Invest in Canada
2012

Renewable Energy: Wind and Solar

Canada’s competitive advantages

Innovation in Canada

Canada is an active centre for research and innovation in renewable energy technologies. Support for innovation in wind and solar energy includes:

- Preliminary gross domestic expenditure on R&D in 2011 in Canada is $30 billion, one of the highest levels in the world (Source: Statistics Canada, Research and Development Expenditure (2012)).
- Canmet ENERGY, part of the federal department Natural Resources Canada, provides technical expertise and financial support to renewable energy technologies, and works with industry, universities and research groups to support innovation in wind, solar and thermal energy.

Solar

- Between 2003 and 2011, Canada registered an estimated 385 patents to the US Patent and Trademark Office in solar energy and photovoltaics (Source: fDi Benchmark estimates based on US Patent and Trademark Office (2011)).
- Solar technology testing and rating facilities are available at the National Solar Test Facility (NSTF) in Mississauga, Ontario - home to one of the world's largest indoor solar simulators. Testing facilities are also available at the Open Solar Outdoors Test Field, a facility led by Queen's University in Kingston, Ontario.
- Canmet ENERGY specializes in solar photovoltaic and solar thermal energy and promotes grid integration of renewable power. The Photovoltaic Program of Canmet ENERGY monitors the activities of Canadian universities in the field of solar photovoltaic cell R&D.

Wind

- The Wind Energy Institute of Canada (WEICan), located at North Cape, Prince Edward Island is a not for profit, independent research and testing institute. Its mission is to advance the development of wind energy across Canada through research and demonstration, testing leading to certification, training and public education, and collaboration. The Institute's location and its access to a multi-season wind resource make it an excellent choice for testing wind systems of any size.
- The TechnoCentre Éolien is a wind energy research centre located in the Gaspé region of Québec. TechnoCentre Éolien is a member of the NSERC Wind Energy Strategic Network (WESNet) which brings together researchers from 16 Canadian universities and from industrial partners. The focus of its R&D activities is the operation of wind turbines in cold climates.
- Canmet ENERGY is using innovative technologies such as Light Detection and Ranging (LIDAR) to test the offshore wind potential of the Great Lakes.

INNOVATION CASE STUDIES

Ramea Wind-Hydrogen-Diesel Energy project

Nalcor Energy and Canmet ENERGY are collaborating on a state-of-the-art wind-hydrogen-diesel energy project on off-grid Ramea Island, Newfoundland. The project is unique to Canada and, when complete, will allow Newfoundland to shut down its diesel generators on Ramea Island during periods of low demand and provide its customers with clean wind power, either directly via wind turbines, or from stored hydrogen.

WEICan's "Wind Energy R&D Park and Storage System for Innovation in Grid Integration" project

The Wind Energy Institute's Wind R&D Park is supported by NRCan's Clean Energy Fund. The project will demonstrate the economic and technical feasibility of wind energy storage in Canada. This demonstration will feature five DeWind Co, D9.2 wind turbines, with a generating capacity of 10 megawatt, a utility sized electricity storage system and the examination of grid integration technologies to increase the economic viability of intermittent electricity generation.

RETScreen International Clean Energy Decision Support Centre

Canmet ENERGY is home to the innovative RETScreen International Clean Energy Decision Support Centre. The centre has developed unique software to provide renewable energy project analysis; the RETScreen Clean Energy Project Analysis Software can be used worldwide to evaluate energy production and savings, costs, emission reductions, financial viability and risk for various types of Renewable-energy and Energy-efficient Technologies (RETs).

Solar PV and Thermal Systems in Residential Homes

Canmet ENERGY, in collaboration with the Solar Buildings Research Network (SBRN) and the Canadian solar industry, have developed innovative combined solar PV/thermal technologies for integration into residential homes and commercial buildings. These technologies are demonstrated successfully at Concordia University, where the John Molson School of Business building has the first ever “solar wall”, with solar panels covering an approximate surface area of 300 square metres.

Leading Canadian companies

Solar

5N Plus
Canadian Solar
Carmanah
Centennial Global Technology
Day4
Eclipsall Energy
EffiSolar Energy
Heliene
Innergex
Lumin Solar
Morgan Solar
OSM Solar
Opsun
SkyPower
Solar Energy DC
Solgate
SPARQ Systems
Sunforce
SunRise Power
Sustainable Energy Technologies
Unconquered Sun Solar Technologies

Wind

Aeolis Wind Power Corporation
Boralex Wind
Brookfield Renewable Power
Composites VCI
Endurance Wind Power
Eocycle
Marmen
ReDriven
Seaforth Energy
Sequoia Energy
TransAlta Wind
Western Wind Energy

Foreign direct investment in Canada

Canada is one of the leading countries in the world for FDI in the renewables sector:

- Foreign direct investment (FDI) in Canada in the energy and metallic minerals industry reached an accumulated $193 billion in 2010 (Source: Foreign Affairs and International Trade Canada, Trade and Economic Statistics (2010)).
- 126 foreign companies established greenfield FDI projects in the renewable energy sector in Canada between 2003 and 2011 (Source: fDi Markets database, fDi Intelligence, Financial Times Ltd).

RECENT INVESTORS IN CANADA

Solar

Algatec Solar AG

Algatec, a German based solar module manufacturer, recently established a new solar module manufacturing facility in Windsor, Ontario. The $10 million investment initially created 100 jobs, with an estimated 200 jobs at full capacity.

Silfab

In 2011, Italian solar manufacturer, Silfab, officially opened the company's first North American manufacturing facility in Mississauga, Ontario. The $15 million investment for Phase I of the new facility created 70 new jobs, with the potential of a further 130 jobs once the facility is operating at full capacity.

Wind

CS Wind Corporation

In 2011, CS Wind, a South Korean wind tower manufacturer, invested $42 million to establish a manufacturing facility in Windsor, Ontario. The investment has already created 100 new jobs, and when fully operational will have a total of 300 employees. This is CS Wind's first North American production facility.

Daewoo Shipbuilding and Marine Engineering (DSME)

In 2010, DSME, a large South Korean conglomerate, and the province of Nova Scotia announced a joint venture agreement to build a wind turbine tower and blade manufacturing facility in Pictou County. The project created 120 jobs within its first year and will create up to 300 new jobs in total.

Siemens

In 2010, Siemens announced that it had selected Tillsonburg, Ontario, for its Canadian wind turbine blade manufacturing site. This facility is the company's first manufacturing plant for wind turbine components in Canada and represents an investment in excess of $20 million.

Foreign investors in Canada

Solar

Algatec Solar
CentroSolar
Conergy
EDF Energies Nouvelles
KACO New Energy
Samsung
Schletter
Silfab
Silicor Materials

Siliken
SMA Solar Technology
Unirac

Wind

Acciona Wind Energy
CS Wind
Daewoo Shipbuilding and Marine Engineering (DSME)
DMI Industries
EDF Energies Nouvelles
Enel
Enercon
GE Energy
Iberdrola Renewables
Invenergy
International Power GDF Suez
LM Wind Power
Mainstream Renewable Power
Mortenson
NCB Lohmann (alliance with Linamar)
Renewable Energy Systems
REpower Systems
Samsung
Siemens
Vestas
Wind Works Power
Windtechnics

Renewable energy industry in Canada

Global investment in renewable power and fuels reached US $ 211 billion in 2010, up 32% on the previous year.

Total investment in renewable energy exceeded investment in traditional power sources for the first time ever (Source: Bloomberg New Energy Finance (2011)), and renewable energy accounted for approximately half of new electric capacity added - nearly 97 Gigawatts (GW) of power (Source: Renewables 2011 Global Status Report).

Canada has the third largest renewable energy capacity in the world, with 17% of its total primary energy supply (TPES) and over 60% of total electricity generated by renewable sources (Source: International Energy Agency). Canada has considerable hydroelectricity capacity and is also rapidly developing strong companies in the wind and solar energy sectors. Global solar photovoltaic (solar PV) capacity increased by 72% in 2010, and year-on-year wind power capacity growth was 25% (Source: Renewables 2011 *Global Status Report).* It is estimated that solar PV will produce 11% of the world's electricity by 2050 (Source: International Energy Agency *Technology Roadmap Solar Photovoltaic Energy* (2010)). Wind power could provide up to 22% of the world's electricity demand by 2030 (Source: Global Wind Energy Council).

Solar

Canada has strong solar resources; large parts of Canada have a higher level of insolation than Germany, the global leader for solar PV installations (Source: CanSIA, Solar Energy 101). The Canadian solar PV industry received $2 billion of private sector investment in 2011 (Source: ClearSky Advisors Economic Impacts of the Solar PV Sector in Ontario 2008-2018, 2011). Total installed solar PV capacity in Canada is expected to increase from 291 megawatt in 2010 to 12,000 megawatt in 2025 (Source: CanSIA: Market intelligence: Solar photovoltaics). Over 350 solar companies are operating in Canada, including 40 manufacturers of solar PV components. As an emerging technology, solar PV is R&D intensive, and Canada has world class university research groups, research institutes and testing facilities for solar PV technologies.

Wind

Canada has some of the world's largest wind resources (Source: Canadian Wind Energy Atlas), and installed capacity is projected to increase from 5,265 megawatt in 2011 to almost 12,500 megawatt by 2015. A record number of wind power projects are under construction, with an estimate that wind energy could supply 20% of Canada's total electricity demand by 2025 (Source: CanWEA(December 2011)). Some of the largest global wind energy companies are present in Canada, and opportunities continue to grow within component manufacturing, construction, transportation, engineering and operations and maintenance (O&M). Wind clusters are developing across Canada in order to serve this rapidly expanding market, with a growing supply chain of companies manufacturing nacelles, towers, foundations, blades and mechanisms for wind turbines.

CANADA'S KEY ADVANTAGES

Natural Resources

Vast coastlines and huge land mass provide Canada with strong wind resources. Despite the widespread perception that Canada is a cold northern country, it is also home to a strong solar resource. In fact, insolation across much of Canada compares favourably to leading global jurisdictions for solar PV (Source: Wind Energy Institute of Canada, Wind Resource Assessment).

Huge market

Canada is the 6th largest consumer of electricity in the world providing a huge market for renewable energy. The US is the largest electricity consumer worldwide and is Canada's primary trading partner. Canada has reached an agreement to be exempt from the "Buy American" mandate (Source: Government of Canada: Canada-U.S. Agreement on Government Procurement (2010)), allowing Canadian companies to capture renewable energy opportunities in the US energy market.

Generous federal and provincial incentives

The Canadian federal government has set a goal of generating 90% of Canada's electricity from zero-emitting sources by 2020. Canadian provinces also offer generous incentives, and the feed-in-tariff rates offered in Ontario are among the most attractive worldwide for solar PV electricity.

Research & development capabilities

Partnerships between industry, government, universities and research institutes such as Canmet ENERGY and testing facilities such as WEICan and TechnoCentre Éolien create an excellent environment for R&D and innovation in renewable energy.

SKILLS AND RESEARCH

With 280,000 employed in the energy sector (Source: Canadian Wind Energy: Markets, Policies & Development Status(March 2011)), Canada has an abundance of transferable skills for the growing renewable energy industry and ranks 7th globally for its availability of scientists and engineers (Source: World Economic Forum Global Competitiveness Report (2011-12)). Canada has a world class higher education system with 22 Canadian universities appearing in the top 500 universities of the world (Source: Shanghai Jiao Tong University, Academic Ranking of World Universities 2011). In 2010, a total of 1.2 million students were enrolled in Canadian universities, and spending on research activities in Canadian universities amounted to $10 billion (Source: Association of Universities and Colleges of Canada (2010)). The NSERC Wind Energy Strategic Network (WESNet) unites researchers from 16 Canadian universities with industrial partners. Canadian universities offer programs in renewable energy related fields at undergraduate, graduate and PhD levels, including a number of specialized research centres and groups:

- Centre for Sustainable Energy at the University of Toronto
- Open Solar Outdoors Test Field at Queens University, Kingston
- NSERC Photovoltaic Innovation Network at McMaster University, Hamilton
- Sustainable Power Research Group at University of New Brunswick
- MSc in Sustainable Energy Development offered at University of Calgary
- Waterloo Institute of Sustainable Energy at University of Waterloo
- Québec centre for wind turbine maintenance at Cégep de la Gaspésie et des Îles, Gaspé

Testimonial

"We strongly believe in Ontario's Green Energy Act FIT and microFIT programs and are looking forward to expanding our business in Canada. [Canada] offers very competitive conditions for development and production internationally, and [has] a highly skilled and competent workforce."

Peter Flachsmann, CEO, KACO

Testimonial

"Canada is a key market for renewable energy; with high quality projects that are supported by long term feed-in-tariffs. We are delighted with our progress which strengthens our position in this attractive market with further growth opportunities."
Philip Cox, CEO, International Power

Clusters for renewable energy

‘Map of Canada showing the 10 provinces and 3 territories.’

BRITISH COLUMBIA (B.C)

Renewables

Wind power installed capacity of 247.5 megawatt (48 new turbines in 2011). The B.C. Clean Energy Act 2010 states that at least 93% of the electricity in the province is to be generated from clean or renewable resources.

Incentives

The B.C. Scientific R&D Tax Credit offers refundable tax credits of 10% on the first $3 million R&D expenditure and non-refundable credits of 10% thereafter.

Leading companies

Solar: Carmanah, Day4 Energy, EffiSolar Energy.
Wind: Western Wind Energy.

ALBERTA

Renewables

Wind power installed capacity 891 megawatt (55 new turbines in 2011). Alberta has plans for transmission infrastructure improvements that could increase installation capacity by up to 3,200 megawatt. A small solar PV industry cluster exists in Alberta, and several international energy providers are headquartered in the province.

Incentives

Net metering is applicable to solar PV systems. The Alberta Scientific R&D Tax Credit includes refundable tax credits of 10% (maximum of $400,000 per year). The Alberta Innovation Vouchers Program provides grants of up to $50,000 for technology development activities.

Leading companies

Solar: Conergy, Sustainable Energy Technologies.
Wind: TransAlta Wind.

SASKATCHEWAN

Renewables

Wind power installed capacity 197.6 megawatt (16 new turbines in 2011).

Incentives

The Go Green Fund allows for the purchase of renewable energy through incentives and rebates for net metering systems. Tax Credits for capital equipment are available for manufacturing and processing.

Leading companies

Wind: Hitachi Canadian Industries.

MANITOBA

Renewables

Wind power installed capacity 242 megawatt (60 new turbines in 2011). 1000 megawatt from wind energy targeted by 2016.

Incentives

Solar PV systems are eligible for net metering. A 10% tax credit is offered on Manitoba corporate income tax for manufacturing. Commercialization grants are also available.

Leading companies

Wind: Sequoia Energy.

QUEBEC

Renewables

Wind power installed capacity 918.4 megawatt (173 new turbines in 2011). Quebec government target is to integrate 4,000 megawatt of wind power by 2015, and to add 100 megawatt of wind capacity for every 1,000 megawatt of hydro capacity added. Significant cluster of companies in the solar supply chain exists, including semiconductor manufacturers, aluminium smelters and steel mills in addition to other solar PV compoment manufacturers.

Incentives

All renewable energy sources are eligible for net metering up to a maximum capacity of 50 kilowatt or estimated capacity required to meet on-site needs. The Strategic Support for Investment Program (PASI) provides loans for businesses. The Regional Economic Intervention Fund (FIER) helps companies obtain financing at the start-up, development, succession and turnaround stages.

Leading companies

Solar: Innergex, Opsun, Solart, Sunforce.
Wind: Enercon, LM Wind Power, Marmen, REPower.

NOVA SCOTIA

Renewables

Wind power installed capacity 285.6 megawatt (20 new turbines in 2011). 25% of total electricity demand to be met by renewable sources by 2016, and 40% by 2020.

Incentives

Solar PV is eligible for net metering. The Atlantic Innovation Fund provides funding for innovation.

Leading companies

Wind: Cape Breton Power, DSME, Scotian WindFields, Shear Wind.

NEWFOUNDLAND AND LABRADOR

Renewables

Wind power installed capacity 54.7 megawatt. 80 megawatt wind energy could be developed on the island of Newfoundland.

Incentives

Net metering policy is in development. The Innovation Enhancement Program contributes up to 80% of eligible costs (up to a maximum of $250,000) for projects that focus on innovation or industrial partnerships.

The Commercialization Program provides a direct equity investment or a repayable contribution of up to 75% of total costs (up to $500,000) for projects in the post-research stage of product development.

Leading companies

Wind: Enel.

ONTARIO

Renewables

Wind power installed capacity 1969.5 megawatt (Canada's leader for new wind installations, with 251 new turbines in 2011, adding 522 megawatt). Target of 10,700 megawatt renewable energy by 2018 (excluding hydroelectric) and 1.5% of in-province generation to come from solar PV by 2020. More than 200 megawatt of solar capacity is online and Ontario boasts Canada's three largest solar farms. Significant clusters of solar PV developers and manufacturers of modules, inverters, and racking have developed in the province.

Incentives

The Ontario Green Energy and Green Economy Act (GEA) is the most comprehensive package of policies to stimulate renewable energy development in North America. Competitive feed-in tariffs are available for onshore wind and solar energy. The Ontario Scientific R&D Tax Credit provides a 10% refundable tax credit on expenditures of up to $300,000 per year. The Ontario Business-Research Institute Tax Credit provides a 20% refundable tax credit for expenditures incurred under contract with an eligible university or Centre of Excellence. The Eastern Ontario Development Program provides grants of up to 15% of eligible project costs and the Strategic Jobs and Investment Fund (SJIF) is a grant/loan program supporting green technology.

Leading companies

Solar: Algatec Solar, Centennial Global Technology, Eclipsall Energy, EDF EN, GDF Suez, KACO New Energy, Lumin Solar, Samsung, Silfab, Solgate, SPARQ systems, Unconquered Sun, Unirac.
Wind: CS Wind, DMI Industries, Siemens.

PRINCE EDWARD ISLAND

Renewables

Wind power installed capacity 163.6 megawatt. PEI government goal is to install 500 megawatt of wind capacity by 2013 (Source: Island Wind Energy Securing our Future: The 10 Point Plan).

Incentives

The Renewable Energy Initiative provides funding for farmers to install renewable energy systems on site. The Atlantic Innovation Fund supports innovation. The Innovation and Development Labour Rebate Program provides a refundable tax rebate of 37.5% on eligible salaries and wages in the renewable energy sector.

Leading companies

Wind: GDF Suez Energy North America.

NEW BRUNSWICK

Renewables

Wind power installed capacity 294 megawatt (30 new turbines in 2011). The New Brunswick government is committed to increasing the proportion of total electricity from renewable sources to 10% by 2016, increasing total capacity to over 400 megawatt.

Incentives

Solar PV systems are eligible for net metering in the province. Grants of up to $100,000 are available to establish a new business, and up to $60,000 for expansion of an existing business.

Leading companies

Wind: Wind Dynamics.

Canada’s cost advantage

Advantage: Labour cost savings

For a typical renewable energy technology centre, companies can make labour cost savings of over $2 million per annum by investing in Canadian cities.

Total labour costs ($ million)

This chart looks at the total labour costs for a typical renewable energy technology centre with a total head count of 50 people. The labour costs include wages, statutory social costs, and private healthcare costs in the US and Canada.

Location	Unit Value
New Delhi	1.42
Sevilla	2.92
Charlottetown	3.13
Pamplona	3.25
Beijing	3.30
Montreal	3.31
Shanghai	3.32
Winnipeg	3.40
Quebec	3.42
Halifax	3.44
Madrid	3.48
Vancouver	3.52
Toronto	3.67
Austin	3.69
Windsor	3.76
Calgary	3.76
Mississauga	3.76
Sarnia	3.82
Waterloo region	3.82
Phoenix	3.84
Wichita	3.90
Ottawa	4.20
Chicago	4.38
Bremerhaven	4.96
Hamburg	5.20
San Francisco	5.41
San Jose	5.78

Source: fDi Benchmark Database, fDi Intelligence from the Financial Times (2012)

Advantage: Most competitive utility costs

Electricity costs in cities in Canada can be up to one-fifth of the costs in the US and even cheaper compared to European cities. Gas costs are less than half of the US and up to seven times cheaper than in Europe. This creates substantial cost savings for companies.

Utility costs per unit ($)

The graph shows the unit cost for industrial electricity and gas.

Location	Electricity per 100kWh	Gas per m3
Becancour	1.9	0.08
Mississauga	2.08	0.07
Calgary	3.57	0.06

Halifax	3.85	0.06
Austin	3.94	0.08
Wichita	4.03	0.08
Minneapolis	4.06	0.08
Charlottetown	4.24	0.09
Winnipeg	4.37	0.11
Phoenix	4.54	0.12
Vancouver	4.56	0.08
Chicago	4.85	0.12
Pittsburgh	4.97	0.14
Beijing	6.39	0.24
San Jose	7.97	0.10
New Delhi	8.27	0.03
Freiburg	12.39	0.44
Milan	12.67	0.38
Madrid	14.94	0.38

Source: Eurostat, US Energy Information Administration and major energy providers (2010/2011)

Canada's competitive advantages

Advantage: World-leading renewable energy producer

Over 60% of electricity generated in Canada is currently from renewable sources, making it one of the world's leading renewable energy users. Canada has the third largest renewable power capacity globally, after the US and China, and ranks 3rd after Norway and New Zealand for the percentage of total electricity produced from renewable sources.

Electricity from renewable sources

This chart shows electricity from renewable sources (biofuels, waste, hydro, geothermal. solar, solar PV, wind and tidal) as a percentage of total electricity produced.

Location	Unit Value
Norway	97%
New Zealand	72%
Canada	62%
Denmark	30%
Spain	26%
Germany	18%
Brazil	17%
Ireland	16%
France	14%
Mexico	14%
USA	11%
Netherlands	11%
UK	8%
Australia	7%

Source: fDi Intelligence based on the International Energy Agency (2009)

Advantage: Centre for innovation in renewable energy

Canada is a highly innovative environment for R&D in renewable energy, which can be seen by the number of patents granted in the solar energy sector.

Patents in solar energy and solar PV

This chart shows the estimated number of registered patents in solar energy and solar PV from 2003-2011.

Location	Unit Value
Taipei	134
Austin	101
Pittsburgh	79
Chicago	51
Toronto	50
Phoenix	37
Montreal	31
Minneapolis	29
Mississauga	26
Calgary	26
Shanghai	26
Ottawa	24
Vancouver	22
Madrid	20
Freiburg	18
Beijing	14
Waterloo region	11
Hamburg	10
Windsor	7
Winnipeg	6

Source: fDi Intelligence estimates based on the US Patent and Trademark Office (2011)

Advantage: Availability of skilled labour force

Canada ranks seventh worldwide for availability of scientists and engineers in the World Economic Forum's Global Competitiveness Report 2011-12.

Availability of scientists and engineers

This table shows the score allocated to each country for availability of scientists and engineers (1=Non Existent, 7=Widely Available)

Location	Unit Value
USA	5.5
Canada	5.4
France	5.3
UK	5.1
Netherlands	5
Denmark	4.9
India	4.9
Ireland	4.9
China	4.7
Norway	4.7
Spain	4.6
Germany	4.5
Italy	4.3
Australia	4.2
New Zealand	4.1
Mexico	3.9
Brazil	3.8

Source: WEF Global Competitiveness Report 2011/2012

Advantage: Track record in attracting renewable energy FDI

Canada attracted 75 greenfield FDI projects in renewable energy in 2010-11. Relative to size, Canada attracted more renewable energy investment than any other major economy, and during this period, Ontario was the leading region in the world for renewable energy FDI.

Number of FDI projects in renewable energy 2010-2011

This graph shows the number of greenfield FDI projects attracted by each country in the last two years, according to fDi Intelligence, Financial Times Ltd.

Location	Unit Value
United States	225
UK	115
China	98
Canada	75
Germany	75
India	70
Brazil	55
Italy	51
France	48
Romania	38
Bulgaria	29
Spain	26
Mexico	26
Singapore	23
South Africa	22
Poland	19
Australia	18
Czech Republic	18
Malaysia	17

Source: fDi Markets Database, fDi Intelligence from the Financial Times (2011)

Advantage: Favourable corporate income tax

Canada offers among the most attractive corporate tax levels of any comparable country. Companies locating in cities in Canada can expect to pay lower taxes than in the US, Spain, Australia or Germany.

Corporation tax rates (%)

This chart shows the corporate tax rates payable by corporations. Figures are expressed as tax payable as a percentage of companies' gross profit.

Location	Unit Value
Taipei	17
Vancouver	25
Calgary	25
Shanghai	25
Mississauga	26
Matane	26.9
Winnipeg	27
Bremerhaven	29.4
Sevilla	30
Charlottetown	31
Halifax	31
Milan	31.4
New Delhi	33.22
Austin	35

Phoenix	39.5
Wichita	39.6
San Jose	40.7
San Francisco	40.7
Chicago	41.2
Minneapolis	41.4
Pittsburgh	41.5

Source: KPMG (Country and Canadian Provinces; 2012) and The Tax Foundation (US States; 2011)

Advantage: Outstanding quality of life at affordable cost

Canadian cities have the highest quality of living in the world. Vancouver was rated the most liveable city in the world by the Economist Intelligence Unit in 2011 and also tops the fDi Intelligence index. Canadian cities are highest ranking when considering both quality and cost of living.

Attractiveness of cities

This chart shows the overall attractiveness of cities based on combining their quality of living and cost of living, with a 50% weight attached to each.

Location	Unit Value
Vancouver	100
Montreal	96
Calgary	95
Toronto	94
Hamburg	93
Mississauga	91
Waterloo region	83
San Jose	82
Milan	79
Halifax	79
San Francisco	78
Winnipeg	77
Madrid	77
Windsor	75
Shanghai	73
Bremerhaven	70
Minneapolis	69
Beijing	69
Pamplona	69
Chicago	65
Wichita	60
Sevilla	58

Source: fDi Intelligence from the Financial Times (2011). Vancouver = 100

Why Canada?

Canada is a place where businesses can achieve excellence on a global scale.

A welcoming business environment

Canada is the best place to do business in the world.
Source: Forbes Magazine, October 2011.

A growing economy

Canada has been the top performer among the G-7 countries over the 2008-11 period.
Source: Consensus Economics, April 2012.

A highly educated workforce

Canada has the highest proportion of post-secondary graduates among members of the Organisation for Economic Co-operation and Development (OECD).
Source: OECD, Education at a Glance 2011.

Financial stability

Over the past four years, Canada's banking system has repeatedly been declared the soundest in the world.
Source: World Economic Forum (WEF).

Low tax rates

Canada's combined federal-provincial statutory corporate income tax rate of 26% is more than 13% below the U.S. and among the lowest when compared to G-7 countries.
Source: Department of Finance, Canada and the OECD Tax Database, 2012.

Scientific research and experimental development

Canada offers some of the most generous R & D tax incentives in the industrialized world, with combined federal and provincial tax credits that can currently save foreign investors, on average, up to 30 cents on the dollar invested in R & D in Canada. Canada also has the G sevens lowest costs in R & D intensive sectors (up to 10.7% lower than in the U.S.).
Source: Department of Finance Canada and KPMG, Competitive Alternatives 2012.

NAFTA

The North American Free Trade Agreement (NAFTA) gives investors access to nearly 457 million consumers and a combined continental GDP of more than US $17.2 trillion. Canada continues to seek more free trade agreements with economic and emerging powers to increase trade.
Source: World Bank, World Development Indicators Database.

A great place to invest, work and live

Canada is one of the most multicultural countries in the world and it provides world-class universities, a universal healthcare system, clean and friendly cities, and spectacular scenery.
Source: United Nations Development Programme, Human Development Report 2010; Economist Intelligence Unit, Global Liveability Report 2011.