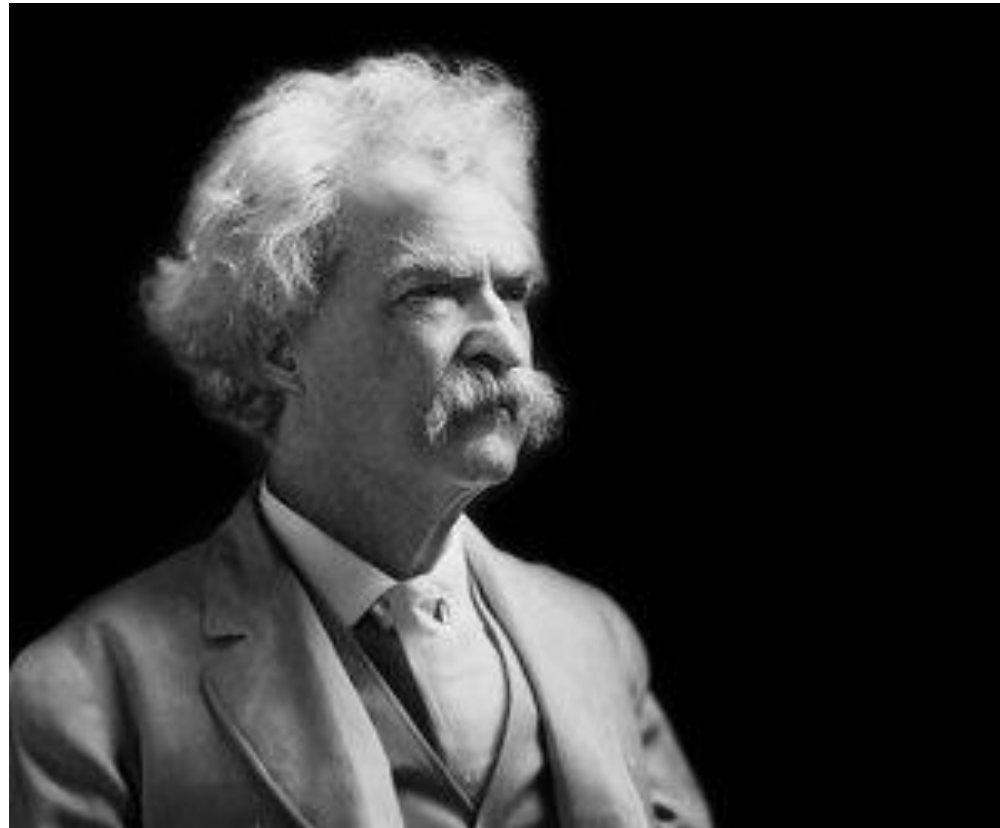


# THE DEATH OF OIL AND GAS . . . .

Data compiled by Mark Milke, Lennie Kaplan, Ven Venkatchalam  
Canadian Energy Centre  
Presentation for Osler, May 27, 2020

1

**...HAS BEEN GREATLY EXAGGERATED  
(WITH APOLOGIES TO MARK TWAIN)**



# THE CANADIAN ENERGY CENTRE

- Government of Alberta corporation
- CEC Mission: To advance Canada as the supplier of choice for the world's growing demand of responsibly-produced energy
- CEC Research: Tasked to create energy-related fact sheets, research briefs, and other material, and which is relevant to environmental, social, and governance (ESG) issues, for the government, public, media, and investment community. **For now, focused on filling gaps in accessible data for public**





# **\$359 Billion: What Canada's energy sector paid governments from 2000 to 2018**

Canadian Energy Centre

## This presentation

Derived from recent Research Briefs and Fact Sheets published by the Canadian Energy Centre

1. Why it (Canadian oil and gas) matters
2. 'N.O.U.S.s'
3. Exaggerations of mortality?
4. Results of (Canadian) self-harm

# 1. WHY IT MATTERS

## (LET ME COUNT THE WAYS)

- First Nations
- Jobs
- Tax revenues
- Other....

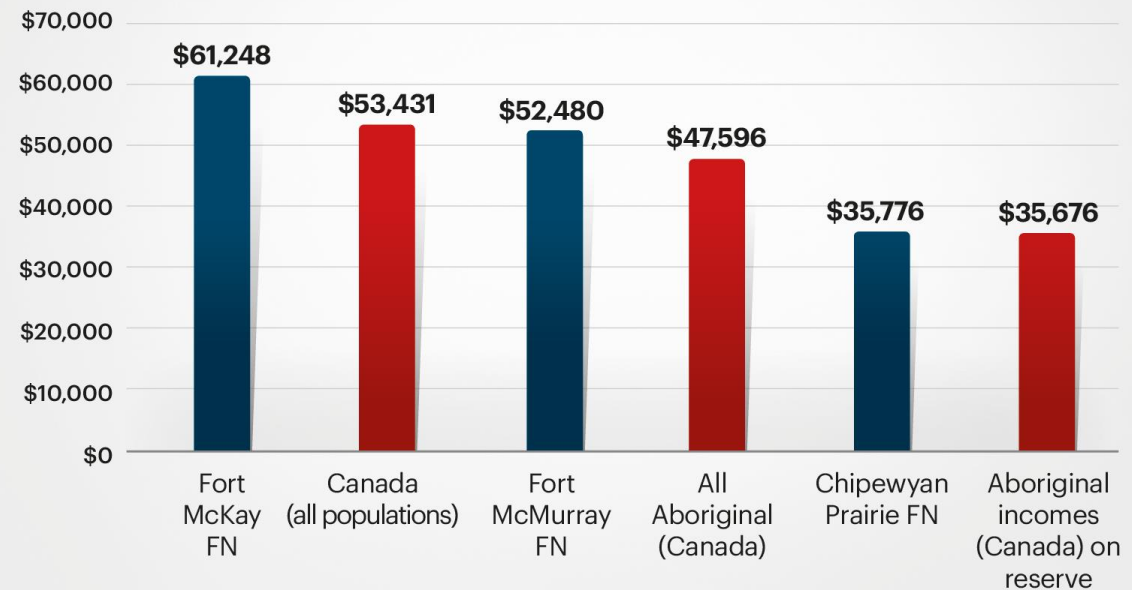
# FIRST NATIONS

- “Fort McKay is now a thriving modern community with all the amenities and infrastructure in place to run a modern community due to oil sands development.” –*Jim Boucher, Former Chief, Fort McKay First Nation*

## The oil sands effect: Three First Nations and comparisons of median employment income

Full-year full-time workers, \$

Source: Census 2016



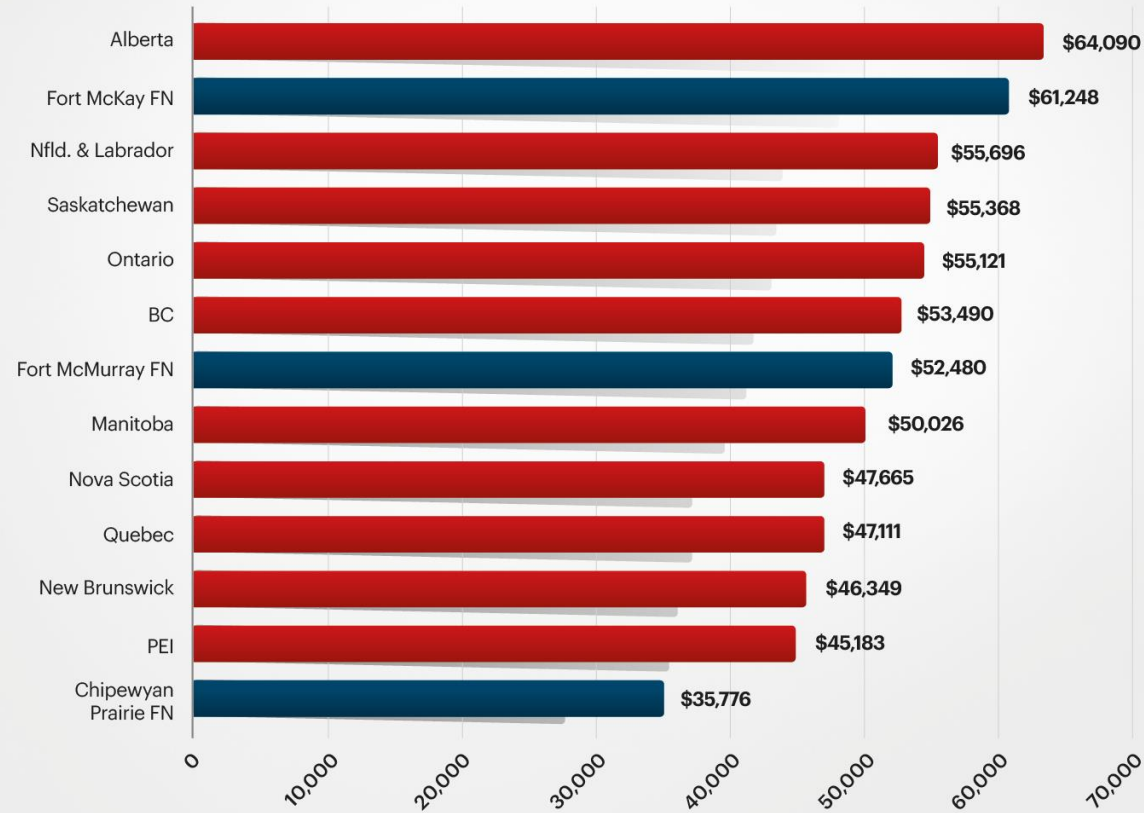
From **Canada's oil sands and  
local First Nations: A snapshot**

Canadian Energy Centre

# Median employment income: Three First Nations in the oil sands compared with provincial incomes

Full-year full-time workers, \$

Source: Census 2016



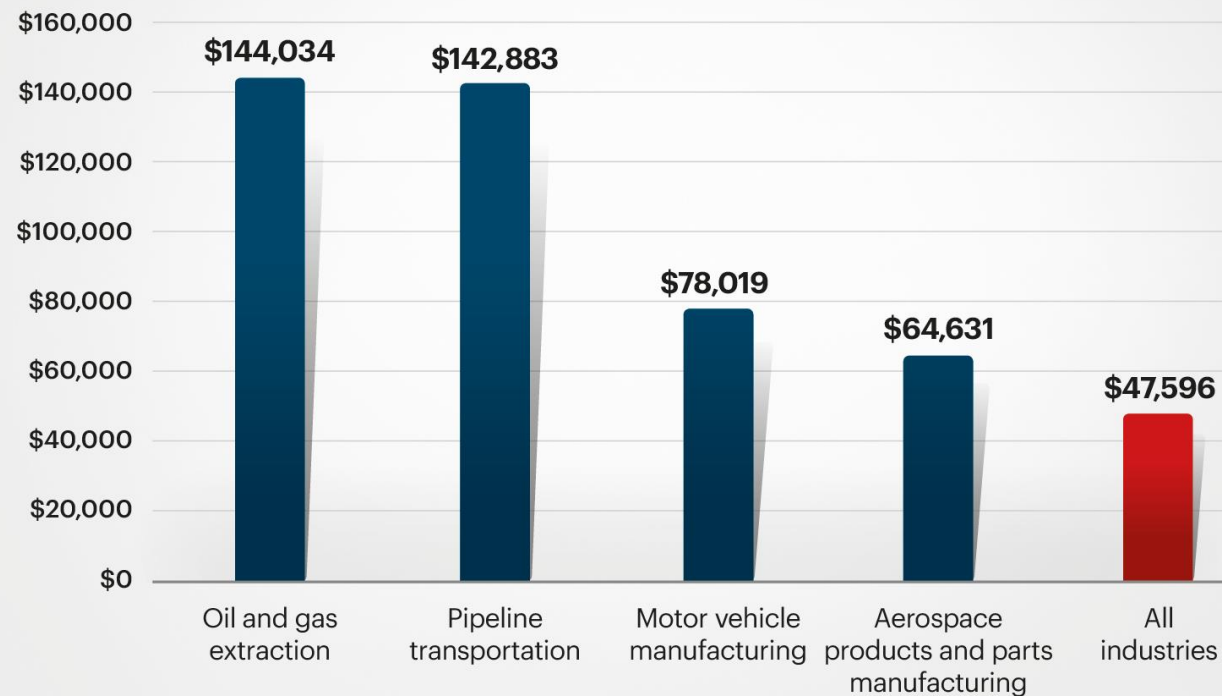
From **Canada's oil sands and  
local First Nations: A snapshot**

Canadian Energy Centre

# Median employment income for those identifying as Aboriginal identity, by industry

Full-year, full-time workers, in \$

Source: Census 2016



From **Canada's oil sands and local First Nations: A snapshot**

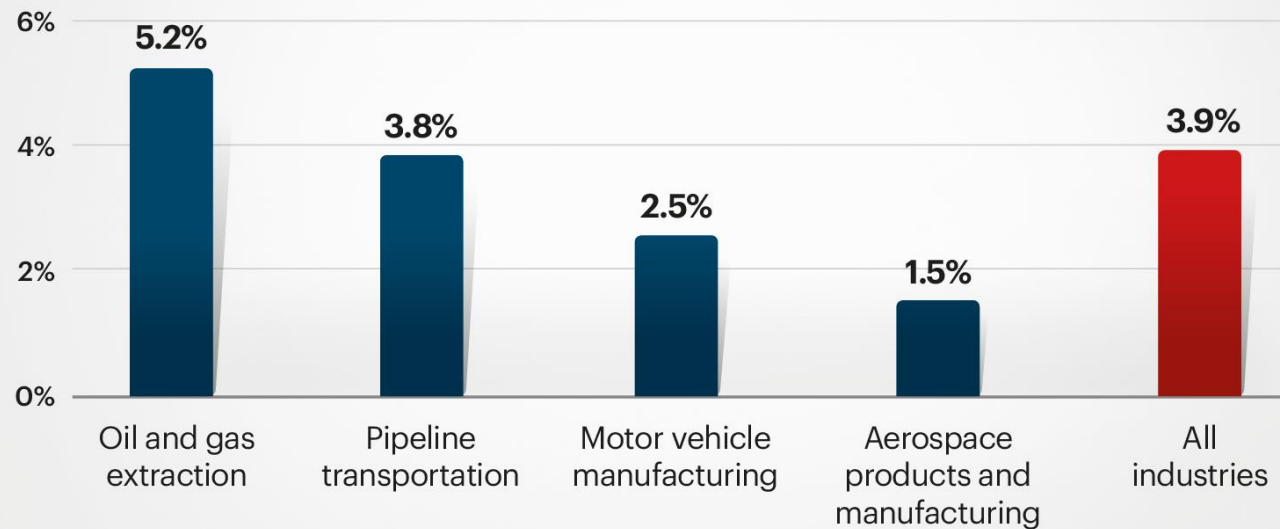
Canadian Energy Centre



# Employment for those identifying as Aboriginal, by industry

Percent by industry

Source: Census 2016



From **Canada's oil sands and local First Nations: A snapshot**

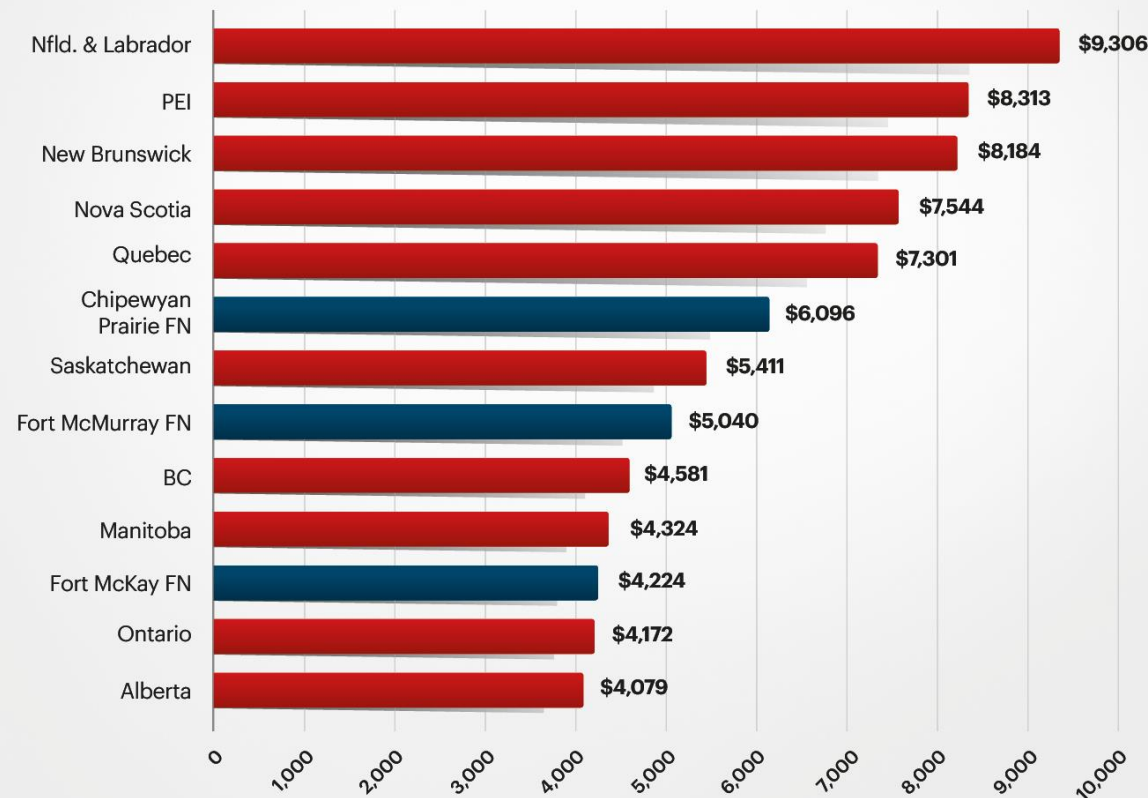
Canadian Energy Centre

# Dependency on transfers: A comparison of ten provinces with three First Nations involved in the oil sands

Median government transfers

In \$, as of 2015

Source: *Census 2016*



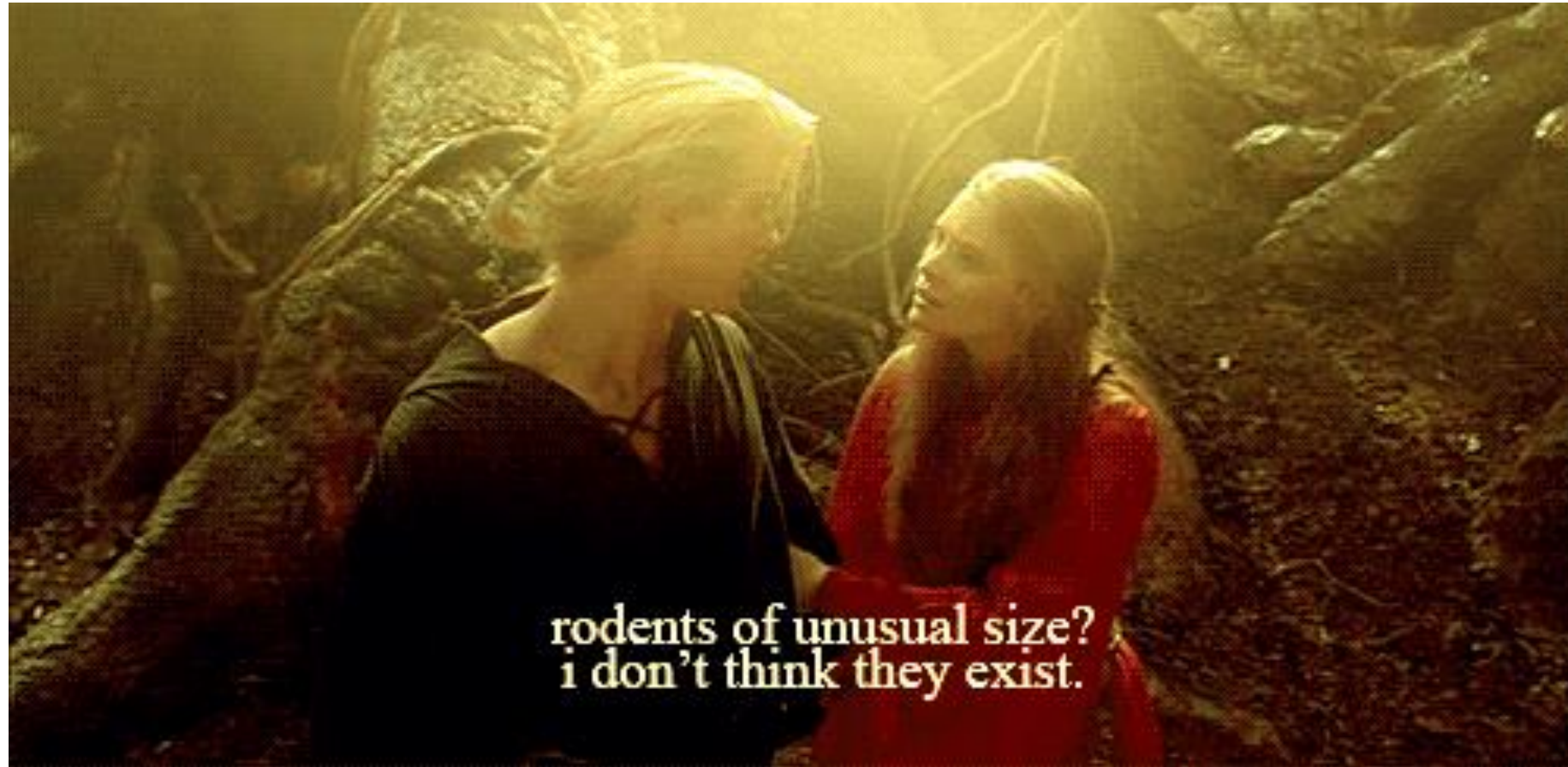
From **Canada's oil sands and  
local First Nations: A snapshot**

Canadian Energy Centre

**THOSE ARE ALL EXAMPLES OF**  
**2. N.O.U.S.s...**



# N.O.U.S.s (*NUMBERS OF UNUSUAL SIZES*)





# The energy sector's revenue contributions to federal and provincial governments: A partial tally from 2000 to 2018

(\$ billions, nominal)

2000-2018 cumulative	
<i>Provincial</i>	
Provincial corporate tax revenues	36.7
Crown land sales	36.9
Rents and royalties (2008 to 2018 only)	166.0
<i>Federal</i>	
Federal corporate income taxes	65.9
<i>Federal -provincial</i>	
Federal-provincial indirect taxes*	53.6
<b>Total federal-provincial revenues from energy sector</b>	<b>359.1</b>

\*Indirect taxes include sales and payroll taxes

From **CEC Fact Sheet #1**

**\$359 Billion: What Canada's Energy Sector Paid Governments**

**Canadian Energy Centre**

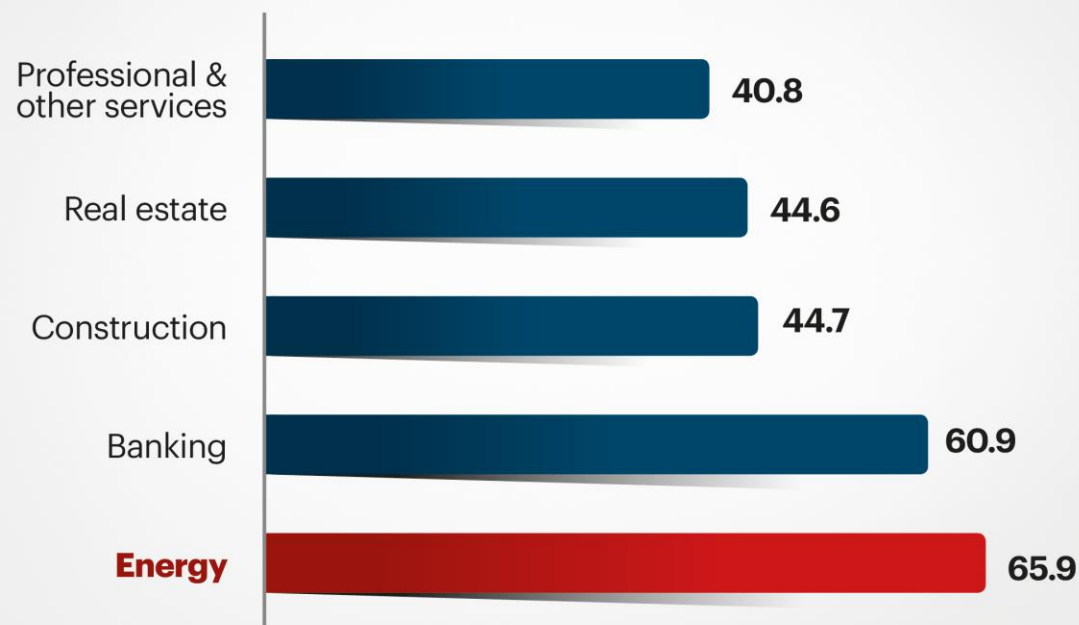
**BUT N.O.U.S.s *DO* EXIST...**



## Contributions to federal corporate taxes: A comparison by industry, 2000-2018

(\$ billions, nominal)

Source: Statistics Canada Table 33-10-0006-01



From **CEC Fact Sheet #1**

**\$359 Billion: What Canada's Energy Sector Paid Governments**

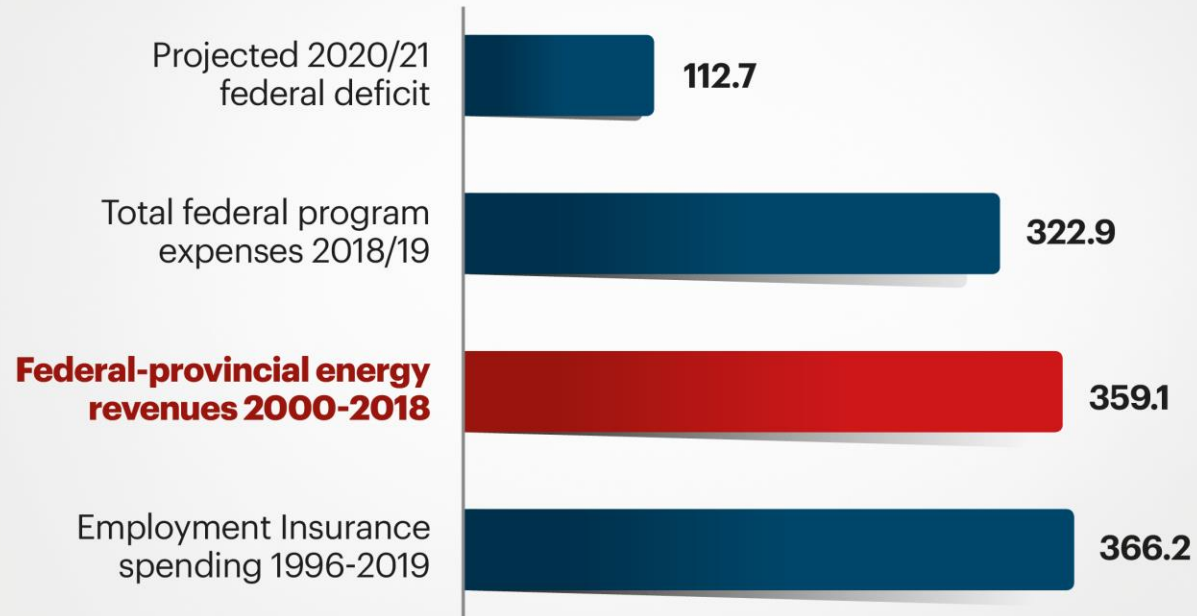
Canadian Energy Centre

**...BECAUSE OF  
OIL AND GAS IN  
CANADA**

# Collected energy taxes and selected examples of spending

(in \$ billions)

Sources: Fiscal Reference Tables, 2019; Finance Canada, 2020 Parliamentary Budget Office 2020



From **CEC Fact Sheet #1**

**\$359 Billion: What Canada's Energy  
Sector Paid Governments**

Canadian Energy Centre

**EXAMPLES OF  
WHAT SUCH TAX  
REVENUES PAY  
FOR/ARE  
EQUIVALENT TO:**

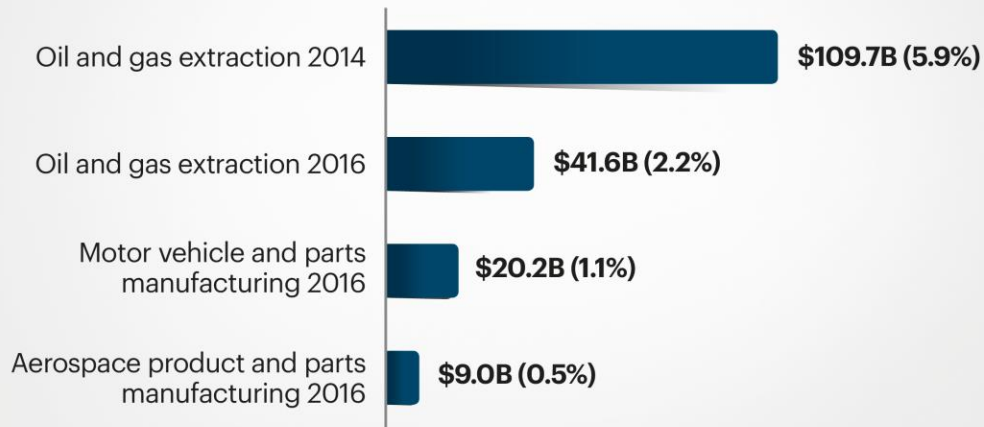


# OTHER BIG NUMBERS: COMPARISONS



## Comparing oil and gas to motor vehicle manufacturing and aerospace, (\$ billions) and as a percentage of nominal GDP (%)

Source: Statistics Canada, Table 36-10-0402-01



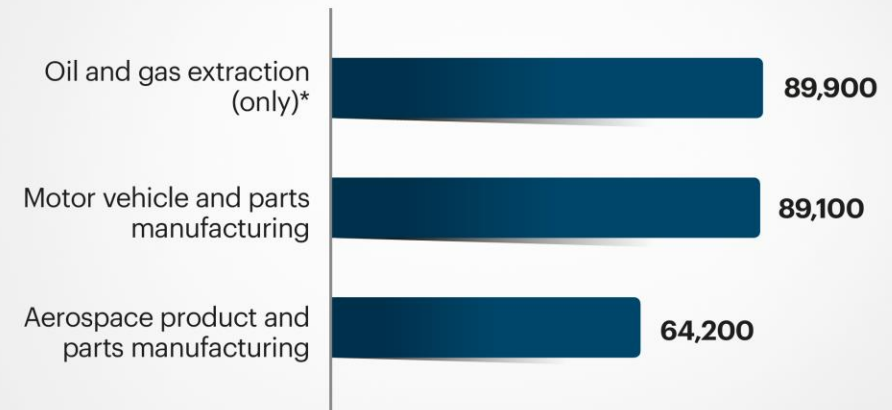
From **CEC Fact Sheet #2**

**Canada's Oil and Gas Industry:  
Twice the Size of the Automotive  
Sector and Four Times the Size of  
the Aerospace Sectors**

Canadian Energy Centre

## A comparison of direct employment by industry: Two-year moving average, 2018-2019

Source: Statistics Canada, Table 14-10-0202-01



From **CEC Fact Sheet #2**

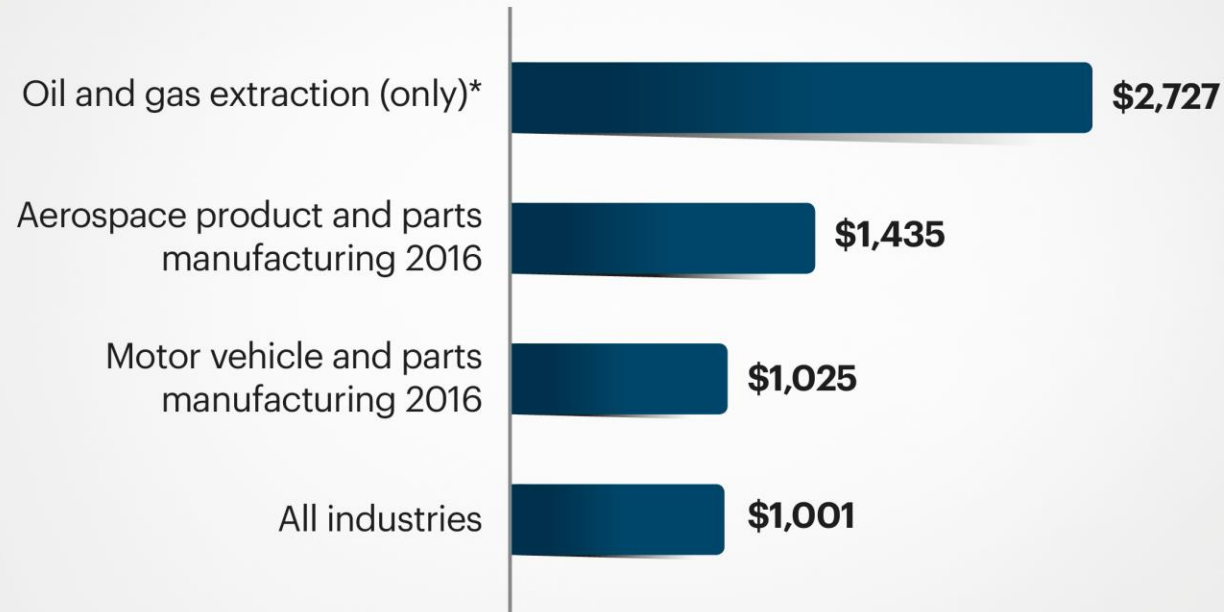
**Canada's Oil and Gas Industry:  
Twice the Size of the Automotive  
Sector and Four Times the Size of  
the Aerospace Sectors**

Canadian Energy Centre

\*Excludes pipeline construction, for example

# Average weekly earnings in 2018: Industry comparisons (\$)

Sources: Statistics Canada, Table 14-10-0204-01



From **CEC Fact Sheet #2**

**Canada's Oil and Gas Industry:  
Twice the Size of the Automotive  
Sector and Four Times the Size of  
the Aerospace Sectors**

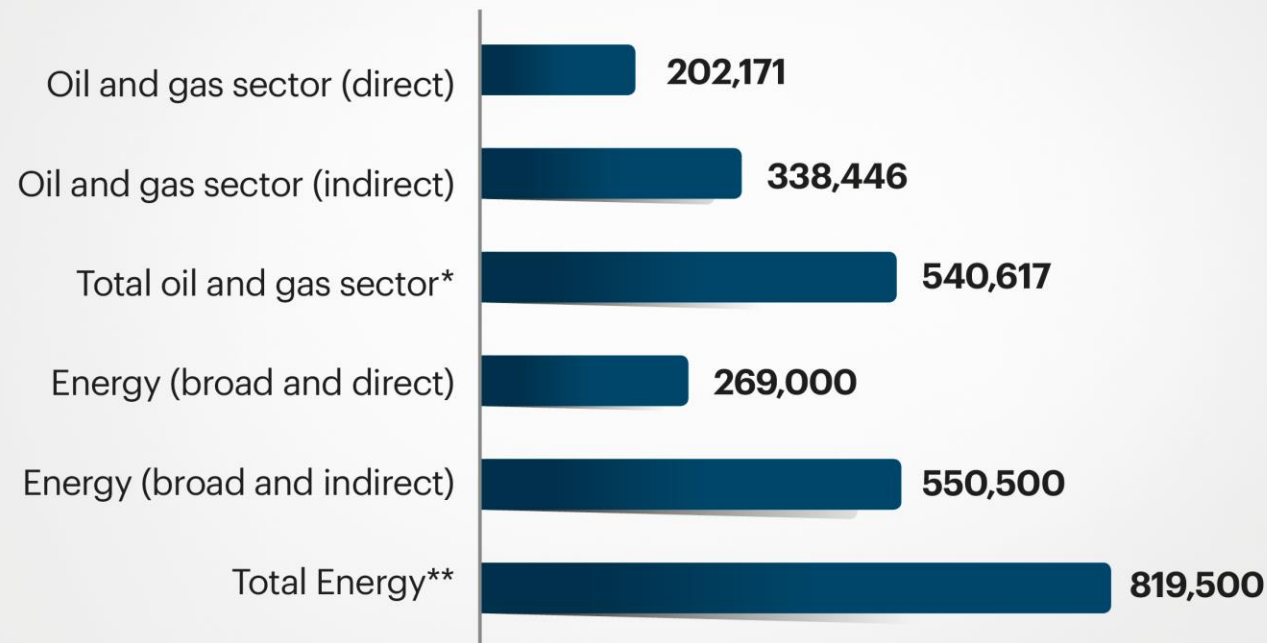
*\*Excludes pipeline construction, for example.*

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# Broader employment numbers in the oil and gas and energy sectors: Statistics Canada and Natural Resources Canada estimates, 2018

Sources: Statistics Canada (2016), Table 14-10-0202-01;  
Natural Resources Canada (2018), Energy and the Economy



From **CEC Fact Sheet #2**

**Canada's Oil and Gas Industry:  
Twice the Size of the Automotive  
Sector and Four Times the Size of  
the Aerospace Sectors**

\*The oil and gas sector is defined as the sum of oil and gas extraction and oil and gas investment.

\*\* The broader energy sector includes oil and gas extraction, petroleum and coal manufacturing, utilities, and pipelines.

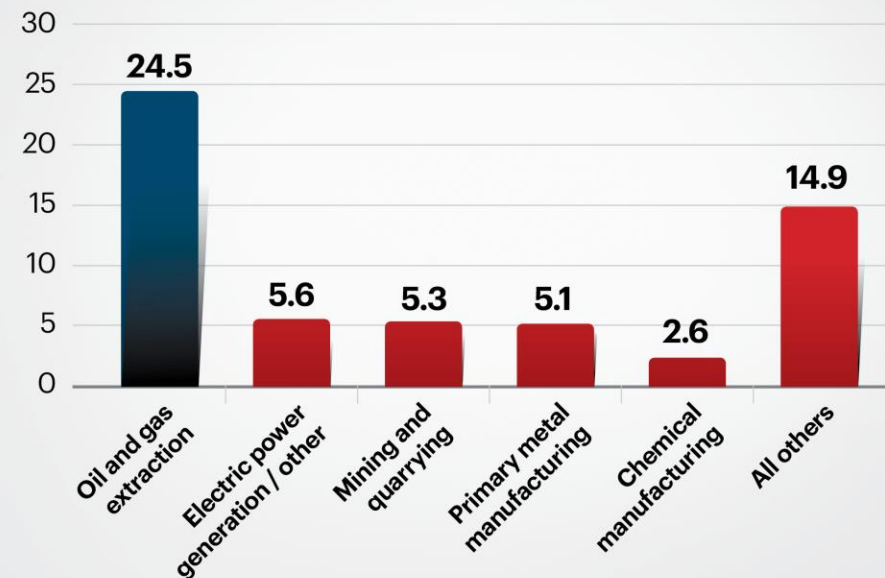
**Canadian Energy Centre**

# ENVIRONMENT SPENDING: COMPANIES

## Environmental protection spending by industry: Partial\* 2006–2016 totals

(in \$ billions)

Source: Statistics Canada Table 38-10-0042-01



From **CEC Fact Sheet #6:**  
**Environmental spending  
in Canada: Comparisons by  
industry and by province**

\*Statistics Canada surveys companies only every second year, i.e., 2006, 2008 and so forth. This leads to an underestimate of environmental spending by companies, possibly by as much as 50%, given that data on every second year is absent.

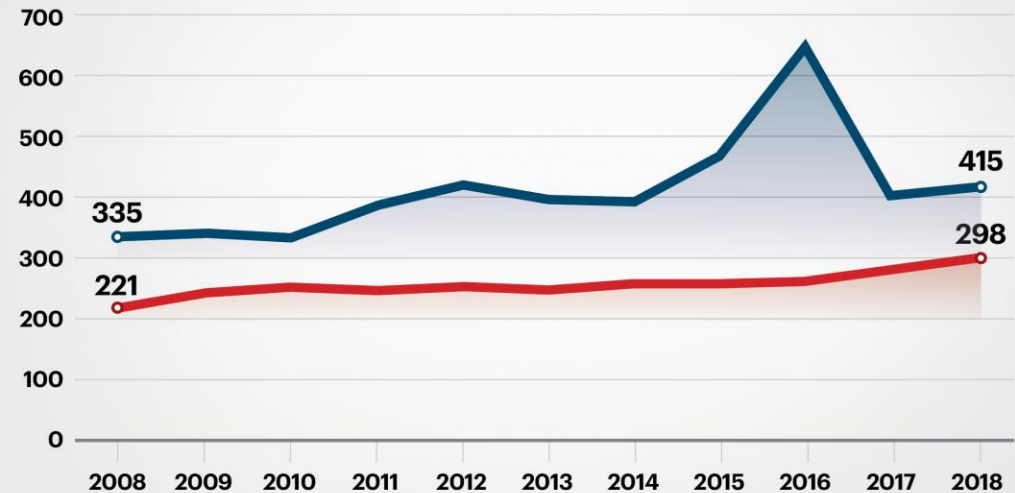
**Canadian Energy Centre**

# ENVIRONMENT SPENDING: PROVINCIAL GOVTS.

## Per capita environmental spending: Alberta compared with nine-province average

(2008–2018, \$)

Sources: Statistics Canada Table 10-10-0005-01 and Table 17-10-0005-01.



From **CEC Fact Sheet #6:**  
**Environmental spending  
in Canada: Comparisons by  
industry and by province**

● Alberta

● Average of all provinces  
excluding Alberta

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### **3. EXAGGERATIONS OF MORTALITY? SOME PAST TRENDS AND PRESENT FORECASTS**

# Worldwide oil consumption: Past trends

Source: U.S. Energy Information Administration, International Statistics, Crude Oil Consumption

Year decline/ increase began	Consumption	Decline/increase from previous peak/low	
	Millions of barrels per day		% change
1973	57.2		
1975	56.2	-1.0	-1.7%
1979	65.2	9.0	16.0%
1983	58.8	-6.4	-9.8%
1992	67.2	8.4	14.3%
1993	67.0	-0.2	-0.3%
2007	87.1	20.1	30.0%
2009	85.8	-1.3	-1.5%
2017	98.8	13.0	15.2%

From **CEC Fact Sheet #5:**

**50,000 new miles: A comparison on  
new oil and gas pipelines worldwide**

**Canadian Energy Centre**



# CURRENT FORECASTS

- U.S. Energy Information Administration forecasts that petroleum consumption worldwide will decline by 5.2 million barrels in 2020 from 2019, **a 5.2 per cent reduction, before rising again in 2021 by 6.4 million barrels, a 6.7 per cent increase.**
- The U.S. agency does not provide a natural gas forecast but before the crisis, the International Energy Agency (IEA) forecast **a 40 per cent rise in world natural gas consumption by 2050.**

## 4. THE RESULTS OF (CANADIAN) SELF-HARM: SOME EXAMPLES FROM HISTORY

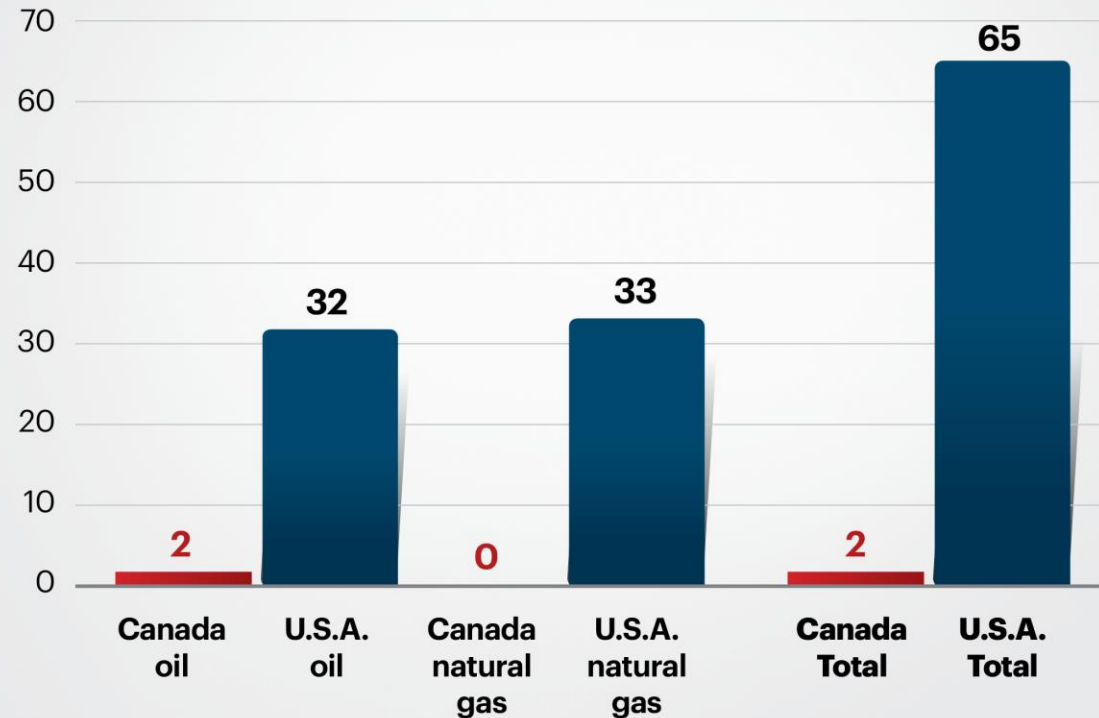


# A Canada-U.S. comparison of new oil and gas pipelines 2014 to 2020

New pipelines completed as of April 2020

Sources: CAPP; International Energy Agency.

New pipelines only. Data does not include replacement, expansion, or facility pipelines.



From **CEC Fact Sheet #5:**

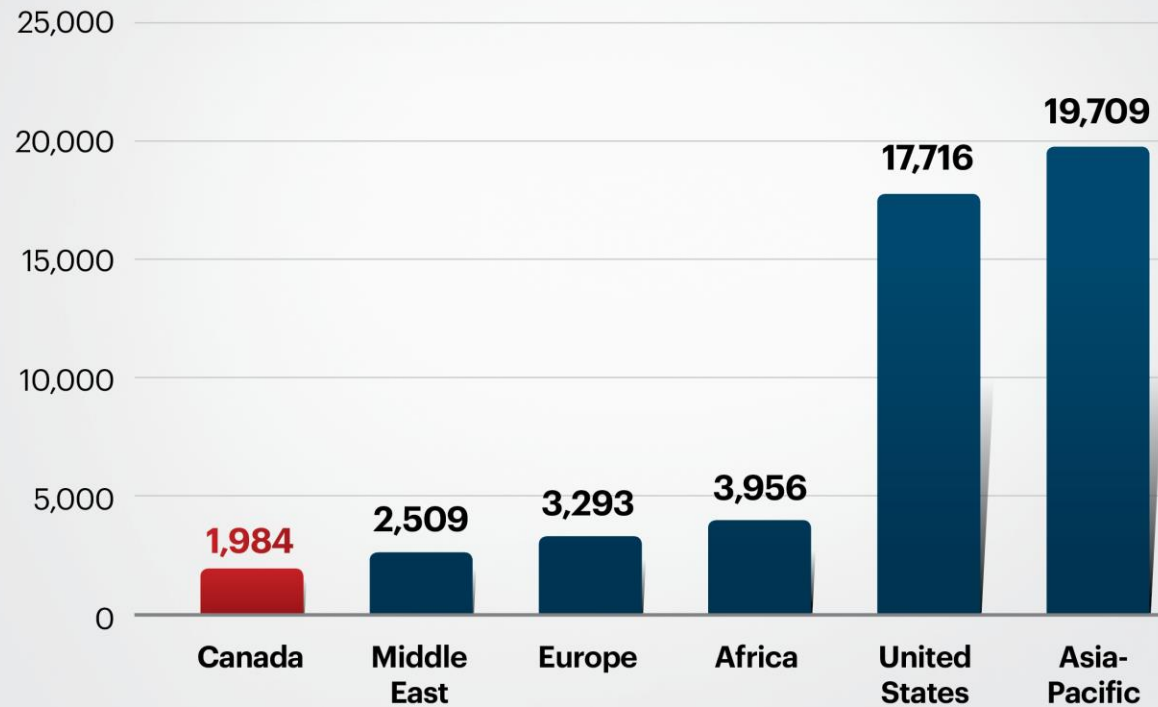
**50,000 new miles: A comparison on  
new oil and gas pipelines worldwide**

**Canadian Energy Centre**

## A comparison of oil and gas pipeline construction underway as of 2020

(Region or country, in miles)

Source: Christopher E. Smit (2020)



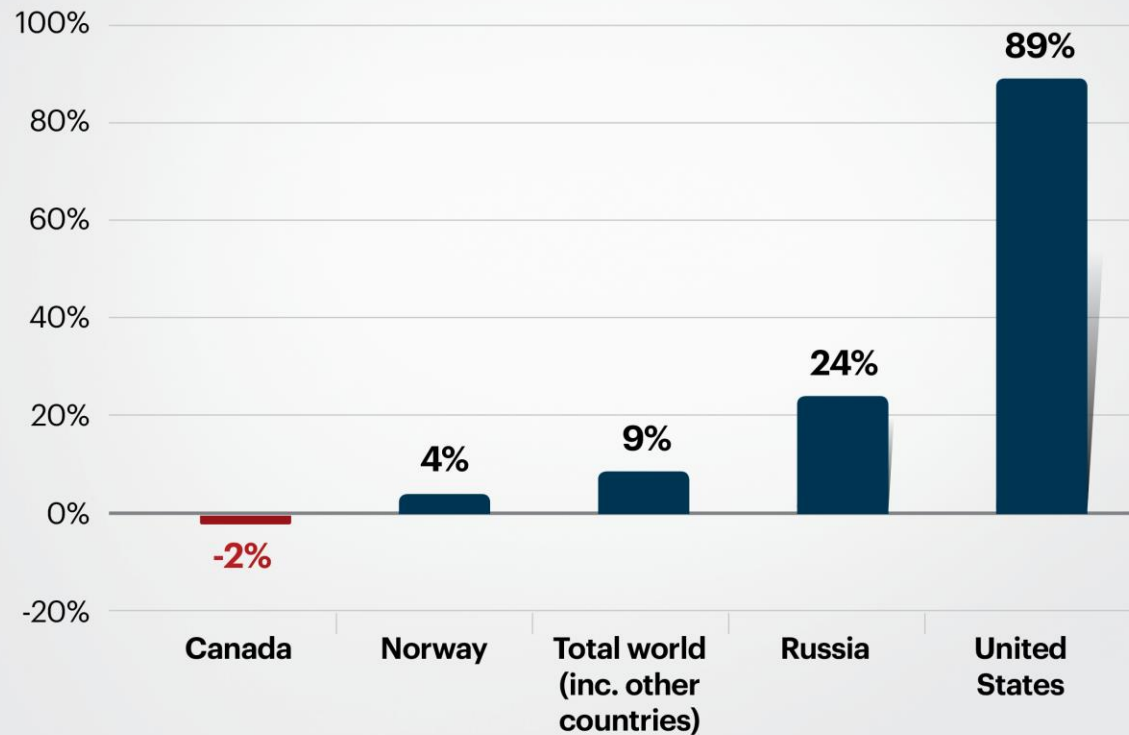
From **CEC Fact Sheet #5:**

**50,000 new miles: A comparison on new oil and gas pipelines worldwide**

**Canadian Energy Centre**

## Comparing natural gas exports via pipelines: Decrease or increase, 2019 over 2014, by percentage

Source: Authors' calculations from United Nations Conference on Trade and Development (UNCTAD) Trade Statistics.



From **CEC Fact Sheet #5:**

**50,000 new miles: A comparison on new oil and gas pipelines worldwide**

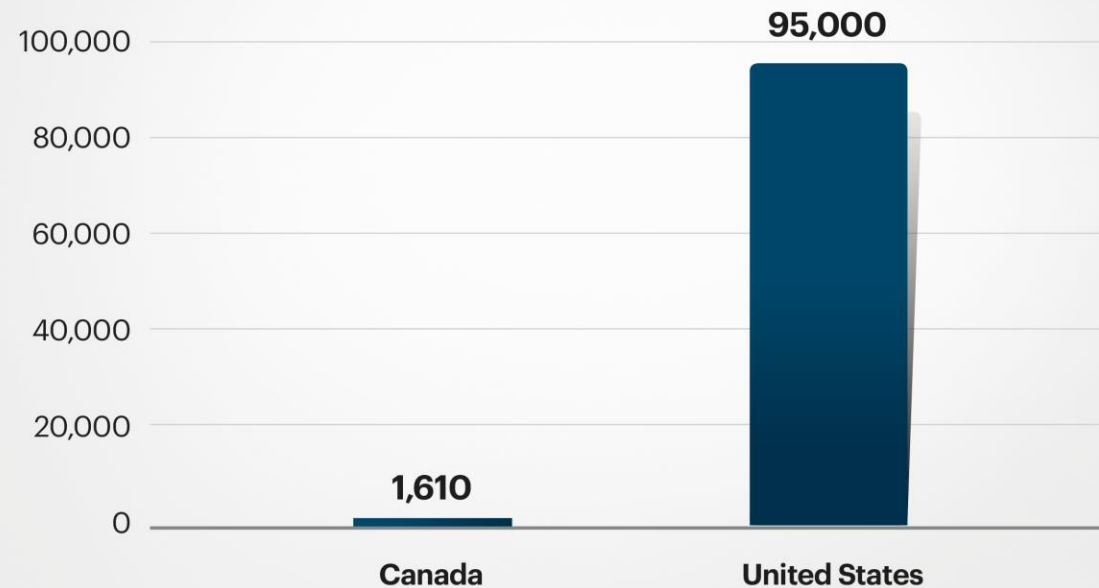
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# Jobs created in oil & gas extraction\*: Canada compared with the United States

(2018 increase relative to 2009)

Sources: U.S. Bureau of Economic Analysis, Regional Analysis, Employment;  
Statistics Canada. Table 14-10-0202-01

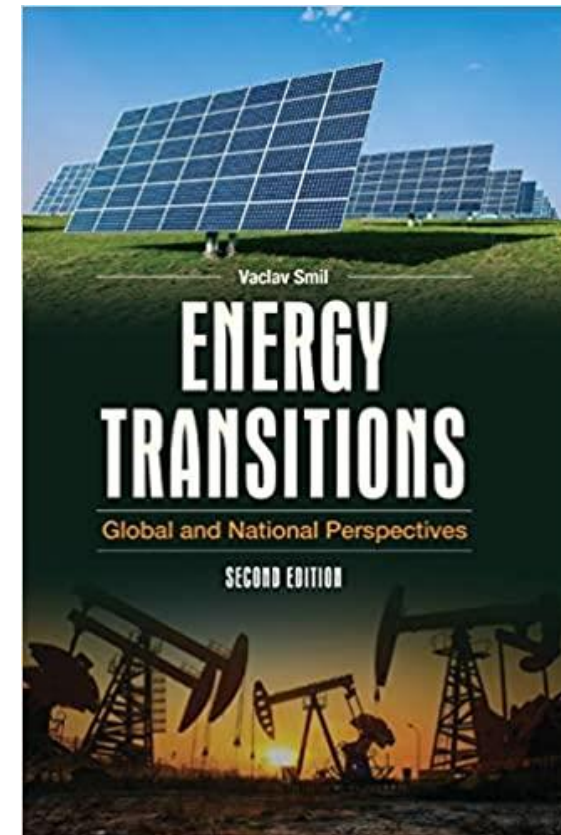


From **CEC Fact Sheet #3:**  
**Comparing U.S. and Canada on  
oil and gas jobs: 2009 to 2018**

\*The category of oil and gas extraction does not  
include pipelines or other energy-related economic  
activity.

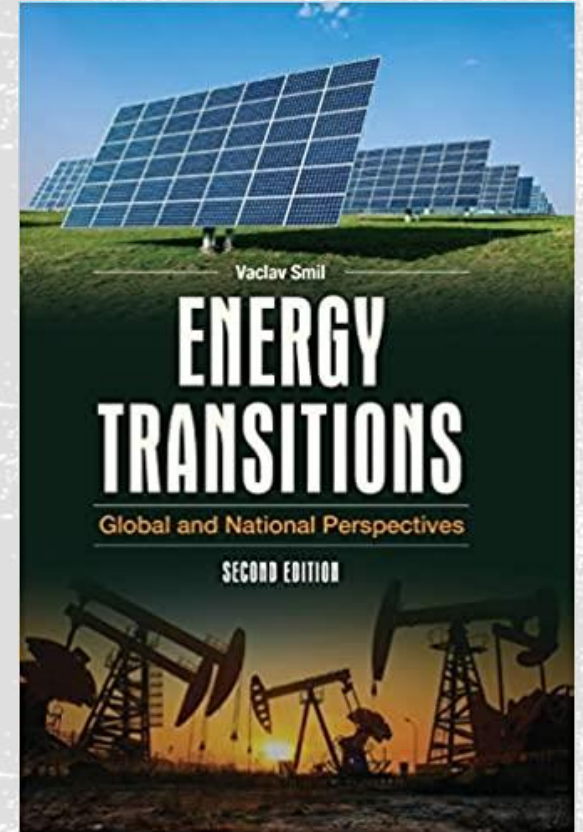
**Canadian Energy Centre**

# BUT WHAT ABOUT THE TRANSITION?



“As in the past, the unfolding global energy transitions will last for decades, not years, and modern civilization’s dependence on fossil fuels will not be shed by a sequence of government-dictated goals.”

- Prof. Vaclav Smil, *Energy Transitions*



# Fossil fuel divestment has 'zero' climate impact, says Bill Gates

Billionaire philanthropist urges investors to back tech that helps cut emissions instead

*Financial Times*, September 17, 2019





# RELEVANT FACT: THE OTHER GUYS KEEP PRODUCING

**CEC Fact Sheet #8** | May 2020

**The tyranny index  
for oil and gas**



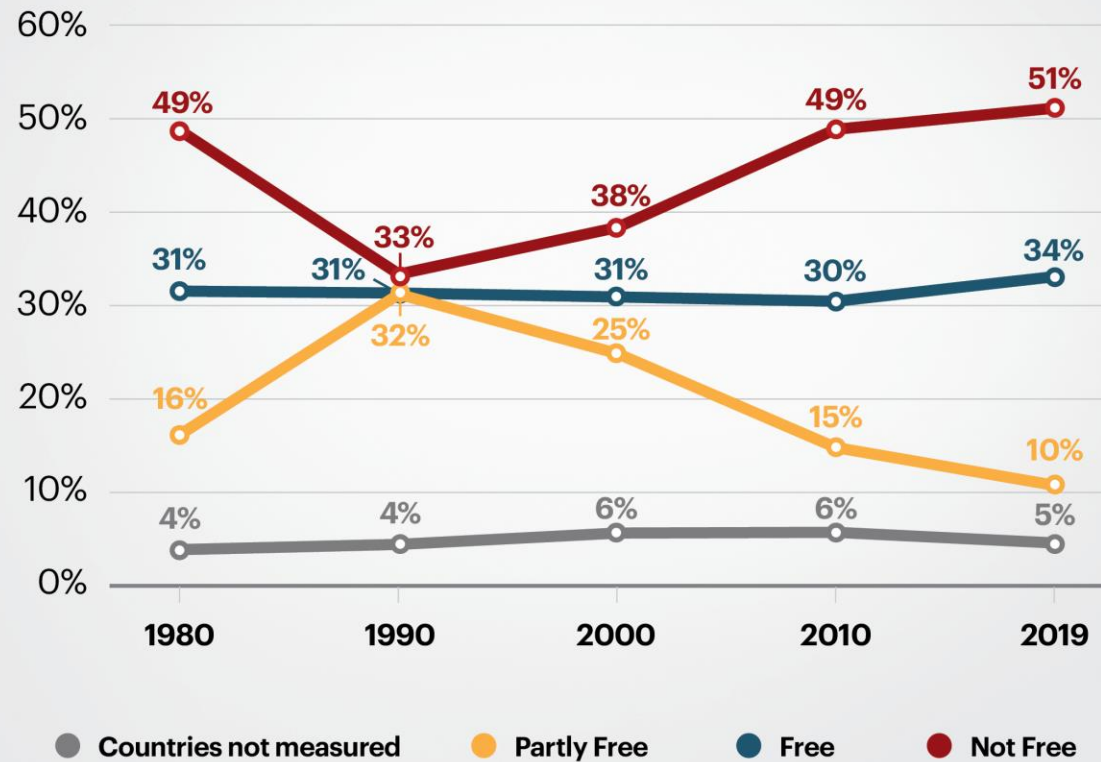
**Canadian Energy Centre**



# Oil: Production shares and freedom ranking

1980–2019

Sources: Freedom House. Countries and Territories: Global Freedom Scores. U.S. Energy Information Administration, International Statistics. Percentages may not add to 100% due to rounding.



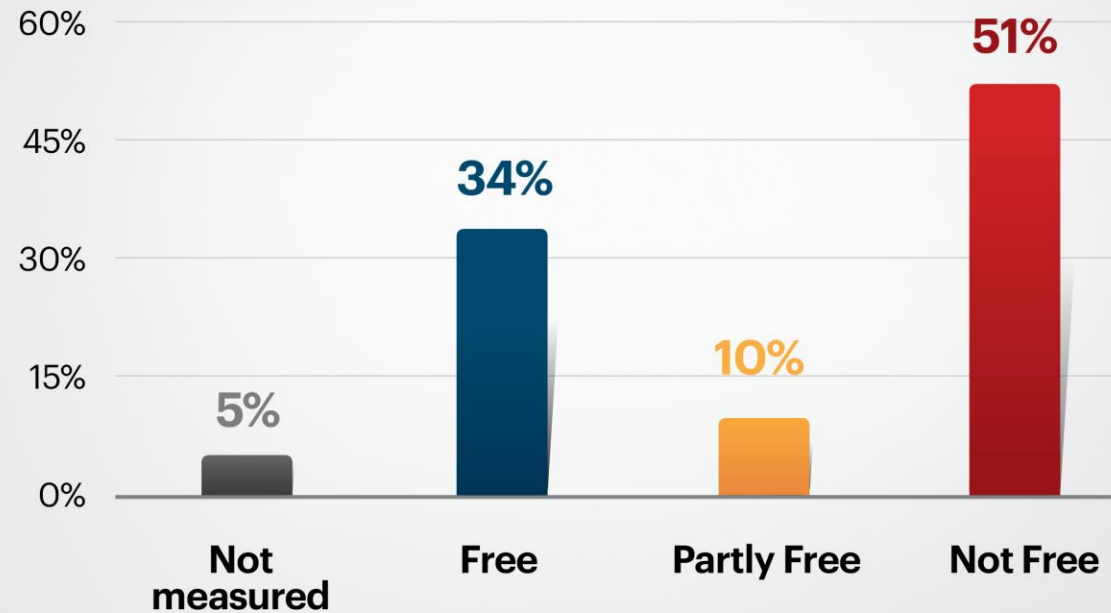
From **CEC Fact Sheet #8:**  
**The tyranny index for oil and gas**

Canadian Energy Centre

## Oil: Freedom classification 2019

Share of world production by country type

Sources: Freedom House. Countries and Territories: Global Freedom Scores. U.S. Energy Information Administration, International Statistics. Percentages may not add to 100% due to rounding.



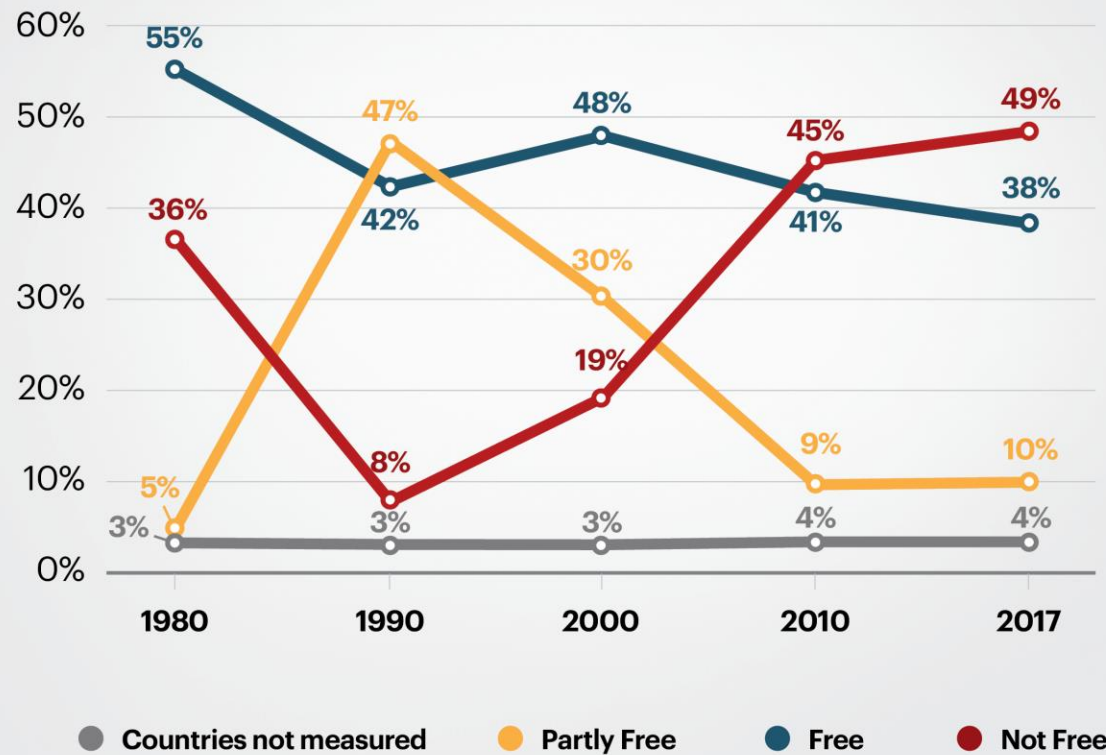
From **CEC Fact Sheet #8:**  
**The tyranny index for oil and gas**

Canadian Energy Centre

# Natural Gas: Production shares and freedom ranking

1980-2017

Sources: Freedom House. Countries and Territories: Global Freedom Scores. U.S. Energy Information Administration, International Statistics. Percentages may not add to 100% due to rounding.



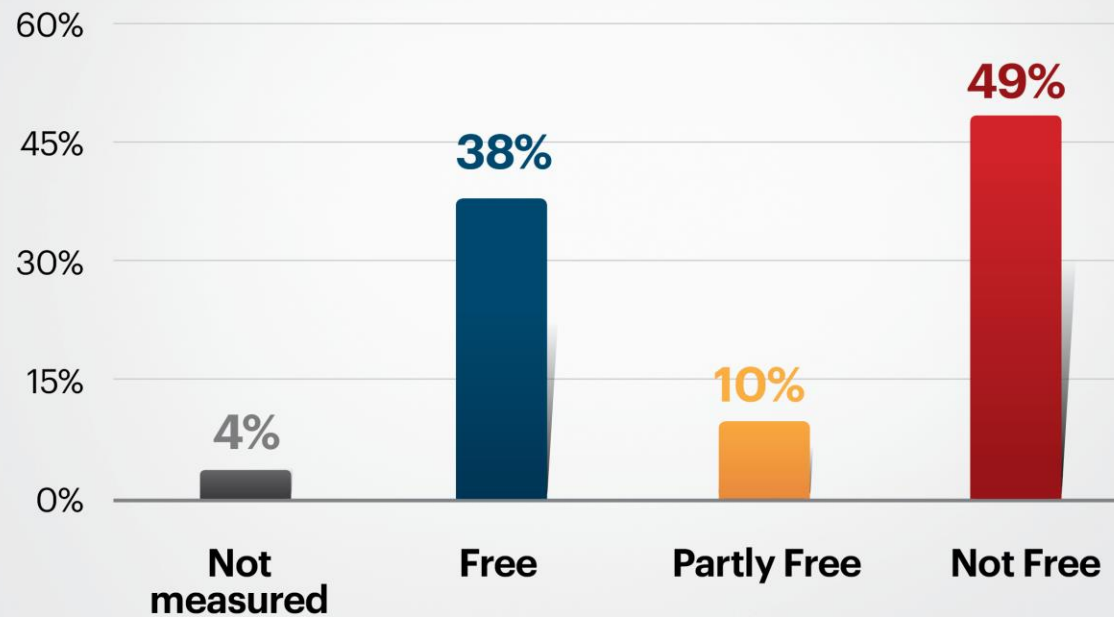
From **CEC Fact Sheet #8:**  
**The tyranny index for oil and gas**

Canadian Energy Centre

## Natural gas: Freedom classification 2017

Share of world production by country type

Sources: Freedom House. Countries and Territories: Global Freedom Scores. U.S. Energy Information Administration, International Statistics. Percentages may not add to 100% due to rounding.



From **CEC Fact Sheet #8:**  
**The tyranny index for oil and gas**

**Canadian Energy Centre**

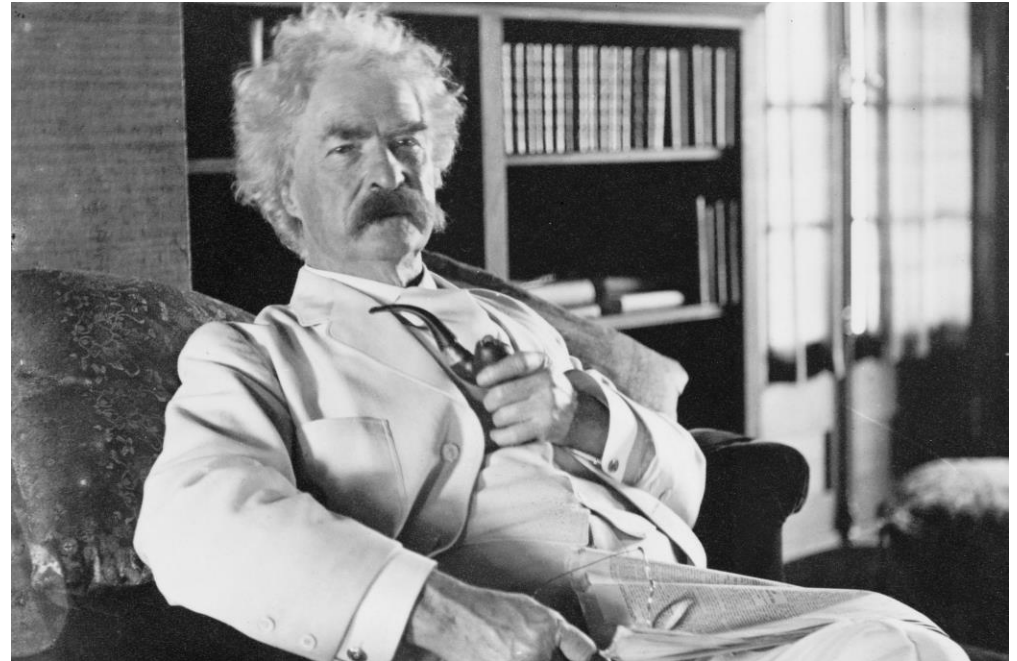
# RECAP

1. **Why it (Canadian oil and gas) matters:**
  - **First Nations, jobs, tax revenues**
2. **Be it \$359 billion in tax revenue or half-a-million high-paying jobs, those are large numbers** ('N.O.U.S.s')
3. **Other nations will produce oil and gas if Canada does not. Increasingly, those are in the Not Free category of nation-states**
4. **The temporary Coronavirus demand destruction aside, the death of oil and gas has been exaggerated to date, though Canada does risk making it a self-fulfilling prophecy**



# LESSONS FROM HISTORY

- “I have even heard on good authority that I was dead.”
- **“The report of my illness grew out of his illness. The report of my death was an exaggeration.”**



# WWW.CANADIANENERGYCENTRE.CA

- Sources: International Energy Agency; U.S. Energy Information Administration; Statistics Canada; others, please see Fact Sheets at [www.canadianenergycentre.ca](http://www.canadianenergycentre.ca)
- Images for this presentation: Pixabay.