



CANADA'S ENERGY ADVANTAGE



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Energy demand is expected to grow globally by 30% by 2040. Canada can help meet global demand through its vast wealth of energy resources, technology, and services, and untapped potential. The world is transitioning to a low-carbon economy and Canada has some of the greatest potential for clean energy development. In building the energy systems of tomorrow, **Canada can maximize its energy advantage.**

For Canada to meet the planet's growing energy demand, it needs more customers and greater investment. Our message to international partners is: Canada is open for business.

WHY CHOOSE CANADA?

Unparalleled Energy Assets

Vast energy assets, spanning every major resource and energy type

Sustainable Supplier

Energy products are produced under a robust regulatory regime using clean technologies, resulting in sustainable production

Innovation and People

Enabled by the most educated workforce in the world, research and development capacity is creating new technologies and transforming the energy industry

Secure, Reliable, and Accessible

A stable, reliable energy investment destination with a strong track record of delivering long-term returns

Buyers: Canada has energy products, technologies, and services to meet every need. No other country can match its offerings of oil, natural gas, uranium, renewables, and more. World-leading companies offer technologies and services that can transform energy systems, increase energy efficiency, and deliver solutions for all markets. With free trade access to over two-thirds of the global economy and ports on two oceans, Canada is connected to the world. Whatever the challenge, Canada is the right choice for global customers.

Investors: Canada has exciting investment opportunities across the energy sector. This includes oil and gas projects, some of the best offshore petroleum resources in the world, and massive untapped sources of solar, wind, marine (including hydro and tidal), geothermal, and bioenergy. Canada is a stable place to do business, with a strong commitment to the rule of law, a political environment that ensures long-term returns, and the lowest business costs and total effective taxes in the G7. Canada is investing hundreds of billions in infrastructure to stay competitive for the next

generation, and is committed to developing the workforce of the future.

Industry: Canada has plentiful, affordable, and clean sources of energy, in addition to an abundance of natural resources upon which industries and consumers depend. This includes an electricity grid derived from nearly 82% non-emitting sources and one of the cleanest and lowest-cost natural gas supplies globally. Canada boasts the most educated and diverse workforce in the world, in which women and Indigenous peoples play a major role. Increasingly, customers want to know the goods they purchase are produced sustainably and responsibly. They want to purchase products and resources produced in Canada.

UNPARALLELED ENERGY ASSETS

Vast energy assets, spanning every major resource and energy type

The numbers speak for themselves: Canada's energy resources rank in the top tier globally in every category. Canada's energy assets far exceed its needs, making it a natural global supplier. Its vast size and scope make it a player in every major energy product and technology.

The diversity of resources and expertise means Canadians have real and practical experience to make projects happen here and around the world. Canada truly has something to offer to every market.

Canada's untapped energy potential is much greater than current production. This is particularly true for renewables such as solar, wind, tidal, geothermal and biofuels, where Canada's riches make it a source of opportunity. Its top tier petroleum resources include conventional and unconventional oil and gas located across the country as well as offshore.

With over \$500B in new projects under construction or planned over the next decade, Canada has only begun to harness its energy potential. Canada is looking for international partners to help achieve these projects. Let's work together to build on Canada's energy advantage.

KEY FACTS

- **Largest oil reserves open to free market investment**
- **5th largest technically recoverable shale gas reserves**
- **Renewable energy sources provide 17% of the country's total primary energy, with tremendous growth potential**
- **6th largest in nuclear generation**
- **Tier 1 nuclear country, one of a small number of countries with a comprehensive nuclear sector**
- **\$112B in energy exports in 2017**
- **In 2015, Canada produced 17% more energy compared to a decade earlier**

GLOBAL ENERGY RANKINGS FOR CANADA

	Proved reserve/ capacity	Production	Exports
Crude oil	3	4	4
Uranium	3	2	2
Hydroelectricity	4	2	-
Electricity	7	6	2
Natural gas	17	4	5

Source: Natural Resources Canada, 2018



SUSTAINABLE SUPPLIER

Energy products are produced under a robust regulatory regime using clean technologies, resulting in sustainable production.

Being a sustainable supplier is no longer a futuristic idea: change is underway and Canada is at the forefront. Markets, consumers, and investors are moving to address and adapt to the reality of climate change, and seek clean products and technologies.

Environmental sustainability and responsible economic development are linked, and Canada is transforming its economy accordingly. All levels of government and industry are working across the energy sector to create the cleanest, most sustainable products and technologies. What does this mean in practice? Everything from advances in energy efficiency, approaches for carbon capture, use and storage, development of small modular nuclear reactors to meet energy needs in remote locations, and producing cleaner oil and gas, including some of the lowest GHG per barrel offshore production in the world.

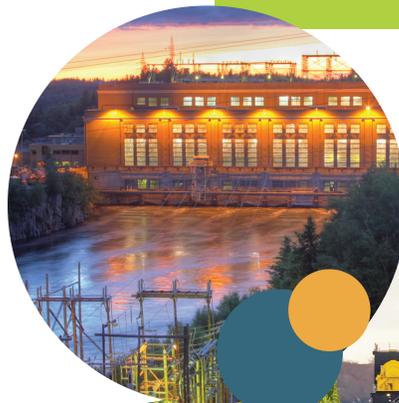
Canada's world-leading affordable, clean electric grid enables the electrification of energy production as well as other sectors of the economy, such as transportation and manufacturing.

Canada is also taking a global leadership role to accelerate progress towards a low-carbon economy. This includes hosting major multilateral fora, such as the 10th Clean Energy Ministerial and 2018 G7 Energy Ministerial, and working with international partners to promote Canada's vision for a clean energy future.

Canada is committed to the transition to a low-carbon economy and producing its energy resources in a sustainable manner. Let's champion sustainable supply, drawing from Canada's energy advantage.

KEY FACTS

- **Canada is committed to the Paris Agreement and achieving its 2030 targets**
- **This includes phasing out coal power by 2030 and working to achieve emissions reductions across all sectors of the economy**
- **Alongside the UK, Canada is a founding member of the Powering Past Coal Alliance**
- **Canada's electricity grid is drawn from nearly 82% non-emitting generating sources**
- **Canada's Oceans Protection Plan is investing \$1.5 billion to protect Canada's coasts and waterways and develop a world-leading marine safety system**
- **Beyond producing some of the cleanest natural gas in the world, oil sands producers are also working to reduce the environmental impacts of extraction through Canada's Oil Sands Innovation Alliance (COSIA).**
- **In 2016, oil sands emissions per barrel decreased nearly 30% compared to 2000. Industry has identified promising areas for innovations that could lead to reductions in GHG intensity by 10 to 30 per cent in the next five years – with even greater improvements in the next decade and a half**



INNOVATION AND PEOPLE

Enabled by the most educated workforce in the world, research and development capacity is creating new technologies and transforming the energy industry.

Canada has the people, knowledge, and institutions to offer a full suite of energy products, technologies, and solutions to the world. Its tertiary institutions attract the world's finest minds, while its high standard of living and social advantages make it a destination of choice for global innovators.

High rates of educational achievement, and the widespread inclusion of women and newcomers in the workforce, make Canada a hotbed for new ideas. This is furthered by world-class standards for worker health and safety and the increasing participation of Indigenous peoples in all facets of energy production. Canada's diversity allows us to engage with the world and meet the needs of differing communities.

Canada is committed to supporting innovation. All levels of government, industry, and academia know the future of energy will be driven by big ideas and are investing to see Canadian innovation drive the world.

Canada is also a leader in the Mission Innovation initiative, which brings together 25 governments to accelerate clean energy innovation to address climate change and improve energy access and affordability. In 2019, Canada hosted the 4th Mission Innovation Ministerial, which showcased a vision for a clean energy future for the world. Domestically, Canada is developing and deploying technologies to improve energy access and reduce reliance on diesel fuels in rural and remote communities.

Canada's researchers, entrepreneurs, and problem-solvers are thriving and innovating new technologies at a rapid pace. This includes a commitment to sharing the benefits of innovation with a wide audience. Greater international engagement and knowledge sharing can accelerate innovation across the energy sector. Let's share ideas, supported by Canada's energy advantage.



	Hydrocarbons (including CCUS)
	Renewable and clean energy
	Energy end use
	Total*

KEY FACTS

- According to the OECD, Canada is the most educated country and workforce in the world
- Canada welcomes newcomers: 50% of STEM jobs are filled by immigrants
- Canada's universities conduct \$1B in research for businesses, to further their competitiveness
- Innovative startups are thriving: Canada is home to 77 publicly traded clean tech companies, with a market capitalization of over \$37.1B
- Canada ranks 1st in the G20 and 4th globally for clean tech start-up potential over the next decade
- Canada has some of the world's leading clean tech firms, with 12 making the list of Global Cleantech 100 Companies in 2019

EXPENDITURES ON ENERGY RD&D BY TECHNOLOGY AREA (\$ MILLIONS)

	 Federal (2017/18)	 Provincial and territorial (2017/18)	 Industry (2016)
Hydrocarbons (including CCUS)	144	91	727
Renewable and clean energy	240	113	509
Energy end use	149	62	354
Total*	533	266	1,590

* Totals may not be exact due to rounding.
Renewable and clean energy supply includes renewable and nuclear energy.
Energy end use includes energy efficiency related to transport, industry, and buildings and communities.

SECURE, RELIABLE, ACCESSIBLE

A stable, reliable energy investment destination with a strong track record of delivering long-term returns

Canada's stable political and economic climate enhances regulatory and investor confidence. Its regulatory approach is designed to deliver transparent, inclusive, and fair decision-making processes. This includes consistent and timely project reviews, with timelines enshrined in legislation.

Canada has a strong history of economic stability, with low tax rates, inflation, rates of government debt relative to GDP, and an overall position of very low volatility. The country's stability is also noted in its sound banking system and effective financial regulation.

Canada is fully accessible to world markets. The country has free trade access to over two-thirds of the global economy and is fully committed to the rules-based international trading system. A roster of trade agreements guarantees access to the EU, North America, and Asia. Canada is part of a deeply integrated North American market, which features extensive cross-border energy infrastructure and ports on two oceans, enabling short shipping times to high-growth and established markets.

With plentiful supply, Canada can contribute to global energy security and help combat energy poverty.

As a secure, reliable, and accessible producer, Canada is well-positioned to help meet the world's growing energy demand. Let's realize stable, long-term returns to maximize Canada's energy advantage.

KEY FACTS

- **Lowest business costs and lowest total effective taxes in the G7**
- **Free trade agreements with 2/3rds of the global economy, and the only G7 country with free trade agreements with every other G7 member**
- **Ranked 1st in the G7 and 8th in the world for ease of investor protection**
- **In 2018, Canada ranked 6th in the Economist Intelligence Unit's Democracy Index, and 9th in Transparency International's Corruption Perception Index.**
- **Canada's net debt to GDP ratio was less than half of its peer countries between 2008 and 2017**
- **Canada's banking system is ranked 2nd in the world and soundest in the G7**



INDIGENOUS LEADERSHIP

The Government of Canada is committed to reconciliation and a renewed relationship with Indigenous peoples based on the recognition of rights, respect, cooperation, and partnership. While there is more work to do, this transformative shift is leading towards a long-term vision for a better Canada in which Indigenous nations are key partners in a strong resilient economy.

The energy sector is a prime example of this commitment in action, with positive, two-way engagement that creates lasting benefits for everyone. Indigenous peoples are true partners in energy development in Canada. The Government of Canada and industry alike are committed to deeper consultation and economic benefit inclusion with Indigenous communities across the country.

The Crown has a constitutional duty to consult Indigenous groups and, where appropriate, accommodate their concerns when it contemplates conduct that might adversely affect asserted or established Aboriginal or Treaty Rights and title, as recognized and affirmed by Section 35 of the *Constitution Act*, 1982.

Indigenous Peoples as Leaders, Partners, Workers, and Suppliers

Indigenous peoples are building enormous capacity to play a bigger role in energy projects and are looking for new ways to participate in the development of energy potential, partnering with governments and industry. Indigenous communities are increasingly creating coalitions and partnerships with industry. Successful coalition models include the First Nations LNG Alliance, Watay Power, and James Bay Cree, among others.

Indigenous companies, including supply and service firms such as Pimee Well Servicing, work in all energy subsectors with a particular concentration in oil and gas. Canada's population of skilled Indigenous workers, many located in remote areas proximate to resource development, is another strong national asset.

Syncrude, Suncor, and Shell have all been certified 'Progressive Aboriginal Relations Gold' by the Canadian Council of Aboriginal Business. The Gold certification signifies their sustained leadership in relationship building and their commitment to working with Indigenous businesses and communities. Nexen and Enbridge have been certified at the silver level.

Real Involvement & Engagement

Meaningful consultation with Indigenous peoples on proposed projects is a legal and constitutional imperative, and has been incorporated at the core of project review processes across the country. This dialogue is an essential part of doing business in Canada and there is greater openness on the part of industry to work closer with Indigenous communities.

Indigenous peoples are increasingly included in the planning, design, and scope of new projects. Their advice and expertise bring a unique perspective to ensure local support and enable a strong link between energy and the environment. The Government of Canada's commitment to ensure meaningful engagement processes seeks to build trust with Indigenous communities.



OLD CROW SOLAR PROJECT

The Vuntut Gwitchin First Nation, located in Yukon, has partnered with the local utility to build a \$4.8M solar project that will generate 940 kW of solar generation, and alleviate the need for 190,000L of flown-in diesel fuel per year, avoiding 680 tonnes of CO2 emissions. The project – owned and managed by the community – will provide reliable energy and revenue, and is a model for northern and remote communities both in Canada and around the world.



Energy Projects Make A Difference

Energy projects in Canada have an enormous impact on Indigenous peoples and communities. The economic and social benefits are tangible and powerful. For remote and northern communities in particular, energy development can drive economic development, increase community stability, create jobs, and increase the standard of living.

Industry is increasingly recognizing the importance of economic inclusion and benefits involving energy development with Indigenous communities. Examples include equity ownership of infrastructure, partnerships between communities and upstream energy producers, unique financing models, and increased access to capital, among other mechanisms. These mechanisms enable communities to benefit from energy development in diverse ways.

Some energy corporations offer training and development programs, scholarships, and other support for Indigenous communities. Syncrude offers a range of scholarships to Indigenous youth and provides free travel and accommodation for workers from Fort Chipewyan, while Shell has created a targeted fund to support Métis Albertans into post-secondary education and skills development and toward Shell intern and graduate programs. These initiatives enable corporations to partner with Indigenous communities and develop strong, mutually beneficial relationships.

The sustainable development of energy resources in Canada has direct positive impacts with many Indigenous peoples and contributes to prosperous self-determining Indigenous communities through a form of economic reconciliation. We have much work to do, but energy development is a big part of this journey.

FORT MCKAY GROUP OF COMPANIES

The Fort McKay Group of Companies – 100 per cent owned and operated by Fort McKay First Nation and situated in the heart of the oil sands – generates more than C\$150 million in revenue annually from oil sands supply contracts. In 2017, Fort McKay First Nation and Mikisew Cree First Nation partnered with Suncor to buy a 49 per cent interest in Suncor's East Tank Farm Development for total proceeds of \$503 million.

WATAYNIKANEPAP TRANSMISSION PROJECT

The Wataynikaneyap Transmission Power project will connect 17 diesel-reliant remote First Nation communities in Northwestern Ontario to the provincial power grid. The 1,800 kilometre transmission project will decrease reliance on high-cost, high-emission diesel power and provide consistent, reliable, and cleaner electricity. Wataynikaneyap Power is a majority owned Indigenous transmission company, owned equally by 24 First Nations in partnership with private investors led by Fortis Inc. Wataynikaneyap Power is expected to generate significant economic benefits and employment opportunities for these First Nation communities. Project proponents are working with public and private stakeholders both locally and across the province to ensure strong community support for this transformational, regional project. In December 2018, Pikangikum First Nation was connected to the provincial power grid completing the first milestone of this symbolically important project.



SECTOR PROFILE: NATURAL GAS

Some of the world's cleanest LNG facilities are ready for prime time on Canada's East and West coasts.

Canada is a long-time, reliable exporter of natural gas, ranking fourth globally in exports and fifth in production. The country's gas reserves are estimated between 860 and 1,768 trillion cubic feet. Marketable resources of gas can sustain current production levels for up to 300 years. Canada strives to have the cleanest natural gas sector in the world.

The country's natural gas resource base has grown dramatically and global industry leaders are now looking to export liquefied natural gas (LNG) to overseas markets.

The country's West Coast LNG facilities are positioned to be the cleanest LNG facilities in the world. Canada is striving to electrify both upstream and downstream production processes. Canada, Alberta, and British Columbia have announced methane regulations for the oil and gas sector, with the aim to reduce emissions by 40 to 45% below 2012 levels by 2025. Finally, British Columbia has set the world's most stringent GHG emission benchmark for LNG production facilities.

Canadian LNG is a major asset in the global transition to a low-carbon future. On both coasts, there are nearly 20 LNG projects at varying stages of advancement. Canada is building partnerships to supply world markets and help other countries meet their climate goals.

Accessing World Markets

LNG projects in Canada are closer to key markets than other proposed North American facilities:

- West Coast facilities are about 10 shipping days from Asia. LNG shipments from the US Gulf Coast to Asia take roughly 20 days, and transit the Panama Canal, increasing costs.
- East Coast facilities are 6 to 8 shipping days from Europe (shortest distance to Europe of any North American LNG project).
- Projects to some South American ports are 1.5 days shorter than shipping times from the US Gulf Coast.



LNG Canada

The LNG Canada project, which began construction in 2018, is the first step towards that goal. The joint venture-led \$40 billion (est.) project is the largest private sector investment in Canadian history. It will feature a liquefaction, storage, and marine shipping facility on Canada's West Coast.

The project will enable Canadian natural gas to power overseas markets and divert electricity production from coal-fired plants.



Photo credit: LNG Canada

Petrochemicals

With abundant and low cost natural gas feedstock, Canada is well positioned to attract investment into the petrochemical sector.

Recent investments to develop petrochemical facilities in Alberta are helping position the province as a major player in the industry.

Exports of petrochemical products from Canada can be delivered at a lower cost and in a shorter time than the US Gulf Coast. Canada's chemistry products are also 80% less GHG-intensive than those produced in most world markets, which rely on crude oil as a feedstock.



SECTOR PROFILE: OIL

A major oil producing country with the largest oil reserves open to free market investment.

Canada is committed to producing cleaner oil and building the infrastructure necessary to bring its products to world markets. Canada has the third largest oil reserves in the world, totaling an estimated 167.7 billion barrels, of which 163.4 billion barrels are found in Alberta's oil sands and an additional 4.3 billion barrels in conventional, offshore, and tight oil formations. The country accounts for 10% of the world's proven oil reserves.

Oil Sands

Much of Canada's oil reserves are located in the oil sands in northern Alberta. This unconventional reserve is a mixture of bitumen, sand, and water, and is home to three major deposits and numerous projects. Oil sands operations are connected to a network of over 3,400 suppliers across the country.

Innovation is a key part of the oil sands story, and Canada's oil sands producers are committed to environmental stewardship. By 2016, dedicated technological and operational efforts resulted in a decrease of nearly 30% of emissions per barrel of oil sands, compared to 2000.

The average greenhouse gas emissions of Alberta crude continues to decrease as production technology improves. Since 2012, in situ oil sands greenhouse gas intensity reduction has decreased by approximately 11 per cent and oil sands mining greenhouse gas intensity has decreased by approximately nine per cent. Although production in the oil sands is expected to rise to meet increasing energy demand in the coming years, since 2000, the carbon intensity produced by crudes from the oil sands destined for export to the U.S. has dropped by nearly 50 per cent. Further advances are expected as new technologies are introduced.

The oil sands offers steady, low-decline production over decades, which provides diversification for investors looking to add stable, long-term cash flows. With cutting-edge innovation, networks of suppliers and service firms, and ongoing government support, investing in Canada's oil sands continues to be a smart long-term decision.





Conventional and Tight Oil

Canada is home to a thriving conventional oil industry. Hundreds of major conventional and tight oil reservoirs stretch across the Western Canadian Sedimentary Basin from northwestern British Columbia, through Alberta and Saskatchewan, to southeastern Manitoba. Geological mapping of the basin is extensive and exploration is ongoing to expand existing reservoirs and discover new ones. There were 1.3 million barrels of conventional and tight oil produced per day in 2017 and production is increasing.

This sector presents investors and customers with a broad and diverse range of scalable opportunities across all manners of light, medium and heavy oil production. With existing supportive government programs and policies, Canada's conventional and tight oil sector continues to offer a world-class investment environment.

Atlantic Canada Offshore

The Atlantic region represents tremendous opportunity in offshore oil and gas, with basins still underexplored and hundreds of documented leads and potential projects. Canada is committed to developing offshore oil and gas resources, with strategies to ensure safety, drive competitiveness and innovation, and further exploration. Current average production is 230,000 barrels per day, representing 18% of Canada's conventional crude oil production.

Offshore oil's low GHG-intensity production will play a key role in meeting the world's energy needs as we transition to a low carbon future. Overseen by a world-class regulatory system, and with governments aligned to deliver prosperity, this region is an internationally preferred location for oil and gas exploration and development.

Atlantic Canada offshore is an innovative industry that is globally competitive, environmentally responsible, and has stellar track record for safety. With billions of barrels of oil and trillions of cubic feet of natural gas waiting to be developed, the time is right to invest in offshore development in Canada.



SECTOR PROFILE: HYDRO & RENEWABLES

Longstanding hydro expertise and increasingly affordable renewable prices make up a world-leading non-emitting electrical grid.

Canada is a renewable energy powerhouse and its vast landmass and geography provides considerable potential for every type of renewable energy. Having an electrical grid derived from nearly 82% non-emitting sources (67% from hydro and renewables) means locating energy-intensive production processes in Canada makes good economic and environmental sense.

Hydro

Canada has developed its vast water resources for over a hundred years and is currently the world's 2nd largest hydropower producer.

Canada's hydroelectric assets account for 60% of its electricity generation, with over 530 facilities representing close to 81,000 MW of installed capacity across every region of the country. Canada is known for its large reservoir hydro projects, but also has hundreds of smaller facilities, as well as run-of-river installations, that can be used in geographies around the world.

Looking ahead, Canada has the potential to double its hydro capacity and deploy tidal energy. This growth can create energy and technology export opportunities as well as enable electrification of major sectors of the economy.

Canada's longstanding hydro history and world-leading tidal demonstration facilities mean operators and their supply chains have the expertise to tackle any challenge, from designing new projects in challenging environments to major refurbishments.

Solar

Solar PV capacity increased by nearly 240% between 2013 and 2017 to reach over 2,900 MW. As of 2016, over 98% of solar generation capacity was located in Ontario. By 2020, solar power is expected to produce 1% of the country's total electricity generation, with nearly 6,300 MW of installed capacity.



Bioenergy

Canada's forest and agricultural sectors provide a huge biomass resource base. Wood and wood waste are important energy sources, providing more than 400 petajoules annually to fuel industrial uses. Canada has over 70 bioenergy power plants representing over 2,400 MW of installed capacity from wood refuse, organic municipal solid waste, and other sources. Through increasing production and exports of wood pellets, Canada is now the second largest wood pellet exporter by weight in the world.

Canada is a centre of research and development, commercialization, and adoption of bioenergy and technology. For example, Canada is the world's fifth largest producer of biofuels, including ethanol and biodiesel. Canada is poised to meet the growing global demand for bioenergy and alternative fuels.



Wind

Installed wind power capacity in Canada has grown by almost 600% over the past decade. Today, Canada has a total installed capacity of over 12,800 MW of wind power from nearly 300 wind farms. Canada ranks 9th in the world for total onshore installed capacity, and there are plentiful opportunities to harness even more wind power.

As technological advances have driven down capital costs to par with other energy sources, it is easy to see why wind power is growing so quickly. Wind investment opportunities are diverse, ranging from major projects to small operations and technology companies, with a wide array of partnership arrangements, and integration with other forms of energy generation and smart grids.



Geothermal

The country's geothermal resources and existing projects are concentrated in Western and Northern Canada. The estimated potential for geothermal energy is over 5,000 MW, based on currently available technology, with more than 10,000 MW available through enhanced geothermal systems (EGS) under development.



SECTOR PROFILE: NUCLEAR

Home to world-class uranium reserves, world-leading nuclear technology, and the world's largest nuclear generating station.

As one of a few Tier One nuclear countries, Canada has the technical and regulatory expertise to successfully operate the full life cycle of nuclear energy generation and share this with the world.

Canadian nuclear energy is clean, safe, reliable, and affordable, generating 24/7 electricity at some of the lowest prices globally.

Canada's own nuclear generating technology, CANDU, has been in operation since the 1960s. There are 31 CANDU reactors around the world – 19 in Canada and 12 across South America, Europe, and Asia. This includes the Bruce Power Station, the largest nuclear generating station in the world.

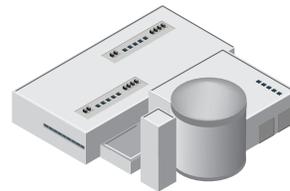
The CANDU design is an ideal choice to meet growing global demand for emissions-free energy. CANDU uses natural, unenriched uranium – which keeps fuel costs low – can use material from decommissioned nuclear weapons – which advances disarmament – and can be refueled while operating at full power.

Safety & Security

Canada's nuclear sector is committed to the highest standards of security, safety, and non-proliferation. The industry is overseen by the Canadian Nuclear Safety Commission (CNSC), which sets and enforces world-leading safety standards.

Canada has developed world-leading expertise in reactor refurbishment and life cycle extensions, demonstrated by ongoing efforts to extend the life

cycle of reactors in Ontario. These multiyear, multibillion dollar projects are being successfully executed on time and on budget.



12 CANDU reactors
are in operation outside of Canada.



Uranium

The province of Saskatchewan is home to the world's largest high-grade uranium deposits. Canada is the world's second largest producer of uranium and exports over 85 per cent of production to fuel the world's growing clean electricity demands. There are several undeveloped world-class uranium deposits under evaluation and strong geological potential for additional discoveries.

The Government of Saskatchewan maintains an internationally-recognized geological database that assists exploration companies in developing their exploration programs. Canada's uranium industry is a major employer of Indigenous Canadians and is committed to providing economic and employment opportunities to Indigenous people and communities.

Small Modular Reactors

Looking ahead, Canada has the expertise, supply chain, and vision to lead the development and deployment of Small Modular Reactors (SMRs). SMRs can deliver affordable, non-emitting energy for a variety of applications, including powering remote industry and communities.

With technological expertise and nuclear capacity, Canada has the advantages to be a world leader in what is expected to be a \$150 billion market by 2040.



Medical Isotopes

Canada leads the world in supplying 70% of the globe's Cobalt-60 medical isotopes. Canadian Cobalt-60 is used to sterilize medical equipment and implantable devices at hospitals around the world. Canada's medical isotopes are also used to diagnose and treat certain cancers, helping an estimated 35 million global patients every year.

SECTOR PROFILE: CLEAN ENERGY TECH

Commitment to innovation translating into a world-leading clean technology sector, harnessing renewables and enabling smarter energy use.

Cutting across all of Canada's energy subsectors is a relentless drive to innovate, improve, and create the cleanest possible forms of energy. Canada is

a clean tech hub, mobilizing its unique assets to answer the energy sector's most pressing questions. The country has the infrastructure and supporting technologies in place to build clean energy technologies and bring them to market.

The clean tech sector in Canada is composed of small and medium-sized firms. Exciting start-ups and established players are working together to drive the future of energy technologies and to develop new approaches to energy efficiency.

Stimulating Clean Tech

Canada is committed to supporting clean tech innovation and market development. More than \$3B in federal government funding has been invested in clean tech development and Canada's provinces and territories are also playing a leading role. The extensive suite of funding support programs covers everything from aviation biofuels challenge prizes, to equity and debt financing, to tax incentives for tech adopters. Canada has also established the Clean Growth Hub – the focal point for all federal programs and services to support clean tech companies and projects.

Canada's efforts are paying off, as the country currently sits first in the G20 and fourth globally in terms of clean tech start up potential over the next decade.

Smart Grids

Canada is at the forefront of the smart grid industry. Canadian companies are leading innovative solutions that support grid services and detect and prevent losses while maintaining quality and reliability, making the integration of intermittent renewables possible.

Canada has more than 80% smart meter penetration, over 10 GW in distributed generation, and infrastructure continues to expand. Canadian smart grid technologies are set to fuel a growing global market.

Energy Efficiency

Canada is making major investments in energy efficiency and becoming a world leader. Canadians know that finding intelligent ways to use less energy will be just as important as developing ways to generate more clean energy.

Canadian companies are working across the energy sector to make homes, transportation, buildings, and industry more efficient. The global energy efficiency market is expected to reach over \$550 billion by 2035. Canadian services and technology companies can help customers around the world drive growth and productivity by using less energy.

Carbon Capture, Use and Storage

Canada is a global leader in Carbon Capture, Utilization and Storage (CCUS) technologies, with four of the world's 22 large-scale projects in operation or under construction, and a world-class ecosystem of CCUS innovators developing next-generation carbon capture and carbon conversion technologies.

Canada sees CCUS as an important tool to reduce greenhouse gas emissions in a number of industrial sectors, including oil and gas, cement, steel, and chemicals production.





**THANK YOU TO PROVINCES, TERRITORIES, INDUSTRY,
INDIGENOUS ORGANIZATIONS, COMMUNITIES,
AND PROJECT PROPONENTS, AND THE FEDERAL
GOVERNMENT FOR CONTRIBUTING VIEWS AND INSIGHTS
TO HELP INFORM CANADA'S ENERGY ADVANTAGE.**

