



CCS: A Quest for Canada

Speech by Lorraine Mitchelmore, Shell Canada
Country Chair and President and EVP Heavy Oil,
at the official opening of Quest CCS, Alberta,
Canada, November 6, 2015



Lorraine Mitchelmore was appointed Executive Vice President Heavy Oil effective October 2012, in addition to her role as President and Canada Country Chair.

Lorraine has over 25 years of experience with 12 years spent overseas in Australia and England, where she worked in various exploration and production roles spanning geographies from Australia, North Sea, Gulf of Mexico, Africa and the Middle East.

Lorraine worked with PetroCanada, Chevron, and BHP Petroleum before joining Shell in 2002. Since then she has held various Senior Management positions prior to her appointment as President and Canada Country Chair in 2009.

Lorraine holds a BSc in Geophysics from Memorial University of Newfoundland, a MSc in Geophysics from the University of Melbourne, Australia and a MBA from Kingston Business School in London, England.

Lorraine is a Board Member of the Conference Board of Canada, the Canadian Council of Chief Executives, the Asia Pacific Foundation of Canada, a member of the Catalyst Canada Board of Advisors, and the 2015 chair of the Governor General's Conference.

Good morning, and welcome.

I'd like to extend a special welcome to Alberta Minister of Energy, The Honorable Margaret McCuaig-Boyd; British High Commissioner to Canada, Howard Drake; and Angus MacNeil, MP and Chair of the UK House of Commons Energy and Climate Change Select Committee.

Thank you for being here.

Today we are here to celebrate the start-up of Quest, the first carbon capture and storage project in the oil sands. It is a very special day for many of us.

As someone who has worked in the energy industry for thirty years, I can get as excited about technology as anyone in the business.

Quest is an incredible technology story. It will capture over 1 million tonnes of CO₂ annually from our oil sands upgrader and store it two kilometres underground. That's equal to the emissions of about 250,000 cars each year.

But as exciting as the Quest technology is, that's not what excites me most about today. And it's not what I'm going to speak about today.

Today I want to talk about what all this amazing technology we call Quest means.

About what Quest means for Shell, for Canada, and potentially for the world.

Let me start by putting Quest in context. And that is by talking about climate change.

Climate change is real.

It is one of the most complex and far-reaching challenges human beings have ever faced.

It challenges us to look beyond our short-term individual needs and to make changes for the longer-term common interest.

These changes will not be easy. Much will depend on bold actions by governments, companies, and each of us as individuals.

In the last century, hydrocarbon energy transformed our lives. It continues to improve and enrich our lives in countless ways. We can't forget that in some parts of the world, energy provides the basics to keep people alive.

But that simple relationship between energy and our way of life is changing.

In this century, we have to figure out how to produce more energy with less carbon. If we don't change how we make and use the energy that underpins our lives, climate change will change how we live.

And when it comes to climate change, we know that if our industry is not part of the solution, the solution will not include our industry.

Lower carbon forms of energy will continue to play a greater role in our lives. But as long as hydrocarbons are demanded we have a responsibility to reduce the CO₂ in hydrocarbons.

At Shell we know we must play our part.

The International Energy Agency has said that CCS alone has the potential to deliver 17 per cent of the world's required CO₂ mitigation by 2050. There are obvious challenges, but by 2100, it could account for half the emissions reductions needed globally.

Building carbon capture and storage is one of the immediate big actions we are taking to address climate change. In Canada we call this project Quest.

Quest is part of growing global interest in CCS projects, and it is only possible because of our co-venturers Chevron and Marathon, and the strong support of the Government of Alberta and the Government of Canada.

As part of our funding arrangement with government, we are sharing information about Quest's design, processes, and lessons learned to help make CCS technologies more accessible, viable, and drive down costs of future projects.

Shell and the US Department of Energy (DOE) also plan to collaborate on field tests to validate advanced monitoring technologies for underground storage of CO₂. The technologies under consideration will be tested alongside the state-of-the-art, comprehensive monitoring program already in place for Quest.

And I'm pleased to announce that the United Kingdom's Energy Technologies Institute, the University of Birmingham, the British government and Shell will support an eight-month secondment of a doctoral university student at Quest, to deliver on the UK Canada Joint Statement on CCS issued in 2014.

We believe that this partnership will help to develop CCS expertise on both sides of the Atlantic.

Quest is an excellent example of business, government and civil society working together... and Quest is a model for future projects.

As someone who works at Shell, I am very proud of Quest.

But because Quest is happening here in Canada, right here in the oil sands, as a Canadian I'm even prouder.

Few other countries have as much incentive and opportunity to become the best in the world at managing CO₂. This is because we are blessed with energy and because some of this energy is carbon intensive.

The challenge for all of us is how do we produce and use more energy in a world that is demanding less of an environmental impact from that energy.

The journey to a lower carbon future while meeting the needs of a growing world will not be easy. At its heart, this is our quest, with all the difficulties and potential rewards that a true quest entails.

But despite all those challenges, I am very optimistic about the outcome.

As I look to the future I see a day when Canadian oil will be economically and environmentally competitive with any oil from around the world.

I see a day when Canada will lead not only in energy but in the technology used to produce lower carbon energy.

I see a day when progress on the economy and on the environment can be a virtuous cycle.

We still have a way to go but they say every great journey starts with a first step.

And today, here in Alberta, Canada, together we are taking one of those important early steps on the way.

Thank you.