#### OOP FOI PREM:EX

From: Meggs, Geoff PREM:EX
Sent: September 29, 2018 8:26 AM

To: Lloyd, Evan GCPE:EX

Cc: Wright, Don J. PREM:EX; Wanamaker, Lori FIN:EX; Plecas, Bobbi IGRS:EX; Nikolejsin, Dave EMPR:EX;

Zadravec, Don GCPE:EX; Kristianson, Eric PREM:EX; Gibbs, Robb GCPE:EX; Aaron, Sage PREM:EX;

Kouri, Rosa GCPE:EX; Howlett, Tim GCPE:EX

**Subject:** Re: Latest draft of communication materials - Friday pm

These look good

Geoff

Sent from my iPad

On Sep 28, 2018, at 5:12 PM, Lloyd, Evan GCPE:EX <Evan.Lloyd@gov.bc.ca> wrote:

Please note attached latest announcement package. The News release has been somewhat modified from Wed. draft, as has the FN backgrounder. Note that we have restricted reference to the key numbers as \$40b (full value chain); \$24b (BC direct investment); and \$22b est revenue. Checked these with LNGC and they are using same.

NOT included are premier's speaking notes (possibly for distribution).

Decision required with respect to quote for PJH for inclusion in LNGC news release (do we want this, and what quote) and likewise, inclusion of LNGC quote in our release?

For Sunday brief I presume we also need Q&A and KMs.

I have not seen the stakeholder list from LNGC, however our stakeholder plan is also pending. Evan

#### **OOP FOI PREM:EX**

From: Kristianson, Eric PREM:EX

Sent: September 28, 2018 7:07 AM

To: Nikolejsin, Dave EMPR:EX

Cc: Lloyd, Evan GCPE:EX

**Subject:** Re: List of Transmission or Industrial Customers

s.13

Thanks.

Eric Kristianson ADM Strategic Issues Division GCPE

On Sep 27, 2018, at 9:19 PM, Nikolejsin, Dave EMPR:EX < Dave.Nikolejsin@gov.bc.ca > wrote:

s.13

From: O'Riley, Christopher < Chris.Oriley@bchydro.com>

Sent: September 27, 2018 11:45 AM

To: Nikolejsin, Dave EMPR:EX < <u>Dave.Nikolejsin@gov.bc.ca</u>>
Cc: MacLaren, Les EMPR:EX < <u>Les.MacLaren@gov.bc.ca</u>>
Subject: List of Transmission or Industrial Customers

Dave, here is the list of customers paying the standard industrial tariff rates — essentially the full list of

our customers connected to the transmission system.

We can provide more detail as required.

This email and its attachments are intended solely for the personal use of the individual or entity named above. Any use of this communication by an unintended recipient is strictly prohibited. If you have received this email in error, any publication, use, reproduction, disclosure or dissemination of its contents is strictly prohibited. Please immediately delete this message and its attachments from your computer and servers. We would also appreciate if you would contact us by a collect call or return email to notify us of this error. Thank you for your cooperation.

#### OOP FOI PREM:EX

From: Kennedy, Christine PREM:EX Sent: October 2, 2018 11:23 AM

To: Kristianson, Eric PREM:EX; Faust, Marnie L GCPE:EX

**Subject:** Final Technical Presentation

**Attachments:** Technical Briefing Postive FID - FINAL.pptx

#### **Christine Kennedy**

Office of the Premier, Deputy Minister's Office 272 West Annex, Parliament Buildings | Victoria, BC | V8V 1X4 Ph: (250) 356-2206

# Implications of Positive LNG Canada FID

**Update and Technical Briefing** 

October 2, 2018



### **OUTLINE OF TECHNICAL BRIEFING**

- I. Anticipated Benefits of Positive FID by LNG Canada
- II. GHG Emissions Impact
- III. B.C. Climate Plan



## I. Anticipated Benefits of Positive FID by LNG Canada



#### NEW GOVERNMENT APPROACH TO LNG

- Following the 2017 election, the new government asked the Ministries of Energy, Environment and Finance to develop a new framework for LNG that could
  - Be accommodated within B.C.'s climate plan
  - Fit B.C.'s commitment to reconciliation with Indigenous Peoples
  - Establish cost-competitive conditions for the industry
  - Maximize financial benefits to B.C. through major investment, job creation and government revenues



#### SUSTAINABLE SHARED PROSPERITY PARADIGM

- Cabinet asked the ministries to approach this analysis recognizing that economic development, climate action and reconciliation are parallel and mutually dependent priorities
- This approach acknowledges that
  - The resources to support reconciliation and climate action must come from economic growth
  - Reconciliation is fundamental to growing B.C.'s economy
  - Economic growth has to fit within a low-carbon industrial strategy that enables B.C. to meet carbon goals



#### WHAT DOES THIS MEAN?

- It is about raising the standard of living of all British Columbians
- Industries that:
  - Create high-wage jobs
  - Generate healthy net government revenues to invest in people
  - Provide reconciliation opportunities with First Nations
  - Look after the environment.
  - Are less GHG-intensive than their counterparts in the rest of the world
  - Help the world reduce GHG emissions
- Knitting B.C. back together by having prosperity shared by everybody in all parts of the province



#### LNG FRAMEWORK

- Apply Industrial Electricity Rates instead of LNG rates
- PST Exemption Regulation for construction
- Elimination of LNG Income Tax and retain natural gas tax credit
- Clean Growth Incentive Program available to LNG projects
- Operating Performance Payment Agreement



#### LNG CANADA ECONOMIC IMPACTS

#### The project is expected to:

- Provide significant net government revenue over the next 40+ years
- Provide significant economic benefits for First Nations from Northeast B.C. to Kitimat
- Provide good jobs and economic activity in a part of the province that has faced economic challenges

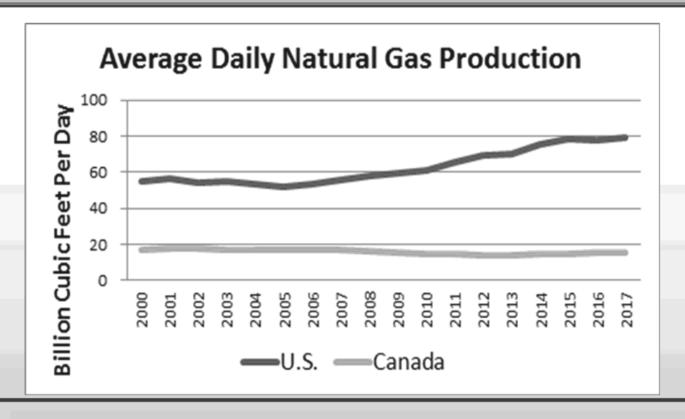


#### BETTER RETURN ON PUBLIC RESOURCE

- The project will significantly increase revenues realized from the public's resource
- The increase in revenue arises from being able to redirect natural gas from the oversupplied North American market to growing demand in Asia

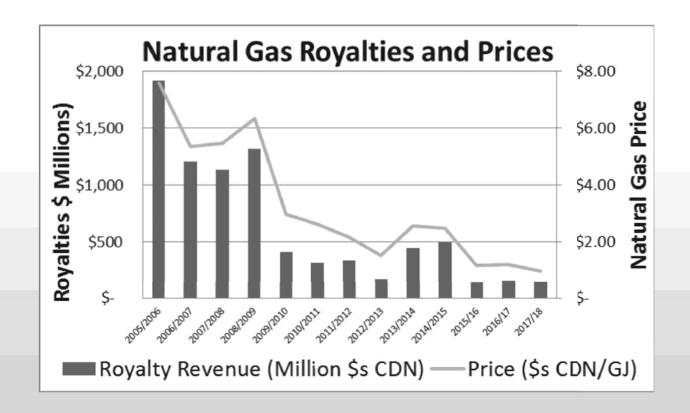


## INCREASE IN NORTH AMERICAN PRODUCTION IN RECENT YEARS



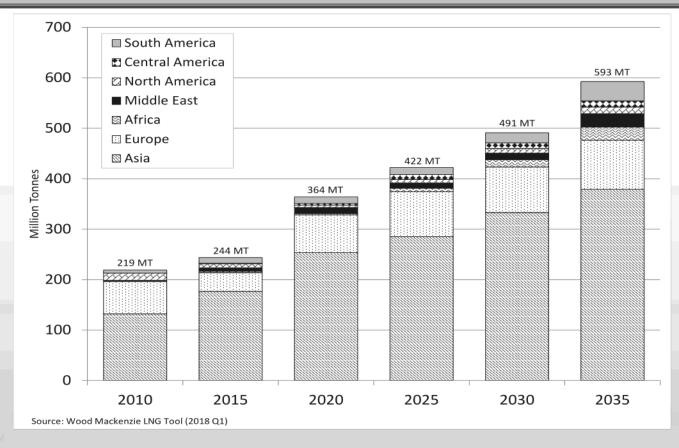


## NATURAL GAS PRICES AND B.C. GOVERNMENT REVENUES SINCE 2008





# PROJECTED LNG DEMAND GROWTH, PARTICULARLY IN ASIA





## BOTTOM LINE: SIGNIFICANT INCREASE IN GOVERNMENT REVENUE

- The Ministries of Energy, Mines and Petroleum Resources, and Finance have estimated that the project will generate \$23 billion in net direct government revenue over the next 40 years
  - Significantly more if "multiplier" effects are taken into account



#### RESPECTFUL PARTNERSHIP WITH FIRST NATIONS

- LNG Canada and the related Coastal GasLink natural gas pipeline have secured support from First Nations
- The proposed LNG facility will be located in the territory of the Haisla Nation, who have indicated their strong support for LNG Canada's proposed activities
  - Haisla Nation businesses have already been involved in various aspects of development of the facility, including site preparation, forestry work and environmental services
- Coastal GasLink signed community and project agreements with all 20 of the elected First Nations bands along its pipeline route



#### SIGNIFICANT FIRST NATIONS WORKFORCE BENEFITS

- LNG Canada has invested in various workforce development initiatives such as the Pathways to Success program, an employment readiness and job development program
- Coastal GasLink Pipeline Project has conditionally awarded \$620 million in contract work to northern B.C. Indigenous businesses
- Through the life of the Project LNG Canada will provide billions of dollars to First Nations in capacity building, training and education, contracting and employment and community payments.



#### **JOBS AND TRAINING**

- Construction employment peaks at 10,000 jobs in the next 36 months (in 2021)
- LNG Canada has agreed to place priority on local, then B.C. hiring
- Target of 25% apprenticeships
- LNG Canada will follow best practices to maximize First Nations participation
- Ongoing direct operational employment (2024-2063) of 950 FTEs
- Construction and operational employment is expected to be primarily high-wage jobs



#### AN ECONOMIC BOOST FOR NORTHWEST B.C.

- Northwest B.C. has faced numerous economic challenges over the past 20+ years, leading to outward migration of its people
- Percentage change in population 2001-17:

• Greater Vancouver: + 42%

• Capital Region: + 15%

North Coast Nechako - 19%

This is a chance to turn that around



# II. IMPACT ON GREENHOUSE GAS EMISSIONS



# LNG CANADA WILL INCREASE B.C.'S GHG EMISSIONS

Forecast LNG Canada Phase 1 GHG Emissions	Upstream GHGs	Midstream GHGs	Facility GHGs	Total GHGs
B.C. Government estimate (Fall 2018)  LNG production - 14 Mt per year	1.24 M	0.11 M	2.10 M	3.45 M



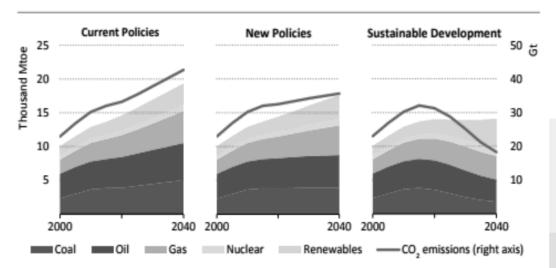
#### THINKING GLOBALLY WHILE ACTING LOCALLY

- B.C. will meet its obligations under the 2015 Paris Agreement
- In particular, B.C. will meet its legislated targets for reductions in GHGs
  - 40% by 2030
  - 60% by 2040
  - 80% by 2050
- But the international dimension should be noted



## NATURAL GAS WILL BE PART OF THE WORLD'S ENERGY MIX FOR DECADES

World primary energy demand by fuel and energy-related CO<sub>2</sub> emissions by scenario



The flattening of emissions in 2014-2016 is a pause in a slower upward journey in the New Policies Scenario, but a turning point in the Sustainable Development Scenario

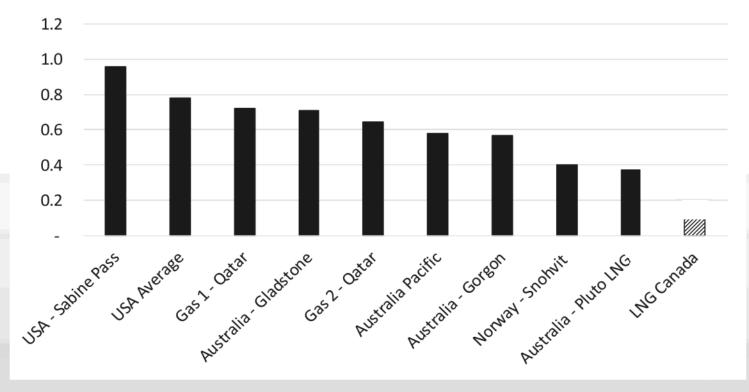
Source: World Energy Outlook International Energy Agency, 2017



#### LNG GREENHOUSE GAS EMISSIONS INTENSITY

#### **Emissions Intensity**

(tonnes of CO2e emissions per tonne of LNG produced)





#### **B.C.'S CHOICE**

- In addition to the the facility, our Climate Plan will reduce emissions in the upstream and midstream
  - B.C.'s LNG will be the greenest LNG in the world
    - Methane fugitive emissions regulations
    - Upstream electrification with renewables
- B.C. can choose to supply low GHG-intensive gas, helping to reduce the world's carbon footprint
- Or we can leave this demand to be supplied with higher GHG-intensive gas from other parts of the world



## III. Climate Plan

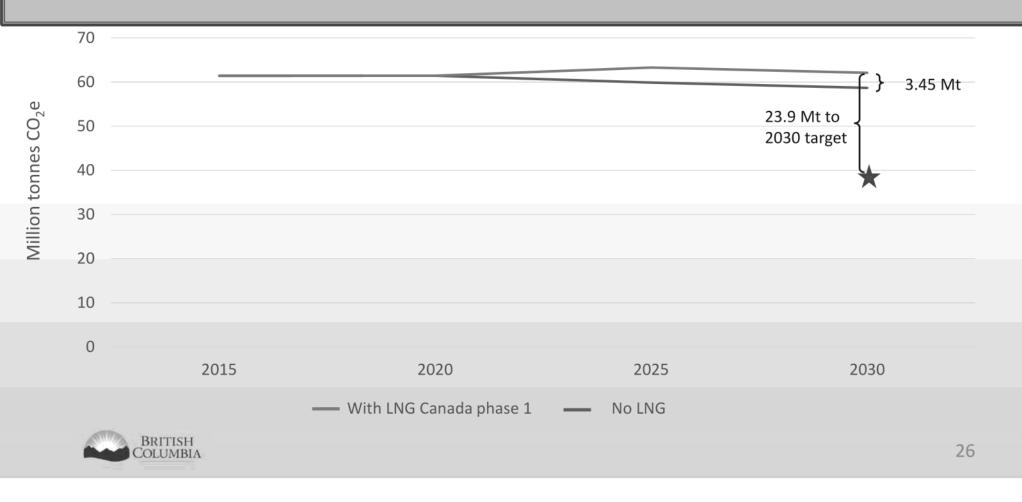


#### **CLIMATE PLAN**

- Government is committed to meeting its climate goals
- Ministry of Environment and Climate Change Strategy is developing a Climate Plan
- Accommodating LNG Canada within our climate goals is possible, but we must make greater progress on
  - Electrification of transport and heating
  - Implementing strategies that enable all B.C.'s industries to be the least GHG-intensive per unit of output in the world



## OUR 2030 CHALLENGE WITH/WITHOUT LNGC



#### NEW APPROACH TO CLIMATE ACTION

- Clear momentum:
  - Climate Change Accountability Act passed in 2018 to introduce emissions targets for 2030 and 2040
  - Carbon tax will increase by \$5/tonne each year to \$50/tonne by 2021
  - Climate Solutions and Clean Growth Advisory Council established to provide strategic advice to government

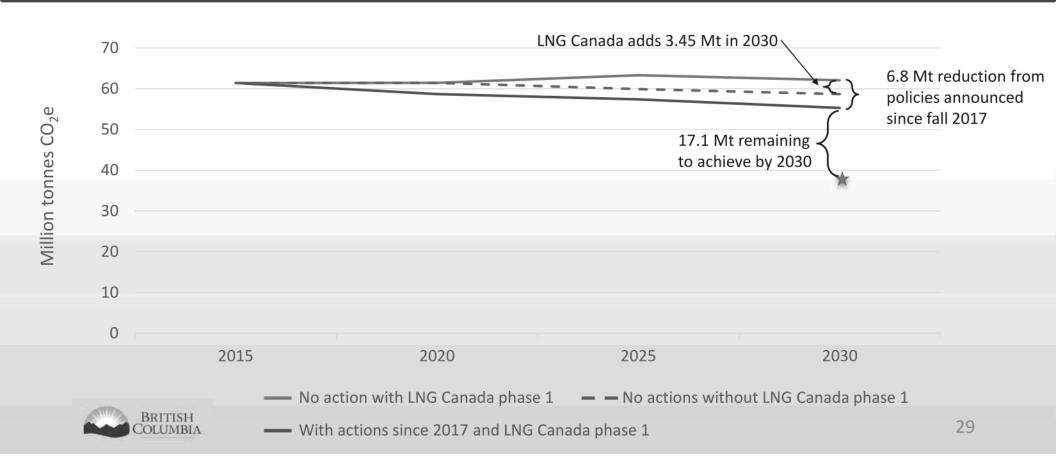


## POLICY CHANGES SINCE FALL 2017

Initiative	GHG reductions in 2030 Mt CO₂e
Carbon tax to \$50/t	1.7
Increasing \$5/ year until 2021	1.7
Clean growth program for industry	
Incentive fund with repayments of carbon tax over \$30/t depending on performance against GHG	2.5
intensity benchmark; Investment Fund to support GHG reducing projects	
Methane fugitive emissions regulations	
Emissions reductions in upstream oil and gas in line with Federal Regulations (40-45%) by 2023	0.8
Upstream electrification	1.5
New transmission lines and interconnectivity to existing lines (BC Hydro)	1.3
Federal Heavy Duty Vehicles regulations/ carbon pricing	
2018 Federal Heavy Duty Vehicle Regulations and the implementation of the Federal carbon price in	0.3
jurisdictions without their own qualifying program	
TOTAL	6.8 Mt



# THESE CHANGES HAVE ALREADY SET US ON THE PATH TO REDUCING GHGs



### MORE ACTIONS PLANNED

- Phase 1 intentions papers 2018
  - Towards a Clean Growth Future for B.C.
  - Clean Transportation
  - Clean, Efficient Buildings
  - A Clean Growth Program for Industry
- Phase 2 intentions papers will cover:
  - Adaptation to climate change
  - Communities
  - Waste
  - Public sector leadership
  - Transportation infrastructure
  - Biofuels

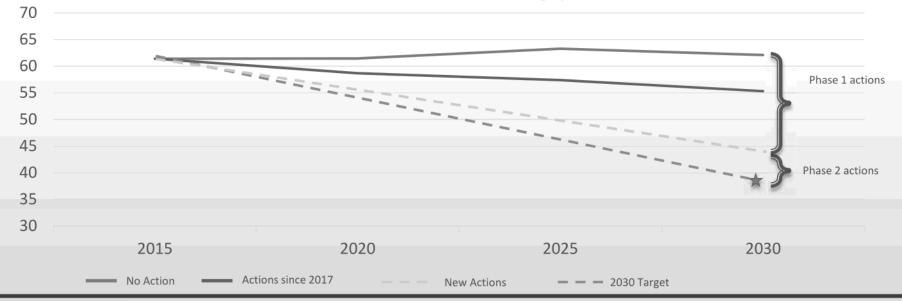




#### CLIMATE PLAN THIS FALL

Fall strategy will outline a clear pathway to long term targets:

- Phase 1 actions in 2018 narrowing the gap to 2030 target by 75%
- Phase 2 actions for consultation in 2019 to close the gap to 2030





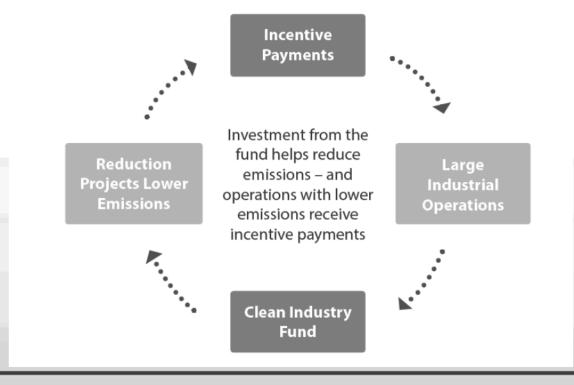
#### PUTTING THE CARBON TAX TO WORK

Clean Growth Program uses the carbon tax revenues from industry to support GHG reductions:

- Industrial incentives encourage and reward leading low carbon operations
- Clean Industry Fund supports investment in new low carbon technology



### WORKING WITH INDUSTRY TO REDUCE EMISSIONS







#### OOP FOI PREM:EX

From: Lloyd, Evan GCPE:EX
Sent: October 1, 2018 10:27 AM

**To:** Kristianson, Eric PREM:EX; Zadravec, Don GCPE:EX

Subject: Deck

**Attachments:** Technical Briefing Postive FID - Sunday 1026 pm PDF.pdf

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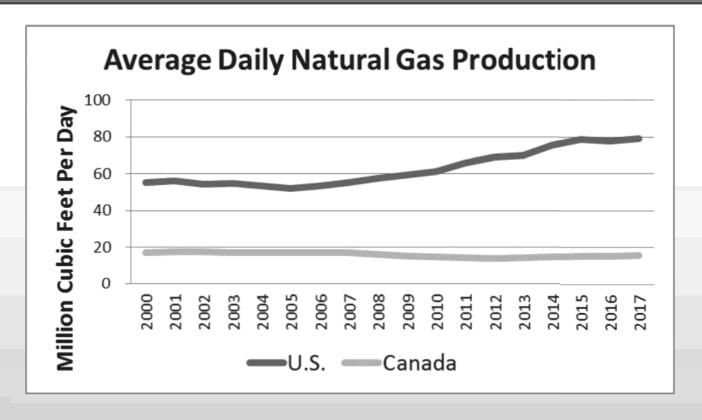


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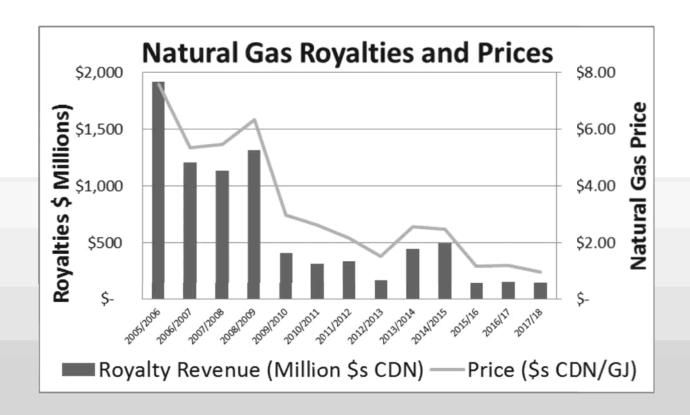


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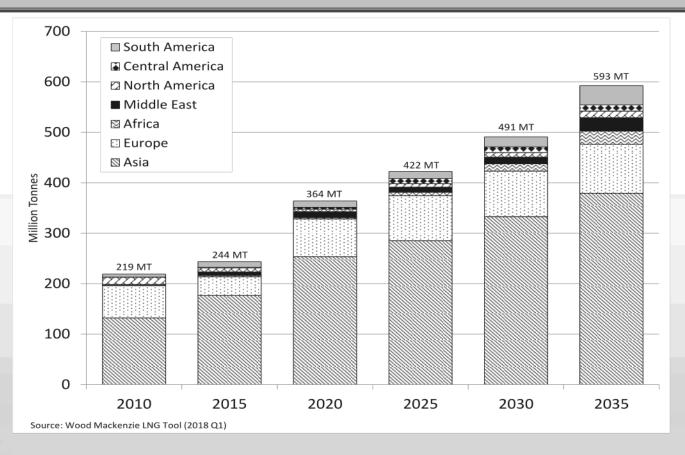


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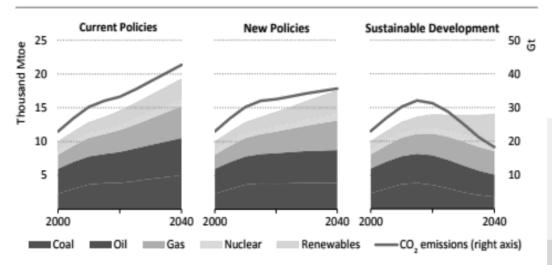
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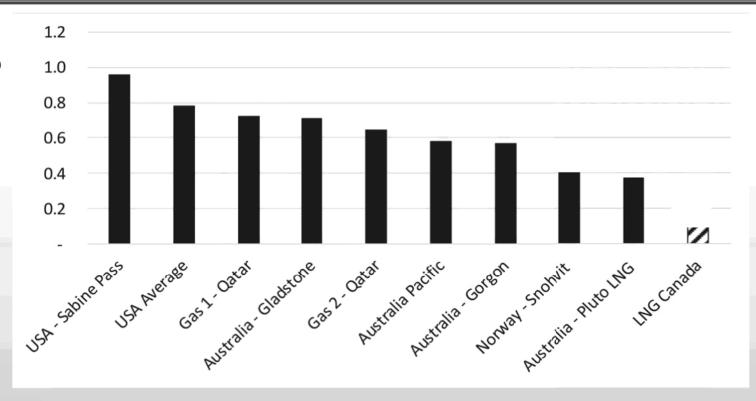
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#### Emissions Intensity (tonnes of CO2e emissions per tonne of LNG produced)





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### III. Climate Plan



#### Climate Plan

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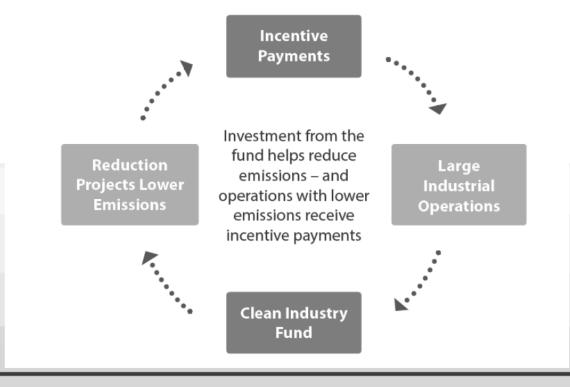
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