

**Metcalf, Megan EMPR:EX**

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**From:** Piccinino, Ines EMPR:EX  
**Sent:** Wednesday, February 21, 2018 1:04 PM  
**To:** Karen Tam Wu  
**Subject:** Re: Time on Tues?

I'd love to meet on Tue but I'll be omw to FSJ in the afternoon. Would 10:30 am work?

Ines

**From:** [karentw@pembina.org](mailto:karentw@pembina.org)  
**Sent:** February 21, 2018 1:15 PM  
**To:** [Ines.Piccinino@gov.bc.ca](mailto:Ines.Piccinino@gov.bc.ca)  
**Subject:** Time on Tues?

Hi Ines,  
Max Kniewasser and I will be in Victoria on Tuesday 27th. Would you have time to meet at 1 or 2 PM?

Karen

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Karen Tam Wu, RPF  
BC Director (acting) | Pembina Institute  
[karentw@pembina.org](mailto:karentw@pembina.org) | c: 778-846-5647  
Suite 610, 55 Water Street, Vancouver, BC, V6B 1A1  
[www.pembina.org](http://www.pembina.org)

## Metcalfe, Megan EMPR:EX

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**Subject:** Lunch Karen/Ines  
**Location:** Meet lobby 1810 Blanshard  
  
**Start:** Thu 2018-02-22 12:30 PM  
**End:** Thu 2018-02-22 1:30 PM  
  
**Recurrence:** (none)  
  
**Meeting Status:** Meeting organizer  
  
**Organizer:** Piccinino, Ines MNGD:EX  
**Required Attendees:** Karen Tam Wu

Call my cell please when you arrive and I'll meet you in the lobby. Thanks!

## Metcalfe, Megan EMPR:EX

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**From:** Piccinino, Ines EMPR:EX  
**Sent:** Friday, March 9, 2018 2:34 PM  
**To:** Lucas, Jennifer GCPE:EX  
**Cc:** Grieve, Richard EMPR:EX  
**Subject:** Re: Hydraulic Fracturing

CAPP, CSUR, EPAC, PSAC, CAODC, Northeast Mayors, Pembina Institute... anybody else, Richard?

Ines

**From:** [Jennifer.Lucas@gov.bc.ca](mailto:Jennifer.Lucas@gov.bc.ca)  
**Sent:** March 9, 2018 14:29  
**To:** [Ines.Piccinino@gov.bc.ca](mailto:Ines.Piccinino@gov.bc.ca)  
**Subject:** Hydraulic Fracturing

Hi Ines,

Just following up to my email yesterday, wondering if you have a list of stakeholders you anticipate reaching out to with the embargoed copy of the NR. We just got off of a call with the MO and would like to be able to put together a roll-out which will include the stakeholder list to share with them.

Materials went up to the MO yesterday and they are reviewing them and have given us a date of March 21 right now for the announcement.

Thank you,

Jennifer Lucas

Public Affairs Officer

Ministry of Energy, Mines and Petroleum Resources

(778) 698 - 3208

**Metcalf, Megan EMPR:EX**

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**From:** Piccinino, Ines EMPR:EX  
**Sent:** Friday, March 16, 2018 4:32 PM  
**To:** Karen Tam Wu  
**Subject:** Wording

A journalist asked about 'consultation'. This is what comms sent. Let me know if anything is problematic please.

The Ministry of Energy, Mines and Petroleum Resources let stakeholders, including CAPP, Northeast municipalities and the Pembina Institute know it was working on putting the Hydraulic Fracturing Scientific Review Panel together based on the scope directed by Cabinet and Minister Mungall. This was done to let organizations know that panel members were likely to ask the ministry (as Secretariat) for a list of potential technical experts on multiple topics to complement any literature/regulatory review on the approved scope of the scientific review. The ministry had suggested the associations start building a list of expert individuals so that it could be tabled for Panel consideration once it is in operation. The same information about the Panel was provided to Northeast municipalities and to the Pembina Institute. The ministry is frequently involved with stakeholder engagement, including correspondence with CAPP and other industry associations, local governments and other organizations, as directed by the governing responsibilities of the Minister/ministry.

Ines

**From:** Piccinino, Ines MNGD:EX

**Sent:** Thursday, March 15, 2018 8:19 AM

**To:** XT:Morrison, Geoff FLNR:IN; [DAllan@csur.com](mailto:DAllan@csur.com); 'Gary Leach'; 'Elizabeth Aquin'

**Cc:** Schwabe, Michelle MNGD:EX; Petrini, Teresa MNGD:EX; Grieve, Richard MNGD:EX

**Subject:** Heads up/EMBARGOED: BC to announce Hydraulic Fracturing Scientific Review panel today 10 am Pacific

Good morning all,

I would like to provide you with a heads up that we will be announcing the Hydraulic Fracturing Scientific Review Panel today at 10 am Pacific.

Michelle Schwabe will be the head of our Secretariat and Teresa Petrini our logistics manager. As discussed, we appreciate the work you are putting toward building a list of experts for the Secretariat to put forward for panel consideration. We will be appreciate to get the list before the end of March.

The mandate of the Scientific Hydraulic Fracturing Review Panel is to review the practice of Hydraulic Fracturing in B.C. in the context of ensuring that gas is produced safely and the environment is protected; and provide the Province with its findings and advice on the following:

- a) what role hydraulic fracturing has in induced seismicity in Northeast B.C, and
- b) what impacts hydraulic fracturing has on water quantity and quality.

If you have any questions, don't hesitate to ask.

Thanks!!

Ines

**Ines Piccinino**

ADM, Oil and Gas Division

Ministry of Energy, Mines and Petroleum Resources

Phone: 778-698-3679

Email: [ines.piccinino@gov.bc.ca](mailto:ines.piccinino@gov.bc.ca)



## Metcalfe, Megan EMPR:EX

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**From:** Piccinino, Ines EMPR:EX  
**Sent:** Thursday, March 15, 2018 8:30 AM  
**To:** Sanderson, Melissa EMPR:EX  
**Cc:** Nikolejsin, Dave EMPR:EX; Beaupre, Darren GCPE:EX  
**Subject:** Hydraulic Fracturing Scientific Review Panel - Heads up provided (and a Q about TORs)  
**Attachments:** SHFRP TOR (final)\_Revised.pdf

Good morning, Melissa,

As discussed last night, I have provided a heads up (no embargoed copies) on the HF Scientific Review Panel release to:

- Industry associations (CAPP/CSUR/EPAC/PSAC)
- The three mayors I discussed this with in FSJ two weeks ago (Fort St. John, Taylor and Dawson Creek)
- Karen Tam Wu, Pembina Institute
- ADMs at NRCan, Alberta and Saskatchewan

I sent an EMBARGOED copy of the draft release to the OGC.

I expect we will get a lot of people asking for the TORs... would you like us to share them when requested or keep them for internal purposes? Just in case, last clean copy attached (still undergoing a final review for typos/formatting from us).

Ines

### **Ines Piccinino**

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## Terms of Reference

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### Context

Hydraulic fracturing is a stimulation process that enables natural gas production from organic-rich shale, a rock that historically was not economically accessible as an oil or gas reservoir. To free the trapped gas, deep underground fractures are created and kept open by pumping a mixture of sand, water and a small percentage of chemical additives down the well bore at sufficient pressure to fracture the rock and drive the sand into the resulting fractures. When completed, natural gas and fluids flow through the created fracture network to the wellbore and then to the surface, leaving some sand in place to hold open the newly created fractures. At the surface, water and other fluids are separated and the natural gas is moved via pipelines for additional processing after which it generally enters the pipeline transmission systems for delivery to markets.

The practice of hydraulic fracturing has been used throughout North America since 1947 for vertical boreholes, but it became widespread with the development of unconventional resources. Records indicate hydraulic fracturing has been utilized in B.C. since 1950. It has been more actively used in unconventional formations since 2004, for horizontal boreholes. In B.C., 11,890 wells have undergone hydraulic fracturing since 1950, totalling more than 47,000 individual fracture stages.

The 2017 BC NDP Election Platform called for a Scientific Panel Review on Hydraulic Fracturing:

*"Most of BC's natural gas is produced using hydraulic fracturing, a process that has been used in north eastern BC for decades. With the potential of a significant expansion of gas production in the years ahead, we will appoint a scientific panel to review the practice to ensure that gas is produced safely, and that our environment is protected. This will include assessment of impacts on water and, given recent minor earthquakes in the area, what role gas production has in seismic activity."* (Page 62, "2017 BC NDP Platform: Working for You – Our Commitments to Build a Better BC").

### Mandate

1. The mandate of the Scientific Hydraulic Fracturing Review Panel is to review the practice of Hydraulic Fracturing in B.C. in the context of ensuring that gas is produced safely and the environment is protected; and provide the Province with its findings and advice on the following:
  - a) what role hydraulic fracturing has in induced seismicity in Northeast B.C, and
  - b) what impacts hydraulic fracturing has on water quantity and quality.

## **Scientific Hydraulic Fracturing Review Panel**

For the purposes of the review, hydraulic fracturing is the process of hydraulically fracturing a well, and includes: the water cycle (sourcing and use of water, handling of wastewater, and disposal of wastewater); fugitive methane emissions from well drilling and completions, and induced seismicity. It does not include transmission of oil or natural gas, land use or health, economic or social science matters.

The panel will carry out its work in light of the government's adoption and implementation of the United Nations Declaration on the Rights of Indigenous Peoples. Articles 25, 29 and 31 of the declaration are particularly relevant in this regard.

2. In fulfilling its Mandate, the specific deliverables to be produced by the Scientific Hydraulic Fracturing Review Panel include the following:
  - a) a scientific report on findings and advice;
  - b) such other products as the Scientific Hydraulic Fracturing Review Panel determines necessary to effectively fulfill its Mandate; and
  - c) such other products the Minister of Energy, Mines and Petroleum Resources determines necessary.
3. Specifically, the Panel's report will address the following questions:
  - a) Does B.C.'s regulatory framework adequately manage for potential risks or impacts to safety and the environment that may result from the practice of hydraulic fracturing?
  - b) How could B.C.'s regulatory framework be improved to better manage safety risks, risk of induced seismicity, and potential impacts to water?

For the purposes of the review, the regulatory framework for hydraulic fracturing in B.C. is comprised of the following components: statutes; regulations; orders and contracts, including conditions attached to orders or contracts. Non-binding instruments such as guidance documents, directives and industry standards also form part of the regulatory framework when incorporated in regulations, contracts or orders, or used in the adjudication process.

### **Scientific Hydraulic Fracturing Review Panel (Panel)**

1. The Panel will consist of three recognized experts with scientific/technical background and knowledge in areas relating to environmental management, water, induced seismicity and hydraulic fracturing.
2. The Panel will consist of those individuals listed in Schedule "A".
3. The Panel will be supported by an independent third party Facilitator and a Secretariat



## **Scientific Hydraulic Fracturing Review Panel**

- a) The Panel Facilitator will be contracted by the Ministry of Energy, Mines and Petroleum Resources.
  - b) The Panel Secretariat role will be fulfilled by staff from the Ministry of Energy, Mines and Petroleum Resources.
4. There will be no provision for alternate Members.

### **Panel Timeline**

- 1. The Panel will fulfill its Mandate by December 31, 2018.
- 2. In order to meet this timeline the Panel will hold its initial meeting in February 2018, followed by Panel Proceedings that will be conducted between April and June 2018, with additional Panel Proceedings held as needed from June to October 2018 if required to help close any knowledge gaps.

### **Roles and Responsibilities**

#### **Panel Members**

The responsibilities of Panel Members are as follows:

- a) Review scientific literature relevant to the practice of hydraulic fracturing in B.C., indigenous knowledge, and, as needed, other information such as monitoring data;
- b) Be available, prepared and actively participate in Panel Meetings and Proceedings;
- c) Prepare, assisted by the Secretariat, the list of experts (including field engineers, hydrologists, geologists and operators) to be consulted and detailed questions which will guide the Review work, limited to the scope;
- d) Ensure that the list of experts includes representation from:
  - (1) Academic/Scientific Researchers
  - (2) Oil and gas companies, service companies and consultants, and Industry Associations
  - (3) First Nations Treaty 8
  - (4) Municipalities and Region Districts in NE BC
  - (5) Environmental Non-Government Organizations
  - (6) BC Oil and Gas Commission.;
- e) Hear presentations in Panel Proceedings from the experts selected for consultation;
- f) Collect scientific evidence and indigenous knowledge presented to the Panel by the experts, including papers, presentations and other support materials;

## **Scientific Hydraulic Fracturing Review Panel**

- g) Provide critical input into the Panel's Report based on their findings and expertise;
- h) Collaborate in the production of the final scientific report.

### **Panel Facilitator**

The Facilitator will

- a) ensure that the Panel functions effectively and objectively in order to fulfil the Panel mandate;
- b) Ensure that discussions of Panel meetings and Proceedings are in line with its mandate;
- c) Ensure that the views of all Panel members and presenters are captured so that they may be referred to for developing the final report and advice;
- d) Collaborate and work closely with Panel members, the Panel Secretariat and other Energy, Mines and Petroleum Resources staff, as needed, throughout the Panel Review period;
- e) Collaborate with panel members to summarize the discussions and prepare the report;

### **Panel Secretariat**

The Panel Secretariat will provide logistical, secretariat, and coordination support required by the Scientific Hydraulic Fracturing Review Panel:

## **Participation**

Members will be required to participate in the following:

### ***Panel Meetings and Panel Proceedings***

- Panel meetings, with all Panel members and the Facilitator in attendance, and Panel Proceedings with all Panel members in attendance, will be held by
  - teleconference or,
  - in person in the Lower Mainland, Northeast B.C. or Alberta.
- Logistics for the Panel meetings and Panel Proceedings will be arranged by the Secretariat.

## **Scientific Hydraulic Fracturing Review Panel**

### ***Panel Proceedings***

- Panel Proceedings will be held in the Lower Mainland and in Fort St. John or Dawson Creek with all Panel members and the Facilitator in attendance; to hear, in camera where appropriate, experts present scientific evidence relating to hydraulic fracturing and water and induced seismicity.
- Logistics for the Panel Proceedings will be arranged by the Secretariat, and could include webinars.

### **Decision Making**

The Panel shall seek to make all process decisions by consensus.

### **Transparency Final Report**

The final report will be made publicly available by the Provincial government as soon as possible after the Provincial government has had an opportunity to review the findings.

## Scientific Hydraulic Fracturing Review Panel

### Schedule A

Dr. Diana Allen  
Professor of Earth Sciences,  
Department of Earth Sciences,  
Simon Fraser University

Dr. Amanda Bustin  
Research Associate  
Department of Earth, Ocean and Atmospheric Sciences  
Faculty of Science  
University of British Columbia

Dr. Erik, Eberhardt  
Director, Geological Engineering,  
Department of Earth, Ocean and Atmospheric Sciences  
Faculty of Science,  
University of British Columbia

## MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES

### BRIEFING NOTE FOR INFORMATION

- I PREPARED FOR:** Dave Nikolejsin, Deputy Minister of Energy, Mines and Petroleum Resources (EMPR)
- II ISSUE:** Background information on the Scientific Hydraulic Fracturing Review for the Canadian Association of Petroleum Producers /Deputy Ministers meeting on November 23, 2017.

### III BACKGROUND:

EMPR is currently taking steps to advance the commitment in the 2017 election platform calling for a Scientific Panel Review on Hydraulic Fracturing:

*“Most of BC’s natural gas is produced using hydraulic fracturing, a process that has been used in north eastern BC for decades. With the potential of a significant expansion of gas production in the years ahead, we will appoint a scientific panel to review the practice to ensure that gas is produced safely, and that our environment is protected. This will include assessment of impacts on water and, given recent minor earthquakes in the area, what role gas production has in seismic activity.”*

### IV DISCUSSION:

The purpose of the Scientific Hydraulic Fracturing Review is to review the practice of hydraulic fracturing in British Columbia (BC) to ensure natural gas is produced safely and the environment is protected. The scope of the review will focus on:

- impacts on water quantity and quality, and
- what role hydraulic fracturing has in induced seismicity in Northeast BC

The outcome of the review will be a publically available report summarizing the panel’s findings, with advice to Government.s.13

s.13

At this time, the process for the review is under development and once finalized, a public announcement will be made. The review will be conducted by a three-person panel of recognized experts. Experts under consideration for the panel all have scientific/technical background and knowledge in areas relating to environmental management, water, induced seismicity and hydraulic fracturing. Initial contact with some of the panelists under consideration has been made.

It is anticipated that the three-member panel will review background studies and then hold oral hearings with scientific experts and key stakeholders to hear evidence related to hydraulic fracturing in BC, including traditional indigenous knowledge. The proposed key stakeholder groups to be invited to present to the panel are:

- (1) Academic/Scientific Researchers
- (2) Industry Associations
- (3) First Nations Treaty 8
- (4) Communities in Northeast BC
- (5) Environmental Non-Government Organizations, and
- (6) BC Oil and Gas Commission.

The proposed format provides an opportunity for key stakeholders, including industry, to formally present scientific evidence on the practice of hydraulic fracturing. It also allows industry to share their hands-on experience and knowledge of the practice for inclusion in the review.

The review will collect and analyze BC-based evidence which may lead to the identification of gaps or areas requiring further analysis. The findings may lead to a greater public understanding of hydraulic fracturing, increased BC-based evidence and improved practices.

The proposed timeline for the Scientific Hydraulic Fracturing Review is for the panel to convene by January 2018, conduct the majority of the oral hearings during the spring of 2018, and conclude the review with the submission of the final report in the fall of 2018.

## **V CONCLUSION:**

Government looks forward to getting this review underway and engaging with key stakeholders on this important initiative. The review will ensure gas is produced safely and in a manner that protects our environment, and will help build public knowledge and confidence in the practice of hydraulic fracturing.

**DRAFTED BY:**  
Alisa Holtz, PAR

**APPROVED BY:**  
Michelle Schwabe, PAR,  
Richard Grieve, ED, PAR  
Ines Piccinino, ADM, UDD  
Dave Nikolejsin, DM, EMPR

✓  
✓  
✓

## **MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES**

### **BRIEFING NOTE**

#### **I PREPARED FOR:** Premier's Staff

#### **II ISSUE:** Canadian Association of Petroleum Producers request for meeting

#### **III BACKGROUND:**

The Canadian Association of Petroleum Producers (CAPP) represents companies that explore for, develop and produce natural gas and crude oil throughout Canada. The member companies of CAPP produce about 80 percent of Canada's natural gas and crude oil. CAPP's mission is to advocate for and enable economic competitiveness and safe, environmentally and socially responsible performance.

Tim McMillan is the President and CEO of CAPP. Before taking on this role in 2014, Tim McMillan was a Cabinet minister with the Government of Saskatchewan, including time as a Minister of Energy and Resources. Tim McMillan's connections to the energy industry include former ownership of an oilfield services company.

#### **IV DISCUSSION:**

On November 23, 2017 a number of British Columbia Deputy Ministers met with representatives from CAPP in Victoria to discuss a variety of topics. A detailed agenda from the meeting is attached. Topics discussed at the meeting include:

- fiscal and competitiveness issues, such as the LNG competitiveness review, royalty programs and methane emissions;
- engagement on the United Nations Declaration on the Rights of Indigenous Peoples;
- environmental assessment revitalization; and
- British Columbia species at risk legislation.

Subsequently CAPP's Manager of British Columbia Operations, Geoff Morrison contacted the Premier's office to ask if Chief of Staff, Geoff Meggs would be able to meet with CAPP's president, Tim McMillan, in December, in Vancouver or Victoria.

CAPP would likely want to emphasize the importance of attaining new markets for BC Gas (and how the upstream industry they represent can work with the government and LNG proponents to achieve that goal), express their concerns about the Hydraulic Fracturing Review, and talk about upstream competitiveness

#### **V RECOMMENDATION:**

Geoff Meggs should meet with Tim McMillan.

**Attachment:**

British Columbia Deputy Ministers/CAPP Meeting Agenda

**DRAFTED BY:**

Claire Gibbs, PAR

**APPROVED BY:**

Richard Grieve, A/ADM, UDD✓

Dave Nikolejsin, DM, EMPR✓



# BC DEPUTY MINISTERS/CANADIAN ASSOCIATION OF PETROLEUM PRODUCERS (CAPP) MEETING

NOVEMBER 23<sup>RD</sup>, 2016 – 1:30 TO 5:00 PM

SAANICH ROOM - VICTORIA CONFERENCE CENTRE

VICTORIA, BC

## AGENDA

- A. Welcome from Dave Nikolejsin (Deputy Minister, Ministry of Energy, Mines and Petroleum Resources) and Myron Stadnyk (Chair of the BC Executive Policy Group, CAPP)
- B. Introductions
- C. CAPP presentation: Setting the Stage
- D. Fiscal & Competitiveness
  - 1. LNG Competitiveness consultation and review – status of discussion and next steps  
LEAD AGENCY: MEMPR
  - 2. Royalty Programs  
LEAD AGENCY: MEMPR
  - 3. Pan Canadian Framework and BC's Carbon policy – status and next steps / Emissions Intense/Trade Exposed (EITE) Policy  
LEAD AGENCY: ENV (Climate Action) / FIN
  - 4. Methane Emissions from Oil and Gas – Regulations, expansion of Carbon Tax commitment, coordination with Canada and Western Provinces  
LEAD AGENCY: MEMPR / ENV (Climate Action) / OGC
  - 5. Upstream Electrification  
LEAD AGENCY: MEMPR

## **E. Indigenous & Stakeholder engagement**

6. Hydraulic fracturing scientific review panel – update  
LEAD AGENCY: MEMPR
7. Engagement on UNDRIP Implementation  
LEAD AGENCY: MIRR

## **F. Responsible Development**

8. Environmental Assessment Revitalization  
LEAD: EAO
9. Liability Management  
LEAD AGENCY: OGC
10. Caribou update  
LEAD AGENCY: ENV/FLNRORD
11. BC species at risk legislation  
LEAD AGENCY: ENV
12. Review of Professional Reliance Model  
LEAD AGENCY: ENV
13. Review of the Agricultural Land Reserve  
LEAD AGENCY: AGRI
14. North Coast Tanker Moratorium  
LEAD AGENCY: MEMPR
15. Water Sustainability Act (WSA) transition - Dams  
LEAD AGENCY: OGC

## **G. Other Items**

16. BC Regulatory Efficiency Initiative  
LEAD AGENCY: OGC
17. Natural gas demand – value added opportunities  
LEAD AGENCY: MEMPR

## **MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES**

### **BRIEFING NOTE FOR INFORMATION**

- I PREPARED FOR:** Honourable Michelle Mungall, Minister of Energy, Mines and Petroleum Resources; Honourable Bruce Ralston, Minister of Jobs, Trade and Technology; Honourable George Heyman, Minister of Environment and Climate Change Strategy
- II ISSUE:** Meeting with the Executive Vice-President and Chief Operating Officer of the Canadian Association of Petroleum Producers (CAPP)

### **III BACKGROUND:**

The Canadian Association of Petroleum Producers (CAPP) represents companies that explore for, develop and produce natural gas and crude oil throughout Canada. The member companies of CAPP produce about 80 per cent of Canada's natural gas and crude oil. CAPP's mission is to advocate for and enable economic competitiveness and safe, environmentally and socially responsible performance.

Terry Abel is the Executive Vice-President and Chief Operating Officer for CAPP. He joined the Association in 2014 as the Director of Oil Sands and has over 30 years of experience as an energy regulator in the Province of Alberta. He holds a Bachelor's degree in Chemical Engineering from the University of Alberta and is a registered professional with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

### **IV DISCUSSION:**

#### **Liquefied Natural Gas (LNG) Competitiveness Review**

The Ministry of Energy, Mines and Petroleum Resources conducted a review of BC's LNG fiscal framework and policies to better understand the Province's competitive position. The review began in the summer of 2017 and involved industry and industry associations (including CAPP), First Nations, and the federal government.

Recommendations for actions to improve BC's competitiveness were presented at the end of the year and are under active consideration by government.

#### **Carbon Tax Increases**

BC is increasing the carbon tax by \$5 per tonne per year until it reaches \$50/tonne in 2021. BC's carbon tax currently applies to combustion emissions. BC recognizes increasing the carbon tax could affect industrial emitters. BC is committed to working with business and industry to ensure the Province remains a competitive place to invest

while achieving its climate targets. BC is aware of the latest approaches in the Alberta and Federal Government programs and will take this into account.

### **Canada and Alberta's Approach to Carbon Pricing**

Both the federal carbon pricing backstop, and Alberta's carbon pricing system are made up of a carbon levy applied to fossil fuels and an output based pricing system for industrial facilities from emissions-intensive, trade-exposed (EITE) sectors. EITE sectors will be exempt from the levy. Under the systems, industrial emitters set a production-weighted emission intensity 'benchmark' and receive free emissions allowances up to this benchmark. Facilities over the benchmark can meet the obligations through purchasing excess allowance credits from those under the benchmark, buying eligible offset units or contributing to a tech fund at the rate of the carbon levy.

Both systems cover not only combustion emissions, but also Industrial Process emissions, venting, flaring and fugitive emissions. Canada's system will exempt methane venting and methane fugitive emissions from oil and gas facilities (already covered by upcoming methane regulations).

BC is looking into these regimes and analyzing options going forward to address competitiveness concerns.

### **Climate Benefits of LNG**

Displacing higher carbon fuels, like coal and diesel, with BC LNG can lead to significant global lifecycle emission reductions. A recent study by the University of Calgary and M.I.T. estimated that the export of 18 million tonnes of BC LNG to China could lead to global reductions of 25 to 52 million tonnes of greenhouse gases (GHG). The Province recognizes that LNG production is emissions intensive and could have an effect on achieving BC's targets. As a result, the Province has established measures to reduce emissions in the oil and gas sector including the LNG benchmark, the Environmental Incentive Program, the carbon tax and its upcoming methane policy.

### **Regulatory Process Reviews**

CAPP is concerned that industry may soon experience what it refers to as regulatory fatigue given the various policy initiatives currently under review. These include:

- ***Hydraulic Fracturing Scientific Review***  
As noted in our 2017 Election Platform there is the potential for significant expansion of shale gas production in the years ahead. That is why a commitment was made to appoint a scientific panel to review the practice to ensure that gas is produced safely, and that our environment is protected. This will include assessment of impacts on water and what role gas production has in seismic activity. The Province plans to appoint this Panel in the first half of 2018 and the details of the review process will be made public at that time.
- ***Upstream Methane Emissions Regulation***  
The federal government is moving ahead on creating specific regulations on methane emissions from the oil and gas sector. Western provinces can achieve Canadian federal goals using their own approaches.

A team consisting of representatives of the Ministry of Energy, Mines and Petroleum Resources, BC's Oil and Gas Commission, and Climate Action Secretariat is working on the development, enactment, and implementation of applicable standards and/or other regulatory requirements. BC is advancing a methane emissions reduction strategy using a combination of targets, incentives and regulatory tools.

**Target:** 45 per cent reduction of fugitive and vented emissions from extraction and processing infrastructure built before January 1, 2015.

**Incentives:** The Clean Infrastructure Royalty Credit Program to stimulate investments in new technology for GHG reductions and a new offset protocol to further encourage innovative projects that reduce methane emissions.

**Regulatory Tools:** BC will make leak detection and repair mandatory and develop other requirements aligned with Alberta.

The Ministry of Environment and Climate Change Strategy is leading a number of policy initiatives likely to be of interest to CAPP and is best placed to speak to them. These initiatives include:

- Environmental Assessment Revitalization;
- Marine Spills; and,
- Professional Reliance

## V CONCLUSION:

The Province supports the continued development of its natural gas industry including opening new markets by working with proponents to advance their LNG projects in line with our four stated conditions, and in doing so looks forward to continuing to collaborate with the Canadian Association of Petroleum Producers.

**DRAFTED BY:**

Mark Urwin,  
Senior Economist

**APPROVED BY:**

Geoff Turner, A/ED, OGD

✓

Ines Piccinino, A/DM, OGD