we are an efficient and responsible user of this precious resource. For over 40 years, our industry has invested in research to improve our water use and we have a track record in this area that we are very proud of.

Consider the numbers. Today it takes between 2 and 6 gallons of water to produce 1 gallon of fully refined gasoline from oil sands. Some of the new production processes that are coming on stream at in situ oil sands operations will reduce this even further. Comparing this to other sources of available transportation energy, it takes an average of about 100 gallons of water to produce a gallon of corn ethanol in the United States. Celluosic ethanol will require about 10 gallons of water.[i] And the average of all conventional crudes processed in the U.S. today uses between 3 and 7 gallons of water to make a gallon of gasoline. [ii]

Let's look at other industries. It takes 2 ½ gallons of water to produce a single sheet of paper, more than 17 gallons to produce a single apple, and 36 gallons to make a cup of coffee[iii] .

Today, oil sands producers recycle between 80 and 95% of water used and continue to look for new ways to reduce our fresh water use. At Imperial's Cold Lake in situ facility, we reuse about 95% of our produced water and use about 90% less fresh water per barrel than we did in the mid '70s.

On the horizon are exciting technologies that will deliver a step-change in environmental footprint. One is an exciting technology that we're developing in our Calgary research centre that will not use fresh water in the mining extraction process. This non-aqueous extraction process is a potentially game-changing technology that could eliminate the need for tailings ponds altogether. While still fairly early in the development process, it is the type of technology breakthrough that could significantly reduce the impact of mining operations on water and land use.

New research at Imperial has also shown that mixing a low concentration of solvent with steam can enhance bitumen recovery at in situ operations. We have taken this finding a step further and are conducting a Cyclic Solvent Process pilot using only solvent without steam. If successful, water use and greenhouse gas emissions could be virtually eliminated where this process is applied.

In addition to these efforts, we're also working with our industry peers to advance tailings research. Late last year, six major oil sands mining developers, including ourselves, joined forces in a unique technology-sharing agreement. This group of developers is coming together to exchange proprietary research aimed at speeding up the reclamation of mining tailings ponds -- and ultimately eliminate them.

And we agree that effective regulatory systems will help bring the public a level of confidence that the oil sands industry is working in a responsible manner.

To that end, we support the federal government's plan for integrated monitoring systems for Canada's oil sands that will work with existing provincial regulations.

Before I close, I would also like to share with you some of the work Imperial is doing to be involved in and accountable to the communities where we do business. Engaging communities where were operate and explore is an essential part of our approach in all areas of our business, and certainly in our approach to oil sands development. In particular, I would like to highlight some of the consultation work and economic opportunities we are pursuing with our Aboriginal neighbours at Kearl.

In our design for this project, we consulted with local elders and other community members to include their advice and ecological knowledge of the area. This consultation has resulted in us opening up parts of our leases that are not actively being mined to traditional hunting and trapping activity.

Now that we are in construction, we have created advisory committees with representatives from First Nations and local communities to maintain a regular line of communication for updates on project plans and feedback on our work to minimize environmental impacts.

One example is the work we have done in building lakes to replace the fish habitat that we had to relocate during construction. The federal government requires us to compensate for the disruption by doubling the size of the fish habitat. We worked with local First Nations peoples in the region to design and build the first of three compensation lakes that will ultimately improve the fisheries of the whole lake complex.

When we started the Kearl project, we focused on ensuring that Aboriginal people and business can directly benefit from the Kearl project through job and business opportunities. We have set up a network to assist Aboriginal businesses to participate and we require our major contractors to look for opportunities to outsource components to Aboriginal businesses in the region.

These are just a few examples of our efforts to build and maintain lasting partnerships with the communities located near our operations, development and exploration work across Canada. And we will continue to look for ways to expand our outreach to stakeholders. We believe our partners have an important say in how we do business.

At the outset of my speech, I talked about making a compelling case for growing oil sands development -- built on a balance of economic, environmental and social responsibilities. This requires an acknowledgement of the need for jobs and a strong economy, the need to protect the environment today and for future generations, the need for energy to sustain our quality of life, and the need for strong communities.

I believe Imperial is achieving this balance on these fundamentals of sustainable development. On the economic front, we are developing the oil sands to not only bring benefits to Imperial and its shareholders, but to all Canadians through employment, tax revenue and manufacturing opportunities. The oil sands are currently the engine of the Canadian economy, and will remain so for some time.

We have a strong history of reducing our environmental footprint for oil sands production through the continuous development of new, more efficient, more effective technologies. As an industry, we invest heavily in research and technology to ensure we continue to drive further reductions, and to hasten the speed at which we reclaim the land. We have a long track record of proven results, and we will continue to pursue additional gains. We will never relent in our efforts to improve our environmental performance.

Finally we respect and listen to the people who are impacted by our operations. We make significant efforts to incorporate their feedback because we believe that open, honest discussion is the most effective means by which to share concerns and to find

areas of mutual interest. We believe in supporting the communities where we work – and also live – to address local needs and create long-term benefits.

At Imperial, corporate social responsibility is fundamental to how we do business. It factors into every key decision we make. As we move forward on our oil sands projects, we remain committed to ensuring we deliver energy and benefits in a manner that meet both our own and Canadians' high expectations for responsible development.

Thank you.

-30-

[i] Consumptive Water Use in the Production of Bioethanol and Petroleum Gasoline, Center for Transportation Research, Energy Systems Division, Argonne National Laboratory
[ii] Consumptive Water Use in the Production of Bioethanol and Petroleum Gasoline, Center for Transportation Research, Energy Systems Division, Argonne National Laboratory
[iii] Source: Oil Sands Developers Group.