

The Future of Oil and Gas Summary Report

Calgary – September 7, 2017



Executive Summary

On September 7th, Natural Resources Canada (NRCan) officials in partnership with Canada West Foundation and Canadian Association of Petroleum Producers welcomed around 18 oil and gas industry representatives to a roundtable discussion on the future of the oil and gas sector in Canada as part of Generation Energy. Opening remarks were provided by NRCan Director General, Petroleum Resources Branch, Terry Hubbard. Facilitation was provided by Trevor McLeod, Director of the Natural Resources Centre, Canada West Foundation.

ROUNDTABLE OVERVIEW

The discussion focused on the following questions:

1. What will Canada's oil and gas sector look like in 2050?
 - Are there different attributes? Agreement on goals?
2. What are the challenges and opportunities?
3. What are the actions and outcomes needed to support Canada's oil and gas industry in the future?
 - Are there values that will help?
 - What are the roles of government, industry and other sectors?

KEY INSIGHTS

- Envisioning Canada's oil and gas sector in 2050 as a competitive and responsible supplier, and a leader in innovation and technology development
- Due to its major role in Canada's economy and a leader in innovation, the oil and gas sector needs to have a part in Canada's transition to a low-carbon economy
- If you get the policy piece right, and industry is innovating, then the next step is just letting markets work and leaving space for industry to play its role
- Innovation needs to be a major focal point of Canada's energy future. To do this, more collaboration between sectors (government, industry, academia) is needed
- Governments and other organizations have a role in improving energy literacy and the image of the energy sector in Canada – greater collaboration is needed to better highlight the things that we're doing well as a country in energy
- Canada needs to take a leadership role and continue to set an example internationally as being a competitive and responsible supplier of energy – further collaboration is needed to increase and demonstrate that we are working together on both the environmental and economic front
- A national energy strategy should be developed that is proactive and allows Canada to compete – it should include an effective regulator to support sustainable development
- Key values that are important to Canada's energy future include shared prosperity, socially responsible development, stable and reliable energy supply, and individual responsibility (as well as government and corporate) in Canada's energy transition

POINTS TO REGISTER

Question 1: Envisioning Canada's Oil and Gas Future

Participants agreed that oil and gas will continue to be a big part of Canada's energy future and developed a general consensus on their vision for Canada's oil and gas sector in 2050, which focused on Canada as a **competitive** and **responsible** supplier of oil and gas, and a leader in **innovation**. Key elements identified included:

- Striking a balance between economic growth and the sustainable development of fossil fuel resources (reducing carbon emissions)
- Government and industry developing a greater connection between policy development and industry innovation, and creating space to let markets work
- Canadian oil and natural gas being supplied to meet the increasing global demand for energy sources
- Industry leading on the innovation front for Canada, and providing technologies to other parts of the world



Participants also discussed the importance of transitioning to low-carbon technologies and having a mixture of other forms of energy as part of the future, which included:

- The use of natural gas as a transition plan for Canada and other countries
- The production of oil with low to zero carbon intensity
- Adapting to further integration of renewable energies into the system, and supporting Canada's energy future as a mix of different energy sources
- The oil and gas industry as a leader in innovation, having the ability to adapt to areas outside of combustion

Question 2: Opportunities and Challenges Facing the Sector

Resource endowment: Canada has a significant amount of untapped oil and gas resources

- Increasing population and global demand for energy is an opportunity to maximize this advantage
- There is a window of opportunity to take the lead, but only so much time before other countries fill the gap
- The upside of oil/oil sands development is long-term production and reliability

Competitiveness: one of the biggest risks facing the oil and gas sector is not being able to compete on a global scale

- There is a risk to investing in resource development, but not getting economic returns
- Canada has a global advantage in terms of responsible development, but needs this on the competitive side as well

Technology development and innovation: there is an opportunity for Canadian industry to take the lead in technology development and deployment

- Researching new technology development (next generation technologies) and potential to add value over time – to support investments and shareholders
- The energy sector in Canada is already leading in innovation (oil sands as example) – can't rule this sector out of being part of the low-carbon future
- There might be different end uses for fossil fuels or further innovation in carbon capture and storage to create something of value from carbon waste

Public trust/energy literacy: Canadians have a lack of understanding about energy resources

- Oil and gas companies having a lack of public trust – viewed as part of the problem, not the solution
- Canadians have a misunderstanding of how quickly the energy transition can happen – think they can have something different tomorrow
- There are assumptions about technology development versus deployment – the technology may not exist in the way people would like it to
- There are so many different sources of information available to people now that they can choose what they want to hear
- Investor and industry uncertainty is creating further lack of public trust – need to look at how we can de-politicize issues that are coming up on the regulatory side
- Carbon is the issue, not oil and gas – these need to be de-coupled

Investment in major projects: there has been a decrease in investment in mega projects and a shift toward short turn-around projects

- With the decreased investment in Canada, there has been a shift of development capital outside of the country to other parts of the world
- There is not necessarily an option for companies to just move into another area of the energy sector to support the transition – if investors want oil and gas, they will go elsewhere to get it
- Mega projects are important to ensure a reliable energy supply and also spur innovation
- Mega projects take significant collaboration with governments and other stakeholders, however, which can impact competitiveness (additional time and resources needed)
- Need to be able to show value creation, not additional costs, for project investment

Policy: one of the biggest challenges facing industry is managing policy development from various levels of government

- There are overlapping policy initiatives and lack of a streamlined approach across levels of government (not sure what different governments are doing)

- This is getting more complex everyday, for example other areas that cross-sect with energy development like water, species at risk – if these are treated in silos, it's more costly and difficult to get things done
- Need for a regulator who has a mandate to encourage oil and gas development
- From a regulatory perspective, the process is so drawn out – billions of dollars are spent up front for projects that will never be developed
- The regulatory process needs to better balance public engagement and getting good projects approved. 100% consensus is not always possible.



Question 3: Actions Needed to Get There

Recognizing our resources and the role of the oil and gas sector: Canada's natural resource endowment and the oil and gas sector need to be part of the solution

- We need to recognize the resources that we have – oil and gas contributes to Canada's competitive advantage and prosperity
- Due to its major role, the oil and gas sector needs to have a part in transition to low-carbon
- Competitive advantage of oil and gas in areas that require mixed sources of energy will be needed (e.g. shipping)
- More mega projects are needed to spur investment and innovation - consideration should also be given to the possibility of development corridors
- Incentivizing industry is also necessary to meet goals – there is more buy-in and investment through this approach versus prescribing regulations

Letting markets work: government needs to set rules and let markets work

- If you get the policy piece right, and industry is innovating, then the next step is just letting markets go and letting industry do what it needs to do
- Government also needs to honour and be fair to current major projects when setting the rules – having consideration for the billions of dollars invested in the past

Encouraging innovation: innovation should be a focal point for the future of the oil and gas sector

- If Canada wants to be serious about innovation and be a leader in this area, government needs to be fully supportive of this

- Canada can demonstrate that innovation and responsible development are the way forward for oil and gas – we have an obligation on a global scale
- Can't overstate the role of innovation in Canada's energy future. It requires a lot of capital to develop our resources, and supportive policy development is needed to establish this
- Industry could be held to certain objectives/targets to encourage innovative practices – industry can “put its money where its mouth is” as a leader in innovation
- What governments say has big impact on operators and the investment climate – so clear policy direction is needed, but really more collaboration across these sectors is needed for innovation
- The government needs to set a clear definition of ‘clean technology’ so that the oil and gas sector can be in on the conversation – this sector has already demonstrated that it can be a leader in innovation
- Energy producers need to work with end-users and innovate together – these groups can provide a different perspective. This will help to look at the full value chain and make further gains as a sector by working together

Rebuilding public trust/improving energy literacy: governments and other organizations have a role in improving energy literacy and the image of the energy sector in Canada

- Continuous policy and regulatory changes have helped to foster an image in Canada that the oil and gas sector is not good at what it's doing – there is a role for government in improving this image by making decisions and rules that stick
- Government and industry need to collaborate to better highlight the things that we're doing well as a country in terms of energy, including its impact on economic prosperity
- Step one is demonstrating to Canadians that you can have responsible energy development (e.g. Trans Mountain project) and that Canada is already a leader in this area globally – need to support the industry rather than hinder it
- There is also a need for better energy analytics in Canada (e.g. what does it mean to reduce carbon emissions from fuel use?) – government has a role to play in providing this information
- Individual responsibilities also need to be emphasized in the transition to a low-carbon economy – consumption is one of the biggest factors in reducing our carbon footprint
- Canadians need to understand what they value and that any energy developments will come with trade-offs – government has a role in personalizing this for individuals

Setting example on a global scale: Canada needs to take a leadership role and continue to set an example internationally in terms of being a competitive and responsible supplier of energy

- Need to demonstrate we are contributing on a global scale to markets, innovation and climate change commitments– further collaboration is needed to increase and demonstrate that we are working together on both the environmental and economic front
- Emphasizing Canada's position as a responsible supplier of oil and gas and taking advantage of this position is necessary

- Need to create Canadian-made solutions to energy issues that address the full value chain and then could be exported/shared with other countries

Creating a national energy strategy: the federal government needs to lead in developing a long-term energy strategy for Canada

- Full consensus can't be achieved across the country and across all sectors – at some point the government just has to lead
- Developing our resources will still be part of our energy future, but we need a strategy and a strong government-led commitment for this
- A national energy strategy should be developed that is proactive and allows Canada to compete
- The strategy should include an effective regulator to support sustainable development – if not, other countries will continue to pass us by
- In developing a strategy, it's important that we answer the right question – this does not mean choosing one source of energy over another, but defining the attributes of the energy system that we want and the roles of different players
- It is not just about an energy strategy itself, but how it will be used

Values identified as important for Canada's energy future

- Shared prosperity – bundling energy projects with other co-benefits that enhance social wellbeing
- Socially responsible development is very important
- Stable, reliable energy supply
- Individual responsibility, as well government and corporate