

SIEMENS

Ingenuity for life



In Canada, for Canada

Business to Society report

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Making a difference in Canada

“Across all aspects of Canadian society – from the economy to the environment to supporting people in need – Siemens Canada is committed to helping the country become stronger and continuously improve,” says Faisal Kazi, President and CEO, Siemens Canada Limited



The traditional dictionary definition of success is “the accomplishment of an aim or purpose.” When applied to business, most people tend to think of success as being determined by meeting targets focused on two financial dimensions – the top line of revenue and the bottom line of profit.

There’s no doubt these are critical to the success of any enterprise. But the time has come for the definition of business success to become far broader. We need to also encompass key non-monetary measurements that address our place in the world around us – and the positive impact we can have through that interdependence. It means identifying and tracking metrics related to areas that are essential to society – such as environmental protection, physical and electronic security, community infrastructure, and philanthropic efforts. Driving progress on these “Business to Society” elements shows how a corporation is far from the negative stereotype of an entity based solely on greed and self-interest.

As one of the world’s foremost global organizations, Siemens is emphasizing the Business to Society approach in all the countries

where we operate. It’s wonderful that we can look at the long list of contributions we are making in Canada and see them as part of a much larger picture in which Siemens people everywhere are connected into something truly profound and visionary.

For Canada specifically, this initiative comes with perfect timing as we commemorate the 150th anniversary of our country’s founding. It’s a natural time for not only celebration of what has been achieved, but also reflection on what can be better, with the establishment of new goals and new possibilities. That ethos is at the heart of this report. It’s a means for our employees and our partners to see the important roles they are playing both individually and collectively, and to invigorate all involved to keep the positive momentum going.

On a personal level, I am immensely proud of the amazing employees we have at Siemens Canada and how dedicated they are to helping others in so many ways. It’s an honour and a pleasure to share this document with you, so you can be introduced to just a handful of the many stories of their outstanding efforts.

Having now published this report, our intent is to check in annually to assess our ongoing contributions to helping Canadian society meet the challenges of creating a better future for everyone. Along the way, we welcome any feedback you may have to help us in this process.

We greatly appreciate you taking the time to read this report and learn more about how we are making a difference in Canada.

Faisal Kazi

What is Business to Society?

Measuring our positive impact in Canada in a variety of ways

Defining “Business to Society”

Measurements used in corporate reports typically include only the dollars and cents of investments being made. In this document, we’ve gone far beyond that to capture the true value we create – the actual impact we’re having.

“Business to Society” is our shorthand way of referring to the multidimensional impact Siemens has in this country – to make Canadian society better in lasting, quantifiable ways. It starts with the investment of money and building facilities and offices. Then we measure the economic growth we generate, the jobs we create, the skills we develop, the education we foster, the innovation we spark, the environmental protection we achieve, the quality of life we improve, and the societal transformation we drive.

In preparing this report, we’ve followed a comprehensive, step-by-step approach based on the Measuring Impact Framework of the World Business Council for Sustainable Development (WBCSD). We started with an external perspective, analyzing government data and priorities, spanning everything from infrastructure, healthcare and education to social services, energy, and the environment. This enabled us to zero in on the societal drivers that are most important.

We then viewed all our business activities through that prism, and assessed the impacts of our actions now and in the future. As part of this, we also addressed where we can improve and where we can place greater emphasis to have an even larger positive influence.

“Business to Society captures the myriad of important ways Siemens is helping Canadians – both today and for generations to come.”

Robert Hardt, former Chairman of the Board of Directors, Siemens Canada

“Our Business to Society platform demonstrates our fundamental belief that companies have a responsibility to deliver value to every country and community they serve. Siemens not only contributes to almost every part of daily life; we take on the world’s biggest challenges as part of our core business strategy.”

Lisa Davis, Member of the Managing Board, Siemens AG



Business to Society in Canada

Our contribution to Canada spans six wide-ranging pillars

Like all countries where Siemens operates, Canada has its own unique circumstances and societal needs. Siemens is playing a key role in addressing this country's challenges, to help ensure an ever-improving future. Whether it's creating infrastructure, supporting our education system, helping the environment, transforming industries, making philanthropic contributions, or having our people volunteer in their communities, we're committed to making a difference for Canadian society. It can all be categorized within six pillars.



Strengthening the economy

Canada has long enjoyed a robust and growing economy, and the Government of Canada recognizes that proactive measures must be taken to ensure continued strength. Key challenges must be met, including addressing the impacts of globalization and changing trading relationships, the need to boost industrial diversification while spurring greater innovation and productivity, and strengthening public infrastructure as the foundation for a future economy that includes clean, renewable energy.

Through Business to Society, we can quantify our impact on the Canadian economy, and especially how we're helping the country meet its biggest economic challenges. Of particular importance, we're building needed infrastructure in our airports and transportation networks, such as light rail vehicles for the city of Calgary, and laying the foundation for a green economy with over 600 employees in our environmental portfolio.



Developing jobs and skills

To ensure long-term success, the federal government is cognizant that Canada's workforce must have the knowledge, skills and tools for the future. Most importantly, there needs to be a focus on producing ample engineers, skilled tradespeople and technicians – people who are key to a robust industrial sector in the coming years. In addition, with the country's post-secondary school enrollment rates being among the highest in the world, that potential must be harnessed to have as many students as possible engaged in appropriate education and training, so they are ready for new opportunities created by Industry 4.0.

Business to Society allows us to identify the important ways we're helping address this issue, both directly as an employer and as a catalyst for others. For example, we're helping small and medium-sized businesses integrate the technologies of the future as they grow, while providing grants (from the start of 2015 to the end of 2016) of our industry-leading Product Lifecycle Management (PLM) software valued at more than \$1 billion to Canadian colleges and universities.



Driving innovation

Innovation across all industries is recognized by the federal government as pivotal to Canada thriving in a competitive world. Healthcare is a key priority for all provincial governments, and with a demographic shift toward an older population, innovation will be essential for high-quality patient care to be maintained at an affordable cost. Technological innovation will be equally critical for ensuring greenhouse gas emissions are reduced. In addition, it's important for Canada to be a global leader in digitalization, and that start-up companies be supported effectively so they can be innovation catalysts.

Business to Society provides an opportunity to chronicle how we're helping tackle this priority for Canadian governments. We're actively participating in 30 research collaborations to help find solutions to healthcare challenges. We're also taking a similar approach on the environmental and energy management fronts, where innovation is also essential for the country's future success.



Sustaining the environment

Canada is blessed with abundant lakes, forests and natural beauty. Protecting this is a priority for the Government of Canada. However, doing so is challenging due to harsh climatic extremes, vast distances between population centres, and having a substantial oil and gas industry. In total, about 23 tons of emissions are generated per Canadian, or about 1.3% of the world's total. The national goal is to reduce emissions to 30% below 2005 levels by 2030. Priority areas for achieving this include establishing green infrastructure, building resilience to climate change, and preserving natural assets through legislation.

Business to Society allows us to catalogue the myriad of ways we're helping Canada reduce its emissions – from operating a fleet of electrical vehicles and charging stations, to enabling power providers to offer clean energy solutions, to planting trees across the country.



Improving quality of life

Most Canadians enjoy a very high standard of living. However, to help those less fortunate, the federal government is focused on addressing key areas. This includes alleviating poverty (about 10% of Canadians live below the poverty line), making housing more affordable (20% of Canadian renters spend more than 50% of their income on shelter), improving healthcare accessibility (Canada ranks 29th in the world at 2.6 doctors per 1,000 people) with an emphasis on long term and mental health, and ensuring critical infrastructure is effectively safeguarded.

The Business to Society model helps us capture how specifically we are making a difference in the lives of Canadians. More than 31 million Canadians benefited from Siemens healthcare products in 2016, including an average of over 85,000 per day receiving treatment or testing from a Siemens device. And as an employer, we are an example of best practices in health and wellbeing, with our employees working about 715,000 hours without a single lost-time incident in 2016.



Shaping societal transformation

The Government of Canada is focused on core priorities to help make Canadian society better for all its citizens. It is striving toward a more positive relationship with Indigenous people by overcoming historic issues and ensuring there is equal opportunity for First Nations. Other priorities are new immigrants, northern communities and their infrastructure improvements, and ensuring that all infrastructure across the country is made resilient to the effects of climate change.

Business to Society creates an opportunity to share the ways in which we believe we can help address such critical issues. For example, we are member in good standing with the Canadian Council for Aboriginal Business, we partner with educational institutions to support Indigenous students, and we employ Indigenous people ourselves, as part of our overall commitment to workplace diversity.

Our contribution to Canada¹



Strengthening the economy

Industrial diversification

We have offices across Canada to serve an array of industries, from helping **17** out of the top 20 oil and gas companies in the west to working on **6** Arctic offshore patrol ships in the east

Exports

Exports represented about **\$626 million** of our \$3 billion in fiscal 2016 orders

Our factories in Montreal and Peterborough, Concord, Scarborough and Pickering (Ontario) export **95%** of their products and have global R&D mandates

Infrastructure

We have delivered substantial improvements to Canada's transportation infrastructure, including **63** light rail vehicles for Calgary Transit

Green economy

439 of our Building Technologies and **198** of our Energy Management employees deliver environmental solutions

Developing jobs and skills

Small and medium enterprises (SMEs)

We support industrial SMEs with automation, drives, and low-voltage solutions, which represent almost 15% of our revenue, with orders ranging from **\$40,000 to over \$1 million**

Advanced technology

We have made grants (from the start of 2015 until the end of 2016) of more than **\$1 billion** worth of our Product Lifecycle Management (PLM) software to Canadian colleges and universities

Workforce support

Demonstrating our thought leadership, in 2016 we invested **\$1.7 million** to train our employees, and **\$2.7 million** in the Siemens Canada Engineering and Technology Academy (SCETA), which employed 38 post-secondary students. In 2017, we employed **69** co-op students, with an average investment of \$8,000 per student per four-month placement.

Driving innovation

Healthcare

We participate in **30** healthcare research collaborations in Canada

Environment

Our Energy-saving Performance Contracting (EPC) solutions have lowered annual operating costs for Algonquin College by **\$3.7 million**, and our High-Voltage Direct Current (HVDC) technology is enabling up to **50%** greater efficiency of energy flow in Alberta, while we demonstrate our thought leadership on energy transition as a founding partner of the Advanced Energy Centre at MaRS

Digitalization

We created the **Smart Grid Innovation Network**, in collaboration with New Brunswick Power and the University of New Brunswick, while for Magna International, we enabled digital simulation

Start-ups

We have invested about **\$47 million** in eight Canadian start-up companies



Sustaining the environment

CO₂ footprint

We are on track to cut our CO₂ footprint by **30%** below 2015 levels by 2020 and be carbon neutral by 2030

With electricity for our offices in Ontario (Oakville and Pickering) and Alberta coming from renewable energy sources, more than **1,150 tons** of CO₂ emissions can be avoided each year

Environmental portfolio

Our installed wind turbines have generated over **1.2 GW** of clean power for renewable energy facilities in Ontario and Manitoba. We are making everyday life better for the **300,000** Calgarians who take the light-rail transit we enable

Corporate social responsibility

We have donated **\$300,000** to Tree Canada since 2012, and planted more than **6,000** trees nationwide to celebrate Earth Day, for a carbon footprint reduction of more than **42 tons**

Improving quality of life

Healthcare technology

More than **31 million** Canadians benefited from Siemens healthcare products in 2016, including an average of **85,000** per day receiving treatment or testing from a Siemens device

Employee well-being

24% of our employees telecommute/work from home (as of December 2016), while **15%** of our employees used the Employee Assistance program in 2016

Corporate social responsibility

We have partnered with Cystic Fibrosis Canada for 20 years, raising more than **\$1.6 million**

We transformed the former Pan Am/Parapan Am Athletes Village in Toronto, including creating **60** units of affordable ownership housing and another **253** units of affordable rental housing

Shaping societal transformation

Resilient energy

A microgrid controller we delivered to BCIT integrates **250 kW** of solar-generated power with **500 kWh** from lithium-ion batteries, providing resilient power

Northern/Indigenous community

We are a **member in good standing** with the Canadian Council for Aboriginal Business, and we employ **19** people who identify themselves as Aboriginal²

Giving back to the community

Since 2010, we have partnered with Corporations for Community Connections (CFCC) to refurbish over **2,000** used laptops (about half of our used laptops), which has helped more than **28,000** people

Workplace diversity

A **majority** of our employees believe people of different backgrounds can work effectively together, and succeed at all levels of the organization, whatever their gender, racial/ethnic identity, age, etc.³

Strengthening the economy

\$13.6 billion

contribution to the Canadian economy¹

\$600 million

employee salaries¹

5 jobs

in Canada enabled by each Siemens Canada employee

\$626 million

exports in fiscal year 2016

40 Years

provided LRT transport to the City of Calgary



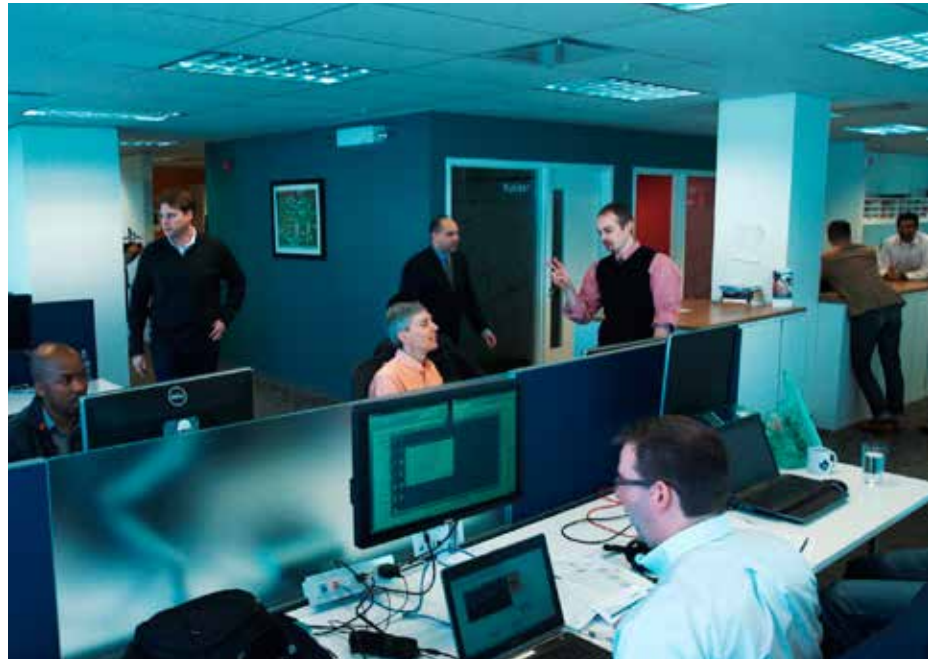
We're making major contributions to the Canadian economy, whether it's **industrial diversification**, global trade via **exports**, or **infrastructure improvements** and enabling the **green economy** of the future

Siemens is providing products and solutions to many different industries across Canada's different regions, including pulp and paper in British Columbia, oil and gas in Alberta (17 of the top 20 companies), mining in Saskatchewan, manufacturing in Ontario and Quebec, and ship-building in the Maritimes, which includes equipment for six Arctic offshore patrol ships for the Royal Canadian Navy. Six of our 15 best-in-class production facilities across Canada serve global markets. Our factories in Montreal and Peterborough, Concord, Scarborough and Pickering (Ontario) export their products and have global R&D mandates.

A Smart Grid agreement with New Brunswick (NB) Power includes our operation of a Global Centre of Competence and related R&D office in Fredericton, where about 40 people, most hired locally, are at the leading edge globally of a key technological driver of the green economy. In fact, the environmental portfolio in our Energy Management division – which provides high-voltage transmission solutions as well as Smart Grid initiatives – employs about 198 people in Canada.

In addition, our Building Technologies portfolio, which currently employs more than 800 people in Canada (including 400 in our environmental portfolio), has installments in more than 3,000 sites across Canada, enabling those buildings to be modernized and automated, with performance optimized and sustainability ingrained as a primary mandate.

We're also active in all forms of infrastructure improvement that is so essential for economic strength. To help Canada's airports, we have completed about \$22 million worth of projects related to security, fire systems, escalators and building automation. And to improve ground transportation, we have delivered 63 next-generation light rail vehicles to the City of Calgary.



Next-generation light rail vehicles Siemens is providing are essential to Calgary's transit system.

Operations of great value to Canada's economy

Success stories on the global stage

Aero-derivative gas turbines (Dorval, Quebec)

Among our 1,400 jobs and three manufacturing plants in Quebec is the global centre of competence for Siemens aero-derivative gas turbine business. Employing 450 people, mostly in R&D and engineering, this site in the Montreal area is an essential part of the province's aerospace cluster, which is the third largest in the world.

Process instrumentation (Peterborough, Ontario)

With more than 280 employees, this site is Siemens global centre of competence for level and dynamic weighing. People at the plant design and manufacture sophisticated measurement instruments for the process industries, creating more than 100 products for global markets in the chemical, oil and gas, water/wastewater, food and pharma, environmental and mining sectors.

Aero-derivative gas turbine facility in Montreal



A High Voltage Current Limiting Reactor (HVCLR) made by Siemens



Instrument transformers
(Pickering, Ontario and Scarborough, Ontario)

Located in the Toronto suburb of Pickering, the 275 employees of our Trench Limited Instrument Transformer Division (ITD) manufacture oil-insulated instrument transformers for voltage and current measurement. The 190,000-square-foot site includes manufacturing, offices and world-class R&D facilities. At our Scarborough site, 366 employees are involved in the coils business, with R&D work focused on low-noise reactors, reactors for high seismic areas, and dry-type shunt reactors.



Rugged communications products
(Concord, Ontario)

The 270 Siemens Canada employees based in Concord manufacture rugged communication products for mission-critical infrastructure in harsh environments, playing a key role for the electric power, transportation, oil and gas, and industrial automation sectors.

Facility in Concord for rugged communications products



Developing jobs and skills

\$1 billion

in value of grants (start of 2015 to end of 2016) of industry-leading software for colleges and universities

\$1.7 million

employee training in 2016

\$8,000

per four-month student co-op placement

\$2.7 million

for Siemens Canada Engineering and Technology Academy (SCETA) in 2016

\$40,000 to more than \$1 million

value of solutions delivered to SMEs



We're focused on developing forward-looking jobs and skills that local Canadian communities need to thrive, from helping **small enterprises** grow, to making grants of **advanced technology** to colleges and universities, to providing **workforce support** through training and other programs

As the Canadian manufacturing landscape becomes increasingly digital, we're helping leading Canadian colleges and universities provide their students with the skills needed today to secure the jobs at the heart of the nation's economy tomorrow. From the start of 2015 until the end of 2016, we made grants of our industry-leading Product Lifecycle Management (PLM) software – valued at more than \$1 billion – to colleges and universities in Canada to spur the development of essential advanced skills. Small and medium-sized enterprises that hire graduates who have learned how to use the software benefit significantly, because these companies would otherwise not be able to afford to train their employees on the software.

That's just one example of how we're bringing new skills into Canadian businesses – whether large multinationals or tiny start-ups. And it's at the heart of why we've entered into a strategic partnership with the National Research Council (NRC) to advance solution-oriented development and applications of key technologies.

We recognize the enormous impact we can have just with our own customers and employees, and we have placed a major emphasis on training programs accordingly. In 2016 alone, we provided more than 1,400 participant days of technical training. In-house, we provided over 10,000 hours (equivalent of more than five work years) on in-person

training, plus another 72,500 hours on online learning and training. We also employed 69 co-op students for stays of four to 12 months, investing an average of \$8,000 per student per four-month placement, enabling them to hit the ground running in their careers.

We're active at the high school level as well. Through our FIRST Robotics initiative, we're promoting learning about technology and manufacturing by sponsoring and supporting six high school robotics teams – five in Ontario and one in Quebec. Plus, we donate \$10,500 annually to the Electro-federation Canada Scholarship program.



Members of the inaugural Siemens Canada Engineering and Technology (SCETA) class pose for a selfie with former Siemens Canada Chairman Robert Hardt.



A range of high-impact investments

Taking the initiative so Canadians can lead the workforce of tomorrow

Siemens Canada Engineering and Technology Academy (SCETA)

We conceived and developed SCETA to equip engineering and engineering technology students in Canada with the educational and professional foundation for successful careers. With an investment in 2016 of \$2.7 million, we have seven Ontario and Alberta academic institutions as partners. There were 35 students in the midst of the program in its second year, and 19 graduates (as of June 2017) expected to be placed in permanent positions. The excellence of SCETA has been recognized with an Ontario Business Achievement Award (OBAA) in Skills and Training, and two prestigious awards from the Ontario Society of Professional Engineers (OSPE).

“Siemens is a global leader in advanced manufacturing and industry, and it’s an honour to partner with them to open Seneca’s Mechatronics Simulation and Demonstration Centre ... helping provide Ontario with the highly skilled graduates we need to continue to thrive in the complex and sophisticated world of advanced manufacturing.”

– David Agnew, President, Seneca College

Product Lifecycle Management (PLM) software program

We have granted over 3,100 licenses of sophisticated PLM software to programs at 17 Canadian education institutions from January of 2015 until the end of 2016, worth a commercial value of more than \$1 billion. Our PLM ecosystem spans 24 universities and eight technical colleges across Canada. For an annual fee of \$3,000 to \$18,000, depending on how much software has been received, the schools have access to virtually our entire PLM portfolio.

“We are deeply honoured and excited by this generous grant from Siemens, which will allow us to integrate a critical industry tool into our engineering curriculum. We are committed to reinventing engineering education to balance theoretical knowledge with practical, hands-on skills, as part of our journey to become a premier undergraduate teaching university. This software will allow us to offer unparalleled training to our students in the field of mechatronics.”

– Dr. Jeff Zabudsky, President and CEO, Sheridan College



“Our government is proud to support Seneca’s new Mechatronics Centre, the first of its kind in Ontario. This innovative facility will provide students with the expertise to compete for jobs in Ontario’s evolving manufacturing sector, and in turn, will help industry partners find the skilled employees they need to grow their businesses.”

– Reza Moridi, Minister of Training, Colleges and Universities, Government of Ontario



"This investment by Siemens PLM Software will help us unlock the potential of our engineering students, ensuring they are well prepared for relevant and rewarding careers upon graduation."

– Peter Devlin, President, Fanshawe College

Algonquin College (Ottawa, Ontario)

We are working with Algonquin College to create and deliver a unique hands-on curriculum, and complementary applied research, to help students lead the way in green economy employment. With Algonquin as a "living lab" showcase, more than 20 students from new Energy Management Graduate Certificate program, plus about a dozen professors and research staff, can take advantage of data from leading-edge co-generation and building automation technology. In addition, our partnership aims to create a unique culture of sustainability at Algonquin, both through a dedicated sustainability program and integrating the theme into the curriculum of all other undergraduate disciplines.



"At Algonquin, we're learner-driven. Working with Siemens, we're able to give our students state-of-the-art lab experiences in new technologies that will drive the jobs of the future. They're not just learning about it in the classroom. They can see the inner workings of something like our cogeneration plant, and understand what it does for the college. It means we can have future-ready learners coming out of our programs. Our students want to change the world, and that's what they'll be able to do."

– Cheryl Jensen, President, Algonquin College

Driving innovation

\$47 million

invested in eight Canadian start-ups

\$3.7 million

lowered annual operating costs at Algonquin College

30

healthcare research collaborations

Smart Grid Innovation Network

created with NB Power and the University of New Brunswick

50%

greater efficient transmission in Alberta, through HVDC innovation



We're unleashing innovation to dramatically improve **healthcare**, help the **environment** by transitioning Canada to clean energy, lead the process of industrial **digitalization**, and give a boost to **start-ups** that have new ideas

With healthcare funding and delivery becoming ever-bigger challenges for governments everywhere – including throughout Canada – our innovation is playing a key role to help find solutions. For example, through our angiography systems that provide low-dose protocols, the requested detector entrance dose for this type of imaging has been reduced by up to 85% over the last 10 years. Meanwhile, Teamplay, our cloud-based network, provides instant access from an imaging device, including information on dose, helping for better dose management. And our imaging workflow solution optimizes the physician's desktop and ensures the right specialists with the right tools deliver timely and complete care. In addition, our referral management solution helps avoid gaps in care by providing appointment scheduling tools, empowering patients to schedule examinations in their network. We're also involved in 30 research collaborations in healthcare, and always looking for acquisitions to boost our innovation, such as Medicalis Corporation, which we acquired in April of 2017. This Waterloo-based company has 43 people focused on R&D in population health management.

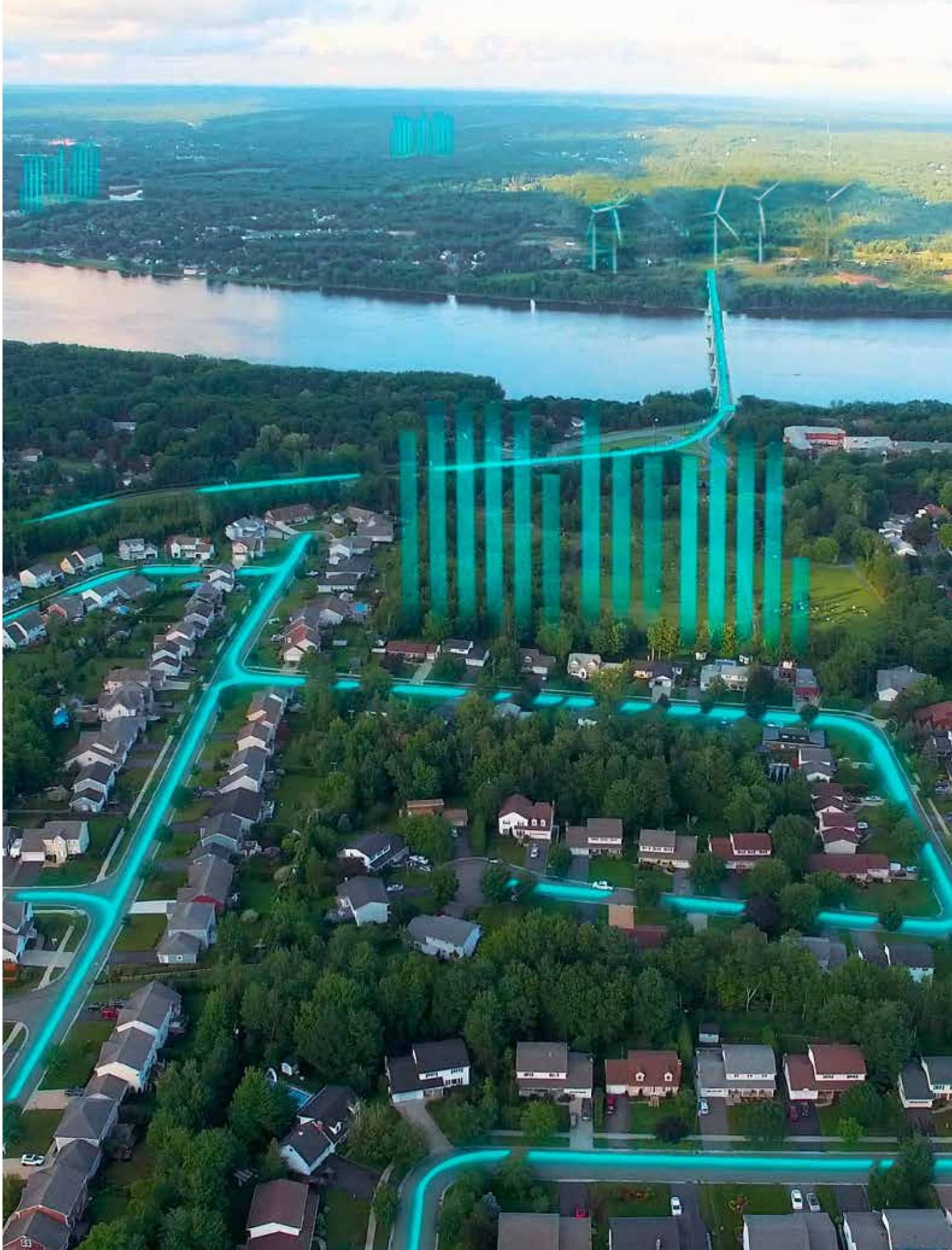
In the realm of energy, our innovation is focused on achieving sustainability, reducing electricity use, lowering operating costs, enabling renewable energy sources, protecting the environment and improving quality of life. We're offering a wide range of physical and digital products, technologies, and solutions – from state-of-the-art compressors, turbines and generators to virtual power plants, intelligent grid management and innovative storage solutions. In Alberta, our High-Voltage Direct Current (HVDC) technology enables bi-directional energy flow, allowing renewable energy to be reliably and practically brought into the system, with up to 50% greater efficiency compared to standard AC transmission.

Digitalization of manufacturers is another key area being transformed by our innovation. For



instance, auto parts maker Magna International must deal with increasingly aggressive product launch timelines from major automakers, which requires a new engineering approach, based on digital simulations for all steps in the manufacturing process, from pre-assembly and human performance to resource/station utilization and throughput. To achieve a flawless launch of this program, Magna's engineering group known as Cosma Assembly Technology (CAT) conducted a highly detailed, simulation-based discrete-event analysis of a manufacturing and logistics system, using plant simulation software in our Siemens Tecnomatix® portfolio.

We're also working hard beyond our walls to maximize our impact. We have invested \$47 million in eight Canadian start-ups. Our business unit called "next47" partners with these companies to disrupt the norm and make electrification, automation and digitalization solutions easier to use, more reliable and more scalable.





Innovative thinking leads to profound results

Having an impact on the lives of Canadians

Smart Grid Innovation Network (Fredericton, New Brunswick)

Smart Grid is a broad term describing how innovation can reinvent the electricity system – decentralizing it, enabling renewable sources, and empowering customers to manage their energy load and consumption. We’re working with New Brunswick (NB) Power to be global pioneers in this area, with more than 150 Smart Grid initiatives underway, including the introduction of intelligent load management (ILM) software. To accelerate our leadership for this profound shift, we’ve also brought the University of New Brunswick (UNB) into our NB Power partnership to create the Smart Grid Innovation Network (SGIN). It’s a three-lab testing environment for vendors and businesses that have Smart Grid offerings so they can more quickly get over technical hurdles. In its first 18 months of operation (through June of 2017), 25 companies had applied to SGIN, and 14 were already being helped.

“Investments such as the SGIN are incredibly important to the work we do at UNB and enable our researchers to work together with other stakeholders and innovators to the benefit of all. We see immense potential for the SGIN to foster the co-creation of intellectual property at the cutting edge of Smart Grid technology.”

– Dr. David Burns, Vice President, Research,
University of New Brunswick

“Siemens ingenuity is the secret sauce that’s going to allow our utility to be successful in the future.”

– Brad Wasson, Program Director,
Reduce and Shift Demand, NB Power

William Osler Health System (Greater Toronto Area, Ontario)

We received our first contract for Siemens Healthcare Limited Managed Equipment Services (MES) from William Osler Health System, which serves 1.3 million people in operating three facilities in the Greater Toronto Area – Brampton Civic Hospital, Etobicoke General Hospital and Peel Memorial Centre. For this 15-year agreement, we’re supplying and maintaining 190 diagnostic imaging and diagnostic cardiology equipment items, as well as delivering financing solutions, ongoing education and training for clinical users, onsite technical support, room renovations, professional services and a technology refresh program. The flexible, holistic solutions we’re providing are helping Osler reduce costs, improve clinical outcomes and enhance the patient experience.

“We are excited to partner with Siemens over the next 15 years and achieve an exciting international and Canadian first with their organization. One of Osler’s key areas of focus is on building partnerships that will have long-term, positive impacts on the community we serve. Our work with Siemens will help position us to be on the leading edge in so many of the services and programs we provide through the sustainable use of innovative medical imaging equipment.”

– Joanne Flewwelling, Executive Vice President,
Clinical Services and Chief Nursing Executive,
William Osler Health System

Sustaining the environment

30%

cut to our CO₂ footprint below 2015 levels by 2020

1,150

tons of CO₂ emissions avoided each year through renewable energy in our Ontario and Alberta offices

\$300,000

donated to Tree Canada, plus more than 6,000 trees planted, to eliminate 42 tons of CO₂

GOLD

LEED certification level of Oakville headquarters, with eight electric charging stations plus three fully electric fleet vehicles at that site

1.2 GW

of clean power from our wind turbines



We're a leader in combating climate change and protecting the environment – creating green infrastructure with our **environmental portfolio** that offers decarbonization solutions, while also cutting our **CO₂ footprint** by making sustainability a priority in our own operations, as well as having an environmentally-focused **corporate social responsibility** program

Climate change and environmental degradation are significant threats to the planet. Canada aims to be at the forefront of developing and implementing solutions, and Siemens is active on a number of fronts to help make that happen.

We're helping revolutionize how energy is created and distributed. Our High-Voltage Direct Current (HVDC) technology is enabling bi-directional energy flow and up to 50% greater efficiency compared to standard AC transmission. It's at the core of Manitoba's 500-kV Hydro Bipole II line to transport hydro-generated electricity generated from the north to load centres in the south, with transmission capacity of 2,300 MW expected to be commissioned by the summer of 2018.

In Alberta, it's also essential technology for the transformational Eastern Alberta Transmission Line (EATL) and Western Alberta Transmission Line (WATL). The 500-kV EATL, at a cost of nearly \$2 billion, is bringing hydro energy from

north to south and wind energy from south to north. It can expand from 1,000 MW to 2,000 MW of capacity over the next decade, and then to 3,000 MW in the following decade, so it will benefit Alberta for at least the next 50 years.

Similarly, the 500-kV WATL, at a cost of \$1.7 billion, is bringing traditional fossil-fuel-originated power from north to south and clean wind power from south to north. With upgrades that triple capacity from 1,000 to as much as 3,000 MW, it too is an investment that will last for multiple generations. To put the impact in perspective, WATL has the potential to reduce Alberta's carbon footprint by 350,000 tons, which is the equivalent of taking about 65,000 cars off the province's roads. And with its small footprint, there is no need for additional power lines, towers or easements from landowners.

In Ontario, as well as Manitoba, we're playing a key role through our wind turbines, which are generating over 1.2 GW of clean power for renewable facilities.



Siemens HVDC technology is at the heart of WATL, which will benefit Alberta for decades to come.



Complementing those customer-facing activities, we're undertaking many internal initiatives to achieve our goal of a neutral CO₂ balance from our Canadian operations. We're implementing an energy efficiency program to modernize the energy aspects of our production and office facilities, including plant retrofits under evaluation at three sites.

We're also helping the environment through our corporate social responsibility program. For example, since 2012, we have donated nearly \$300,000 to Tree Canada, and planted more than 10,000 trees nationwide, collectively reducing our carbon footprint by more than 42 tons.

Moreover, our headquarters building in Oakville is LEED certified at the Level GOLD standard for the categories of "Core and Shell" and "Commercial Interiors." Electricity for offices at our Oakville and Pickering sites come from renewal energy sources, and along with going to 100% green electricity in our Alberta offices, we're avoiding more than 1,150 tons of CO₂ emissions.

We're even reducing the CO₂ emissions of our motor vehicle fleet, selecting vehicles with greater fuel efficiency, including hybrid electric cars. We have three fully electric fleet vehicles, and we operate eight electric charging stations at our Oakville site to provide green energy, which are also made available to the public for their use.



Practising what we preach on sustainability

Corporate initiatives demonstrate leadership

“No Waste to Landfill” program (headquarters office building in Oakville, Ontario)

Since 2012, we’ve been running a highly successful recycling program at our corporate headquarters. We had identified how there was room for improvement when it came to separating waste into different recycling categories. Commercial waste transfer and recycling companies define waste streams somewhat differently than employees had experienced in residential areas, and these companies need strict adherence to the definitions for the waste to be of use to them. To reduce cross-contamination, our recycling bins were labelled not only using words but pictures of what goes into the bins, together with well-recognized pictograms. This type of labelling – reinforced by training sessions – reduced cross-contamination of bins and even reduced the amount of non-recyclable waste.

Park Ambassadors of Iroquois Shoreline Woods Park (headquarters office)

In 2013, we adopted the Iroquois Shoreline Woods Park close to our headquarters office. Our duties under the Park Ambassador program include regular park clean-ups and helping monitor the overall environmental well-being of the area. Our employees enjoy walking the park’s trails during their lunch breaks and report back on unusual conditions of this unique natural habitat filled with flora and fauna.



Improving quality of life

85,000

Canadians per day receiving treatment or testing with our products

24%

of our employees telecommute/ work from home

715,000

hours in our workplace in 2016 without a lost-time incident

220 employees build 15 homes

as part of building program of Habitat for Humanity in 2016

20

years partnering with Cystic Fibrosis Canada to raise more than \$1.6 million



We're improving the lives of Canadians, from providing valuable **healthcare technology**, to ensuring **employee well-being** within our organization, to helping the communities where we operate through impactful **corporate social responsibility** initiatives

People in Canada are fortunate to enjoy a quality of life that is among the best in the world. We're proud at Siemens to do more than our share in helping the country maintain that high standard for its citizens.

Healthcare is the foundation of a life with quality, and our direct contribution to it is immense in Canada. Our medical imaging, therapy systems and laboratory diagnostics enable healthcare providers to detect diseases at an early stage and administer therapies in a targeted manner. And our Managed Equipment Services (MES) team provides flexible, holistic solutions for healthcare providers to help reduce costs, improve clinical outcomes and enhance the patient experience.

In total in 2016, more than 31 million Canadians were treated or diagnosed using our healthcare products. That's an average of over 85,000 people per day. Among the more notable statistics on specific treatments, there are an average of more than 70,000 stroke investigations each year with our CT devices, over 330,000 lung cancer investigations with our X-ray machines, and 2.4 million breast cancer investigations using our mammography machines. And almost one million Canadians per year have an MRI from a Siemens machine, while nearly 18 million lab tests are carried out every year with our equipment and assays.

While those macro-oriented solutions touch the lives of nearly every Canadian, we're just as passionate about the quality of life on a micro-level – with a main priority internally to support our employees in the best ways possible. Having high-performing, engaged and satisfied employees is a fundamental strength of our organization, reflected by the fact that in our most recent survey 89% of employees indicated they are proud to tell others they work at Siemens.

They appreciate all the in-house training, telecommuting, flexible working hours, and health, wellness and safety programs. So it's no surprise that we have recorded well over 700,000 hours without a lost-time incident, have received a Workers' Compensation rebate of more than \$1.2 million, and have been recognized with several prestigious awards. That includes being named among Canada's top 100 employers (2017), 10 Best Companies to Work For (2016), Greater Toronto's Top Employers (2017), Canada's Top Employers for Young People (2017), and Canada's Greenest Employers (2017).



Sustaining Canada's high quality of life

Making a difference every day



"Our mission-critical customers like hospitals rely on Enwave. Providing hospitals with reliable heating ensures that their patients are comfortable, and that their staff can focus on providing excellence in healthcare."

– Joyce Lee, Vice President of Systems Operations and Asset Management, Enwave Energy

Keeping people warm in winter

Enwave Energy Corporation uses steam heated by boilers and distributed through a massive underground pipe network to heat mission-critical buildings in downtown Toronto, including some of Canada's foremost hospitals, arts and cultural landmarks, and countless condominium high-rises and office towers housing large financial institutions and other major corporations.

Reliability is paramount. Hospitals, for example, need the heat to not just keep the building warm, but also for sterilizing surgical instruments. That's why the company counts on our technology for a state-of-the-art control system and the intelligent field instruments connected to it. We ensure Enwave's essential service is up and running all the time.

Creating affordable housing in a special neighbourhood

In 2015, Toronto hosted one of the world's largest sports events – the Pan Am/Parapan Am Games. About 10,000 athletes, coaches and team officials stayed at the Pan Am/Parapan Am Athletes Village, a spectacular 80-acre site that met the LEED Gold Certification standard for sustainability.

When the Games ended, we transformed the site into something special for Torontonians. The village has become a mixed-use neighbourhood with 810 new condominium units, a YMCA, and a residence for students of nearby George Brown College students. We also created 60 units of affordable ownership housing and another 253 units of affordable rental housing, in a mixed retail-residential development.

Siemens Canada was a proud sponsor and supporter of the 2015 Pan Am/Parapan Am Games, with our employees even serving as honorary torchbearers.



Fighting Cystic Fibrosis

Cystic Fibrosis (CF) is the most common, fatal genetic disease affecting Canadian children and young adults, and unfortunately there is no cure. CF affects the lungs and digestive system, making breathing very difficult and preventing enzymes from reaching the intestines to digest food. Every day is a challenge for children with CF and their families. Cystic Fibrosis Canada is raising funds for research to find a cure or control of CF, and to promote public awareness.

We have been a long-time supporter of Cystic Fibrosis Canada. We have contributed more than \$1.6 million to the organization during a 20-year partnership. And our employees have volunteered thousands of hours of their time to help the cause.



Siemens Canada employees are enthusiastic about fundraising for CF.

Shaping societal transformation

Innovative energy access

through 250 kW of solar-generated power integrated with 500 kWh of lithium-ion batteries in a microgrid for the British Columbia Institute of Technology (BCIT), and 4 MW microgrid for Algonquin College

Our employees

believe people of different backgrounds can succeed at all levels of the organization, regardless of gender, racial/ethnic background or age

23%

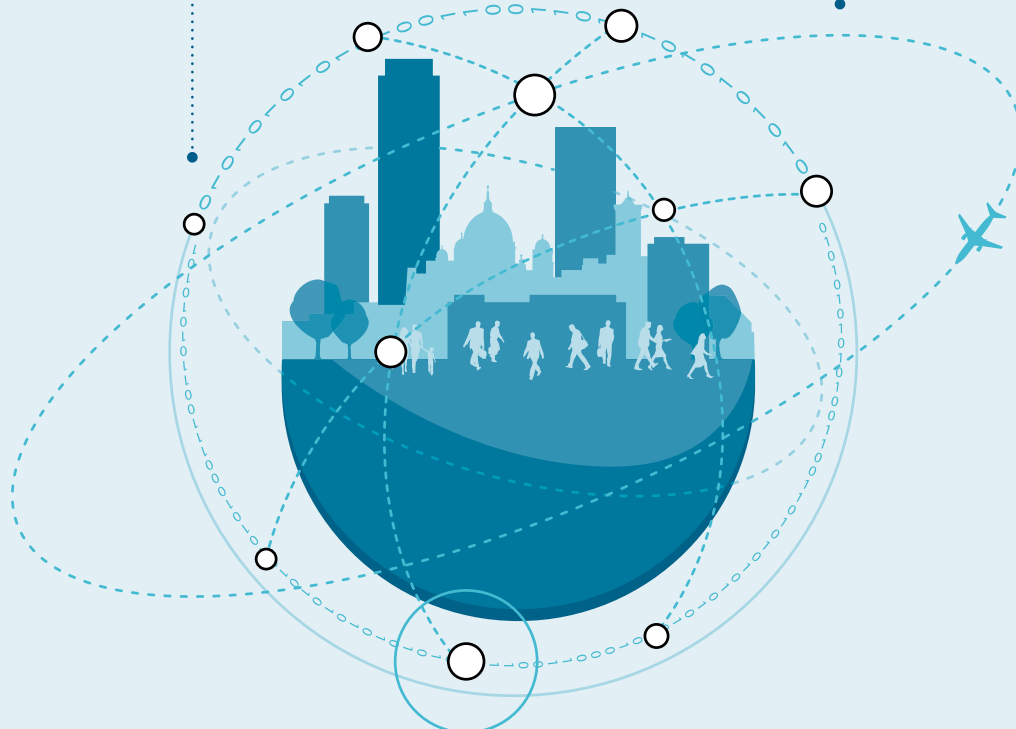
of our senior managers are women

Member

in good standing with the Canadian Council for Aboriginal Business

230

laptops refurbished by our employee volunteers for Syrian refugees in Canada



We take pride in our role of helping transform Canadian society, whether it's delivering **resilient energy** through new concepts, empowering the **Northern/Indigenous community**, or ensuring we lead by example with a commitment to **workplace diversity** ourselves

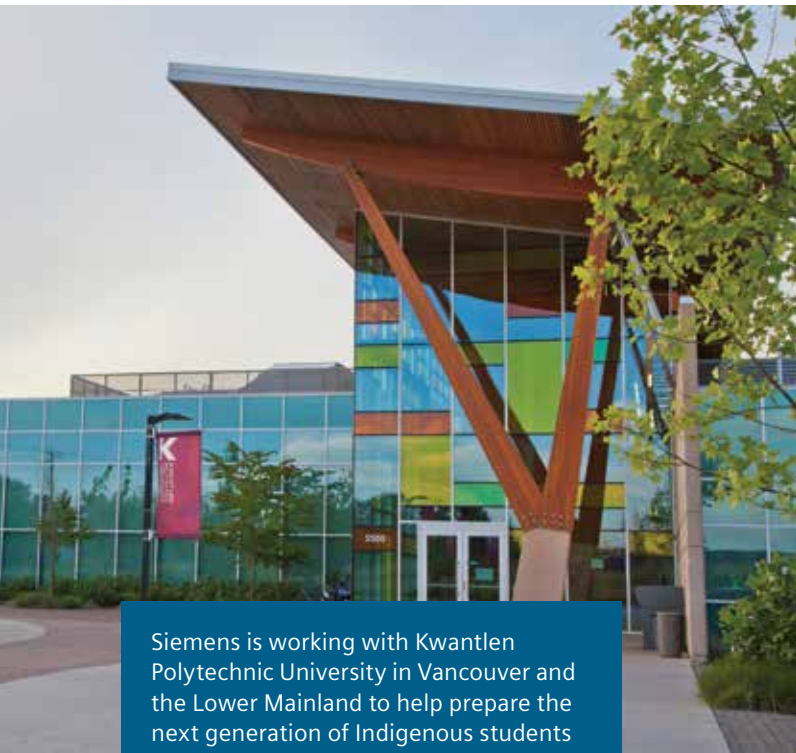
Societal transformation is a multidimensional process, and we're uniquely positioned to be a key player on a range of fronts.

It starts with our technological expertise, which can help to fundamentally change how we think of energy in this country, particularly when it comes to resiliency and the emergence of clean power. Our complex microgrid solutions not only help address climate change by seizing the potential of renewable energy, but do so in a robust manner, with dependability at the core of the system, so resiliency is maintained even in the face of extreme weather conditions. Another example of resiliency is that we can provide equipment in NEMA 6P enclosures to avoid any issues with flooding.

Two noteworthy demonstrations of our breakthrough microgrids are at the British Columbia Institute of Technology (BCIT) and Algonquin College in Ottawa. The microgrid commissioned by BCIT in 2014 integrates 250 kW of power from solar photovoltaic cells with 500 kWh from lithium-ion batteries, with lighting and electrical loads for electric vehicle chargers as part of the mandate. The microgrid can either be connected to the grid, or it can run resiliently in islanded mode if the power supply is disrupted. At Algonquin College, our microgrid integrates tri-generation with building automation. Two 2-MW Combined Heat and Power (CHP) units, helped by the automation system that can shed electrical load if needed, enable the entire campus to run in islanded mode if desired.



Microgrid at BCIT including solar PV, battery and EV chargers



Siemens is working with Kwantlen Polytechnic University in Vancouver and the Lower Mainland to help prepare the next generation of Indigenous students for the high-tech jobs of tomorrow.



Of course, technological change – which gets to the essence of what we do for our customers each day – is just one aspect of how Canadian society needs to transform in the coming years. And as an organization, we also want to be leading the way on other important shifts that need to happen.

For example, in keeping with our commitment to diversity, Canada must have vibrant and healthy Northern and Indigenous workforces and communities for a successful future. In addition to employing 19 people who identify themselves as Aboriginal in a voluntary survey, we're reaching out widely to Indigenous people to have a positive impact. As a member in good standing with the Canadian Council for Aboriginal Business, we have a proven track record of working with and for First Nations. For instance, we're partnering with Kwantlen Polytechnic University in Vancouver and the Lower Mainland, to prepare the next generation of Indigenous students with our globally recognized Mechatronics Certification Program. And we're partnering with Mohawk College in Hamilton to create new opportunities for Indigenous students and graduates. In addition, our laptop donation program has provided computers to people in the Indigenous community of Pikangikum in Northwestern Ontario.

We also recognize how immigrants are essential to Canada's future, and how immigration makes us a global model as a diverse, multicultural country. We play a valuable role in that by hiring people from all over the world. We take responsibility to assist new immigrants who work for us, including helping their families. And our people support immigrants outside the workplace too. In Toronto and Calgary, our employees joined with students, charity workers and Syrian Canadians to refurbish 230 laptops that were customized with both Arabic and English to help with the resettlement of Syrian refugees in Canada.

That kind of open-minded and open-hearted ethos resonates throughout our organization. Employee engagement surveys find that a majority of employees agree people of different backgrounds can succeed at all levels of the company, and that people across the organization work effectively with people who differ in gender, racial and ethnic background, age, etc. Support for women in the workforce is another hallmark of our workplace. Despite being in a traditionally male-dominated realm of science and technology, nearly one quarter of our senior managers are women.

A catalyst for transforming Canadian society

An inspiring spirit

BC Institute of Technology (Burnaby, B.C.)

We're collaborating with the BC Institute of Technology (BCIT) on an essential transformational element for protecting Canadians – research on smart grids/microgrids and cybersecurity. The focus is on research and commercialization opportunities, and identifying and pursuing the application and advancement of new technologies. This work is vital because as the grid becomes more digital, it also becomes more vulnerable to cyber attacks; the connectivity of electrical networks has opened utilities to the risk of attacks that could compromise systemic integrity, reliability and security.

"With energy being one of the world's most challenging problems, Siemens and BCIT have been collaborating and leading innovation in this field for many years. Our partnership has been very productive and I am excited to continue working together to develop the effective operation and security for microgrids through solution-based research."

– Kathy Kinloch, President, BCIT

Laptop donation and refurbishment

Over the last six years, we have partnered with Corporations for Community Connections (CFCC), to donate and refurbish 2,056 computers for use by over 50 charitable organizations (such as the Red Cross, Salvation Army and World Vision Canada) and high schools across Canada, ultimately helping more than 28,000 people. More than 400 of our employees have volunteered more than 3,000 total hours. In 2016 alone, 800 refurbished laptops were donated (worth about \$116,000), involving the work of 81 volunteers putting in 567 volunteer hours.

"The dedication and commitment of Siemens employees to support local communities is exceptional. Thanks to the generosity of supporters such as Siemens, we are giving hope to vulnerable youth and families for a better future."

– Lois Flemming, Territorial Director, Major Gifts & Planned Giving, The Salvation Army

"We are excited to give new life to used computers, in hope they will support education and social development to build opportunity, bits and bytes at a time."

– Philip Schaus, President, Corporations for Community Connections Inc.



Committed to Canada

Through Ingenuity for life, our company and our people are improving Canadian society

Delivering Ingenuity for life is the mantra we follow every day, as we channel our collective talent and energy toward helping Canadians lead healthier, more productive and more prosperous lives.

This Business to Society report offers a snapshot of the many ways we are making a difference in Canadian communities and individuals from coast to coast to coast. Quite simply, every day we are contributing toward making Canada a better country for its citizens.

We hope that this report is just a starting point toward a deeper and sustained conversation about how to meet the challenges Canada must face for a successful future. We hope that with everyone playing a part, all Canadians can come together to make this country even greater.

“Everyone at Siemens Canada is proud of the impact we are having to make our country stronger with an ever-brighter future.”

Faisal Kazi, President and CEO, Siemens Canada



Siemens Canada office/service centre and manufacturing locations



Manufacturing locations

<p>Burlington, Ontario</p> <p>Operating since: 2001 Manufacturer of: Engineered-to-order switchboards Markets served: Canada Industries served: Residential, Commercial, Industrial</p>	<p>Scarborough, Ontario</p> <p>Operating since: 1962 Manufacturer of: High voltage coils Markets served: Americas, parts of Middle East and Asia Industries served: Electric Power, Industry, Oil & Gas Local R&D: Yes</p>	<p>Montreal, Quebec</p> <p>Operating since: 1948 Manufacturer of: Aeroderivative gas turbine engines Markets served: Global Industries served: Power Generation, Oil & Gas Local R&D: Yes</p>
<p>Concord, Ontario</p> <p>Operating since: 2001 Manufacturer of: Communication products for mission critical infrastructure and harsh environments Markets served: Global Industries served: Electric Power, Transportation, Oil & Gas, Industrial Automation Local R&D: Yes</p>	<p>Pickering, Ontario</p> <p>Operating since: 1964 Manufacturer of: Instrumentation transformers Markets served: Australia, Canada, Russia, South Africa, US Industries served: Utilities Local R&D: Yes</p>	<p>Drummondville, Quebec</p> <p>Operating since: 1971 Manufacturer of: Low voltage products including load centers, safety switches, breakers, panel boards, power panels, switchboards Markets served: Canada Industries served: Residential, Commercial, Industrial Local R&D: Yes</p>
<p>Peterborough, Ontario</p> <p>Operating since: 1954 Manufacturer of: Measurement instruments for the process industries Markets served: Global Industries served: Chemical, Oil & Gas, Water/Wastewater, Food, Pharmaceutical, Environmental, Mining Local R&D: Yes</p>	<p>Trois-Rivieres, Quebec</p> <p>Operating since: 1957 Manufacturer of: Electrical distribution transformers Markets served: Canada Industries served: Utilities Local R&D: Yes</p>	

● Office/service centre locations

* as of September 2017

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