



[OIL AND GAS INDUSTRY]
Canada's competitive advantages



SUPPORT PROGRAMS AND INNOVATION

Canada's oil and gas industry is a global innovator in equipment supporting the exploration, extraction, and processing of hydrocarbon reserves both onshore and offshore. Foreign investors can rely on a robust research and development (R & D) community that includes educational institutions, research institutes, governments and private enterprises.

To stimulate this innovation, Canada operates some of the most generous R & D tax incentive programs in the world, including the Scientific Research and Experimental Development program (SR&ED), which helps rank Canada's overall R & D tax treatment as second in the G-7.

Foreign direct investors can also count on a wide range of specialized organizations to further support their R & D efforts.

Canada's Oil Sands Innovation Alliance (COSIA) is an alliance of oil sands producers focused on improving environmental performance in Canada's oil sands.

CanmetENERGY, within Natural Resources Canada, is an energy, science and technology organization working on clean energy research, development, demonstration and deployment.

Located in Regina, Saskatchewan, the **Petroleum Technology Research Centre (PTRC)** is a not-for-profit organization that funds and manages research programs in enhanced oil recovery and carbon storage.

Petroleum Technology Alliance Canada (PTAC) facilitates innovation, collaborative research and technology development, demonstration and deployment for a responsible Canadian hydrocarbon energy industry.

Export Development Canada (EDC) and **Business Development Bank of Canada (BDC)** provide flexible financing programs and solutions tailored to support foreign direct investment in Canada.

Canadian technologies supporting the industry come from a wide range of sectors including ICT, clean technologies and machinery, among others.

- Companies such as **Redline Communications Inc.**, **Pason Systems Corp.**, **Sierra Wireless, Inc.**, **Opsens Inc.**, and **Zedi Inc.** provide various machine-to-machine (M2M) and remote sensing technology solutions to collect data and closely monitor and measure oil and gas fields.
- **Aqua-Pure Ventures Inc.** has developed a revolutionary technology capable of producing pure distilled water from wastewater generated from oil and gas operations, regardless of the feed composition.
- **Geosoft Inc.** offers solutions for 3D earth mapping and modelling as well as data management in the oil and gas sector.



CANADA'S OIL AND GAS SECTOR

Canada ranks as the world's fifth largest producer of oil and natural gas, with an average production per day of 3.5 million barrels of crude oil and 13.7 billion cubic feet of natural gas (at year-end 2013).¹ With a business environment that protects and encourages the large investments necessary in this sector, Canada is the destination of choice for leading global companies across the oil and gas value chain.

- Canada's proven crude oil reserves are the third largest in the world and the country has the nineteenth largest proven natural gas reserves globally.² Canada's total proven crude oil reserves were estimated to be 172.5 billion barrels (at year-end 2013) and proven natural gas reserves were estimated to be 71 trillion cubic feet (tcf) (at year-end 2012), making the country a prime location for investments in the oil and gas sector.
- Canada is also an important hub for innovation in the oil and gas sector, with Canadian research institutions working closely with foreign investors across a range of innovative technologies, including enhanced oil recovery, carbon storage and seismic exploration.
- Canada's energy industry employed directly and indirectly over 902,000 workers across the country in 2013 and the stock of foreign direct investment in the energy sector reached \$182 billion in 2013, up from \$27 billion in 1999.

A WEALTH OF OPPORTUNITIES

The oil and gas industry is a key economic driver for Canada. Upstream and downstream activities are growing at a rapid pace and require a myriad of services in areas such as information technologies, clean technologies and advanced manufacturing.

Given that most of the world's oil reserves that are fully open to private investment and not controlled by national oil companies are located in Canada's oil sands, Canada offers foreign investors a tremendous opportunity for growth. It is for this reason that many of the world's largest oil and gas companies are now invested in Canada.

CANADA'S KEY STRENGTHS IN OIL AND GAS

- Exploration and drilling
- Production and refining
- Extensive science and technology network
- Broad expertise in remote location operations
- Sophisticated financial institutions with experience financing oil and gas projects
- Abundant resources
- Responsible resource development: one project, one review, in a clearly defined time period

¹ Natural Resources Canada. *Energy Markets Fact Book*, 2014–2015.

² Natural Resources Canada. *Energy Markets Fact Book*, 2014–2015.

OIL AND GAS SECTOR ACTIVITIES

Canada is an ideal destination for oil and gas companies. Industry giants such as Royal Dutch Shell plc, Chevron Corporation, Exxon Mobil Corporation and Sasol are already here.



BRITISH COLUMBIA

- » Natural gas reserves: 35.4 tcf, 49 percent of Canada's total
- » To date, 19 proposed LNG projects and 10 long-term export licences granted
- » Transit time between BC's west coast and the Asian LNG market is 9-10 days

ALBERTA & SASKATCHEWAN

- » Alberta's oil sands reserves: 168 billion barrels, among the largest in the world
- » Alberta's natural gas reserves: 33.5 tcf, 47 percent of Canada's total
- » Saskatchewan's undeveloped oil sands potential: one-third of the Bakken oil play

CANADA'S NORTH

- » Thirteen percent of the world's undiscovered oil and 30 percent of its undiscovered gas lie under the Arctic seabed—a major investment opportunity for investors interested in Canada
- » Central Mackenzie Valley: \$500 million in government commitments over the next five years

ONTARIO & QUEBEC

- » Ontario: Four refineries with capacity of 396,000 barrels of oil per day
- » Quebec: Two refineries with a total capacity of 402,000 barrels of oil per day

ATLANTIC CANADA

- » Nova Scotia: Sable Offshore Energy producing more than 400 million cubic feet per day of gas. Proposed Goldboro LNG would have an export capacity of 10 million tons per year
- » New Brunswick home to Canaport LNG, an LNG regasification terminal with a maximum send-out capacity of 1.2 billion cubic feet of natural gas per day
- » Newfoundland and Labrador is Canada's offshore oil producing region and accounts for approximately 30% of Canada's conventional light crude output. Over the last 18 years Newfoundland and Labrador has produced in excess of 1.5 billion barrels of oil. Hebron, the next field to begin production is forecasting first oil in 2017. Further development is expected, as Statoil's discovery in the Flemish Pass Basin was the largest oil discovery worldwide in 2013

RECENT INVESTMENTS

COMPANY	BUSINESS ACTIVITY
PetroChina Company Limited (China)	Liquefied natural gas
China National Offshore Oil Corporation Limited (China)	Oil sands
Total S.A. (France)	Oil sands
Japan Petroleum Exploration Co., Ltd. (Japan)	Oil sands
Spectra Energy Corp. (U.S.)	Pipeline operations
Mitsubishi Corporation (Japan)	Liquefied natural gas
Petrolia Nasional Berhad (PETRONAS) (Malaysia)	Liquefied natural gas
Statoil (Norway)	Oil exploration

CANADA'S ADVANTAGES

ATTRACTIVE PRODUCTION ECONOMICS AND COMMERCIAL TERMS

For foreign investors, the full cycle supply costs for Canadian oil and gas investment opportunities are competitive with other investment opportunities, such as U.S. tight oil, offshore oil, and global shale gas.

PROXIMITY TO MARKETS

Canada is the largest supplier of crude oil and refined petroleum products to the United States and is actively developing infrastructure for delivering crude oil and natural gas supplies to Asian and European markets. LNG transportation from Western Canada to East Asia will take 14 days less than from the U.S. Gulf Coast, giving foreign investors in Canada a significant cost advantage over other North American destinations.

ESTABLISHED PRODUCTION AND TRANSPORTATION INFRASTRUCTURE

With an integrated system of coast-to-coast rail lines, an 825,000-kilometre-long pipeline system and several expansion proposals being reviewed, Canadian oil and gas production is well connected to domestic and export markets. There are 19 refineries operating in Canada with more than two million barrels per day of refining capacity.

FINANCIAL INCENTIVES

Flow-Through Shares (FTS) allow foreign investors to transfer eligible exploration and development expenses to their beneficial owners, which can then be applied for tax credits for these expenditures. This feature generates attractive prices for FTS, enabling investors involved in the exploration, drilling, production, refining or pipeline operation to fund its activities more easily.

ACCESS TO CAPITAL

When it comes to oil and gas listings, the Toronto Stock Exchange (TSX) ranks first among all exchanges globally, with 30 percent of the world's public oil and gas companies listed in Canada.³ Further, 21 percent of oil and gas services companies are also listed on the TSX, making Canada one of the largest capital markets for oil and gas plays. In 2014, oil and gas equity capital raised on the Toronto Stock Exchange and TSX Venture Exchange reached \$11 billion.⁴

TECHNICAL EXPERTISE

Foreign investors can rely on a deep pool of expertise available to them in Canada's oil and gas sector. Canadian companies in the upstream oil and gas sector have expertise in exploration (seismic, geophysical), drilling/casing, primary production of oil and gas, hydraulic fracturing ("fracking") and enhanced oil recovery (both thermal and gas injection). Also, Canadian pipeline companies are leaders in the transportation and delivery of products and services worldwide to the midstream sector.

"For BP, Canada is one of the better places to invest in the world. It is a stable economy. It has a stable political system. It has pragmatic regulations that allow us to be both safe and efficient. It has great people... just great talent locally. It's a centre of innovation in technology, and it has a great hydrocarbon basin, which is obviously extremely important for a business such as ours."

Murray Auchincloss — Deputy CFO (upstream)
& Head of Business Development,
BP p.l.c.

³ Toronto Stock Exchange.

⁴ Toronto Stock Exchange.

INVEST IN CANADA TO ACHIEVE GLOBAL EXCELLENCE

A WELCOMING BUSINESS ENVIRONMENT

Canada is ranked as the best country for business in the G-20.

Source: Forbes and Bloomberg

A HIGHLY EDUCATED WORKFORCE

Canada's workforce is the most highly educated among members of the OECD, with half of its working-age population having a tertiary-level education.

Source: Organisation for Economic Co-operation and Development (OECD)

LOW TAX RATES

Canada's overall marginal effective tax rate on business investment is by far the lowest in the G-7 — about 17 percentage points lower than that of the United States.

Source: Department of Finance Canada

COMPETITIVE R & D ENVIRONMENT

Canada offers the lowest business costs in the G-7 for R & D-intensive sectors, with a 15.8 percent cost advantage over the United States.

Source: KPMG

FINANCIAL STABILITY

For six consecutive years, the World Economic Forum has declared Canada's banking system to be the soundest in the world.

Source: World Economic Forum (WEF)

UNPARALLELED MARKET ACCESS

Canada's NAFTA advantage gives investors access to 470 million consumers. Many Canadian production hubs are actually closer to U.S. markets than American production sites — of Canada's 20 largest cities, 17 are within an hour-and-a-half drive of the U.S.

Source: The World Bank

A GREAT PLACE TO INVEST, WORK, AND LIVE

Canada is one of the globally most multicultural countries with world-class universities, a universal health care system and clean and friendly cities in addition to having the second highest standard of living in the G-20, as measured by GDP per capita.

Source: The World Bank

Unless otherwise noted, all values in this publication are in Canadian dollars. Content is based on the latest available information at time of publication.

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