Newfoundland and Labrador’s Energy Future:
Capitalizing on Prospectivity

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Noia Fall Seminar
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Overview

- Global Supply/Demand – Oil
  - Newfoundland and Labrador – Production Forecast

- Current Offshore Trends

- Capitalizing on Prospectivity

- Working Together
Global Energy Mix (Percent Share of Demand)

Current

- Oil: 32%
- Coal: 22%
- Gas: 28%
- Hydro: 5%
- Nuclear: 5%
- Other Renewables: 3%

Future

- Oil: 29%
- Coal: 25%
- Gas: 6%
- Hydro: 4%
- Nuclear: 7%
- Other Renewables: 23%

*Average of Exxon, BP, IEA, IEEJ, WEC forecasts*

30% Growth by 2040
Global Crude Oil Reserves by Country

Venezuela: 301 billion barrels
Saudi Arabia: 266 billion barrels
Canada: 170 billion barrels
Iran: 158 billion barrels
Iraq: 143 billion barrels
Kuwait: 102 billion barrels
UAE: 98 billion barrels
Russia: 80 billion barrels
Libya: 48 billion barrels
Nigeria: 37 billion barrels
United States: 35 billion barrels
Kazakhstan: 30 billion barrels
China: 26 billion barrels
Qatar: 25 billion barrels

Includes 165 billion barrels of oil sands reserves

Source: Oil & Gas Journal Dec. 2016 & AER 2017
The World Wants More Canada

- **CAPP Global Energy Pulse**
  - International research into global perceptions about oil, natural gas, Canada, and our opportunities in the world’s energy future.
  - 32 countries, more than 22,000 people worldwide.

- **Findings**
  - Citizens around the world want to have access to more oil and natural gas in their future energy mix.
  - By a 2:1 margin, citizens around the world would prefer to get their oil from countries that have climate change policies, such as Canada.
  - If given the chance, citizens would prefer to buy oil and natural gas from Canada more than from any other country in the world.
Environmental Protection Spending by Industry 2012 – Billions of Dollars

Source: Statistics Canada
Canadian Oil Production
Newfoundland Offshore Production
Estimated Offshore Well Spend by Region (2017)

Total Spend: $53.5 Billion

- Africa: 12.0%
- Europe: 18.0%
- India, Asia & Australia: 10.5%
- Latin America: 25.5%
- Middle East: 15.0%
- North America: 2.0%
- Russia/FSU: 17.0%

Source: IHS Petro data, Barclays Research
Newfoundland and Labrador Competes Against 160 Countries
Global Trend: Shorter Project Cycles

Average size of conventional resources sanctioned and time-to-market
World Energy Investment 2017

[Graph showing the average size of resources sanctioned and time-to-market for different categories such as Other offshore, Global average, Onshore, and Deepwater offshore, comparing the period 2010-2014 and 2016-2017.]
Comparison of Wells Drilled – Norway, NL, UK

- **Norwegian Offshore**
  - # of Development Wells: 12

- **NL Offshore**
  - # of Development Wells: 2000

- **UK Offshore**
  - # of Exploration Wells: 7000
Canadian Oil and Gas Policy Challenges

- There are between 40 and 50 policy priorities being advanced by governments across Canada that could increase the operating costs of our upstream oil and gas industry.

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<th>Federal Priorities</th>
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<td>NEB Modernization</td>
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<td>West Coast Oil Tanker Moratorium</td>
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<td>CEAA Review</td>
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<td>Federal Carbon Pricing</td>
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<td>Changes to Canadian Exploration Expense</td>
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<td>Federal Methane Emissions Reduction Framework</td>
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<td>Clean Fuel Standards</td>
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<td>Oceans Act Amendments</td>
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- At the same time the U.S. is moving forward with an agenda designed to grow and enhance the competitiveness of its fossil fuel industry.
## Layering of New Costs in Newfoundland and Labrador

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<th>Source of Cost</th>
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<td>Elimination of Investment Tax Credit</td>
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<td>Carbon Policy</td>
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<td>New NL Generic Oil Royalty Regime</td>
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<td>Lack of Standardization</td>
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<td>Offshore Petroleum Board – Cost Recovery</td>
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How Does NL Capitalize on Prospectivity?

- More exploration, including increasing the number of wells drilled
  - Address regulatory inefficiencies (environmental assessments, prescriptive requirements)
  - Stimulate new exploration activity with competitive fiscal incentives

- Encourage new development and extend the life of existing projects
  - Reduce costs (capital and operating)
  - Reduce regulatory and fiscal uncertainty
  - Support innovation

*It will take all parties working together to capitalize on our offshore potential.*
Thank You
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