

FREQUENTLY USED STATISTICS
JULY 2019
ECONOMICS

Capital Investment (\$ billions)	2014	2015	2016	2017	2018E	2019F
Conventional (included East Coast offshore)	47	31	23	29	27	25
Oil Sands	34	23	15	14	13	12
Canada	81	54	39	43	40	38
East Coast	5.3	5.4	5.6	3.2	2.5	2.5

Upstream sector largest private sector investor in Canada based on 2017 data (most recent).

Source: Statistics Canada/CAPP

Annual Revenue (\$ billions)*	2016-2018
Upstream oil and natural gas	101

* average over 3 years ending 2018

Source: ARC Financial/CAPP

Payments to Governments (\$ billions) *	2015-2017
Canada	7

* average of 3 years includes royalties, income tax, land sales, municipal and corporate taxes.

Source: CAPP

2016 lower with decrease in royalty revenue and land sales.

Real GDP Impact	2014	2015	2016	2017	2018
Canada's Total GDP (\$ billions)	1 805	1 819	1 839	1 898	1 937
Conventional GDP (\$ billions)	50	47	48	50	53
Conventional GDP Share (%)	2.8	2.6	2.6	2.6	2.7
Oil Sands GDP (\$ billions)	40	46	47	51	55
Oil Sands GDP Share (%)	2.2	2.5	2.6	2.7	2.8
Upstream GDP (\$ billions)	90	93	95	101	108
Upstream GDP Share (%)	5.0	5.1	5.2	5.3	5.6

Source: Statistics Canada

Oil Sands Provincial Supply Chain	2012-13	2014-15	2016-17
British Columbia	698	813	528
Saskatchewan	293	494	220
Manitoba	65	95	41
Ontario	1263	1 646	1 162
Québec	195	394	199
Prince Edward Island	4	7	3
Nova Scotia	47	51	32
Newfoundland and Labrador	118	28	18
New Brunswick	30	30	24
Northwest Territories	5	8	3
Yukon Territories	-	5	-
Total	2 718	3 571	2 230

Source: CAPP 2019

Indigenous Supply Chain in Alberta	2013-14	2015-16
Companies	327	399
Communities	54	65
Growth Rate	n/a	4.1%

Source: CAPP 2018

Employment (thousands)	2014	2015	2016	2017
Direct & indirect jobs o&g conv & offshore	361	357	267	323
Direct & indirect oil sands jobs	383	287	228	205
Total upstream	744	644	495	528

Source: CAPP based on data and analysis from Prism Economics and Statistics Canada

Oil and Gas Value on TSX (at year end)	2016	2017	2018	July 2019
Canadian companies trading on the TSX	12.8%	10.0%	7.3%	6.1%

Source: GMP First Energy/CAPP

ACTIVITY

Drilling	2014	2015	2016	2017	2018	2019F
# of Wells Drilled in W Canada	10 390	5 230	3 751	6 414	6 125	5 500

Source: CAPP

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Production	2015	2016	2017	2018	1Q2019	2035 Forecast
Crude Oil (Mb/d):						
Alberta conv. & C5+	715	666	716	808	811	908
Saskatchewan conv.	487	461	487	471	483	482
WCSB Conv. & C5+	1 311	1 241	1 317	1 426	1 433	1 459
East Coast	172	210	221	230	257	290
Oil sands	2 383	2 415	2 675	2 914	2 866	3 018
Canada	3 876	3 867	4 213	4 570	5 850	4 768
Natural Gas (Bcf/d):						
Alberta	10.2	10.2	10.4	10.5	10.5	2035 Y 12.5 2035 N 9.6
British Columbia	4.4	4.6	4.7	5.4	5.4	9.3 4.5
East Coast Offshore	0.2	0.2	0.1	0.1	0.1	
Canada	14.9	15.2	15.7	16.2	16.2	

Oil is ranked 6th and natural gas 5th in world production. Canada is ranked 3rd in crude oil reserves

Y= with Market Opportunity Source: CAPP; N=without Market Opportunity Source: CAPP

Source: Provinces

MARKETS

Exports to U.S.	2014	2015	2016	2017	2018	2Q2019
Crude Oil (MMb/d)	2 855	3 046	3 101	3 325	3 597	3 721
Natural gas (Bcf/d)	7.6	7.6	7.9	8.3	7.8	7.62

Source: Statistics Canada

Imports	2014	2015	2016	2017	2018	2Q2019
Crude Oil (Mb/d):						
Atlantic Canada	299	321	308	333	326	334
Ontario	3	26	90	95	48	27
Québec	289	296	214	158	153	214
Share of refinery capacity of Québec and Atlantic	75%	79%	67%	63%	59%	63%
Natural Gas (Bcf/d):						
Canada	2.1	1.9	1.8	2.3	1.9	2.4

Source: Statistics Canada

Global Energy Demand (Mtoe)*	2017	2040	Growth	2040 Share
Coal	3 750	3 809	2%	22%
Oil	4 435	4 894	10%	28%
Natural Gas	3 107	4 436	43%	25%
Nuclear	688	971	41%	5%
Hydro	353	531	50%	3%
Bioenergy	1 385	1 851	34%	10%
Other Renewables	254	1 223	381%	7%
Total Primary Energy Demand	13 972	17 715	27%	

* International Energy Agency World Energy Outlook 2018

Source: International Energy Agency 2018, World Energy Outlook, New Policies Scenario

ENVIRONMENT

GHG Emissions (Mt CO ₂ e) *	2014	2015	2016	% Cdn	% Global
Oil Sands	68	70	72	10%	0.15%
Conventional Oil & Gas	86	82	79	11%	0.16%
Total Upstream	154	152	151	21%	0.31%
Total Canada	716	714	704		<1.5%

*Environment and Climate Change Canada 2017; National Inventory Report megatonnes of CO₂ equivalent

Source: Environment & Climate Change Canada, 2017

Water Use	2014	2015	2016	2017
Non-saline water use (million m3)				
Oil sands mining	172	11	182	206
Oil sands in situ	14	0	15	18
Enhanced oil recovery (EOR)	16	16	14	13
Hydraulic fracturing	10	10	11	23
Non-saline water use intensity (barrels of non-saline make-up water used to produce one BOE)				
Oil sands mining	2.57	2.41	2.45	2.51
Oil sands in situ	0.22	0.23	0.20	0.20
EOR	0.78	0.77	0.75	0.70
Hydraulic fracturing	0.27	0.35	0.46	0.59
Recycled water use (% of total water used)				
Oil sands mining	76%	77%	78%	75%
Oil sands in situ	84%	84%	85%	87%
EOR	93%	93%	93%	93%
Hydraulic fracturing	5%	6%	4%	4%

Source: AER

Land	
Share of boreal forest disturbed by oil sands mining	0.03%
Size of boreal forest (km ²)	2 700 000
Land covering oil sands (km ²)	142 000
Active mining footprint (km ²)	901

Source: AER/AB Environment

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Prices	2014	2015	2016	2017	2018	2Q2019
North Sea Brent (US\$/b)	99.02	52.36	43.55	54.23	71.00	66.00
WTI Nymex (US\$/b)	92.99	48.80	43.32	50.95	64.73	57.36
Cdn Light - MSW (US\$/b)	84.85	45.34	40.84	48.78	50.83	50.51
Cdn Heavy - WCS (US\$/b)	71.77	35.27	29.65	39.09	38.68	46.25
Henry Hub Gas US\$/Mmbtu	4.38	2.67	2.44	2.95	3.13	2.70
AECO NIT (C\$/GJ)	4.19	2.62	1.98	2.30	1.48	1.48

Source: CAPP Statistical Handbook

FREQUENTLY USED STATISTICS

JULY 2019

Legend

Abbreviation

b/d

bbf

m³

Mm³

MMm³

Mb/d

MMb

MMb/d

Bcf

Bcf/d

GJ

Mcf

MMBtu

MMcf

BOE

BOE/d

CO₂e

Mtoe

E

F

GDP

Description

barrels per day

barrel

cubic metre

thousand cubic metres

million cubic metres

thousand barrels per day

million barrels

million barrels per day

billion cubic feet

billion cubic feet per day

gigajoule

thousand cubic feet

million British thermal units

million cubic feet

barrels of oil equivalent

barrels of oil equivalent per day

carbon dioxide equivalent

million tonnes of oil equivalent

estimate

forecast

gross domestic product