

A sunset over a vast blue ocean. The sun is low on the horizon, casting a golden glow across the sky and reflecting on the water. The sky is filled with soft, white and blue clouds. The overall mood is serene and hopeful.

Imagine the Potential

Canada's Offshore Oil & Gas Industry
MNL – AGM
November 15, 2019



About Noia

- Newfoundland & Labrador Oil & Gas Industries Association, founded in 1977
- Represent supply and service sector in Canada's offshore oil & gas industry
- Approximately 500 member companies worldwide
- **Core members** provide products and services for the petroleum industry
- **Associate members** are operators, trade associations, education, government
- Noia is a strong advocate for safe, environmentally responsible industry development



Supply & Service

Offshore Supply

- From providing supplies to conducting work on installations.

Medical Services

- Including offshore medical facilities, health care staff, and emergency situations companies ensure the health & safety of those who work offshore.

Safety & Equipment

- From supplying lubricants to fire extinguishers, companies support industrial needs offshore.

Human Resources & Project Management

- Companies provide workforce solutions in areas such as project management, engineering, and IT.

Helicopter Transportation

- Transportation and search & rescue to offshore installations.



Diverse membership includes: restaurants, bakery, hotels

Noia's Three Pillars

ADVOCATE • INFORM • ENGAGE

ADVOCATE

Supply Chain Study

- Quantify the value of NL offshore supply chain spending
- How has the supply chain changed?
- Where are the future opportunities for the NL supply chain?
- Includes research, statistical analysis (StatsCan), & Noia member interviews



Industrial Baseline Study

- To better understand the capabilities of Noia members
- Highlight areas of expertise & areas of growth for the industry of the future
- Inform Noia supplier development approach
- Surveying over 300 Noia members through interviews



INFORM

Today's Bulletin - March
05, 2019

www.noia.ca or follow us:



THE NOIA
DAILY BARREL

Upcoming Events

 [See meetings and conferences](#)

Commodity Prices

 [View today's oil and gas prices](#)

Brent Crude Oil 65.84
Natural Gas 2.88

Business Opportunities

1. [EOI: Back-up Diesel Air Compressor - Wood](#)
2. [RFP/Tender: Supply Chromalox Vertical Heaters - Nalcor Energy - Oil & Gas](#)
3. [RFP/Tender: Supply Reciprocating Air Compressors - Nalcor Energy - Oil & Gas](#)
4. [RFP/Tender: Supply Bolts & Nuts As Requested - Nalcor Energy - Oil & Gas](#)
5. [RFP/Tender: Design and Supply of Composite Insulators & Associated Hardware - Nalcor Energy - Oil & Gas](#)
6. [RFP/Tender: Supply of Power Transformers Radiator - Nalcor Energy - Oil & Gas](#)
7. [RFP/Tender: Supply of Switches and Relays "No Substitutes" - Nalcor Energy - Oil & Gas](#)
8. [RFP/Tender: Public Safety Around Dams Risk Assessment and Public Safety Boom Design - Nalcor Energy - Oil & Gas](#)
9. [RFP/Tender: Lobstick Audit Dam Safety Review - Nalcor Energy - Oil & Gas](#)
10. [RFP/Tender: Star Lake Overhead Door Safety Feature Upgrades - Nalcor Energy - Oil & Gas](#)
11. [RFP/Tender: Supply & Delivery of Steel Plate for New Vertical Fuel Storage Tank - Nalcor Energy - Oil & Gas](#)
12. [RFP/Tender: In Place Machining of Turbine Components at the Bay D'Espoir Generating Station - Nalcor Energy - Oil & Gas](#)



ENGAGE

Subsea Integration Alliance – March 27

- OneSubsea & Subsea 7
- For future subsea projects

Equinor Canada – October 10

- Kvaerner Canada / Aker Solutions & Wood / Kiewit
- Pre-FEED for Bay du Nord project

Economic Impact Report



Current Value NL

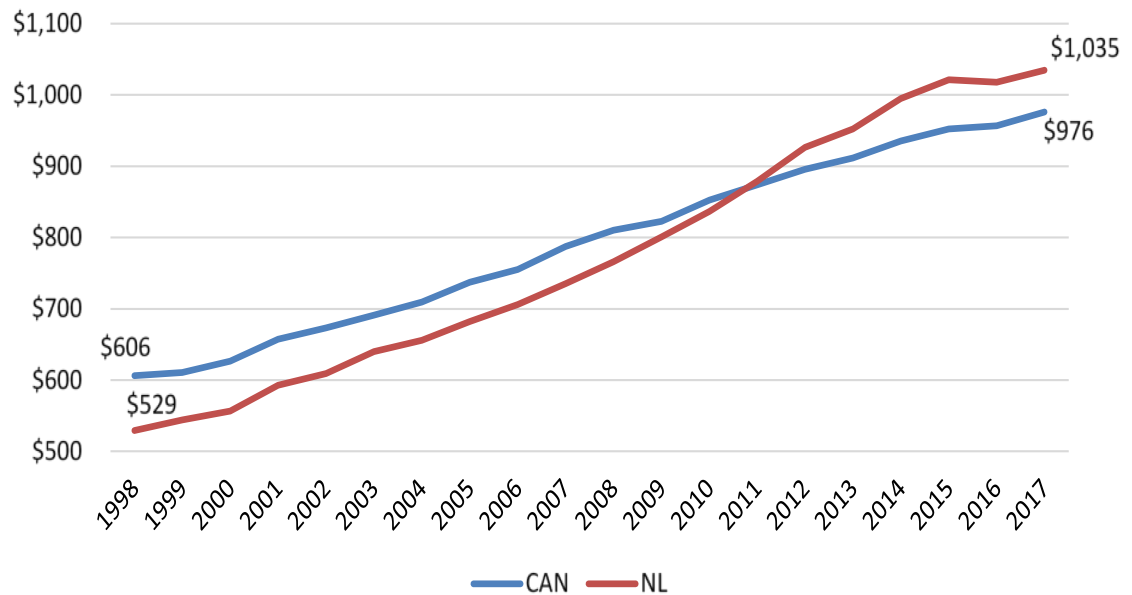
At peak the industry contributed **36% of GDP**

- currently provides 23% (\$6.1 billion)

Largest industry in NL (larger than next three combined)

NL average weekly wage **6% higher** (2017) than Canadian average – led by high wages in oil & gas industry

Figure 4: Average weekly wage: All industries combined, Newfoundland and Labrador, Canada*



*including overtime. Source: Statistics Canada Survey of Employment, Payrolls and Hours.

Current Industry Value

Newfoundland & Labrador	Rest of Canada
~\$2 billion in labour income	\$755 million labour income
\$1.45 billion in consumer spending	\$561.5 million consumer spending
Over \$1.4 billion revenue (tax & royalty)	\$680 million tax revenue
23,500 direct, indirect, & induced jobs	10,600 indirect, & induced jobs

1.8 jobs created in Canada for every 1 direct job in NL



Industry Future



West White Rose (CGS)



First production in 2022

- Located in Jeanne d'Arc Basin
- 350 kms offshore, 120 m water depth
- CGS constructed at a purpose-built graving dock in Argentina, NL

CGS:

- 210,100 tonnes
- 145 m height
- 122 m base diameter



Bay du Nord



- Discovered 2013; Framework Agreement signed July 2018
- Located in a new basin - Flemish Pass
- Approximately 500 kms from shore and
- 1,200 m depth
- ~300 million barrels in reserve
- Sanction expected 2021, with first oil 2025
- FPSO for extraction
- \$10.9 billion project cost for the life of the field
- R&D investment of \$300M over project life: \$75M for subsea tech, digitalization or renewable energy
- Gender equity & diversity plan

Exploration Campaign

10 drilling program summaries have been submitted by 8 operators

Upwards of 100 wells proposed in the applications

ExxonMobil Carson & Flemish Basins ✓

equinor Flemish Pass Basin ✓

BHP Orphan Basin

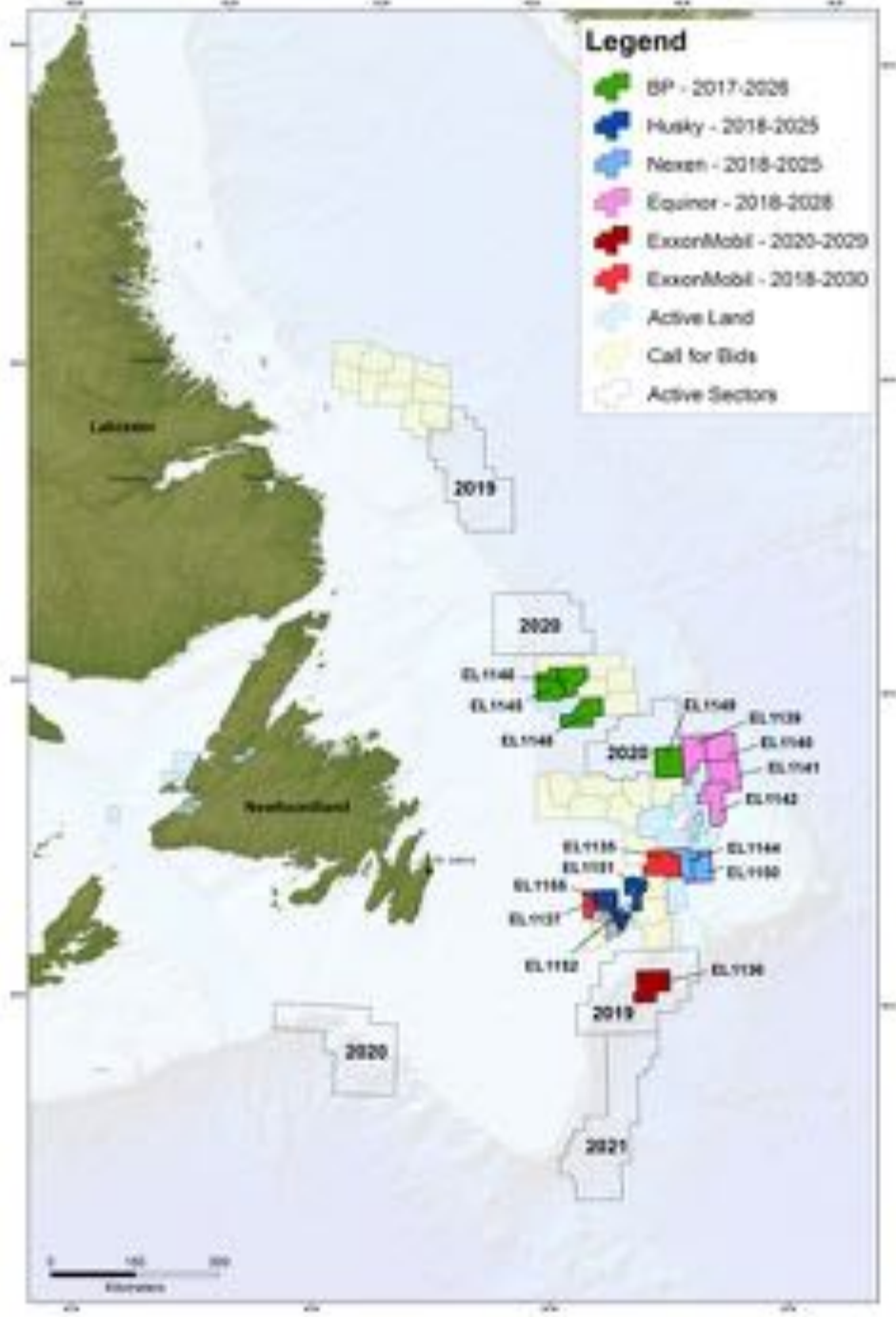
bp Orphan Basin

Husky Jeanne d'Arc Basin

NOOC Flemish Pass Basin

SUNCOR ENERGY Jeanne d'Arc Basin

Chevron Flemish Pass



OFFSHORE RESOURCE ASSESSMENT

52.2 BILLION
BARRELS OF OIL 

 **199.6 TRILLION**
CUBIC FEET OF GAS

Identified in independent resource assessments
representing just 9% of Offshore NL potential.



8 NEW ENTRANTS & \$3.9 BILLION
IN NEW WORK COMMITMENTS IN RECENT YEARS

Future Industry Value

Newfoundland & Labrador	Rest of Canada
\$100 billion royalties & taxes (2019-2045)	\$3.3 billion tax revenue (in 2033)
\$4.6 billion labour income (more than doubling)	\$1.6 billion labour income (more than doubling)
\$3.5 billion in consumer spending (more than doubling)	\$1.2 billion consumer spending (more than doubling)
56,000 jobs	22,700 jobs

2.3 jobs created in Canada for every 1 direct job in NL

Current Infrastructure Impact

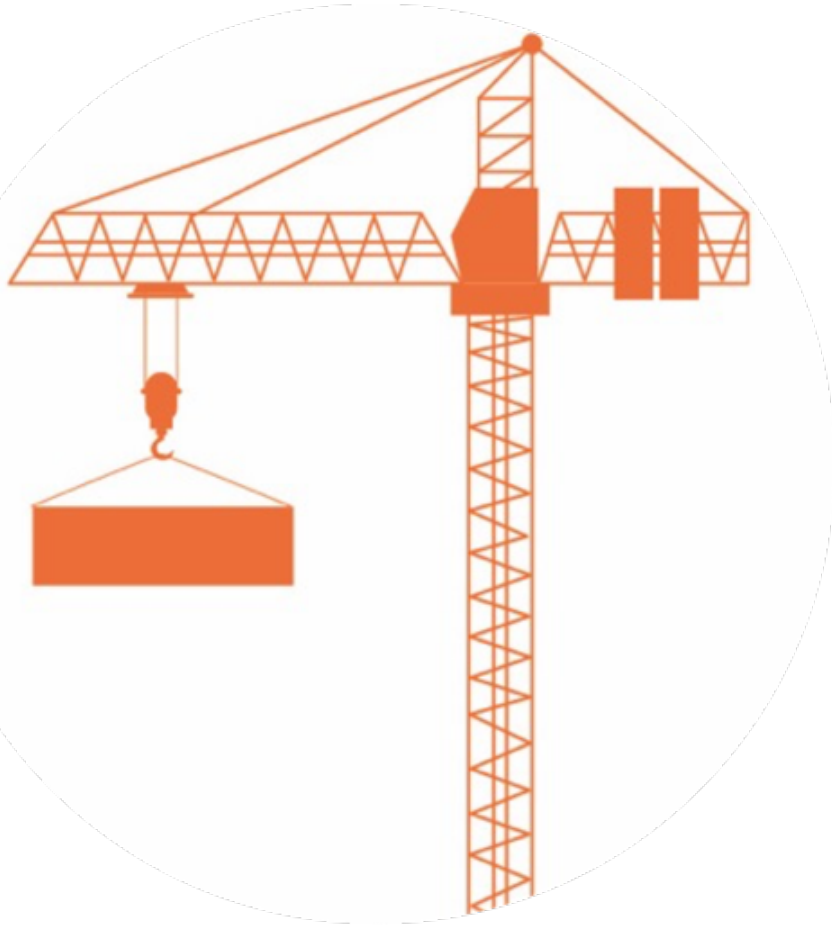
\$18.9 billion worth of capital expenditures in NL between 2013 and 2017 from oil & gas industry.

- This equals 40% of all capital expenditures across the total economy.

In 2017, taxes and royalties from oil & gas generated enough revenue to:

- Fund the entire capital investment program (roads, buildings, etc.) of the provincial government
- Fund the provincial government's transportation and municipal support budgets combined, with funding leftover.

Future Infrastructure Impact



Economic Impact Model Predicts:

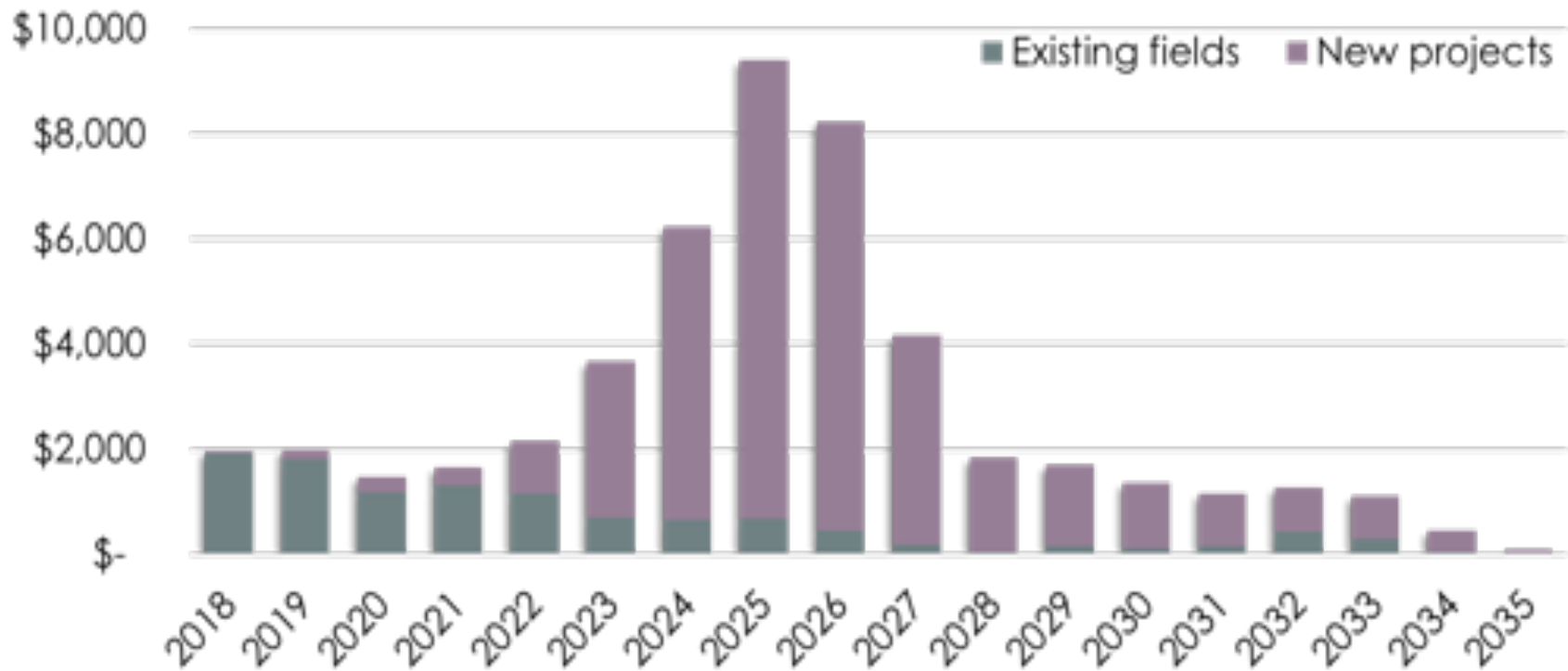
\$37 Billion in new capital infrastructure from 2018-2033.

Average of \$2.3 Billion per year.

Peak spend of over \$6 Billion per year between 2023-2027

Future Infrastructure Impact

Estimated capital investment pattern in Newfoundland and Labrador required to reach 650,000 barrels/day by 2030 (\$millions)



All values are shown in 2018 dollars

International Opportunities

- Guyana & Suriname are frontier areas with opportunities for Noia members
 - 3rd Trade Mission October 2019
- Evaluating Columbia & Gulf of Mexico
- Traditional partners in U.K. & Norway



Global Demand

World energy consumption will grow by 50% between now and 2050.

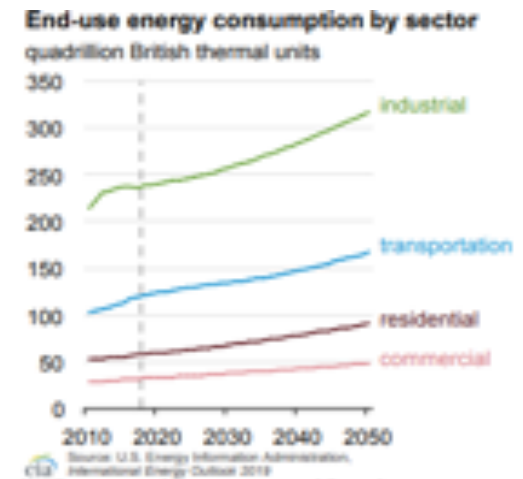
Growth led by non-OECD Asia

Largest and fastest-growing region for energy consumption

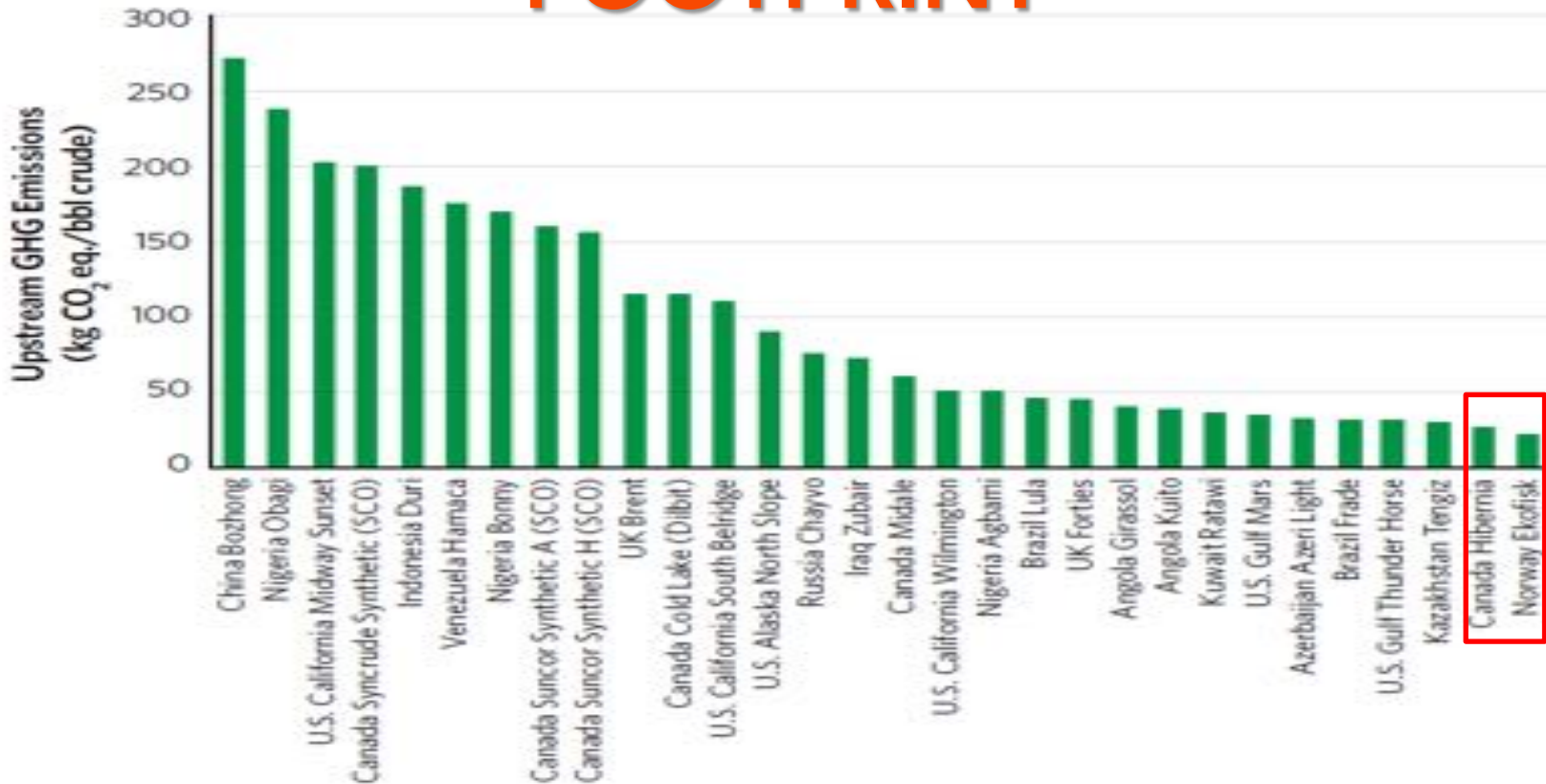
Petroleum & natural gas product consumption is outpacing supply in Asia.

Globally, the industrial sector – mining, manufacturing, agriculture and construction – will account for more than half of end-use energy consumption between now and 2050.

(US Energy Information Administration)



GLOBALLY COMPETITIVE CARBON FOOTPRINT



Hibernia & Norwegian Ekofisk oil are among the lowest upstream emissions per barrel of oil in the world.

Our Impact

Newfoundland and Labrador's offshore oil production generated ~0.23% of Canada's total Co₂ upstream emissions (2017).



PETROLEUM PRODUCTS AND YOU

Did you know that petroleum is a key ingredient in the products that we use every day?



PETROLEUM IS USED TO MAKE...

MEDICINE

TOILETRIES

TOOTHBRUSH



ELECTRONICS

CANDLES

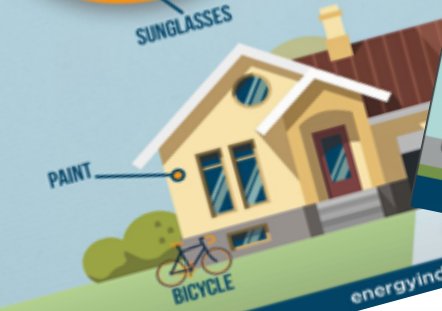
SUNGLASSES

CLOTHING



PAINT

BICYCLE



energyindepth.org

PETROLEUM PRODUCTS AND YOU

OIL AND GAS MATERIALS USED IN HOSPITALS TO SAVE LIVES



- 1. MEDICINE / CHILDPROOF CONTAINERS / PILL COATINGS
- 2. BOX OF LATEX GLOVES
- 3. EXAMINATION EQUIPMENT (EAR SCOPE ETC.)
- 4. EXAMINING TABLE
- 5. SOAP / HAND SANITIZER
- 6. BIOHAZARD DISPOSAL BINS
- 7. COMPUTERS



- 1. ANESTHETICS
- 2. X-RAYS / MRIS
- 3. STERILIZATION TRAYS
- 4. IVs
- 5. DOCTOR'S SCRUBS
- 6. LIGHTS
- 7. MONITORS

WHEELCHAIRS

EYEGLASSES

CRUTCHES

CASTS



HEARING AIDS

PACEMAKERS

ARTIFICIAL HIPs

PROSTHETIC LIMBS

AMBULANCE

HOSPITAL

HELICOPTER

BACKUP GENERATOR



energyindepth.org



Noia Conference

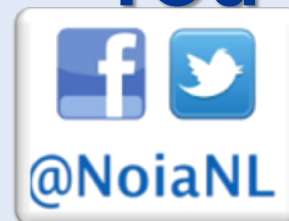


June 1- 4, 2020

Noia

I  NL
Oil & Gas
ImagineThePotential.ca

Thank
You



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