

CAPITAL INVESTMENTS DOWN

Topic: The Canadian Association of Petroleum Producers indicates capital spending in the oil and natural gas sector is declining significantly.

- Market access is essential so B.C.'s natural gas industry can be successful and jobs can be created – this is the foundation of the Canadian Association of Petroleum Producers announcement; a reality the Province is very aware of.
- Our government has supported market access since the BC Jobs Plan was released in 2011. That plan was the catalyst for the work underway now to export natural gas.
- To date, we estimate over \$20 billion has been invested by industry to further B.C.'s LNG opportunity.
- We know we are dealing with a challenging marketplace – one that is much different than the situation in 2011. Our LNG goals haven't changed and our prospects are still strong.
- I just returned from Japan and can tell you natural gas companies are still bullish about B.C.'s energy resources.
- We have the foundation for a strong economy and are building on that, along with our competitive advantages to become a global natural gas player.

April 7, 2016

Background:

The Canadian Association of Petroleum Producers (CAPP) indicates capital spending in Canada's oil and natural gas sector is forecast to decline \$50 billion, or 62 per cent, since 2014. CAPP calls this the largest decline since data has been tracked (1947).

According to CAPP's announcement:

- Total capital investment in the oil and natural gas sector is forecast to decline to \$31 billion in 2016, down from a record \$81 billion in 2014.
- The total number of wells drilled in Western Canada is forecast to decline to 3,500 wells in 2016, a 66 per cent drop from the 10,400 wells drilled in 2014.
- More than 2,300 businesses across Canada outside of Alberta supply goods and services to the oil sands. Including indirect jobs, more than 110,000 people across Canada have lost their jobs as a result of the downturn in the oil and natural gas sector.

British Columbia is not mentioned specifically within the details released.

CAPP's announcement can be found [here](#).

INDUCED SEISMICITY

Topic: A new report by the Seismological Society of America links seismicity to oil and gas activities.

- British Columbia takes a leading role in the detection and mitigation of seismicity activity.
- We support all research, and the work done by the B.C. Oil and Gas Commission, to further our knowledge on this subject. The BC Oil and Gas Commission is involved in multiple studies.
- There are effective regulatory measures used for every well approved to ensure there is no risk to the public.
- For example, new regulations were brought in to shut down industry operations if seismic activity reaches a certain threshold.
- Also, the seismic monitoring network in northeast B.C. has grown from two monitors to 11 today.
- It should be noted that B.C. does not have a history of high magnitude events. The magnitude of seismic events has fallen within the range of naturally occurring events in the northeast and we are not seeing an increase in frequency.

March 29, 2016

Background:

Update March 29, 2016: A new report by the Seismological Society of America examines an area straddling the B.C.-Alberta border and finds that between 90 and 95 per cent of seismic activity (magnitude 3 or larger) in the last five years was caused by oil and gas activity. A reporter from the Province newspaper contacted the BC Oil and Gas Commission (OGC) about the research. One of the report's co-authors is a senior petroleum geologist with the OGC.

On August 17, 2015 a 4.6 magnitude event occurred at approximately 1:15 p.m., 116 kilometers northwest of Fort St. John. The event was lightly felt on the surface as far away as Charlie Lake, but no surface damage was reported as a result.

The first report was made to the BC Oil and Gas Commission by Natural Resources Canada at 1:50 p.m. The area operator at a nearby wellsite, Progress Energy, reported the event to the Commission at 2:03 p.m. All operations in the area were immediately suspended.

All available seismological data was collected and discussions were had with the operator of the site. A mitigation plan was approved by the Commission at 3:45 p.m. An investigation was undertaken by the Commission, including a review of all active oil and gas operations within a 10 kilometer radius of the epicenter, as determined by Natural Resources Canada.

The Commission collected information on the event from Progress Energy, including the "felt" reports, hydraulic fracturing parameters and the detailed seismological data. At the time, Progress had an 18 station dense seismograph array in the area. The Commission then authorized the resumption of drilling with the following mitigation measures in place:

- Reduce pump rates from 12m³/ min to 10m³/ min or lower.
- Continue seismicity monitoring in real time and report new M4.0 or felt events as required in the Permit Conditions.
- Suspend hydraulic fracturing operations and notify the Commission immediately if a Magnitude 3.5 or greater event is recorded within five km of current A-99-J/ 94-B-16 operations.

Amendments were made in July 2015 to the Drilling and Production Regulation, including mitigation measures for induced seismicity. In the event of seismic activity within a 3 kilometer radius of a disposal or hydraulic fracturing activity, a list of required actions is outlined. This will further help to strengthen future investigations.

Steps the BC Oil and Gas Commission takes related to seismic activity in the northeast include:

- Responding to seismic events as soon as they appear on the NRCan website or a private dense seismograph array. Reports from the public are also investigated.
- These events are compared alongside locations of oil and gas operations.
- If there is a temporal and geographic similarity between the seismicity and an oil and gas activity, the operator is contacted with a request for more data. This data is analyzed.
- All data is used by the Commission to closely monitor seismic activity in areas of the oil and gas operations. Actions are taken if and when required.
- Further steps may include deployment of dense arrays, or the moderation of hydraulic fracturing parameters, which can include limiting well pressures or suspension of operations.

PACIFIC NORTHWEST LNG

Topic: Latest developments linked to the Pacific NorthWest LNG proposal.

Re: First Nations trip to Ottawa:

CP News is reporting First Nations are traveling to Ottawa to oppose Pacific NorthWest LNG.

- The review by the Canadian Environmental Assessment Agency is still underway and no one should rush to judge the project until that review is completed.
- The B.C. Government is committed to ensuring there are no adverse effects to the marine environment and fish habitat that cannot be mitigated.
- The elected Lax Kw'alaams representative Mayor Helin, has written that the community is supportive of the project as long as an environmental committee and its recommendations are implemented.
- The Province, as well as Pacific NorthWest LNG are working with Lax Kw'alaams to ensure that the project proceeds in an environmentally responsible manner; and provides long term economic and other benefits to the community.
- The Province is also working with other Tsimshian Nations to find opportunities for them to economically benefit from LNG opportunities as this project moves forward.

- In addition to the facility, 16 of 20 First Nations affected by the proposed natural gas pipeline have completed benefit agreements with the Province.
- This signals strong First Nations support for this project.

Re: Lelu Island Protest:

The Port of Prince Rupert is asking members of the Lax Kw'alaams to remove culture camps.

- We recognize the right of all Canadians to engage in peaceful demonstrations.
- In every situation, we ask people to remain respectful of one another.
- We are working closely with the Lax Kw'alaams council to provide information about the project, including the scientific and engineering information and about LNG generally.

Re: CEAA submissions

Letters to the Canadian Environmental Assessment Agency have argued against PNW LNG.

- LNG development is the Province's long-term commitment to create jobs and future prosperity for British Columbians.
- Pacific NorthWest LNG is a leading candidate to export B.C. natural gas to Asia.
 - It represents the largest private sector investment in Canadian history, estimated at \$36 billion.

- It would generate more than 18,000 jobs and has the support of local communities as well as First Nations along the entire pipeline route and at the terminal site.
- We firmly believe the science behind the Pacific NorthWest LNG proposal is sound.
- With a strong commitment from B.C., First Nations and the company to protect the fish, the project will generate jobs, significantly reduce global GHG emissions in export markets and protect the marine environment.

Re: Scientist Letter

Scientist sent a letter to the federal government saying PNW LNG was “scientifically flawed”

- Since 2012, scientists and engineers have been on the ground studying Lelu Island and its environment.
- Of the scientists listed in the letter, it appears many of them have never been at the site of the proposed facility and more than 20 of them are not even from Canada.
- The best techniques have been used to study the proposed site since 2012. I am comfortable with the science as extensive, long-term modeling was used to forecast ocean currents and waves in the area of Flora Bank.
- We don't believe the techniques used to conduct earlier studies offered the same advantages as the today's cutting edge technology.

- This facility is proposed on federally administered Crown land and water under the jurisdiction of the Prince Rupert Port Authority. Ship traffic in the area is not a new concept. Hundreds of vessels travel in the area each year.
- We firmly believe the science behind the Pacific NorthWest LNG proposal is sound and the draft report released by the Canadian Environmental Assessment Agency supports that.

Re: Timing

The federal government is still in the process of reviewing PNW LNG.

- We are pleased the federal government is running a very thorough process, and are committed to reaching a timely decision. The federal government has been transparent and Petronas and Pacific NorthWest LNG have appreciated the process and accepted the timeframes.
- Pacific NorthWest LNG have said they are working toward a final investment decision. It's business as usual for them.
- The Province continues to support the process and has been assured by the company they remain committed to developing an LNG facility in British Columbia.
- We anticipate the federal government will make their decision in the near future. We look forward to hearing the results.

Re: Salmon/marine life

Concerns with the Flora Bank have been prevalent during the environmental review process.

- One of the key considerations in these regulatory processes is to protect the salmon. All of us take this very seriously, and want to ensure there is no significant adverse impacts to salmon in this area.
- CEAA has found Pacific NorthWest LNG will not impact Flora Bank and the livelihood of the Skeena River salmon fishery.
- We believe the science behind the Pacific NorthWest LNG proposal is sound, and this report supports that.
- We note there are concerns that focus on harbour porpoises, and we understand PNW will work to mitigate that.

Re: GHGs/upstream emissions

Environmental concerns are still a concern if PNW LNG is built.

- Our new liquefied natural gas industry is marked by strict regulation and produced from the cleanest LNG facilities in the world.
- While reducing emissions in the upstream is a challenge, B.C. is already making progress.
 - We've brought in rules which have virtually eliminated routine flaring.

- We are addressing methane emissions, in part through a leak detection program.
- We're increasingly using electricity to power gas production, with further electrification under way.
- And as part of the world's cleanest LNG we're establishing a technology fund that will allow for further investments in upstream methane reductions.
- We are working closely with industry/stakeholders to further identify ways to reduce emissions, including carbon capture and storage. We are working on a regulatory framework for this now.
- B.C has already shown we can grow the economy and reduce emissions.
- The challenge of continuing to reduce upstream natural gas emissions is one we embrace, and are committed to achieving.
- British Columbia has a new climate leadership plan in development to further outline our goals to reduce GHG emissions, and position B.C. to take advantage of the low carbon economy of the future.
- As the cleanest burning fossil fuel, our natural gas resources can play an important role in the transition to a low carbon economy. Our clean LNG can make a global difference, by helping other nations reduce their use of coal-fired electricity.

Background:

Proponents	<p>Pacific NorthWest LNG is majority-owned by PETRONAS (62%).</p> <p>JAPEX (10%), Sinopec (10%), Huadian (5%), Indian Oil (10%) and PetroleumBRUNEI (3%) are also partners.</p>
Location	<p>Lelu Island within the District of Port Edward, near Prince Rupert</p>
Export Licence	<p>Approved - 25 years, with an annual volume of 19.68 million tonnes of LNG</p>
Environmental Assessment	<p>The project received an Environmental Certificate from the BC Government, with eight conditions.</p> <p>A decision from the federal government is still outstanding.</p>
Pipeline	<p>Prince Rupert Gas Transmission project (British Columbia Environmental Assessment certificate issued in November 2014)</p> <p>This pipeline is fully permitted.</p>
Estimated Investment	<p>\$11 billion (export facility), \$36 billion (including export facility, pipeline, upstream resources)</p>
Jobs	<p>Construction: 4,500 (peak construction)</p> <p>Operations: 330</p>
Latest Developments	<p>April 13, 2106: The Port of Prince Rupert is asking members of the Lax Kw'alaams to remove culture camps. Media are reporting that members of the Lax Kw'alaams plan to move forward building a cultural institution on Lelu Island.</p> <p>April 18, 2016: Media report First Nations are traveling to Ottawa to oppose Pacific NorthWest LNG.</p>

UPSTREAM JOBS

Topic: With the downturn in commodity prices, reporters are focusing on jobs lost in B.C.'s oil and gas sector.

- Commodity prices are cyclical and industry is challenged right now as a result of the marketplace.
- Our goal for the natural gas sector hasn't changed – market access is essential so B.C.'s industry can be successful and jobs can be sustained. Job prospects only increase with the opportunity to develop a LNG export industry.
- LNG proponents have told us the prospects of growth and investment remain strong. British Columbia will be the first province to benefit from a market rebound.
- In the interim, we are being proactive and providing prospective investors with certainty – so we create jobs at the same time companies are carefully managing their capital.
- For example, in February we announced our long standing infrastructure royalty credit program is now a three-year program, giving companies a longer timeframe to work capital expenditures into their plans.
- I (Minister Coleman) just returned from Japan where companies are still bullish about B.C.'s prospects. Our geographic location, skills training programs, and environmental leadership are competitive advantages.

- We have the foundation for a strong economy. The Conference Board of Canada recently reported B.C.'s economy is expected to grow by 2.7 per cent, outpacing all other provinces in 2016.

Alberta companies undermining rules (re PST):

- We have a very comprehensive compliance and enforcement system in place for the provincial sales tax.
- Auditors are in place. They have recovered thousands of dollars from Alberta companies since the provincial sales tax was re-instated back in 2013.

April 2016

Background:

With the downturn in commodity prices, reporters are focusing on job losses in B.C.'s oil and gas sector.

- According to a CBC Prince George report on March 8th:
 - Companies are slashing their work crews by up to 80%.
 - Energy Services BC has laid off 80% of their staff.
- Globe and Mail/Times Colonist, March 8th:
 - The Black Diamond Group (a worker camp operator) is responding by tackling costs and their workforce has been reduced by 130-140 people.
 - As of mid-February, Horizon North (another work camp operator) had a work force of just less than 1,200 - down 700 from the same time a year earlier.
- CBC online, March 14th:
 - An unnamed company that builds roads to gas leases had to cut 48 people from his crew of 60 workers.
- Alaska Highway News, April 14
 - Following Progress Energy's announcement that they will cut spending in the near-term, stakeholders are worried about jobs lost and people leaving Fort St. John.

Media (CBC Prince George) has also reported out on concerns raised by northern contractors who believe some Alberta companies are breaking the rules to get work in B.C.'s gas fields, and are sneaking equipment across the border to avoid the provincial sales tax.

The Conference Board of Canada's provincial outlook can be found [here](#).