

MINISTRY OF NATURAL GAS DEVELOPMENT

BRIEFING NOTE FOR INFORMATION

I PREPARED FOR: Honourable Rich Coleman, Minister of Natural Gas Development and Minister Responsible for Housing and Deputy Premier.

II ISSUE: Meeting with Mr. John McCallum, the Canadian Ambassador Designate to China

III BACKGROUND:

- China is the world's most populous country and largest consumer of energy, surpassing the United States in 2011. Energy demand in the country is being driven by high rates of economic growth. Demand for LNG in China is growing rapidly and the country is expected to become the largest importer of LNG by 2030, surpassing Japan, where consumption is expected to plateau.
- Over the next five years, one of the key drivers behind the growth of LNG imports into China are the long-term import agreements that have been signed by many of the national oil companies.
- In the longer term, China's efforts to address climate change and air quality issues will be key drivers of higher LNG import volumes. For example, environmental targets are driving a shift towards natural gas and away from coal in the power and heating sectors.
- Ambassador John McCallum was announced as Canada's Ambassador to China on January 10, 2017. Biography attached – see Appendix A.

China's LNG interests in British Columbia

- As a large and rapidly growing Asian importer of LNG, China is a key market for British Columbia's evolving LNG industry. This fact is reflected in the substantial role that Chinese companies (primarily State-Owned Enterprises) have as members of LNG proponent consortia or as potential LNG purchasers.
- The following Chinese companies have invested in the proposed LNG export facilities in British Columbia:
 - **PetroChina** has twenty percent ownership in the LNG Canada project based in Kitimat, B.C. (along with Shell, Korean Gas, and Mitsubishi – full capacity of twenty-four million tonnes per annum of LNG).
 - **Sinopec** has ten percent ownership, and **Huadian** has a five percent stake in the Pacific NorthWest LNG project based in Prince Rupert, B.C. (along with PETRONAS, JAPEX, Petroleum BRUNEI and Indian Oil Corp – full capacity of eighteen million tonnes per annum of LNG).
 - **CNOOC** through its wholly owned subsidiary Nexen is in a joint venture with INPEX and JGC in the Aurora LNG project based in Prince Rupert, B.C (full capacity of twenty-four million tonnes per annum of LNG).
- A number of Chinese companies have expressed interest in purchasing LNG from some of the proposed LNG export facilities in British Columbia.

- Both **Guangzhou Gas Group** and **Beijing Gas** have signed non-binding agreements with Woodfibre LNG. While no details are available on the Beijing Gas agreement, Guangzhou Gas has agreed to take one million tonnes per annum (or half of the facility's annual production) and could become a ten percent equity stake in the project. No volumes have been announced relating to the agreement with Beijing Gas.

British Columbia's MOUs with China's National Energy Administration (NEA)

- British Columbia has a Memorandum of Understanding (MOU) with China's National Energy Administration (NEA) on natural gas sector cooperation. The MOU is not legally binding and is designed to encourage cooperation primarily through information exchange. It builds on a 2012 MOU between the NEA and Natural Resources Canada on energy sector cooperation.
- Areas of cooperation include:
 - exchange of information on legislation, regulation, policies, programs, market outlooks, and other economic topics;
 - encouraging information exchange between the parties' business, educational and research sectors;
 - encouraging the participation of government and business representatives in each other's conferences, and networking more broadly;
 - encouraging participation through investment, exploration, production and infrastructure development in each other's natural gas sector; and,
 - facilitating the use of foreign workers, consistent with domestic priorities.
- This MOU runs to the middle of 2019 and can be readily cancelled, extended, or modified.

IV DISCUSSION:

Update on BC priorities

- Through the BC Jobs Plan, the Province is committed to supporting responsible development and growth of the natural gas sector, maximizing our capacity to supply clean energy to new global markets.
- Today there are approximately 20 LNG export proposals at various stages of development for which the National Energy Board has approved 18 export licenses. Four proposed export facilities have received environmental approval from both the federal and provincial governments, and five pipelines have also been approved. Another five facilities and one pipeline have entered into the environmental assessment.

Recent LNG Project Updates

LNG Canada

- On December 7, 2016, LNG Canada announced that they were in the midst of undertaking a new competitive process with a prequalified group of companies to identify a Construction Contractor as its prime contractor to manage all of the design and construction work required to build the facility.
- Prior to this, in July 2016, the joint venture participants announced that they had decided to delay a final investment decision for the project.

Pacific NorthWest LNG

- Since receiving federal approval for the Pacific NorthWest LNG, PETRONAS and their project partners have been reviewing every element of their proposal before a major investment decision can be finalized. The review includes consideration of an alternative site for the project's marine terminal and at a site on Ridley island, adjacent to Lelu island.
- On January 31, 2017, the federal and provincial governments, along with the Lax Kw'alaams Band and the Metlakatla First Nation, announced an Agreement on Environmental Monitoring for the Pacific NorthWest LNG project. This is the first agreement of this kind, and will see First Nations work directly with provincial and federal authorities as part of a committee to ensure the project is developed in the most environmentally sustainable way possible.

Aurora LNG

- On January 9, 2017, Aurora LNG's application for an Environmental Assessment Certificate was accepted by BC Environmental Assessment Office officially commencing the 180-day review period.
- As a part of the process, a 45-day public comment period will be held from January 16 until March 2, 2017. During this period public open houses will be held regarding the project.

Woodfibre LNG

- On November 4, 2016, Woodfibre LNG announced that its parent company – Pacific Oil and Gas – had authorized the funds necessary for the project to proceed. Construction is expected to commence in 2017 with the first shipments anticipated in 2020.
- Recently, the project has applied to the BC Environmental Assessment Office to have its Environmental Assessment Certificate amended to reflect design changes. Of the three design changes listed, the primary one comes as a result of the October 2016 vote by the Squamish Nation Chiefs and Council that will see the plant cooling system shift from seawater to air cooling.

Upcoming travel to Asia

- The Province of British Columbia will be participating at Gastech Exhibition and Conference April 4-7, 2017 in Tokyo, Japan, with a B.C. booth in the trade show as a part of the "Canadian Pavilion". The provincial delegation includes the Deputy Minister, Assistant Deputy Minister, LNG Task Force staff, as well as representatives from the BCLNG Alliance and First Nations LNG Alliance.

V CONCLUSION:

- Acknowledge the Ambassador's support for British Columbia as we continue to advance the Liquefied Natural Gas industry in this province.
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- The Ambassador might appreciate also knowing that China only represents 6.4 million tonnes of contracted LNG production or ten percent of the current volumes from the US gulf coast projects.
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- With 20 LNG export projects proposed, and currently over 3,400 trillion cubic feet of shale gas in place, we believe British Columbia is viewed as a preferred location for Chinese companies to invest.
- To date, four Chinese companies (PetroChina, Sinopec, Huadian, and CNOCC) have taken equity positions in LNG projects in British Columbia, with two others (Guangzhou Gas Group and Beijing Gas) having signed non-binding agreements with Woodfibre LNG.

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Appendix A – Biography of Ambassador John McCallum



John McCallum was first elected to the House of Commons in 2000. He was re-elected in 2004, 2006, 2008, 2011, and 2015.

Mr. McCallum has previously served as Parliamentary Secretary to the Minister of Finance, Vice-Chair of the Standing Committee on Citizenship and Immigration, and member of the Standing Committee on Finance. He served as Secretary of State (International Financial Institutions) from January to May 2002. From May 2002 to December 2003, he served as Minister of National Defence, and in 2003, as Minister of Veterans Affairs. In July 2004, he was appointed Minister of National Revenue and Chair of

the Expenditure Review Committee by Prime Minister Paul Martin. He recently served as the Critic for Citizenship and Immigration, Multiculturalism, and Seniors.

Before entering politics, Mr. McCallum was Senior Vice President and Chief Economist of the Royal Bank of Canada.

Mr. McCallum worked as a professor of economics at McGill University (1987-94), as well as at the Université du Québec à Montréal (1982-87), Simon Fraser University (1978-82), and the University of Manitoba (1976-78).

He is the author or co-author of eight books or monographs, and has written on fiscal and monetary issues, comparative macroeconomic performance of organization of economic co-operation and development (OECD) countries, Canada-U.S. economic integration, and other economic issues.

A native of Montréal, Mr. McCallum obtained a Bachelor of Arts from Cambridge University, a Diplôme d'études supérieures from the Université de Paris, and a doctorate in economics from McGill University. Mr. McCallum and his wife, Nancy Lim, have three children.

MINISTRY OF NATURAL GAS DEVELOPMENT

BRIEFING NOTE FOR INFORMATION

I PREPARED FOR: Honourable Rich Coleman, Minister of Natural Gas Development and Minister Responsible for Housing and Deputy Premier

II ISSUE: Meeting with Ambassador Ian Burney, the Ambassador of Canada to Japan, to provide an update on energy projects that are moving forward and First Nations support within the province.

III BACKGROUND:

- Currently, Japan is the world's largest importer of LNG, representing nearly one-third of the global demand in 2016.
- However, slower economic growth and Japan's ongoing intention to re-instate many of its nuclear power facilities are expected to put downward pressure on its demand for LNG. With that, China is now projected to surpass Japan to become the world's largest importer by 2030.
- Ambassador Ian Burney was appointed as Ambassador of Canada to Japan on July 19, 2016. Biography attached – see Appendix A.

Japan's LNG interests in British Columbia

- The following Japanese companies have invested in the proposed LNG export facilities in BC:
 - **Mitsubishi** has fifteen percent ownership in the LNG Canada project based in Kitimat, B.C. (along with Shell, KOGAS and PetroChina). At full capacity, this project will be exporting 24 million tonnes per annum (MTPA) of LNG.
 - **JAPEX** has ten percent ownership in the Pacific NorthWest LNG project based in Prince Rupert, B.C. (along with PETRONAS, Sinopec, Huadian, Petroleum BRUNEI, and Indian Oil Corp). At full capacity, this project will be exporting 18 MTPA of LNG.
 - **INPEX & JGC** are joint venture partners (with Nexen) in the Aurora LNG project based in Prince Rupert, BC. At full capacity, this project intends to export 24 MTPA of LNG.
 - **Idemitsu** is a partner with AltaGas in the Triton LNG project based in Kitimat, BC, as well as the Douglas Channel LNG project which had its development halted in February 2016. At full capacity, the Douglas Channel LNG project would produce 0.55 MTPA of LNG while Triton LNG intends to export just over 2 MTPA.
 - **Mitsui** has signed a Memorandum of Understanding (MOU) with Fortis (June 2014) for the joint feasibility study of a new (3-5 MTPA) LNG project in the Lower Mainland. At present, this group, including NextEra, is currently attempting to find a location for this project, which had previously been proposed on Tsawwassen First Nation's land. s.17,s.21 s.17,s.21

British Columbia's MOUs with JOGMEC and METI

- British Columbia has an MOU with the Japan Oil, Gas and Metals National Corporation (JOGMEC), signed during the Premier's 2012 Trade Mission to Japan and renewed during her 2016 mission. The MOU commits JOGMEC and BC to share information on natural gas development and associated technologies.
- The Province, based on a request, has also confirmed our interest in extending the MOU with Japan's Ministry of Economy, Trade and Industry (METI) to expand energy cooperation through the collaborative implementation of policies of mutual interest, and formalizing a framework to discuss possible areas of cooperation. We expect the MOU to be ready for signing over the next several weeks.

IV DISCUSSION:

Energy Projects Moving Forward

Woodfibre LNG

- On November 4, 2016, Woodfibre LNG announced that its parent company – Pacific Oil and Gas – had authorized the funds necessary for the project to proceed. Construction is expected to commence in 2017 with the first shipments anticipated in 2020.
- Recently, the project has applied to the BC Environmental Assessment Office (EAO) to have its Environmental Assessment Certificate (EAC) amended to reflect design changes. Of the three design changes listed, the primary one comes as a result of the October 2016 vote by the Squamish Nation Chiefs and Council that will see the plant cooling system shift from seawater to air cooling.

AltaGas' Ridley Island Propane Export Terminal

- On January 3, 2017, AltaGas announced a positive final investment decision (FID) on its Ridley Island Propane Export Terminal. Located just south of Prince Rupert, this project is expected to be the first propane export facility on Canada's west coast and will be designed to ship 1.2 million tonnes of propane per year. Construction is expected to commence in 2017.
- Astomos Energy Corporation – a joint venture between Idemitsu Kosan and Mitsubishi – has committed to taking fifty percent of the facilities exports. According to AltaGas, discussions with Astomos and other third party offtakers for further capacity commitments are preceding.

Trans Mountain Pipeline Expansion Project

- Over the past few months, the Trans Mountain Expansion Project has received approval to proceed from both the federal and provincial governments. The federal approval is subject to 157 conditions, while the provincial approval added a further 37 in response to concerns that have been raised by Aboriginal groups.
- The project is expected to commence construction in September 2017 with the expansion commencing operations at the end of 2019.

Pacific NorthWest LNG

- Since receiving federal approval for the Pacific NorthWest LNG, PETRONAS and their project partners have been reviewing every element of their proposal before a major investment decision can be finalized. The review includes consideration of an alternative site for the project's marine terminal and at a site on Ridley island, adjacent to Lelu island.
- On January 31, 2017, the federal and provincial governments, along with the Lax Kw'alaams Band and the Metlakatla First Nation, announced an Agreement on Environmental Monitoring

for the Pacific NorthWest LNG project. This is the first Agreement of this kind, and will see First Nations work directly with provincial and federal authorities as part of a committee to ensure the project is developed in the most environmentally sustainable way possible.

Aurora LNG

- On January 9, 2017, Aurora LNG's application for an EAC was accepted by EAO, officially commencing the 180-day review period.
- As a part of the process, a 45-day public comment period will be held from January 16 until March 2, 2017. During this period, public open houses will be held regarding the project.

LNG Canada

- On December 7, 2016, LNG Canada announced that they were in the midst of undertaking a new competitive process with a prequalified group of companies to identify a Construction Contractor as its prime contractor to manage all of the design and construction work required to build the facility.
- Prior to this, in July 2016, the joint venture participants announced that they had decided to delay an FID for the project.

First Nations Support

- The Province is taking a "three pillars" approach for engagement with First Nations that provides social, environmental, and economic benefits to garner support for LNG development across the entire value chain.
- To date, the Province has 62 agreements with 29 of 32 eligible First Nations along the northern proposed pipeline routes.

Gastech Exhibition and Conference and the Spotlight on Canada Event

- The Province will be participating at Gastech 2017 with a booth in the trade show as a part of the "Canadian Pavilion". The provincial delegation includes the Deputy Minister, Assistant Deputy Minister, LNG Task Force staff, as well as representatives from the BCLNG Alliance and First Nations LNG Alliance.
- The Province is planning a "Spotlight on Canada" event to be hosted by the Canadian Ambassador, Ian Burney at the Embassy of Canada to Japan. The event will take place on April 3, 2017, from approximately 3:30 to 6:00 pm, immediately prior to the Gastech VIP Reception and Dinner.
- The Spotlight Event program will include speakers for approximately one hour from 4:00 to 5:00 pm to showcase Canada's competitiveness to the international investor community, followed by networking opportunity for LNG and value-add natural gas buyers and sellers at a reception from 5:00 to 6:00 pm.
- The invitation only event will be a unique opportunity to connect with and strengthen relationships with C-level industry executives.
- We expect approximately 50 to 100 people to attend, and are planning to hold the event in the B2 theatre, and the B2 lobby for the reception portion at the Embassy.

V CONCLUSION:

- Acknowledge and thank the Ambassador's support for BC as we continue to advance the LNG industry in this province.
- With approximately 20 LNG export projects proposed, and currently over 3,400 trillion cubic feet of shale gas in place, BC should be a preferred location for Japanese companies to invest.

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Appendix A – Biography of Ambassador Ian Burney



Mr. Burney graduated in 1985 from McGill University, Montreal, with a Bachelor of Arts with honours in Political Science, and in 1986 from University of Toronto, with a Master of Arts in International Relations. Mr. Burney joined the Department of External Affairs in 1987, and has held a range of positions in Ottawa and diplomatic postings overseas.

Abroad, Mr. Burney served as Third and Second Secretary at the Canadian Embassy in Bangkok from 1989 to 1991, and as Consul and Senior Trade Commissioner at the Consulate General of Canada in Ho Chi Minh City, in Vietnam from 1995 to 1997.

In Ottawa, Mr. Burney was seconded as a Policy Analyst at the Foreign and Defence Policy Secretariat in the Privy Council Office from 1993 to 1995. At Global Affairs Canada, he has occupied a number of positions in the US, Asia Pacific and Trade Policy branches. He served as the Director of the Trade Controls Policy Division from 1999 to 2002, Director of the Trade Remedies Division from 2002 to 2004, Director General of the Bilateral and Regional Trade Policy Bureau from 2004 to 2006, and as Chief Trade Negotiator (Bilateral and Regional), in the Trade Policy and Negotiations Branch from 2006 to 2009. From 2009 to 2011, Mr. Burney served as Assistant Deputy Minister of the International Business Development, Investment & Innovation Branch and from 2011-2015, as Assistant Deputy Minister, Trade Policy and Negotiations. In July 2015, Mr. Burney was appointed Assistant Secretary to the Cabinet in the Economic and Regional Development Policy Secretariat in the Privy Council office.

In February 2015, Mr. Burney was the recipient of the 2014 Outstanding Achievement Award (OAA) of the Public Service of Canada. The OAA is distinct from other awards as it is the Prime Minister's Award and accords the highest expression of recognition for senior leaders in the Public Service of Canada.

Mr. Burney was appointed as Ambassador of Canada to Japan on July 19, 2016 and presented his credentials to His Majesty the Emperor of Japan on September 21, 2016.

Mr. Burney is married and has four children.

MINISTRY OF NATURAL GAS DEVELOPMENT

BRIEFING NOTE FOR INFORMATION

- I PREPARED FOR:** Honourable Rich Coleman, Minister of Natural Gas Development and Minister Responsible for Housing and Deputy Premier
- II ISSUE:** Meeting with Woodfibre LNG, First Nations, local Members of the Legislative Assembly, local Members of Parliament and representatives of the Regional District of Squamish regarding housing and municipal tax.

III BACKGROUND:

- Woodfibre Project Overview – see Appendix 1

Project Progress

- Woodfibre LNG is currently undertaking a study to understand the implications of an air cooling system, including noise modelling, in preparation for filing for an amendment to their Environmental Assessment Certificate.
- It is expected that the review period for the amendment will be approximately three months with a three week public comment period.
- Discussions have commenced between BC Hydro and Woodfibre regarding their electricity supply and load interconnection agreements.
- Woodfibre is also working towards finalization of an Impact Benefits Agreement (IBA) with the Squamish First Nation (SFN).
- Woodfibre is schedule to commence its early works program at the project site during the first quarter of 2017.
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Municipal Taxation

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- The majority of LNG proponents prefer a negotiated tax agreement with the municipality in which it is located or where it expects to retain services because an agreement creates certainty and predictability over time. With Provincial facilitation,

tax agreements have been completed for the District of Port Edward s.13
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- Proponents and communities will have an opportunity to negotiate agreements consistent with their particular situations, and the s.13
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- The Woodfibre LNG site is within the boundaries of the District of Squamish, is zoned for heavy industrial development, and is located on Howe Sound.
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Housing

- The Woodfibre LNG project will require housing for staff and workers while the terminal is constructed. s.16,s.17
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IV DISCUSSION:

Housing

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Municipal Taxation

- On January 17, the District of Squamish was to table a resolution to hire Heurtistic Consulting Associates to assist the District in negotiating and finalizing the tax agreement with Woodfibre.
- The cost is estimated at \$32,800 and the District is proposing Woodfibre pay for the services of Heurtistic Consulting.

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V CONCLUSION:

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**MINISTRY OF NATURAL GAS DEVELOPMENT
BRIEFING NOTE FOR INFORMATION**

I PREPARED FOR: Honourable Rich Coleman, Minister of Natural Gas Development and
Minister Responsible for Housing and Deputy Premier

II ISSUE: Approval of an expropriation by ARC Resources Ltd. for the purposes of a sales
line

III BACKGROUND:

On November 17, 2016, ARC Resources Ltd. (ARC) received a pipeline permit from the Oil and Gas Commission to construct a sales line, which is part of a project consisting of a well site, a flow line and the sales line. The planned sales line will cross some private property, and ARC was unable to negotiate an entry agreement with the landowners of three parcels affected by the proposed sales line.

Normally when a company is unable to negotiate access with a landowner to conduct surface activities, the company applies to the Surface Rights Board for a right of entry order. However, the Surface Rights Board does not have authority over sales lines*. Under the *Oil and Gas Activities Act* (OGAA), a pipeline permit holder who is unable to obtain an entry agreement to construct a pipeline, is entitled to expropriate, under the *Expropriation Act*, land necessary for constructing and operating the pipeline.

IV DISCUSSION:

On November 29, 2016, ARC issued expropriation notices to the owners of three parcels of land required for construction of the sales line. ^{s.22}

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The minister responsible for OGAA is designated as the approving authority for the expropriation under the *Expropriation Act*. If the expropriating authority, in this case ARC, has complied with all procedures under the *Expropriation Act*, the Minister, as approving authority, must

- approve the expropriation, and
- notify the expropriating authority and each owner of the land, of the approval in writing. The form of the approval is prescribed under the *Expropriation Act* (Form 5).

Legal Counsel for ARC wrote to Minister Coleman on December 2, 2016 requesting approval of the three expropriations and enclosed a copy of the expropriation notices and other documents providing evidence that ARC has complied with the requirements under the *Expropriation Act*.

The Expropriation Act does not provide a mechanism for the appeal of expropriation orders for linear developments such as pipelines.

* The Surface Rights Board only has jurisdiction over “flow lines”. A flow line connects a well with a processing plant while a “sales line” connects a processing plant with the gas transmission system and the regional natural gas market.

V CONCLUSION:

As ARC has complied with all the necessary procedures under the *Expropriation Act*, the three attached Form 5s must be signed and dated by the Minister.

Once signed and dated, they should be returned to the Policy and Royalty Branch, Upstream Development Division, so that they can be delivered by registered mail to the expropriating authority and landowners.

Attachments:

<i>Expropriation Act</i> Form 5 (ARC – s.22)
<i>Expropriation Act</i> Form 5 (ARC – s.22)
<i>Expropriation Act</i> Form 5 (ARC – s.22)
Expropriation Notice (for information only)	
Expropriation Notice (for information only)	
Expropriation Notice (for information only)	

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* The Surface Rights Board only has jurisdiction over “flow lines”. A flow line connects a well with a processing plant while a “sales line” connects a processing plant with the gas transmission system and the regional natural gas market.