

# Oil & Gas Economics During the COVID-19 Crisis

An overview of the Oil & Gas Industry and FCL's economic prospects

# The Economics of a Refinery

1. Refinery profits straddle the difference in price between the raw resource and the price of finished product comprising gasoline (39%), diesel (27%), jet fuel & fuel oils (17.4%) and other petroleum products (16.4%).
2. Refiners buy the least expensive raw resource they can process.
  - a) Most refineries in Canada are not equipped to run high-Sulphur Heavy Oil, typically the most inexpensive raw crude.
  - b) The Co-op Refinery's ARDs Unit (heart of the Upgrader) makes running inexpensive high-Sulphur Crude oil possible, and highly profitable.

# Oil and Gas Revenue and Net Profit

	WCS	WTI	DIFFERENTIAL	Price at Pump Gasoline	Price at Pump Diesel	Profit at refining	Profit at Pump	Net Profit	FCL's Net Energy Profits
	USD			USD per Barrel/Gallon					CAD
Scenario 1 (Theoretical)	\$10	\$10	\$0	\$.89	\$1.19	\$0.10 - \$0.25	\$0.04-0.06	\$0.14 - \$0.31	
Scenario 2 (2012)	\$85.00	\$94.00	\$9.00	\$3.60	\$3.96	\$0.38 - \$0.95	\$0.15 - \$0.23	\$0.55 - \$1.18	\$694 Million
Scenario 3 (2018)	\$38.33	\$64.90	\$26.57	\$2.79	\$3.38	\$0.31 - \$0.77	\$0.12 - \$0.19	\$0.43 - \$0.96	\$926 Million

**Note: In 2018, although overall refining Net Profit was down approximately 20% for the energy sector from 2012 to 2018, FCL managed to increase net profit by 33%. This is due to the differential pricing between WCS (Western Canadian Select) and WTI (West Texas Intermediate), illustrated left.**

## What makes up the price of a litre of Fuel?

Four costs go into pump price: crude oil, taxes, refiner margin, and marketing margin.

1. 40 - 55 per cent is crude oil costs
2. 25 - 35 per cent is federal, provincial and municipal taxes and the GST
3. 10 - 25 per cent is the refiner's margin
4. 4 - 6 per cent is the retail margin that covers retail stations' expenses and profits.

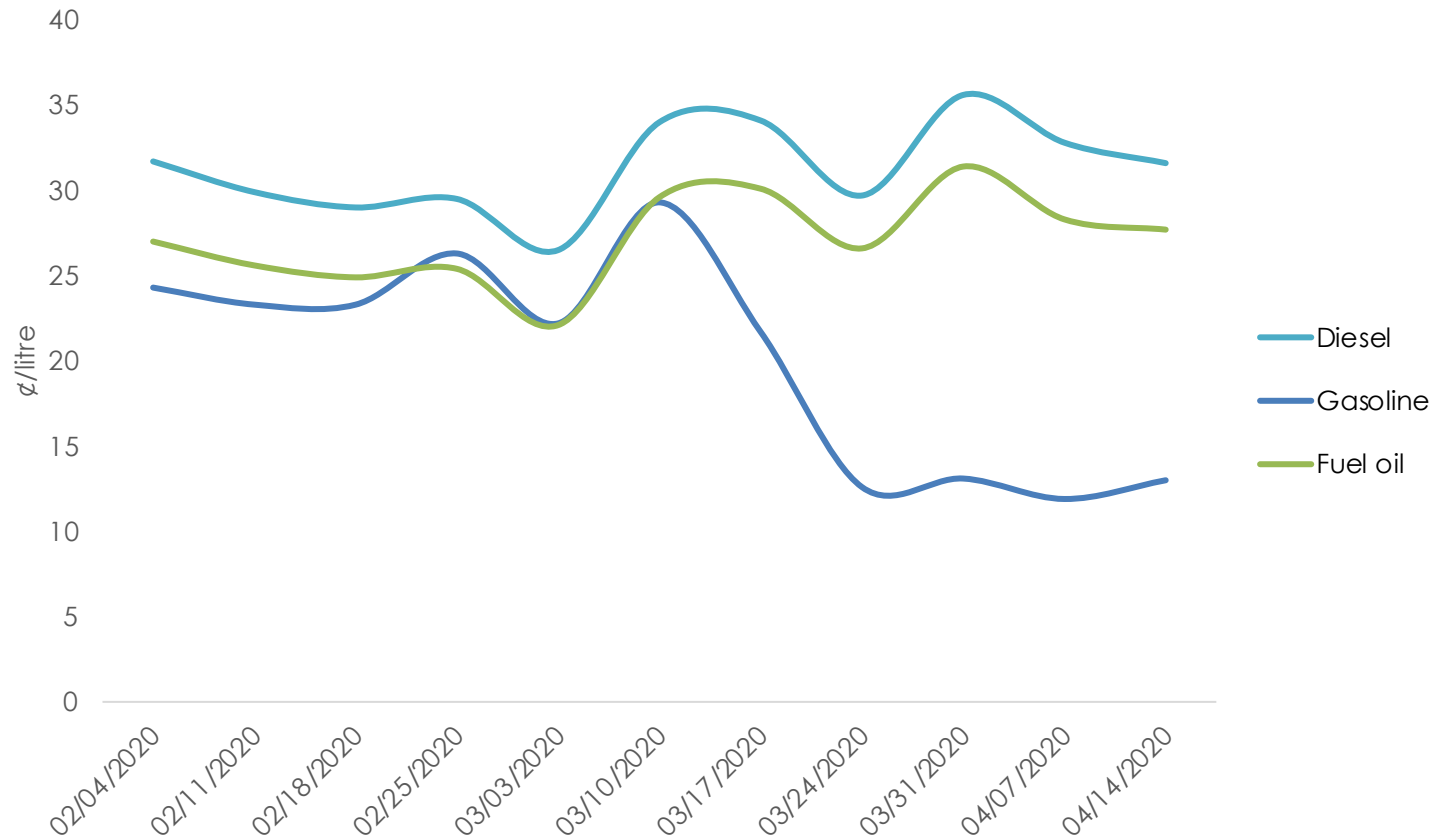
## Sources:

Shell Oil Company  
 US Energy Information Administration  
 FCL

# Refinery Margins during COVID19

1. While refinery margins have decreased for unleaded gasoline during the crisis, they have in fact increased for diesel and other petroleum oils, which together make up the bulk of most refineries' output in Canada (see next slide).
2. These margins should increase further as gasoline prices will rebound more quickly due to consumer demand while crude oil prices will take longer to recover given the current supply glut. This means the cost of refinery inputs will remain low while their mark-up will increase as the economy recovers.
3. The fact that FCL is involved solely in oil refining suggests that it is, in fact, well-positioned to take *more* profits from the eventual economic rebound.

# Refinery Margins during COVID19



Source: Kent Group – Daily Pump Price Survey

# Additional Context

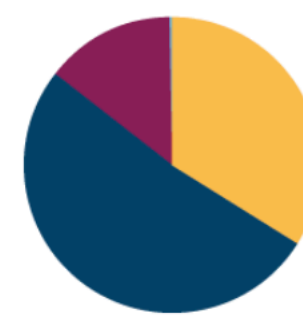
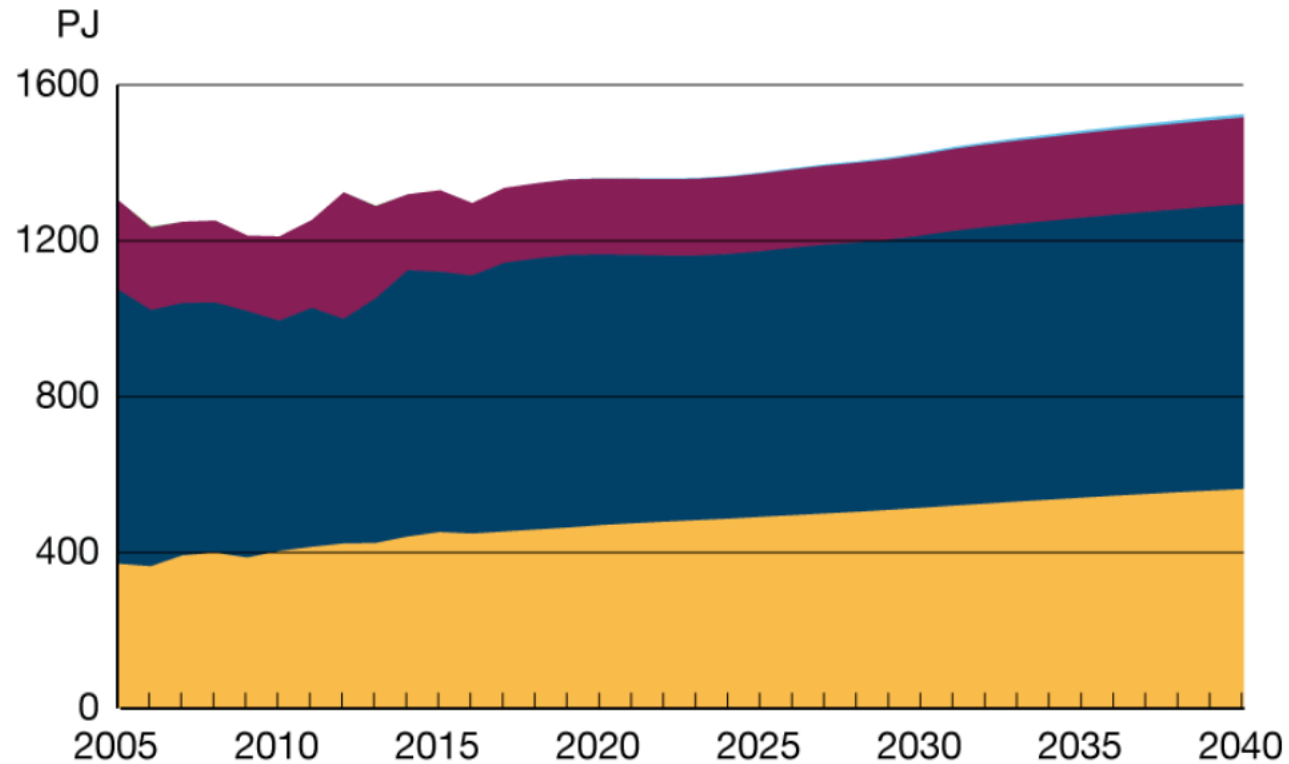
1. Of the 16 refineries in Canada Co-op experiences the lowest possible raw Crude Oil prices available, while enjoying the same sales margins as every refiner in Canada.
2. On top of these margins, Coop also benefits on a profit margin between WCS and WTI Crude Oil Prices by having a heavy oil upgrader , against for example Irvine Oil which purchases at Brent Oil price, even higher than WTI.
3. While it's not untrue that the oil and gas industry will feel the economic impact of the Russia/Saudi price war and COVID-19, FCL is more sheltered than any other refiners by:
  - a) Not being in extracting,
  - b) Operating a Heavy Oil Upgrader, and
  - c) Having its own product supply chain/retails

# Projections

1. Although the collapse in demand due to COVID-19 is having a deep short-term impact on the price of crude oil – only made worse by the price war – this fall in demand is not due to cyclical or structural economic factors, but instead, has been caused by an unexpected pandemic.
2. As lockdown measures are gradually relaxed and a vaccine becomes available, the economic rebound will be rapid and demand for oil will resume its previous upwards trajectory.
3. According to long-term projections made by Canada Energy Regulator (CER), demand for oil products will increase by 2040 due to rising demand in industry and commercial sectors.
4. By 2040, oil production in Canada is expected to increase by 40%. In Saskatchewan, it is projected to nearly double, from 489,000 to 835,000 barrels/day.

# CER Projections

## Commercial energy demand grows steadily



2018



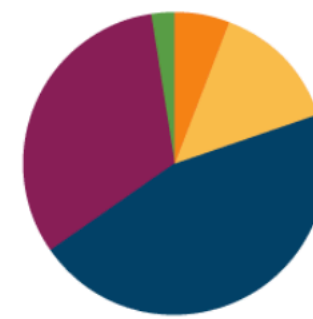
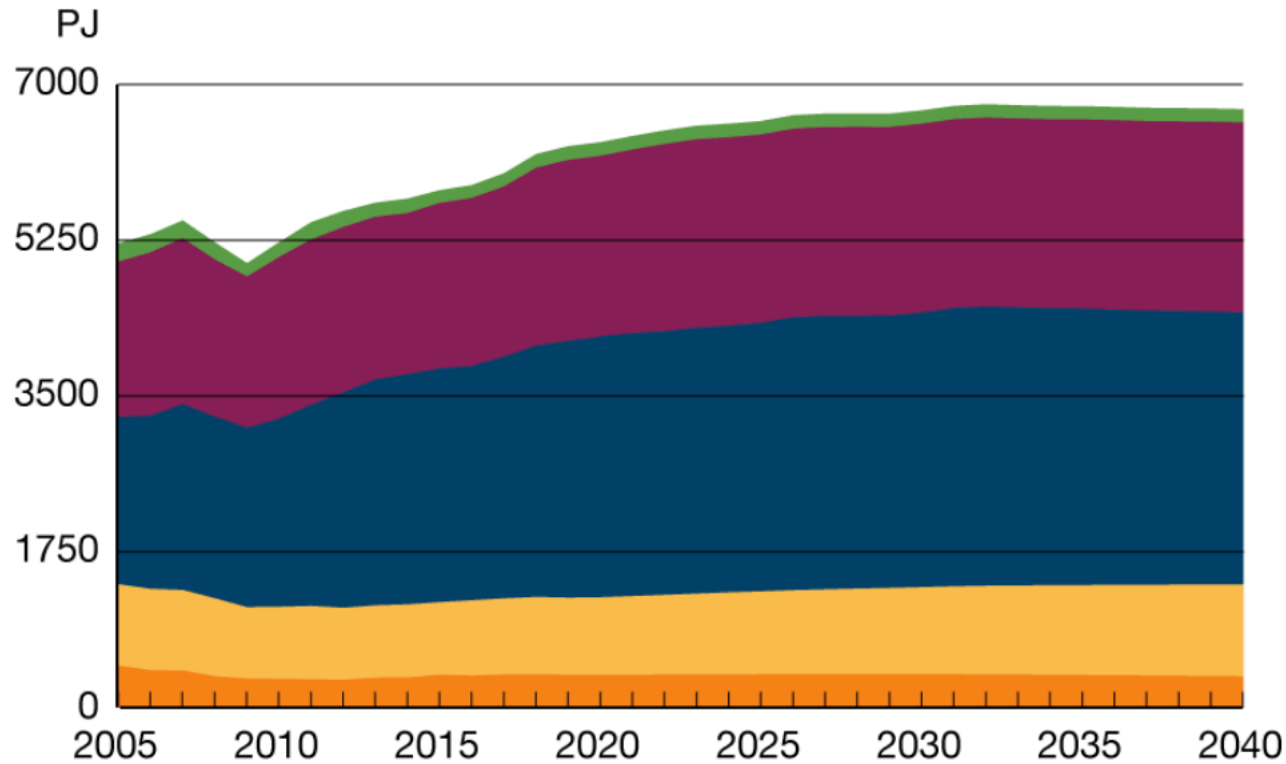
2040

- Biomass
- Electricity
- Natural Gas
- Oil Products
- Solar and Geothermal
- Other



# CER Projections

## Industrial demand increases, led by natural gas



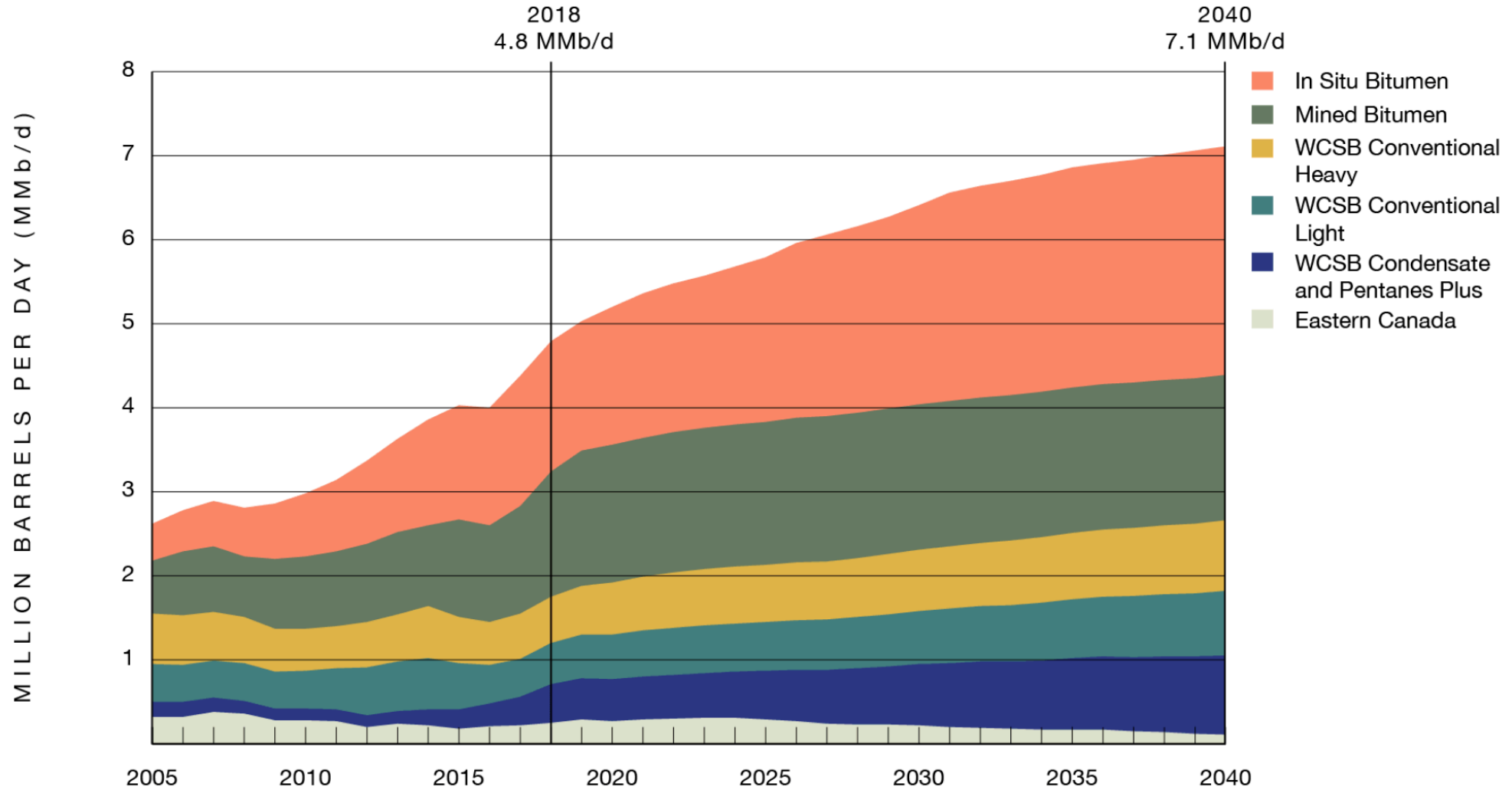
2018



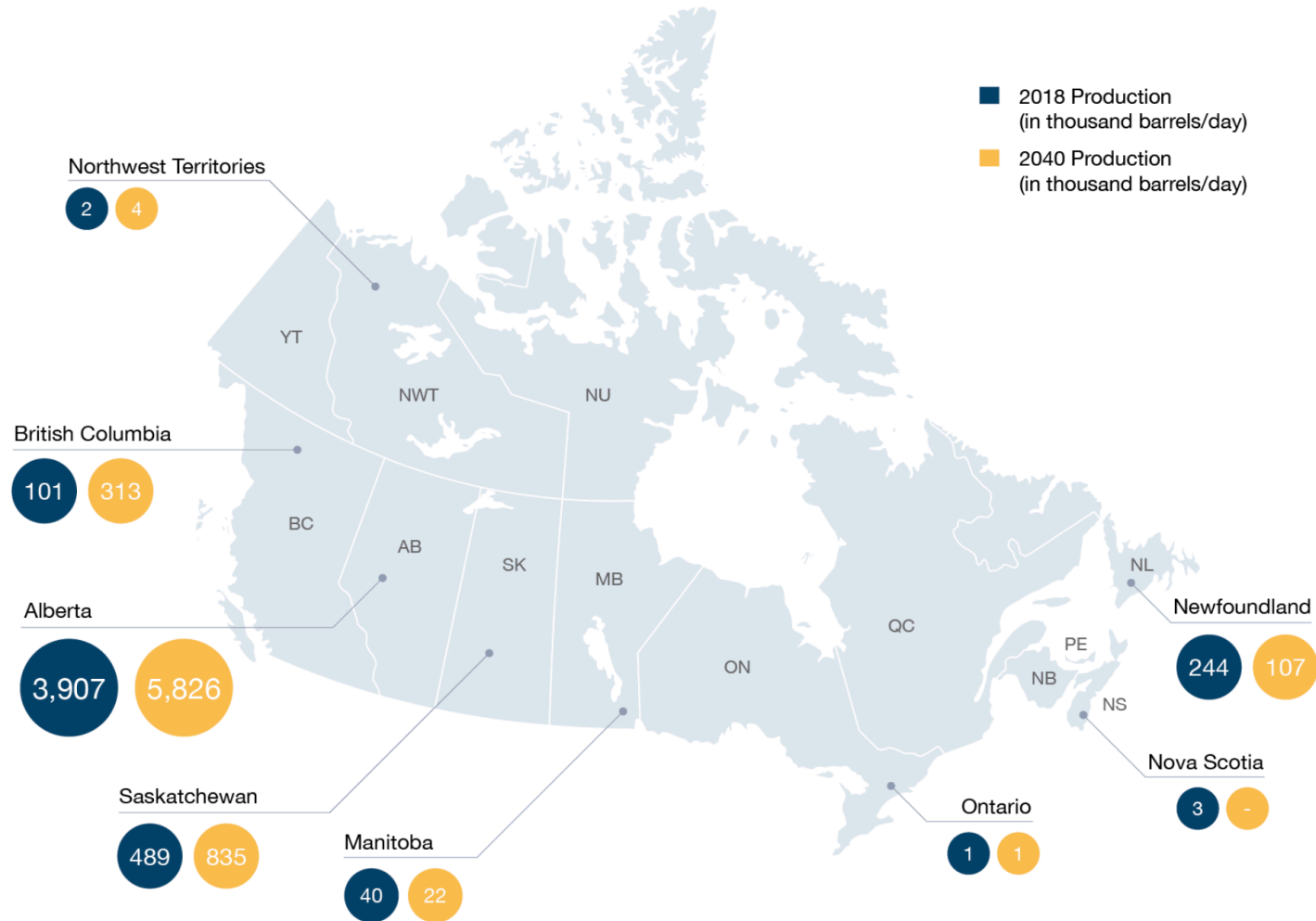
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# CER Projections



# CER Projections



# Conclusion

- 1) Extraction is the most impacted Oil & Gas sub-sector by the Russia/Saudi Price War and the COVID19 crisis
- 2) As long as there is Western Canadian Oil to buy, FCL is going to make profit.
- 3) The economics FCL is built on will continue to work as long as the Western Canadian Oil & Gas industry exists.
- 4) Vince Ready considered the long-term impact of oil & gas demand on FCL in his recommendations, which lays out a clear vision for future economic stability and viability.