

Sustainability | 2016  
Report



**ATCO**  
always there. anywhere.



# OUR VISION

**O**ur core vision is to improve the lives of our customers by providing sustainable, innovative and comprehensive solutions globally.

We believe in well-managed risk and a disciplined approach to growth. We fuel the imagination of our people to drive growth over the long-term, ultimately delivering value to our customers and our share owners.

Our strong financial and operating performance reflects our approach to sales and our customers, the strength and determination of our people, a deeply embedded focus on operational excellence with its inherent cost controls, and careful consideration of the environmental and social impact of our actions — now and for the future.



## TO OUR READERS

We are in the midst of a truly transformative era as the economic, political and social ecosystems in which we have reliably operated for decades continue to evolve – in some cases, at a frenetic pace. Traditional energy systems are transforming and the needs of our customers around the world are changing. It is a fascinating and promising time for ATCO and the integrated infrastructure solutions we provide.

Against this backdrop of extraordinary change and opportunity for our Company, certain core principles remain constant. We must continue to provide reliable, affordable and sustainable energy to our customers around the world. We must also ensure we limit our impacts to the environment and, where possible, develop solutions that help our customers improve their own environmental performance. Our commitment to protecting the health and wellbeing of our neighbours, customers and employees cannot falter, and we must

intensify our efforts to build respectful and constructive relationships with our Indigenous and community partners.

Our perspective is long-term and global. As you will find in this year's Sustainability Report, we have already made significant inroads in developing solutions and partnerships that make life easier, and more sustainable, for our customers all over the world. From the imaginative application of solar and natural gas technologies, to mutually beneficial partnerships with Indigenous communities, and a firm commitment to continuously improving our safety culture – as demonstrated by the people of ATCO's extraordinary efforts in the wake of the Fort McMurray wildfires – 2016 was a momentous year.

Underlying each achievement and every milestone were the tremendous efforts of our people. Their unfailing dedication and courage, which have long defined our

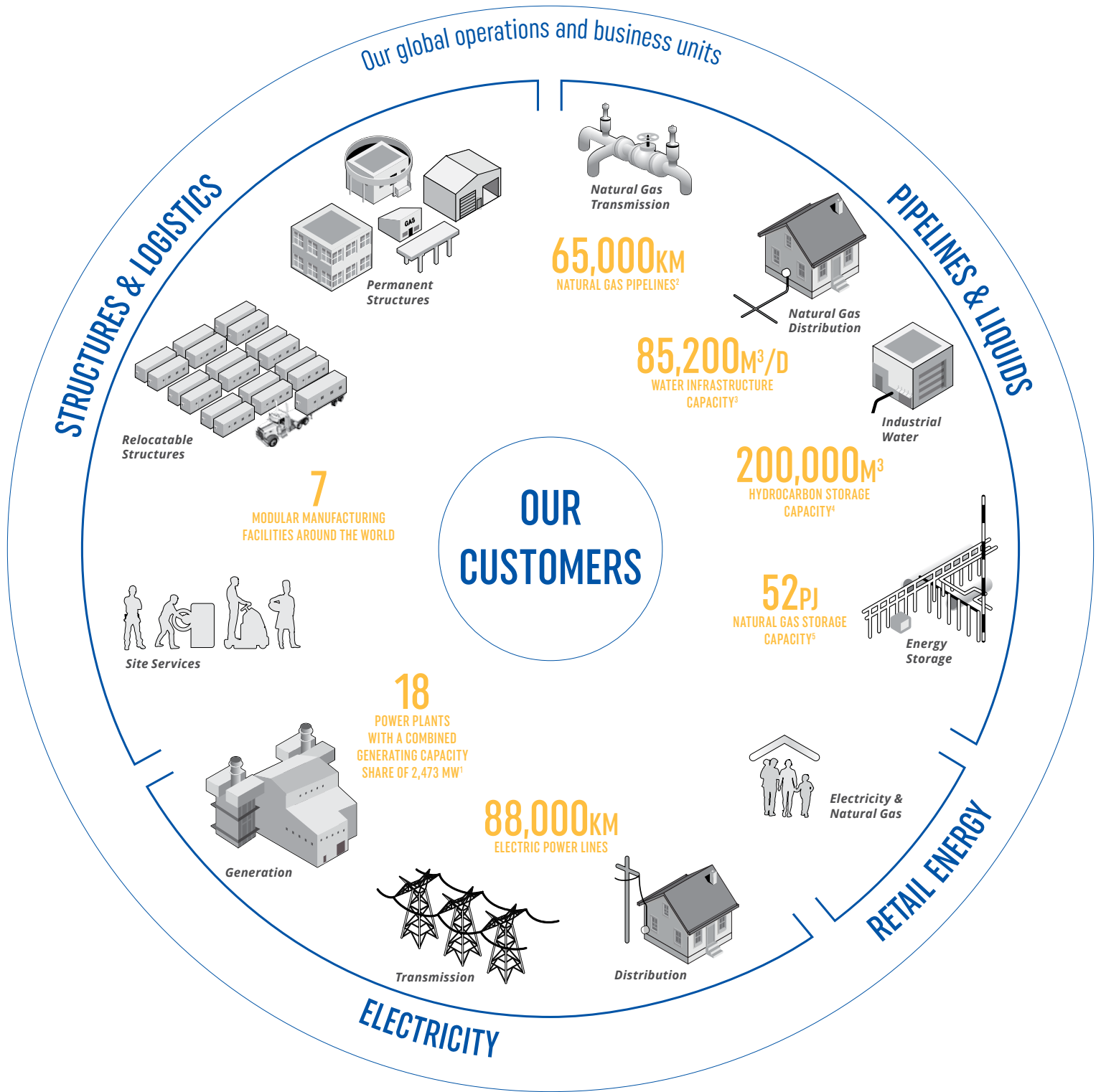
corporate success, continues to amaze and inspire myself personally and our Board of Directors. Their pioneering spirit and willingness to challenge the status quo will be crucial as we turn our eyes firmly to a future which promises sustainable opportunities for this generation and those to follow.

Respectfully,

A handwritten signature in black ink that reads "N.C. Southern". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

**Nancy C. Southern**  
*Chair, President & Chief Executive Officer*

# OUR OPERATIONS



<sup>1</sup>megawatts   <sup>2</sup>kilometres   <sup>3</sup>cubic metres per day   <sup>4</sup>cubic metres   <sup>5</sup>petajoules

# OUR FOCUS

We take care to report on the sustainability topics that are of greatest interest to our customers, investors, employees, communities, and government and Indigenous partners. In 2016, we engaged a range of external and internal parties in our materiality assessment process to ensure our report covers the most important issues. Our four material topics for 2016 are:

<b>ENERGY STEWARDSHIP</b>	<b>6</b>
<b>ENVIRONMENTAL STEWARDSHIP</b>	<b>10</b>
<b>SAFETY</b>	<b>14</b>
<b>COMMUNITY &amp; INDIGENOUS RELATIONS</b>	<b>18</b>



**2M+**  
GLOBAL  
CUSTOMERS

**\$20**  
BILLION IN  
ASSETS

**100+**  
COUNTRIES IN OUR  
70-YEAR HISTORY

APPROXIMATELY  
**7,000**  
EMPLOYEES



## ENERGY STEWARDSHIP

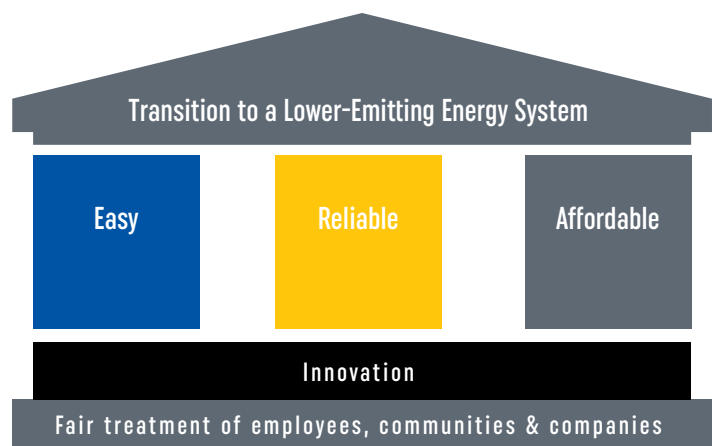
Ensuring access to secure, reliable and affordable energy underpins the vitality of communities and enables economic sustainability. From engaging with and seeking feedback from our customers, to developing and delivering integrated energy solutions, we take our responsibility for energy stewardship seriously.

Innovation is reshaping how we generate, transmit and distribute energy, while customers are playing a growing role in distributed generation, energy efficiency and demand side management (DSM). As an energy infrastructure provider, we are uniquely positioned to help facilitate this transition while continuing to meet the economic needs of our customers, communities, and investors.

The transition to a lower-emitting energy system will be complex and challenging, but we are committed to making it easy for our customers. A smooth transition is only possible if there is a balance – community and customer impacts, long-term reliability, price stability and investor confidence must all be considered.

We continue to advocate for policy and regulation that account for these principles and engage in multi-stakeholder discussions to

develop collaborative, phased and thoughtful solutions. In some instances, policy frameworks may need to be modernized to enable technologies and solutions that are best suited to meet evolving energy challenges over the long term.





## CUSTOMER SATISFACTION

The satisfaction of our customers has driven our business for 70 years. Through listening and engagement, we jointly develop solutions and empower our customers, as well as the wider community, including first responders, regulators and others.

As we continue to diversify our business and explore new markets, maintaining the trust and confidence of our customers remains paramount. To further improve our customer service, in 2016 we implemented company-wide customer service training, focused on improving the customer experience and highlighting the opportunities each of our people have to connect with customers and understand their needs.

We ensure our customers are able to share feedback on our performance, and work to incorporate those learnings into how we operate. In 2016, customer research in our Alberta utility businesses demonstrated

a high level of trust and satisfaction with our service; 97 per cent of our natural gas customers agreed that we provided good service, while 96 per cent agreed that we had a strong reputation in the community. These findings are aligned with customer satisfaction scores in our electric distribution business, in which 94 per cent of our electric customers agreed that we provide good service, while 92 per cent agreed that we had a strong reputation in the community. Additionally, 96 per cent of our customers agreed that we provided reliable service.

Within our energy retail operations, our customer satisfaction scores are also strong. Overall, 74 per cent of customers who interact with our call centres are “very satisfied” with their experience, compared with an industry average of 71 per cent.

Beyond simply highlighting areas of strength, these surveys provide actionable insight into areas where we can improve our performance.

# 2,500

of our people completed customer service training in 2016. The training is aimed at further equipping our people with the tools to anticipate and respond to the needs of our customers.

MORE THAN

# 94%

of our utility customers in Alberta agree that we provided good service, and more than 92 per cent agreed that we have a strong reputation in the community.



# \$1.4<sup>B</sup>

## INFRASTRUCTURE SPEND

In 2016, we invested more than \$1.4 billion in capital infrastructure. Maintaining and modernizing our generation, transmission, distribution and storage networks is crucial in supporting energy security and reliability.

The projects involved were diverse, including continued investment in the Urban Pipeline Replacement Program and our Steel and Plastic Mains Replacement Programs, as well as the nearly complete four-year critical electricity infrastructure program which provides new tools for critical data monitoring.



## SECURITY & RELIABILITY

As global energy systems continue to evolve, it is critical that we maintain our existing infrastructure and make timely investments in new and replacement facilities to ensure we provide a reliable supply of energy over the long term. This is particularly important as increasing volumes of intermittent renewable energy are added to the grid, requiring firm baseload and increased flexibility from generation sources like natural gas and hydroelectricity, and intelligent grid management.

## ACCESS & AFFORDABILITY

Affordable energy is fundamental in everything we do. Without it, our customers cannot sustainably power their homes, or energize the businesses that drive economic growth. We take care to provide cost-effective solutions to our customers and advocate for energy efficiency as a means to reduce costs. In 2016, we continued to explore a range of customer-centric energy solutions, including distributed generation, off-diesel projects, and demand side management programs.

### Distributed Generation

We recently completed the first phase of an innovative, scalable, natural gas-fired distributed power generation solution at the World Trade Centre Industrial Park in San Luis Potosí, Mexico, with our partner RANMAN Energy. The project provides immediate access to reliable and efficient onsite electricity to the park's industrial tenants, who otherwise lack access to conventional electrical infrastructure, and enables excess energy to be sold back to the grid.

### Off-Diesel Projects

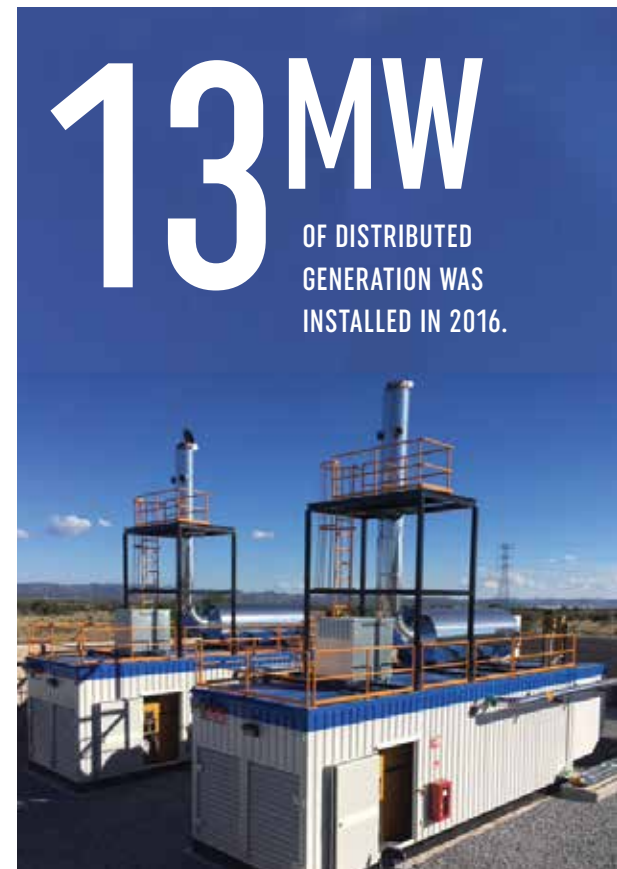
Developing solutions that enable Indigenous and remote communities to eliminate the use of diesel-fired electricity generation must consider environmental performance alongside reliability and affordability. We are conducting studies in the Yukon, Northwest Territories and Alberta to analyze existing thermal generation sites to determine the most appropriate clean energy alternatives. We are exploring a range of technologies, including renewable energy generation, waste heat recovery, energy storage and grid connections.

### Demand Side Management

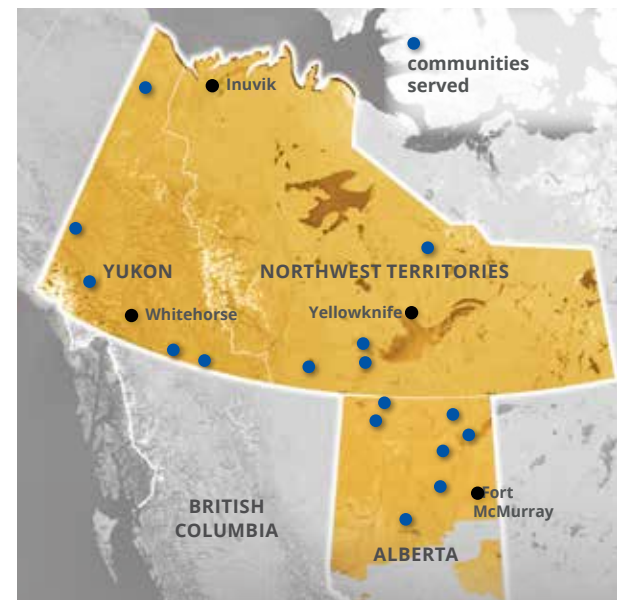
In 2016, we continued our DSM education and awareness efforts. We participated in a number of multi-stakeholder groups looking for solutions to reduce energy use, and continued to deliver customer-facing education initiatives to highlight the importance of energy efficiency. In the North, we also continued our support of government micro-generation and net metering programs, which incent customers to produce renewable electricity for their own use. In the last three years, we have accepted 62 micro-generation installations in the Yukon and 21 net metering applications in the Northwest Territories. Meanwhile, our ATCO Energy Education Bus continued to deliver educational programs across Alberta, visiting 15 communities and speaking with more than 7,300 students about energy conservation and efficiency.

### Energy Retail

In 2016, we launched ATCOenergy, a new energy retailer focused on providing affordable rates and flexible plans. Customers benefit from low administration fees, sign-up incentives and anniversary credits by bundling their electricity and natural gas services, and have access to green electricity options.



**13 MW**  
OF DISTRIBUTED  
GENERATION WAS  
INSTALLED IN 2016.



**16**  
INDIGENOUS AND REMOTE  
COMMUNITIES WE ARE  
WORKING WITH TO MOVE  
FROM DIESEL GENERATION  
TO CLEANER, AFFORDABLE  
SOURCES OF GENERATION.



## ENVIRONMENTAL STEWARDSHIP

Beyond working to minimize environmental impacts associated with our operations, we look for opportunities to improve the environmental performance of our customers and the communities we are privileged to serve. We incorporate environmental considerations into the full lifespan of every project, from planning to decommissioning, and regularly monitor and assess our performance.

### CLIMATE CHANGE & ENERGY USE

The interconnected challenge of reducing emissions while continuing to provide reliable, affordable energy to our customers requires that we pursue a range of solutions. As policy and technology evolve, we are working with customers, Indigenous partners, communities, and governments to develop solutions to streamline the transition to a low-carbon future.

From significant and long-term reductions associated with electricity generation, to widespread reductions created by working alongside our customers around the world, and smaller, short-term opportunities within our fleet and facilities, there are several ways we are working to reduce emissions.

### Reducing Our Direct Impacts

We have the opportunity to play an active role in the transition to a cleaner energy future, and limiting emissions from our operations is crucial. In 2016, we entered into an agreement with the Government of Alberta to eliminate coal-fired emissions by 2030 from coal assets with life remaining past 2030. Additional options to reduce direct impacts from our operations include:

### New Generation

We continue to assess the optimal solutions for new electricity generation projects around the world, including highly efficient natural gas-powered generation, hydro, wind, solar, waste heat recovery and battery storage.

### Retrofits

Refuelling and retrofitting at existing locations can support the transition to cleaner electricity generation. In fact, with infrastructure connectivity and a skilled workforce in place, these are often ideal sites for new opportunities. In some cases, retrofitting facilities can extend the life of existing assets, limiting the immediate need for new infrastructure and minimizing the impact on the workforce and communities that depend on these facilities for economic opportunity. In Alberta, we are exploring the conversion of our coal-fired generating units to natural gas.



In late 2016, we also conducted a test at our Battle River generating station using municipal solid waste as a fuel source. The test, the first of its kind in Alberta, explores the viability of using a less carbon-intensive biomass-coal fuel mixture for future electricity generation.

We are also hosting a pilot project, partnered with G4 Insights, the Government of Canada, Alberta Innovates, FPInnovations and members of the Canadian Gas Association, to generate renewable natural gas from forest residue.

#### **Operational Efficiency**

While methane accounts for only five per cent of our total greenhouse gas emissions, we continue to look for ways to reduce methane emissions from our natural gas pipeline operations. Since 2008, our Alberta utilities have reduced venting and fugitive emissions by 31 per cent through initiatives such as improved leak detection and repair,

replacement of devices, and improved damage prevention programs.

#### **Reducing Our Indirect Impacts**

We continue to identify opportunities to further improve the emissions performance of our facilities and fleet. This includes ongoing building efficiency retrofits and investment in renewable energy to power our operations.

In October 2016, we energized Western Canada's largest off-grid solar project at our Saddle Hills Telecommunications Site northwest of Grande Prairie, Alberta. Developed in partnership with the Northern Alberta Institute of Technology, the system is capable of generating 75 kilowatts (kW) and storing 250 kilowatt-hours (kWh) of energy, supplying 100 per cent of the power needed to run the remote site, which had formerly been powered by propane generators.

**ENERGIZED**  
**288** SOLAR PANELS

supplying 100 per cent of the power needed to run our remote northern Saddle Hills Telecommunications Site. Developed in partnership with the Northern Alberta Institute of Technology, the system at Saddle Hills is the largest off-grid solar project in Western Canada.

**SAVED**  
**1,700** MWh

= LIGHTING MORE THAN 230 HOMES FOR A YEAR

in 2016 from ongoing initiatives to replace streetlights and traditional lighting with energy efficient LED lighting. We also continue to implement initiatives to improve energy savings in all our facilities, such as reducing temperatures in fleet bays.

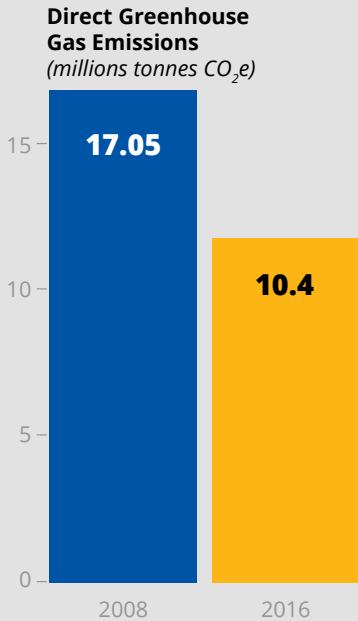
**AVOIDED**  
**866** TONNES CO<sub>2</sub>e

= 175 VEHICLES OFF THE ROAD

in 2016 through ongoing fleet initiatives. We are implementing a fleet telematics system to provide data on non-productive idling, speeding, and unsafe driving, which will reduce fuel costs and emissions, and improve employee safety.

# 39%

REDUCTION IN DIRECT (SCOPE 1)  
GREENHOUSE GAS EMISSIONS  
SINCE 2008.



We have reduced our direct greenhouse gas emissions by 39 per cent since 2008. We have also reduced air emissions of nitrogen oxides and sulphur dioxide each by more than 30 per cent. Reductions are primarily related to decreased energy output from our electricity generating assets, as well as improvements in combustion optimization and other efficiencies.

# 31%

REDUCTION IN VENTING AND  
FUGITIVE METHANE EMISSIONS  
FROM OUR ALBERTA UTILITIES.

### Enabling Customers to Reduce Energy Use and Carbon Emissions

We are exploring a variety of solutions to help our more than two million customers economically improve their environmental performance.

#### Edge-of-Grid Technologies

In 2016, we continued to advance a number of edge-of-grid technologies to empower our customers to play a more active role in managing their energy use.

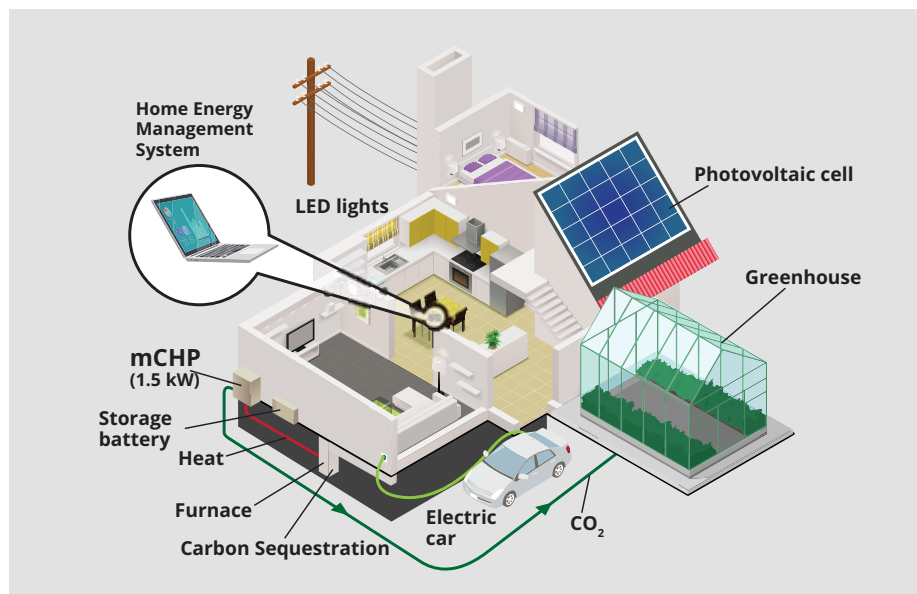
In Western Australia, we began a new research and development project, known as GasSola, which combines the reliability of our natural gas network with renewable energy technologies including battery storage and rooftop solar panels. The trial demonstrates how natural gas-fuelled, scalable hybrid technology can provide firm generation to support renewables, increasing energy security and potentially reducing the need for infrastructure upgrades.

In Red Deer, Alberta, we have a demonstration project underway to explore the optimal mix of clean energy technologies in a residential setting. The hybrid house project combines a range of low-carbon technologies, including a 1.5 kW micro combined heat and power (mCHP) unit, solar panels and onsite battery storage. This project demonstrates that, with the right mix of clean technologies, we can decrease emissions from our home by up to 75 per cent compared to a standard-built home.

### Combined Heat and Power (CHP)

Simultaneously producing both electricity and heat using highly efficient natural gas can significantly reduce emissions and lower fuel costs. Over the past year, we developed a number of innovative CHP projects:

- **Commercial Buildings & Facilities** – In 2016, a 192 kW CHP unit was installed at the Lakeside Leisure Centre in the City of Brooks, Alberta. The CHP program is partially funded by Emissions Reduction Alberta, and is expected to reduce greenhouse gas emissions by 3,500 tonnes per year upon completion.
- **Construction** – In 2016, we collaborated with PCL Construction and Ivanhoe Cambridge to use natural gas as an alternative to propane for heat and power generation at a new outlet mall near Edmonton. This innovative use of natural gas reduces emissions and costs when compared with traditionally used propane.
- **Micro CHP** – We are currently testing 1.5 kW mCHP units for use in our operations and in residential applications. In a first-of-its-kind project, we are integrating these mCHP units into our natural gas gate stations — which transition gas pressure from transmission to distribution lines — allowing them to generate their own electricity and reduce emissions. Retrofitting homes to incorporate mCHP units offers similar efficiency opportunities, with the potential to reduce emissions per home by up to 55 per cent.

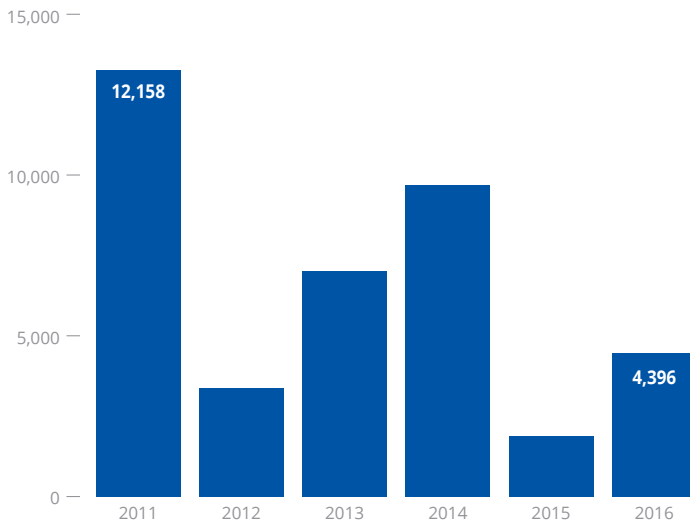


## ENVIRONMENTAL COMPLIANCE

### Incident & Risk Management

We strive to minimize the number and size of spills through rigorous operational procedures and asset integrity.

#### Volume of Reportable Hydrocarbon Spills (litres)



We have reduced the volume of hydrocarbon reportable spills by 64 per cent since 2011. The increased volume in 2016 can be partially attributed to spills related to wildfires in northern Alberta. Spill volumes are sometimes estimated.

#### 2016 Reportable Spills

	Number of Reportable Spills (#)	Volume of Reportable Spills (litres)
Hydrocarbon	14	4,396
Non-hydrocarbon	7	34,471
<b>TOTAL</b>	<b>21</b>	<b>38,867</b>

Number of spills refers to all spills that require reporting to regulators. Non-hydrocarbon spills often comprise saline water or water containing other substances. More than 85 per cent of the 2016 volume of non-hydrocarbon spills is attributable to a single brine release.

UP TO  
**75%**

DECREASE IN HOME EMISSIONS WITH THE RIGHT MIX OF CLEAN TECHNOLOGIES.

### Pipeline Integrity

We own and operate an extensive network of natural gas transmission and distribution pipelines in Canada and Australia, as well as energy and liquids storage infrastructure in Alberta's Industrial Heartland.

**165%**

#### INCREASE OF IN-LINE INSPECTIONS ON GAS TRANSMISSION LINES SINCE 2012.

In-line inspections are a proactive method to identify the size and location of transmission pipeline defects, and help predict the locations of future corrosion. Our comprehensive Pipeline Integrity Program also includes cathodic protection, pipeline coating assessments, watercourse crossing inspections, and aerial inspections.

**50%**

#### BETTER THAN INDUSTRY AVERAGE FOR LEAKS AND HIT LINES PER KM OF GAS DISTRIBUTION MAIN WHEN BENCHMARKED AGAINST OUR PEERS.

We regularly review our performance to identify areas for continual improvement. We created a tool that identifies pipeline locate requests that are more likely to result in a hit line based on an analysis of historical data, enabling us to focus damage prevention resources on those locations. To further reduce the risk of lines being hit by third parties, we also invest in public awareness and education efforts through campaigns such as Click Before You Dig and organizations such as Alberta One-Call.



## **SAFETY**

Safety is the first consideration in everything we do. Beyond our commitment to providing a safe work environment for our people, we actively engage with municipalities, governments, first responders, and the communities we serve to promote the importance of energy safety. We regularly share learnings and best practices between our diverse lines of business to improve our overall safety performance, and are committed to continual improvement through regular measurement, monitoring and assessment of key performance indicators.

### **EMPLOYEE HEALTH & SAFETY**

Improvement in our safety performance has been driven by a variety of initiatives from across our businesses. In an effort to improve risk management and hazard

# 94%

**OF OUR GAS DISTRIBUTION EMPLOYEES PARTICIPATED IN A SAFETY PERCEPTION SURVEY TO IDENTIFY GAPS IN SAFETY CULTURE. WE DESIGNED AN ACTION PLAN TO ADDRESS AREAS FOR IMPROVEMENT.**

identification, in 2016 our natural gas distribution teams launched a Routine Hazard Assessment Review initiative, which brought together a number of focus groups to review hazard assessments, risk levels, and mitigation.

We also improved safety communication across the company, with an increased emphasis on safety meetings, worksite observations and safety exchanges. In 2016, we implemented a safety alert process, which communicates near misses across the organization in the same manner as incidents.

In 2016, our electricity generation division achieved a record low total recordable injury rate as a result of standardizing safety processes and implementing best practices across the fleet.



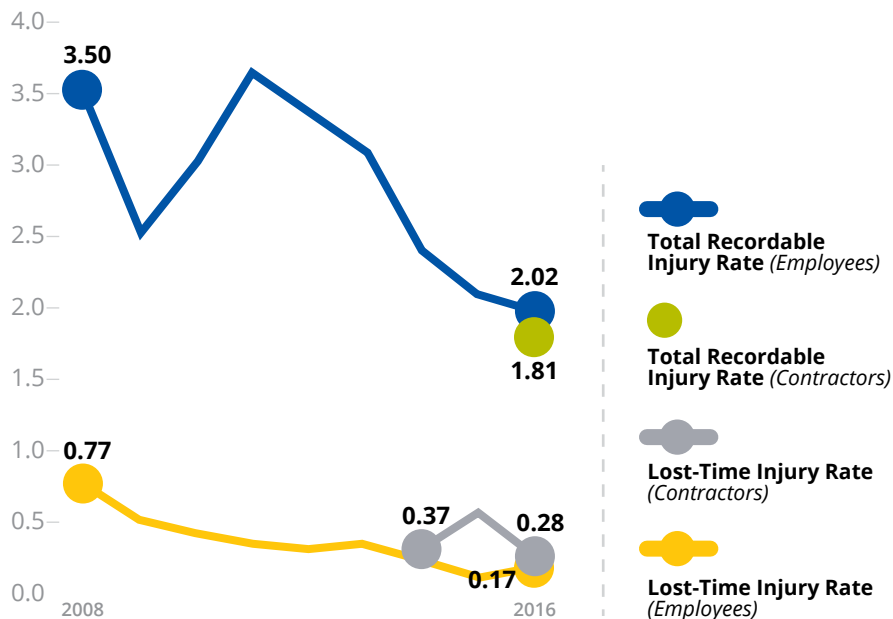
# 78%

REDUCTION IN LOST-TIME INJURIES

Since 2008, our employee lost-time injury rate has declined by 78 per cent, while our employee total recordable injury rate has declined by 42 per cent. Meanwhile, our contractor lost-time injury rate has declined by 24 per cent since 2014. The contractor total recordable injury rate is a new external disclosure for 2016.

### Injury Frequency Rates

*Injuries per 200,000 hours worked*



## PUBLIC SAFETY & EMERGENCY PREPAREDNESS

We take a proactive approach to public safety and emergency preparedness. As a provider of critical energy infrastructure around the world, we regularly participate in a broad range of emergency preparedness activities, engaging our partners, customers, communities and employees.

### Our Operations

Our corporate emergency response plans are tested annually, and updated as required. Our employees participate in tabletop exercises, and customers and partners are engaged to plan for fire prevention and emergency response.

### Our Neighbours

Depending on the nature of our operations, we use a fit-for-purpose approach to engage with our neighbours to identify potential hazards and appropriate mitigation measures including landowner liaisons, a help line and support services for land users, and coordinators who work with subcontractors.

### Local Communities

We regularly participate in emergency management committees with municipal, territorial and provincial governments and contribute to field exercises and planning activities. We are also firmly committed to ongoing first responder communication and training.

### General Public

We participate in a range of public safety campaigns, such as our 2016 “Wake Up” carbon monoxide campaign. To help coordinate public electrical safety efforts, we are members of the Joint Utility Safety Team with the electrical utility companies in Alberta.

## PUBLIC SAFETY AND EMERGENCY PREPAREDNESS FROM THE INSIDE OUT







## EMERGENCY RESPONSE IN ACTION

From responding to the needs of more than 40,000 electricity customers and 22,000 natural gas customers, to supporting emergency responders on the ground and assessing and repairing our infrastructure, our response to the Fort McMurray wildfire in 2016 was without precedent in our history.

More than 650 employees from across the organization came together during the emergency, with many working alongside first responders from day one to assist evacuees, support first responders and protect critical infrastructure. When the fires abated, we immediately began repairing our electricity and natural gas infrastructure and restoring service. When residents

returned, our teams were on the ground to relight appliances and provide essential information. In addition, we served 56,000 hot meals to returning residents and first responders over just eight days.

Most importantly, we were able to complete this work without a lost-time injury.

Our industry peers and partners in government have broadly recognized our company-wide efforts. In 2017, ATCO was honoured with the Alberta Emergency Management Agency's Emergency Management Achievement Award, the Edison Electric Institute's Emergency Recovery Award, and the Canadian Gas Association's President's Safety Award for Excellence.

## OUR RESPONSE IN FORT MCMURRAY

OVER

**40,000**

ELECTRICITY CUSTOMERS AND

**20,000**

NATURAL GAS CUSTOMERS IMPACTED

**650+**

EMPLOYEES CAME TOGETHER  
DURING THE EMERGENCY

**0**

LOST-TIME INCIDENTS



## COMMUNITY & INDIGENOUS RELATIONS

As a long-term provider of essential energy and infrastructure services in hundreds of communities around the world, we have a unique role to play in supporting and improving the quality of life of our customers and neighbours. We seek to go beyond simply engaging with local communities and look for opportunities for partnership and economic and social development. Together, we continue to pioneer new ways of engaging and collaborating with communities and our Indigenous partners.

### COMMUNITY ENGAGEMENT

There is no one-size-fits-all method to community engagement; each of the communities we are privileged to serve or operate within requires a unique approach. While we may not always find consensus, we are committed to engagement, consultation and transparency. From project development to ongoing operations, we regularly engage with a variety of groups, including governing authorities, regulatory bodies, landowners, and Indigenous and community groups that may be affected by, or can affect, our business. Our communication with these groups is transparent, responsive, and continues long after a project is complete. Insights gathered during

this engagement process are vital in project planning and gaining regulatory approval.

Throughout 2016 we continued to engage on a range of infrastructure projects. We consulted with thousands of landowners and hosted 10 open houses along the proposed route of the Fort McMurray West Transmission Alberta Powerline Project, developed in partnership with Quanta Services. We also consulted with nearby Indigenous communities through open houses, site visits, aerial route review, and discussions with elders and traditional knowledge holders.

We continued community engagement efforts on our Urban Pipeline Replacement Program. The multi-year program will involve the installation of high-pressure gas transmission lines in the Edmonton and Calgary transportation utility corridors. The existing pipelines will either be removed from service or converted to distribution service at much lower pressures in an effort to provide safer delivery of natural gas in urban areas.

The program involves extensive public engagement including open houses, mail-outs and one-on-one communication with residents,



# \$7M

## COMMUNITY INVESTMENT

Since 2008, our annual community investment, including financial support, volunteers, expertise and gifts-in-kind, has increased by \$2 million. In 2016, our employee-led ATCO EPIC (Employees Participating in Communities) campaign raised \$3.3 million for hundreds of community charities, taking the cumulative fundraising total to more than \$35 million since its inception in 2006. We have been the title sponsor for Ski Fit North Alberta for the past two years. The program promotes fitness in 30 Indigenous and remote communities across Alberta, providing youth with the opportunity to develop confidence and leadership skills.

landowners, business owners, community associations and elected officials. This ensures that those along the pipeline route or near construction are aware of the projects, the facility approval process and ATCO's approach to constructing pipelines. By the end of 2016, 51 km of high-pressure pipeline had been removed from service or converted to low-pressure and 60 km of new high-pressure pipeline had been installed within the transportation utility corridor or ring roads surrounding both cities. This initiative provides a unique opportunity to enhance the design of our current natural gas network and to extend pipeline asset life, resulting in reduced construction costs and environmental impact.

### INDIGENOUS RELATIONS & PARTNERSHIPS

The diversity of our operations encourages a variety of relationships with Indigenous peoples – as customers, business partners,

colleagues, employees, and neighbours. In addition to sincere consultation and transparent engagement, we actively seek opportunities to participate with Indigenous communities in business activities to identify shared social and economic benefits, and work collaboratively to develop new infrastructure solutions.

For example, 2017 marks the 30th anniversary of our partnership with Denendeh Investments Incorporated (DII) in Northland Utilities, which provides electricity generation, transmission and distribution services to customers in the Northwest Territories. Our partnership with DII, which represents 27 Dene First Nations across the Northwest Territories, is one of mutual respect and trust, and of sharing value through enterprise.



# 40+

**JOINT-VENTURE PARTNERSHIPS,  
MEMORANDUMS OF UNDERSTANDING  
AND OTHER RELATIONSHIPS WITH  
INDIGENOUS COMMUNITIES.**

In 2016 we continued to build upon our 20-year relationship with the Piikani Nation in southern Alberta with the completion of the Piikani Nation Multi-Purpose Centre. The new 39,000 sq. ft. structure features an NHL-quality rink and bleacher seating to accommodate 300 people, and was pre-fabricated and assembled onsite and designed using colours chosen by the Piikani Nation to represent their culture and the environment of Alberta's Foothills.

**MORE THAN**

# \$2B

**REVENUE GENERATED IN CONJUNCTION  
WITH INDIGENOUS JOINT VENTURES  
AND PARTNERSHIPS SINCE 2012.**

In addition to our continued efforts to build and maintain relationships with Indigenous and northern communities, our Vice President, Indigenous Community Relations & Development, is Canada's representative on the Arctic Economic Council (AEC). The AEC, comprised of the eight Arctic states, is a circumpolar business forum to facilitate Arctic business-to-business activities and promote dynamic and sustainable Arctic economies and best practices.

#### **New Infrastructure Solutions**

Regional infrastructure solutions require deep expertise and knowledge combined with a genuine openness to new solutions, new funding models and new partnerships.

In 2016, we developed a number of collaboratively designed infrastructure solutions, including an agreement with the O'Chiese First Nation in Alberta to operate their newly constructed, First Nations-owned natural gas distribution system. We are also planning to provide training to community members on how to operate and maintain the system, which supplies natural gas to a school and water treatment plant.

We also grew our relationship with the Simpcw First Nation in British Columbia into a joint venture. This provides us with the opportunity to jointly develop workforce housing and catering solutions for a major pipeline expansion project, in combination with regional distributed generation, electrical and gas distribution.



**Education**

Supporting education and training opportunities for Indigenous peoples contributes to vibrant communities, creates a stronger local workforce and affords us opportunities to share experiences and learn from local expertise.

In addition to training and development initiatives, we maintain a number of ongoing educational awards and scholarship programs, and provided more than \$184,500 in financial assistance to Indigenous students pursuing post-secondary education since 2011.

We also work to help our people understand the unique cultural and historical status of Indigenous communities through specifically designed training programs such as the Indigenous Relations Leadership Training Program at the University of Calgary.

**29** STUDENTS FROM 11 MÉTIS AND FIRST NATIONS COMMUNITIES WERE CHOSEN TO RECEIVE ONE OF ATCO'S INDIGENOUS EDUCATION AWARDS IN 2016.

Since 2011, 161 awards have been given to students from across Alberta.

**87%**

OF CANADIAN EMPLOYEES COMPLETED OUR NEW ONLINE INDIGENOUS RELATION TRAINING IN 2016.

Developed with considerable input from Indigenous leaders and educators, the training provides a foundational understanding of Indigenous people in Canada.

## ECONOMIC IMPACT

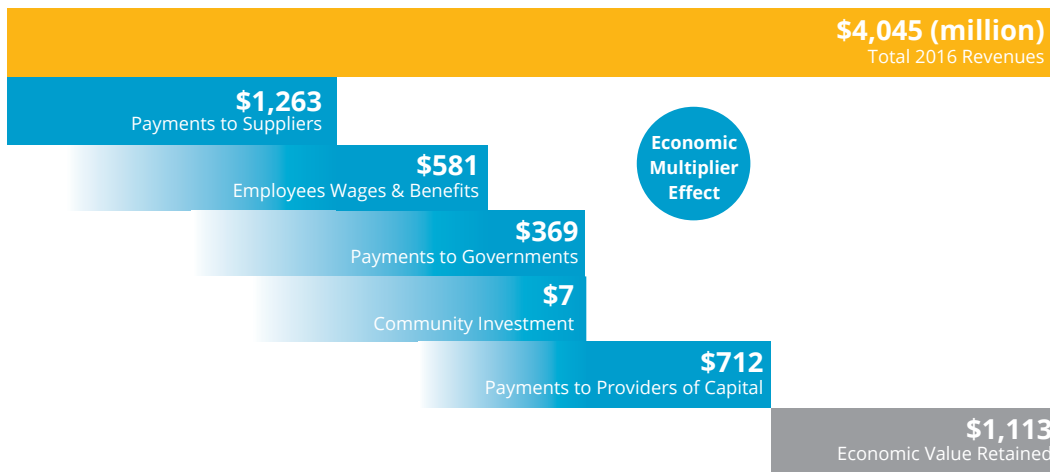
The products and services we provide are essential to the ongoing vitality of businesses and communities. Our diverse operations around the world have a significant economic impact on hundreds of communities where we contribute to growth through the taxes we pay, the jobs we create, and the goods and services we purchase. The chart below depicts how our operations economically benefit our communities.

## Economic Multiplier Effect

Beyond the direct economic effect of our operations, we also generate indirect and induced economic effects, commonly known as the multiplier effect. Based on Statistics Canada's input-output modelling on indirect and induced economic effects, we estimate that for every dollar ATCO contributed to Canada's gross domestic product (GDP) in 2016, an additional \$1.29 would circulate in the economy, and that every direct job at ATCO supported more than two other jobs in the economy.

**16,000**  
JOBS ACROSS CANADA AND  
**\$4B**

IN CONTRIBUTIONS TO  
CANADA'S GDP FROM COMBINED  
DIRECT, INDIRECT AND INDUCED  
ECONOMIC BENEFITS RELATED  
TO OUR CANADIAN OPERATIONS.



## LOCAL SOURCING

We work closely with communities near our operations to identify opportunities that allow us to draw on local skills and expertise, and strengthen local economies. During construction of the facility, we engaged extensively with all eight Indigenous communities surrounding the project to ensure they were aware of plans and opportunities available to them. Altogether, more than \$21 million in contracts were awarded to the eight Indigenous communities.

The lodge was completed on-time and on-budget in less than 13 months, with our highly skilled crews performing almost 1.4 million hours of work without a single lost-time injury.

**MORE THAN 80 PER CENT OF OUR WORKFORCE CONSTRUCTING THE LODGE FOR BC HYDRO'S SITE C CLEAN ENERGY PROJECT WERE LOCAL BRITISH COLUMBIA RESIDENTS, AND NEARLY 21 PER CENT WERE INDIGENOUS.**





## OUR PEOPLE

The people of ATCO have long been our greatest competitive advantage. Much like our business operations, the collective strength of our people is due in no small part to their diversity. A diverse workforce encourages a variety of perspectives – our

ability to draw upon a range of backgrounds and experiences enables us to make more informed decisions. Moreover, increased diversity allows us to better connect with our customers and communities, strengthening the relationships that serve as the bedrock of our business.

**24%**

OF OUR MANAGEMENT TEAM  
ARE WOMEN.

**30%**

OF OUR BOARD OF DIRECTORS ARE  
WOMEN, COMPARED TO AN AVERAGE  
OF 21.6% FOR COMPANIES IN THE  
FINANCIAL POST 500.

# SUSTAINABILITY AT ATCO

Our long-term success depends not only on our ability to deliver value-oriented solutions for our customers, but to do so in a sustainable manner. As a global provider of essential energy and infrastructure solutions, we have a unique opportunity to solve challenges for our customers in a way that benefits the communities in which we operate, the environment and the economy.

## **Our Approach**

The foundations of a sustainable company include strong governance, a dedicated leadership team and a rigorous management approach. These cornerstones, along with ATCO's core values — integrity, transparency, entrepreneurship, accountability, collaboration, perseverance, and caring — help us deliver on our commitment to sustainability.

Our stable, long-term position in the marketplace drives our long-term vision on sustainability. The existence of a long-standing controlling share owner, Sentgraf Enterprises Ltd., is fundamental to our longer-term strategic and sustainable outlook.

## **Governance**

The two main committees of ATCO's Board of Directors are the Corporate Governance - Nomination, Compensation and Succession Committee (GOCOM) and the Audit & Risk Committee.

The Audit & Risk Committee has the greatest oversight of our sustainability practices. The committee reviews risks that could materially affect our ability to achieve our strategic objectives, and is responsible for ensuring that management addresses those risks by implementing appropriate mitigation measures.

The senior executive of each operating division chairs a Risk Management Committee that reports to the Audit & Risk Committee. In addition, each division prepares a Stewardship Report on a bi-annual basis, which includes topics such as safety, environment and Code of Ethics compliance.

## **Management**

The sustainability function at ATCO reports directly to a member of the Executive Committee and is managed collaboratively across numerous groups, including Human Resources, Indigenous Relations, Health & Safety, Environment, Communications, Business Development, Internal Audit and Risk Management, among others. These groups monitor best practices, develop and implement policies and standards and support our various divisions.

The daily management of sustainability commitments and implementation of programs are guided by divisional leadership. More specific descriptions of our management approach to material topics are included on our [website](#). The programs include topic-specific policies, responsibilities, training, monitoring and other management considerations.

## **Determining our Material Topics**

We broadened the scope of our materiality assessment in 2016 and undertook a two-pronged approach to determine which topics to address in our sustainability reporting.

We began by evaluating a range of environmental, social and governance issues facing the industries in which we operate using third-party research, industry benchmarking and discussions with internal subject matter experts.

We then engaged a company-wide panel of subject matter experts from across ATCO. Using a list of 25 sustainability issues, we asked our internal specialists to assess each issue using two criteria: the relative importance of each issue to interested parties and the potential impacts on our business success. We then engaged an external sample of the parties most commonly interested in our sustainability performance, including Indigenous leaders, customers, community members, non-governmental organizations, suppliers, investors and regulators, to participate in a similar exercise.

Topics considered highly relevant to both the company and interested parties were considered material: Energy Stewardship; Environmental Stewardship; Safety; and Community & Indigenous Relations.



## ABOUT THIS REPORT

- This report includes data for the three years ended December 31, 2016, unless otherwise noted, for ATCO, our subsidiaries and joint ventures. Exceptions are explicitly noted with the relevant information. Data for 2008, our baseline year for reporting many indicators, is included when available. For more recently added indicators, we include baseline year data in graphs. Qualitative information about programs and initiatives is generally confined to 2016 activities. For brevity, data from 2009 through 2013 is not included in the Performance Summary table on pages 26 and 27, however this historical data is available on our website.
- Our most recent previous Sustainability Report was released in May 2016.
- This material references the Global Reporting Initiative's (GRI) Sustainability Reporting Standards.
- Environmental data reported includes 100 per cent of the emissions and water use for the facilities that ATCO owns and operates, and facilities with partnership ownership where ATCO is identified as the operating entity in the contract, regardless of percentage of financial ownership. For select environmental indicators we provide reporting on our website on an ownership basis. The treatment of joint ventures may be addressed differently in ATCO's 2016 Annual Report with respect to financial performance.

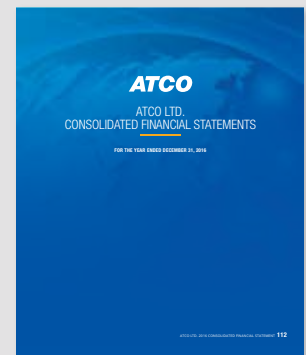
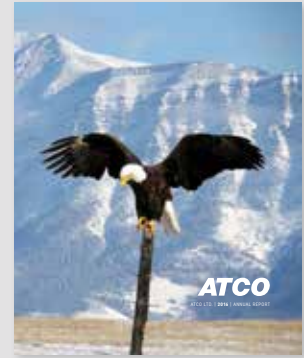
- We report full environmental data for power plants operating under power purchase arrangements (PPA) – Sheerness and Battle River.
- Unless noted, indicators do not cover contractors or temporary employees.
- Financial data is in Canadian dollars and environmental data is in metric units.
- The terms ATCO, ATCO Group, the ATCO Group of Companies, our, we, the company and the corporation, refer to ATCO Ltd. as a whole, including its subsidiary company Canadian Utilities Limited.



**On the inside front cover:**  
*Our multi-user water system in Alberta's Industrial Heartland helps minimize disruption to the North Saskatchewan River valley while increasing recycled water use for our industrial customers.*

**This is a summary report on sustainability. For further details please visit our website [www.ATCO.com](http://www.ATCO.com):**

- Management Approach for all material topics;
- A content index addressing GRI disclosures;
- Governance information; and
- Other investor documents and regulatory filings.



# PERFORMANCE SUMMARY

Indicator <sup>1,2</sup>	Units	2016	2015
<b>ENVIRONMENT</b>			
Air Emissions <sup>3</sup>			
Direct greenhouse gases	kilotonnes CO <sub>2</sub> e	<b>10,378</b>	10,353
Indirect greenhouse gases <sup>4</sup>	kilotonnes CO <sub>2</sub> e	<b>174</b>	207
Sulphur dioxide	tonnes	<b>42,111</b>	42,144
Nitrogen oxides	tonnes	<b>17,019</b>	18,006
Particulate matter (PM2.5)	tonnes	<b>438</b>	500
Carbon monoxide	tonnes	<b>2,205</b>	2,523
Volatile organic compounds	tonnes	<b>274</b>	252
Mercury	kilograms	<b>37</b>	46
Ozone depleting substances	kilograms	<b>101</b>	95
Water Use <sup>5</sup>	million m <sup>3</sup>	<b>18.5</b>	18.9
Spills <sup>6,7</sup>			
Number		<b>21</b>	14
Volume	litres	<b>38,867</b>	1,734
Hazardous Waste <sup>8</sup>	tonnes	<b>857</b>	406
Environmental Fines and Penalties	\$	<b>850</b>	0
<b>SOCIAL</b>			
Health & Safety <sup>9</sup>			
Lost-time injury rate (employees)	cases/200,000 hours worked	<b>0.17</b>	0.12
Lost-time injury rate (contractors)	cases/200,000 hours worked	<b>0.28</b>	0.56
Recordable injury rate (employees)	cases/200,000 hours worked	<b>2.02</b>	2.11
Recordable injury rate (contractors)	cases/200,000 hours worked	<b>1.81</b>	-
Fatalities (employees)	number	<b>0</b>	0
Fatalities (contractors)	number	<b>0</b>	0
Employees <sup>10</sup>	number	<b>6,751</b>	7,546
Voluntary Turnover Rate <sup>10</sup>	per cent	<b>8.3</b>	8.9
Employees in Employee Unions or Associations	per cent	<b>51</b>	52
Diversity <sup>10</sup>			
Women in workforce	per cent	<b>32</b>	32
Women in senior management	per cent	<b>17</b>	20
Women on Board of Directors	per cent	<b>30</b>	27
Human Rights and Ethics Incidents <sup>11</sup>			
Discrimination incidents	number	<b>0</b>	0
Indigenous rights incidents	number	<b>0</b>	0
Corruption Incidents <sup>11</sup>	number	<b>0</b>	0
Customer Privacy Breaches <sup>11</sup>	number	<b>0</b>	0
Number of Regulatory Non-compliance Incidents	number	<b>3</b>	0
Fines and Penalties for Regulatory Non-compliance	\$	<b>0</b>	0
<b>ECONOMIC</b>			
Economic Value Generated <sup>12</sup>	\$ million	<b>4,045</b>	4,131
Economic Value Distributed			
Suppliers	\$ million	<b>1,263</b>	1,592
Employees <sup>13</sup>	\$ million	<b>581</b>	696
Lenders	\$ million	<b>394</b>	370
Shareholders	\$ million	<b>318</b>	277
Governments <sup>14</sup>	\$ million	<b>369</b>	369
Communities <sup>15</sup>	\$ million	<b>7</b>	8
Economic Value Retained <sup>16</sup>	\$ million	<b>1,113</b>	819
Financial Assistance Received from Governments <sup>17</sup>	\$ million	<b>0.73</b>	0.72
Coverage of Defined Benefit Pension Plan Obligations	per cent	<b>93</b>	94

12,909	17,049
254	-
54,273	63,182
23,806	26,566
606	510
3,207	3,768
335	168
44	157
18	77
20.1	22.1
20	-
63,881	-
1,005	-
0	0
0.23	0.77
0.37	-
2.39	3.50
-	-
0	0
0	0
9,170	7,781
9.3	12.8
53	54
31	29
18	14
25	9
0	-
0	-
0	-
15	40
2	-
7,750	-
4,554	3,266
1,807	1,127
716	466
343	239
254	166
407	365
8	5
1,019	897
0.38	-
89	99

**We strive to continually improve our tracking and measurement systems, and may adjust indicator definitions and performance data to reflect current best practice. In most cases, we use standard industry and regulatory calculation methodologies and definitions that may be updated periodically to improve accuracy.**

#### NOTES

1. This summary table reports data for the ATCO Group of Companies which should not be misconstrued as ATCO Ltd. (ATCO/X CN) or Canadian Utilities (CU CT). Data is reported on an operatorship basis, which does not align with financial reporting. For our significant environmental indicators, we have provided an additional breakdown based on equity share and ownership in our [GRI Content Index](#).
2. This report includes performance data on indicators that were not included in all previous reports. Data for the new indicators for previous years is not included, and is denoted with a "-" symbol.
3. Emissions figures include amounts that are required to be reported under federal, provincial, regional or other regulations, or under facility permits. We use standard industry calculation methodologies and emission factors, which sometimes change to improve accuracy.
4. The reduction in indirect emissions can be partially attributed to data for 2016 not including all facilities from our electricity transmission and distribution operations.
5. Water use = water diverted minus water returned. We estimate that these figures account for more than 99 per cent of our water use. Following a review of tracking procedures, water use for our power generation operations was restated for 2015.
6. Includes spills that meet the size thresholds for regulatory reporting in the jurisdiction in which they occurred. Volume spilled is often estimated due to variables such as duration, location and when the spill was identified.
7. Non-hydrocarbon spills are often comprised of high volumes of saline water or water containing small quantities of other substances.
8. Hazardous waste volumes vary due to size and scope of projects.
9. In cases where we direct the work of joint venture (JV) employees, we include their data in safety statistics. We estimate that contractor safety statistics account for more than 90 per cent of our contractors.
10. Does not include JV employees. In 2016 we included international employees in human resources data, which represents 10 per cent of our workforce.
11. We track and address concerns through a number of channels, including our internationally accessible ATCO Integrity Line. Only incidents that have been substantiated by an external authority have been included.
12. Economic value generated includes revenues, gains on asset dispositions, and interest income.
13. Payments to employees include the expensed cost of wages and benefits.
14. Payments to governments include income, property, and franchise taxes.
15. Distributions to communities include donations, in-kind contributions, and sponsorships.
16. Economic value retained is economic value generated minus economic value distributed. This is not a financial reporting indicator and should not be confused with retained earnings.
17. Financial assistance received from governments includes tax relief/credits, investment grants, R&D grants, financial awards, and favourable financing terms from domestic and foreign governments.



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