



**ATCO**

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2018 SUSTAINABILITY REPORT

**ATCO**



## ENERGY STEWARDSHIP

Secure, reliable and affordable energy underpins the economic vitality of our communities. It is our responsibility to understand the evolving needs of our customers and develop solutions that support the transition to a lower-emitting energy system.

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## ENVIRONMENTAL STEWARDSHIP

As a critical infrastructure provider, a collaborative and long-term approach to minimizing our environmental footprint is vital. As part of this, we continue to explore new and more efficient ways to generate, transport and conserve energy.

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# VISION

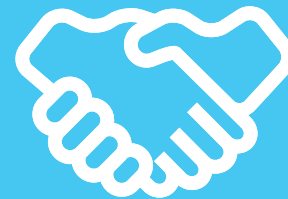
Our core vision is to make lives easier for our customers by providing sustainable, innovative and comprehensive solutions globally.



## SAFETY

Safety is the first consideration in everything we do. Providing a safe work environment for our people is ingrained in our culture: a shared belief that directs our day-to-day priorities and decisions.

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## COMMUNITY & INDIGENOUS RELATIONS

Building respectful and mutually beneficial relationships has long defined how we do business. Along with our Indigenous and community partners, we are continually exploring new ways to collaborate.

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Today's global community is experiencing a pace and scale of change that is unprecedented, and it is incumbent upon business to adapt and lead the way. At ATCO, we have continued to forge ahead with a team of more than 6,000 committed people who bring their best to build communities, energize industry and deliver customer-focused infrastructure solutions around the world. Sustainability is more than an ideal; it is inter-woven into our decisions, our products and services, and our culture. We know you expect nothing less.

This report highlights our sustainability performance through four, forward-looking lenses that help drive our multi-faceted business:

-  ENERGY STEWARDSHIP
-  ENVIRONMENTAL STEWARDSHIP
-  COMMUNITY AND INDIGENOUS RELATIONS
-  SAFETY

For ATCO, energy stewardship means energy access that is secure, reliable and affordable. We have fostered world-class innovation with a keen eye for integration of emerging technology, including initiatives in renewable energy, energy efficiency, low-carbon transportation, and overall energy systems—for homes and businesses both down the road, and in remote communities. But innovation for innovation's sake isn't enough: we listen closely to our customers to identify the right mix of technologies, tailored to their specific needs. One stellar example of this is the integration of renewable energy and battery storage in remote Indigenous communities to reduce their reliance on diesel-fueled electricity generation.

Our customers are our partners in everything we do and maintaining our connections with them has never been more important. Within our Alberta electricity and natural gas businesses, over 90 per cent of our customers agree we have a strong reputation in their community. Our reputation is an intangible collection of thousands of positive actions taken by our people, but it has very tangible benefits for the resiliency and strength of our company.

We utilize a similar approach to environmental stewardship, recognizing that strong environmental practices are intrinsic to sound business practices. We continue to innovate and



lead the transition to a lower-emitting energy future through renewables, focus on operational efficiency and fuel switching; in particular, converting our coal-fired electricity generation to operate on lower-emitting natural gas enables us to utilize existing infrastructure, while achieving immediate and significant reductions in emissions. It is through initiatives such as this that we have been able to reduce our greenhouse gas emissions by 37 per cent since 2008.

Community and Indigenous relations are a key to our success and integral to how we grow as a company through understanding the needs of our customers and working collaboratively to develop the strongest solutions possible. We have a history of meaningful collaboration with Indigenous communities, but most importantly, we understand that we have a future together made possible through meaningful engagement, economic participation, training and employment opportunities. When our partners do well, ATCO does well.

Safety is critical; and it is the cornerstone in ensuring that our most important assets—our people and our customers—are poised for success. While we mobilize to help people around the globe by providing disaster and emergency management services, we put equal focus on the health and safety of our employees, our customers and contractors. In 2018, our total recordable incident frequency rate and lost time incident frequency rate saw a respective 35 and 36 per cent improvement from 2017. I am proud to say we are working cleaner, safer, and more reliably than ever before, and at a lower cost for our customers.

Underpinning our accomplishments are the herculean efforts of our people. I would like to thank them for their commitment to connecting the practical to the sustainable; the immediate response to the long-term vision; and to let them know they have the full support of myself and our board of directors.

Nancy Southern  
Chair & Chief Executive Officer

# INTEGRATED SOLUTIONS

From reliable, sustainable energy for homes and businesses to innovative temporary and permanent structures and everything in between, we build communities, energize industries, and deliver customer-focused infrastructure solutions.

Sustainability disclosures reflect our global business unit operations including:

## STRUCTURES & LOGISTICS

- Relocatable Structures
- Permanent Structures
- Emergency Response
- Site Services

## ELECTRICITY

- Electricity Generation
- Electricity Transmission
- Electricity Distribution

## PIPELINES & LIQUIDS

- Natural Gas Distribution
- Natural Gas Transmission
- Energy Storage
- Industrial Water

## RETAIL

- Retail Electricity and Natural Gas (Home & Business)

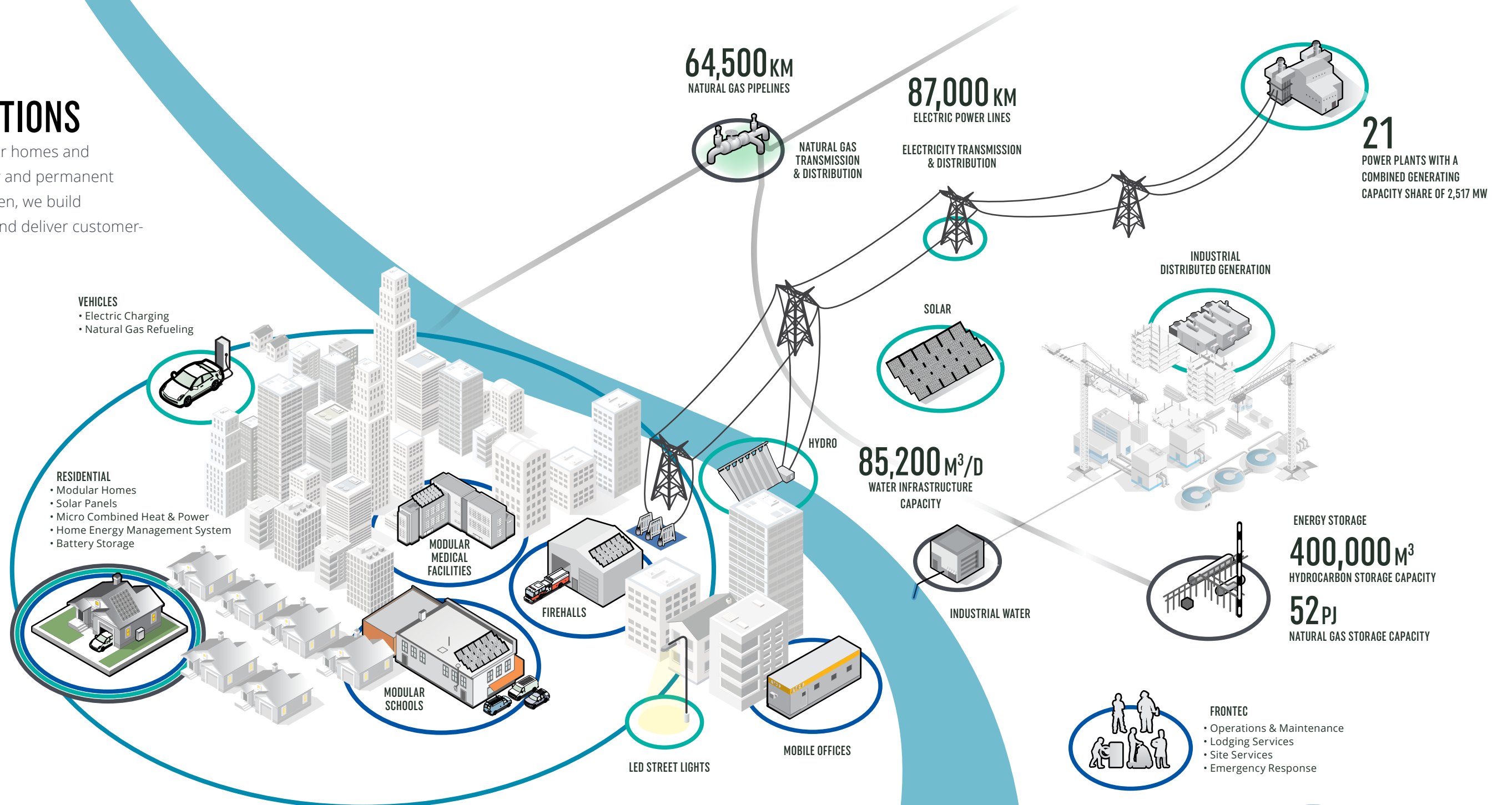
ATCO also has investments in:

## PORTS & TRANSPORTATION

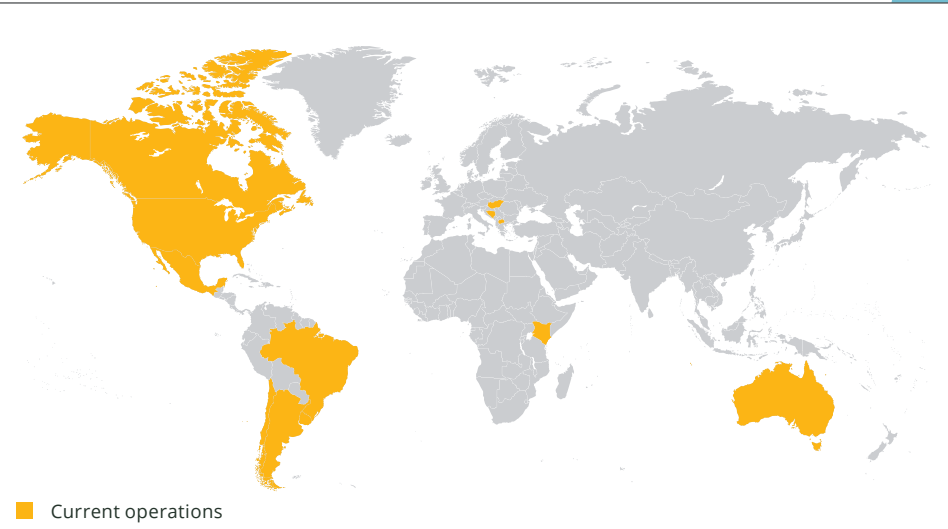
- Port Facilities
- Port Operations Services

## ATCO INVESTMENTS

- Commercial Real Estate



APPROXIMATELY <b>6,000</b> Employees	<b>\$4.9B</b> Revenues
<b>\$24B</b> Assets	<b>\$355M</b> Adjusted Earnings
<b>2M+</b> Global Customers	<b>\$2.5B</b> Capital Investment





# ENERGY STEWARDSHIP

Secure, reliable and affordable energy underpins the economic vitality of our communities. It is our responsibility to understand the evolving needs of our customers and develop solutions that support the transition to a lower-emitting energy system.



CUSTOMER SATISFACTION



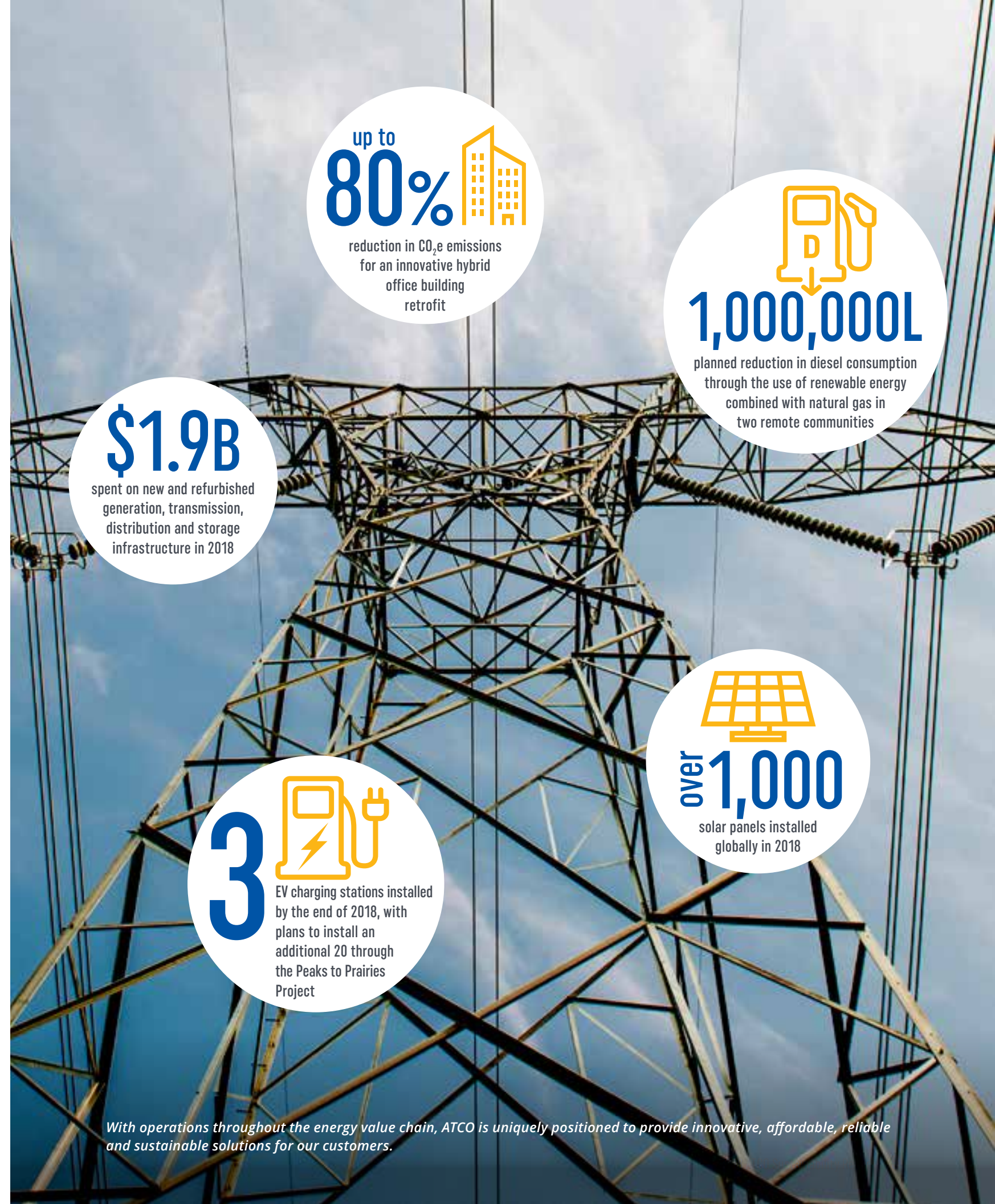
SECURITY & RELIABILITY





ACCESS TO ENERGY




AFFORDABILITY




up to **80%**   
reduction in CO<sub>2</sub>e emissions for an innovative hybrid office building retrofit

  
**1,000,000L**  
planned reduction in diesel consumption through the use of renewable energy combined with natural gas in two remote communities

**\$1.9B**  
spent on new and refurbished generation, transmission, distribution and storage infrastructure in 2018

**3**   
EV charging stations installed by the end of 2018, with plans to install an additional 20 through the Peaks to Prairies Project

  
**over 1,000**  
solar panels installed globally in 2018

*With operations throughout the energy value chain, ATCO is uniquely positioned to provide innovative, affordable, reliable and sustainable solutions for our customers.*



At ATCO, our success depends on providing innovative solutions that are affordable, reliable and sustainable. As we continue to look ahead to our global energy future, we see tremendous change—from generation to transmission and distribution to end-user consumption. Many of these changes are driven by innovation, consumer choices and are reflected in public policy. The intersection of these drivers can occur quickly, such as when customers become 'prosumers' who take a more active role in generating electricity and selling it back to the grid, reversing the traditional producer to consumer model.

With operations throughout the energy value chain, ATCO is uniquely positioned to help facilitate this global transformation and to empower our customers to play a role. The transition requires near and long-term thinking and collaboration to get to the best solutions. We advocate for a holistic perspective on energy policy—one that considers both immediate impacts but

accounts for the future, including competitiveness, consumer affordability and preference, and balance between the economy and environment.

In the near-term, finding new ways to reuse existing infrastructure can provide significant and immediate results, such as fuel switching from coal or diesel to reliable combinations of renewables and natural gas. In the long-term, we must keep challenging ourselves to integrate the best solutions for each project, customer and region.

We are actively and constructively engaging with industry, governments, regulators and experts on core issues. These include changing policy to enable integration of innovative solutions and renewables, carbon pricing, sector-specific output-based standards, maintaining industry competitiveness and plans for lower-emissions fuels for the transportation sector.

## CUSTOMER SOLUTIONS

Every person, neighbourhood and region is unique, so their lower-emitting energy systems must fit their situation.

We work with customers to select the right balance of technologies to meet their energy needs, affordably and reliably. Solutions are tailored to the specific situation to optimize results, requiring innovation and collaboration and exciting new partnerships.

### Single Building Innovation

At ATCO, we have been evaluating how to integrate technology options effectively, including solar panels, battery storage, advanced building envelopes and Micro Combined Heat and Power (mCHP) units. mCHP units use natural gas to produce electricity in homes while capturing energy that would otherwise be lost for home heating and hot water.

Adding to the suite of energy technologies, we are evaluating smart metering and energy management systems that work to ensure multiple components of the system work efficiently together to manage and meet energy demand.

We have several projects in progress that combine different technology applications including retrofits versus new builds and off-grid versus grid connections. Our 18 hybrid house pilot projects have successfully demonstrated over 42 per cent reduction of a typical household's greenhouse gas (GHG)

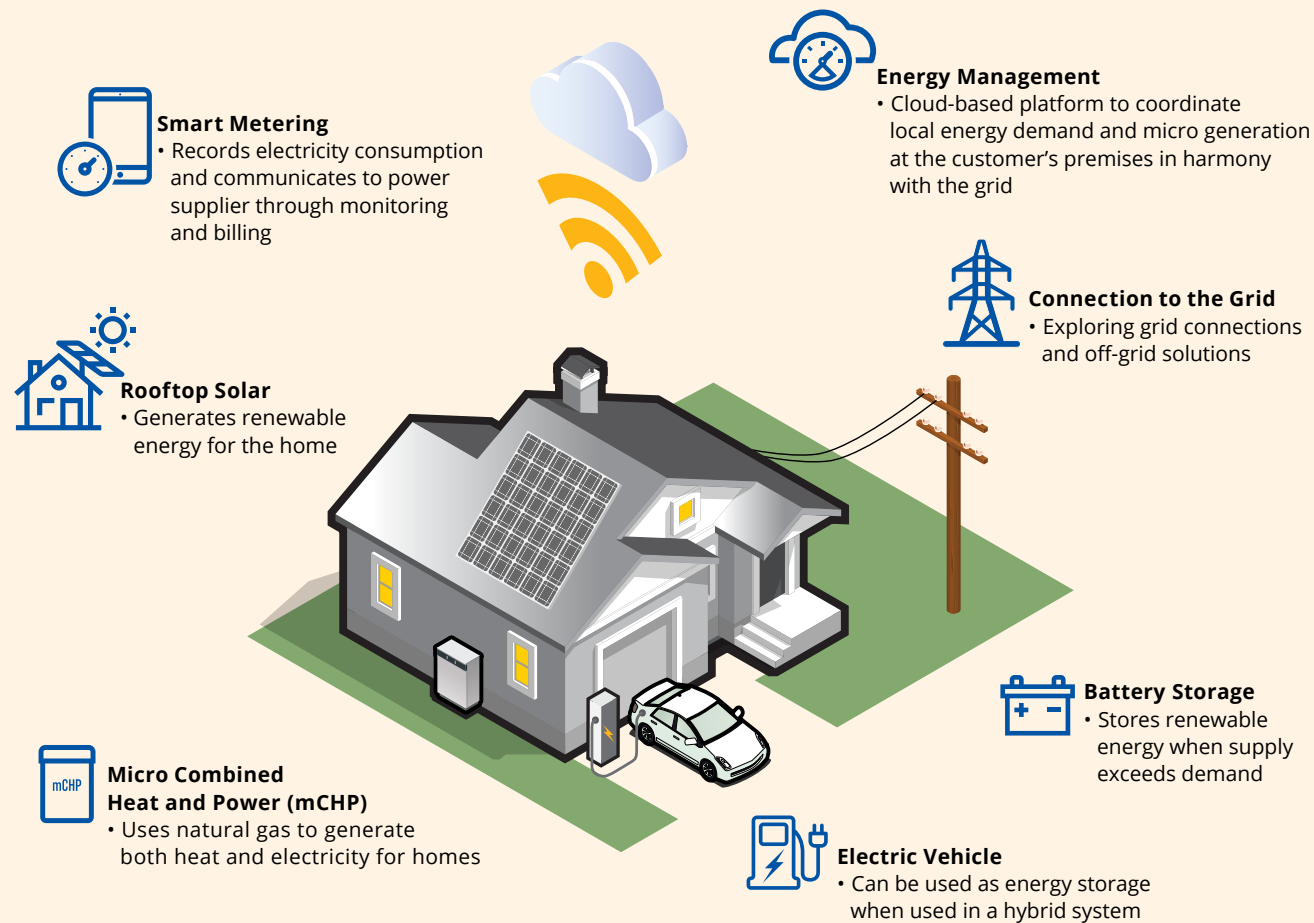
emissions, with one of our homes demonstrating up to 75 per cent reduction in GHGs.

In addition, through our project with the Southern Alberta Institute of Technology (SAIT) and Brookfield Residential, we will be installing an innovative mix of energy solutions in a new Low Carbon Discovery Show Home in Edmonton, Alberta. The project, made possible with funding support from Western Economic Development, has the potential to save \$1,400 in utility costs and nine tonnes of CO<sub>2</sub>e per year.

It's not just homes that can benefit from these solutions. Effect Home Builders' hybrid office building in Edmonton will be the first in the city to disconnect from the electrical grid. The project will reduce GHGs from the original structure by approximately 20 tonnes of CO<sub>2</sub>e per year, or a reduction of 80 per cent.

We've recently taken another exciting step in providing customers with more energy efficient options with our acquisition of Source Energy Co. in Australia. Source Energy Co. is an expert at managing energy needs for high-density apartment buildings, using a mix of rooftop solar panels and energy from the grid, matched with smart metering technology. This provides customers with a clear view of their energy options, presented with tailored advice on how to save energy and money. Smart metering technology also provides valuable insights into customers' energy consumption, guiding decisions in residential solar power, battery storage and natural gas solutions.

## INNOVATIVE TECHNOLOGY OPTIONS FOR TODAY'S HOME



An example of different technologies that can be implemented—either by themselves or in combination with others—in a home, depending on the customer's unique needs.



Our Low Carbon Discovery Show Home will demonstrate how mCHP, solar, an advanced building envelope and performance technology can be used in a new home to sustainably and affordably meet energy requirements.



## Community Building Solutions

On a larger integrated-systems scale, we installed a Combined Heat and Power (CHP) unit at the Mount Royal University Campus in Calgary, Alberta, with funding from Emissions Reduction Alberta. Providing up to 26 per cent of the university's electricity, the unit is expected to decrease their GHG emissions by almost 2,000 tonnes per year and result in a significant decrease in annual operational costs.

We are also partnering with Siemens, the University of Alberta and the Northern Alberta Institute of Technology (NAIT) to construct a collaborative microgrid research facility in NAIT's new Productivity and Innovation Centre. This initiative, known as DEMI (Distributed Energy Management Initiative), is the first approved project to receive funds through the Alberta Climate Change Innovation and Technology Framework, and will help speed up decarbonization through the development of a technology implementation road map.

### Renewable Energy in Remote Communities

We serve many communities located hundreds of kilometres from the main electrical grid over a vast geographic area in northern Alberta and Yukon. These regions have relied on

isolated diesel-powered generation for decades. In 2017, we initiated a program to connect these communities to the grid, where possible. In communities where we were not able to connect to the grid, we developed unique options for each community to reduce diesel consumption.

# 18



hybrid residential home projects demonstrating over 42% reduction in CO<sub>2</sub>e emissions when compared to a typical home

Through partnerships with Indigenous communities, we are installing renewable microgrids in six isolated communities that will integrate solar or wind power with existing diesel-generation systems to reduce GHG emissions.

In 2018, we began construction on an initial 400 kilowatt (kW) solar farm installation in the northern Alberta community of Fort Chipewyan. We continue to prepare for a second phase that includes an Indigenous-owned 2 megawatt (MW) solar farm, battery energy storage system and microgrid control system. These two projects together will achieve a reduction in diesel consumption of 800,000 litres (L) a year or about a quarter of the annual fuel consumption.

We are also working on solar power projects in Old Crow, Yukon, with the signing of an Electricity Purchase Agreement (EPA) with the Vuntut Gwitchin First Nation, which will enable a 200,000 L reduction in diesel consumption per year, or about a quarter of the annual fuel consumption.



ATCO enabled a key customer in Canmore, Alberta, to use natural gas in place of propane—a safer, cleaner, and more affordable energy source.

Beyond reducing annual GHG emissions for our customers by an estimated 3,100 tonnes, or more than 27 per cent, these projects will reduce the risks associated with transporting diesel to remote areas.

For more information on these and other partnerships with Indigenous communities, see the Community & Indigenous Relations section of this report.

### Industrial Customers

We also continue to look for opportunities to improve operational efficiencies and reduce emissions for our industrial customers.

In 2018, we announced a partnership with RANMAN Energy to build the 26 MW La Laguna Cogeneration Facility on the site of a Chemours Company chemical facility in Mexico. The project will use excess gas and reuse steam generated by the host facility to provide secure, low-emitting and cost-effective electricity and heat to a strategic industrial partner.

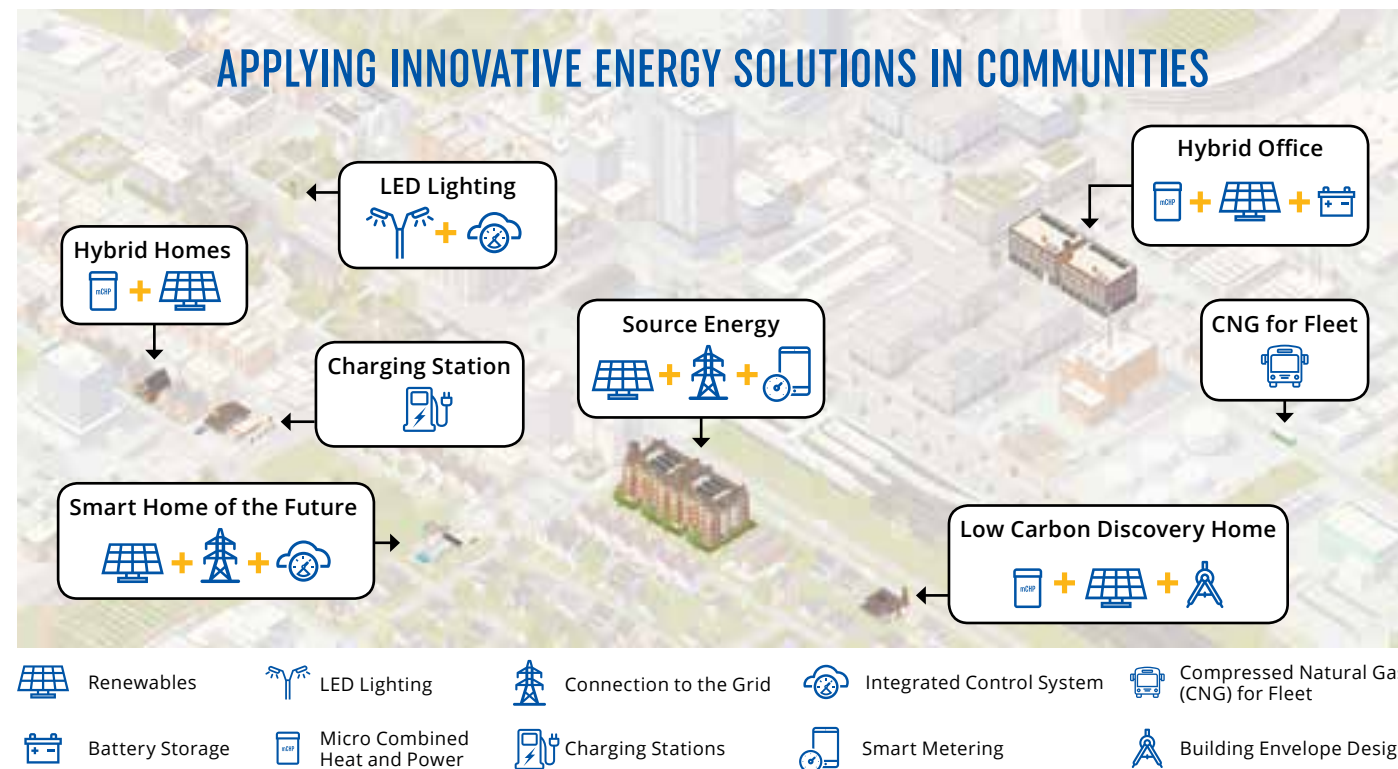
In 2018, we launched our construction heat and energy service, which provides builders with temporary natural gas access during construction as opposed to propane. In addition to reducing cost for the customer, this solution reduces GHG emissions by approximately 15 per cent, and enhances site safety by eliminating the need for propane tanks on site during the build cycle.

Our modular structures solutions provide industrial customers with high-efficiency structures aligned with evolving building codes, in addition to reducing environmental impacts through the construction of units in factories rather than building on site.

### Energy Efficiency

Energy efficiency is a cost-effective way to achieve emissions reductions and it remains a critical focus as we continually improve our operations and enhance our customer solutions. For every dollar invested in energy efficiency, three or more are typically saved. There are different approaches to achieve energy efficiency, so we tailor solutions to the specific needs of customers, finding the right mix of technologies.

Our Intelligent Street Light Project, in Lloydminster, Alberta, uses wireless motion sensors and a control system for Light Emitting Diode (LED) street lights to deliver light on demand: street lights dim during off-peak hours and automatically brighten when the presence of vehicles, cyclists or pedestrians is detected. This lighting design can result in up to 80 per cent energy reduction and reduces light pollution. In 2018, ATCO was recognized by the Illuminating Engineering Society with an Illumination Award of Excellence for Energy & Environmental Lighting Design.







At ATCO, we continue to look for opportunities to improve operational efficiencies and reduce emissions for our industrial customers.

## Shared Infrastructure Solutions

### Hybrid Energy Solutions

The Clean Energy Innovation Hub, supported by funding from the Australian Renewable Energy Agency (ARENA), will be a test facility for microgrid solutions that integrate hydrogen production, natural gas, solar and battery storage. What truly sets this project apart is our research and development into the use of renewable energy to produce, store and ultimately use hydrogen as a fuel source. This project includes over 1,000 solar panels and 500 kWh battery storage and will demonstrate how hydrogen can potentially be blended with natural gas at rates up to 10 per cent, transported in current infrastructure and used in homes with existing domestic appliances.

### Low-Carbon Transportation

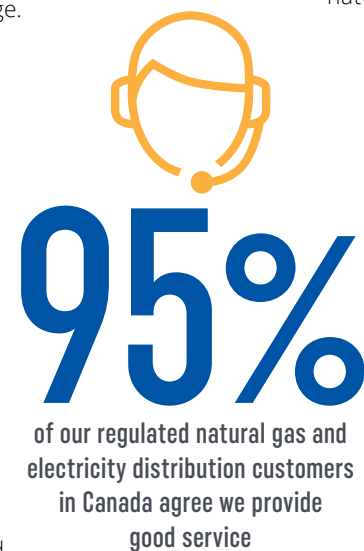
To promote a higher adoption of electric vehicles (EVs), a robust infrastructure is required to entice the switch. In the past two years we installed three EV charging stations, including the fast-charging corridor from Sherwood Park to Red Deer to Calgary. We also received funding to install and own an additional 20 EV charging stations through the Peaks To Prairies Project, aimed at expanding EV charging infrastructure in southern Alberta. We've also secured contracts to power all EV charging stations with 100 per cent renewable energy for the next ten years.

Moving from traditional transportation fuels such as diesel and gasoline to natural gas also delivers substantial and cost-effective emission reductions. We provided the cities of Red Deer and Calgary with distribution infrastructure to enable the transition from diesel to cleaner, compressed natural gas (CNG) transit. Fuel switching of transit buses typically reduces operating costs while also reducing GHG emissions by almost 20 per cent, in addition to reducing air emissions.

### Renewable Natural Gas

Renewable Natural Gas (RNG) is natural gas produced from existing waste streams and biomass sources, such as landfills, farms, wastewater treatment plants and forestry by-products. RNG has the potential to significantly reduce emissions from the heating, electricity generation and transportation sectors in Canada and other markets.

Through a partnership with G4 Insights and the Canadian Gas Association Natural Gas Innovation Fund, we plan to host a 1 gigajoule (GJ) per day pilot plant in Edmonton. The plant will test a new process allowing for steadier production flow of RNG from forestry by-products, and then injection of the RNG produced into our existing natural gas distribution system.



## CUSTOMER SATISFACTION

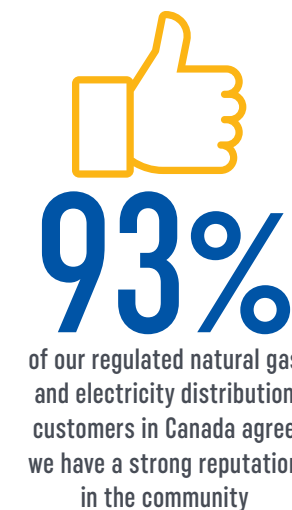
Our performance is measured by the people we serve: our customers. Within the Alberta electricity and natural gas distribution industries, more than 95 per cent of customers surveyed agree we provide good service, and more than 93 per cent of our customers agree we have a strong reputation in the community. These are metrics we are particularly proud of and are committed to maintaining.

Beyond the day-to-day calls, we seek to understand our customer experience. We engage our customers through surveys and focus groups to measure service quality. This approach, applied first in our electricity distribution business, has been implemented through our gas distribution and energy retail operations. We anticipate results will be available across all three business lines in 2019.

Innovating the customer experience often leads to both operational efficiency and improved customer satisfaction.

Examples from 2018 include:

- Testing an automated system that restores electricity after unplanned outages. The system has significantly improved response and event resolution time; for example, for one remote Alberta community our new system was able to improve average resolution time from 3 hours to 13 seconds.
- Introducing a new Customer Connection Model that takes new or expanding distribution electricity service from initial customer request to energization much more efficiently. In 2018, we reduced associated project costs by 15 per cent and time by 40 per cent. That's time and money that benefit our customers and build our reputation as an efficient service provider.
- Transforming our process to connect customers who sign up to receive natural gas services. Instead of customers booking a four-hour stand-by window, our customer service technicians now provide service from a central location so that customers do not need to be home. The service improvement has resulted in about 21,000 fewer calls into our call centre, which also translates into reduced operating costs.





# ENVIRONMENTAL STEWARDSHIP

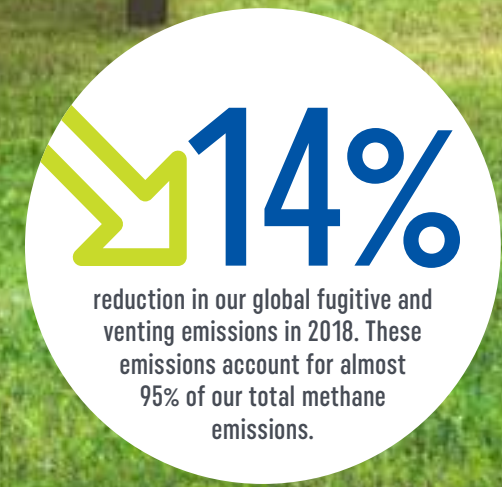
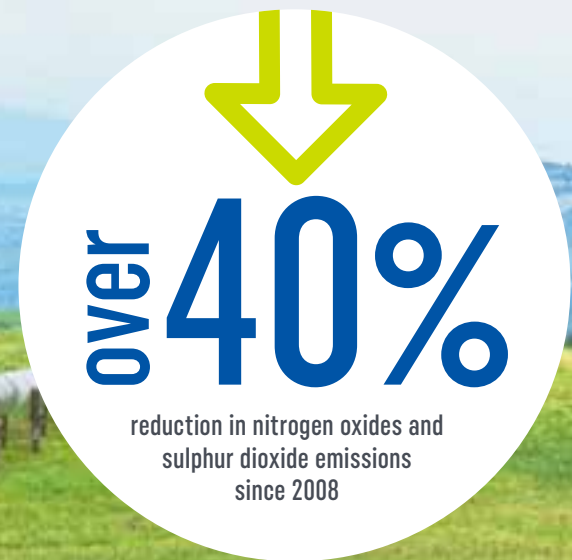
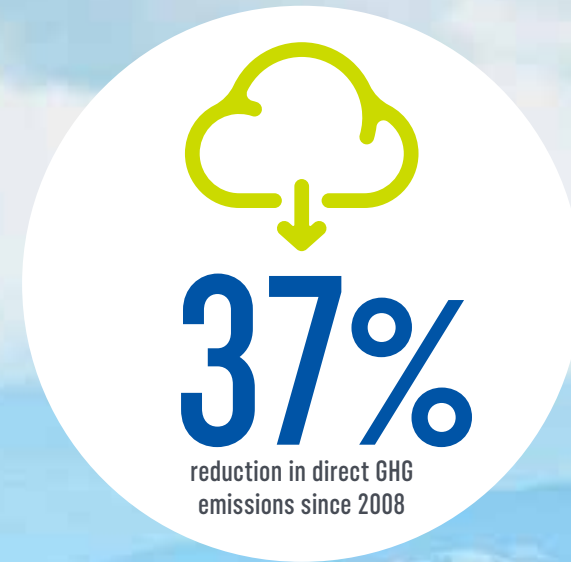
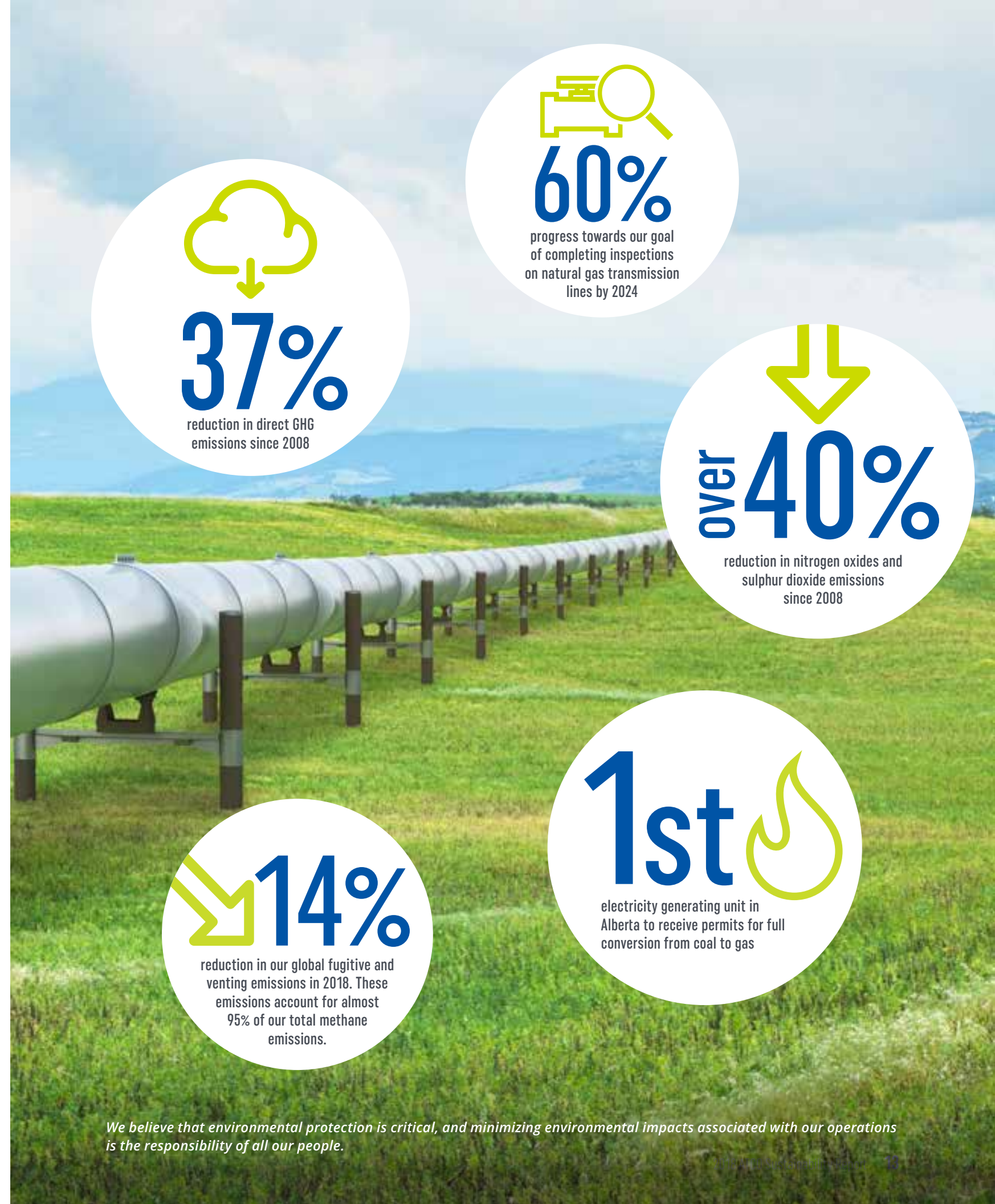
As a critical infrastructure provider, a collaborative and long-term approach to minimizing our environmental footprint is vital. As part of this, we continue to explore new and more efficient ways to generate, transport and conserve energy.



CLIMATE CHANGE & ENERGY USE



ENVIRONMENTAL MANAGEMENT



*We believe that environmental protection is critical, and minimizing environmental impacts associated with our operations is the responsibility of all our people.*





Solar panels, such as these test panels installed at our Old Crow Project site with our Vuntut Gwitchin First Nation partners, help remote communities in Canada's North reduce diesel consumption.

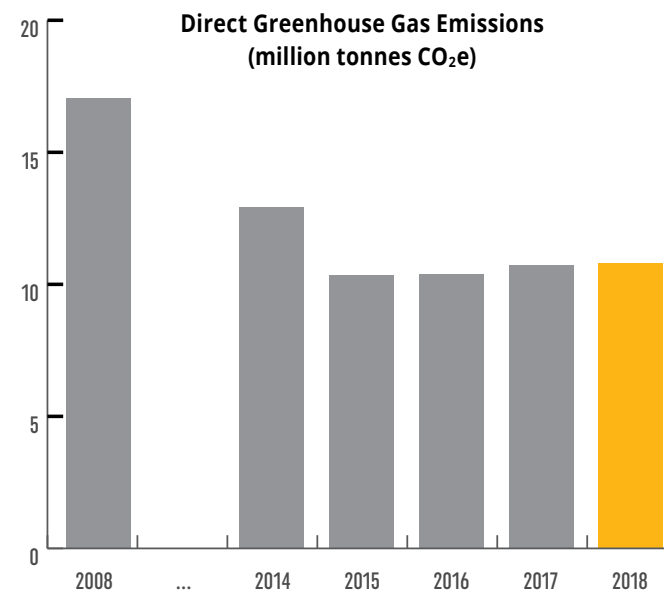
## CLIMATE CHANGE & ENERGY USE

Across ATCO, we focus on actively reducing our GHG and air emissions by driving operational efficiencies, lowering fuel consumption, phasing in renewables, installing new technology and transitioning to lower-emitting fuels.

In 2014, we committed to reduce GHG emissions from our electricity generation to 30 per cent below 2005 levels, by 2030. Despite having slightly grown our generation capacity since 2005, our associated GHG emissions have been reduced by almost 40 per cent, surpassing this goal. With this milestone met, we plan to find new opportunities to drive continuous improvement in our performance.

We are actively engaged with industry, governments, regulators and other experts on core issues, including regulations and strategies to reduce greenhouse gases, air pollutants and methane emissions.

## Reducing Our Environmental Impacts



Approximately 95 per cent of our direct GHG emissions are due to our power generation operations. Our power generation increased by approximately eight per cent in 2018, but our GHG emissions increased by only one per cent due to a reduction in our GHG intensity, largely a result of co-firing of natural gas with coal at one of our units. Since 2008, we have reduced our direct GHG emissions by 37 per cent, and our nitrogen oxides and sulphur dioxide emissions by more than 40 per cent.

### Coal-to-Gas Conversion

ATCO continues to lead the transition to a lower-emitting energy future through fuel switching initiatives such as electricity generation coal-to-gas conversions. Coal-to-gas conversion allows significant and immediate reductions to GHG and other air emissions, while maintaining energy reliability and affordability by using existing infrastructure and skilled labour force.

In 2018, we enabled one of our units to co-fire with natural gas for up to 50 per cent of its generating capacity. In late 2019, we expect to complete the next phase to allow 100 per cent natural gas co-firing capability on a second unit. Our portfolio will be off coal no later than 2022, earlier than the proposed 2030 set out in regulations. We will be the first coal-fired generator in Alberta to convert its coal-fired power generation fleet to burn lower-emitting natural gas.

### Phasing in Renewables

In addition to our Oldman River hydroelectric facility, in 2018, we acquired a 35 MW hydroelectric generation asset in Veracruz, Mexico. This facility is providing green energy credits for commercial and industrial customers, who are required to purchase a minimum percentage of clean energy to comply with new government regulations.

Further diversifying our electricity generation portfolio, ATCO actively looks for opportunities in solar-powered generation. In addition to the solar projects with Indigenous communities in Fort Chipewyan and Old Crow, we have 75 MW of potential solar projects located near Three Hills and Drumheller, Alberta, which could generate more than 135,000 MW hours per year of renewable electricity. Along with our project partner Samsung, we have obtained a permit to build and operate a 25 MW solar power generation facility. We continue to look for opportunities to advance these and other solar projects.

### Reducing Methane Emissions

Methane represents a small fraction of our GHG emissions and is predominantly related to venting and fugitive emissions from our natural gas pipeline operations. We continue to proactively manage and reduce methane emissions through routine maintenance supplemented by targeted leak detection and repair programs. In addition, we have identified potential equipment upgrades for future continuous improvement. We also monitor regulatory developments and are well positioned in Canada to meet or exceed future regulations and reduction targets.

### Operational Efficiency

In 2018, our gas distribution division successfully implemented the largest known aerial meter reading application in North America. We're taking meter reading from the sidewalk to the skies using





A new initiative which commenced June 1, 2018, sees small aircraft outfitted with a device called an Encoder, Receiver and Transmitter (ERT) to collect natural gas readings from roughly 1,300 metres above our customers' homes, ensuring our delivery charges remain among the lowest in Canada.

electronic transmitters to gather data roughly 1,300 metres above our customers' homes. Much like the vehicles that preceded them, the planes use a device called an Encoder, Receiver and Transmitter (ERT) that sends data to the mobile collector using radio signals. Not only will this project reduce the distance employees drive by over 600,000 kilometres (km), it will also eliminate the associated travel safety risks, reduces operating costs by over \$300,000 annually and significantly reduces vehicle and equipment maintenance costs, helping to ensure our delivery charges remain among the lowest in Canada.

In our electricity distribution division, we established a new Work Aggregation Office that centralizes trip planning and finds efficiencies for our fleet of vehicles that transport our employees and equipment to worksites. This initiative reduced truck trips by approximately 7,300 hours a year, reducing our fleet's fuel consumption and emissions. Combined with aerial meter reading, we anticipate employees will drive 1,000,000 fewer kilometres each year.

ATCO Park, our global headquarters located in Calgary, Alberta, opened in 2018. The campus has been constructed to the highest standards of energy efficiency and environmental stewardship. It features EV charging stalls with 14 high-amperage EV plug-ins, an outdoor fruit and vegetable garden and an urban beehive that will be used by ATCO Blue Flame Kitchen for cooking and training. LED lighting is used throughout the entire building, with a control system that turns off lights when there are no occupants.

At one of our operations centres we partnered with CleanO2 Carbon Capture Technologies to test their commercial carbon capture device, known as CARBINX. The outcome was lower

energy demand through heat recovery, reducing total emissions by approximately five per cent annually. We continue to work with CleanO2 on commercial applications and the potential for expansion.

### Climate Change Resiliency

ATCO continues to manage climate change-related risks, including preparing for and responding to extreme weather events to ensure the reliable delivery of essential services such as natural gas and electrical utilities. Our approach covers activities such as proactive site and route selection, storm-proofing assets, regular maintenance and appropriate insurance.

The majority of our natural gas pipeline network is underground, making it less susceptible to extreme weather events; however, we continue to increase resiliency through asset improvement projects. In electricity transmission and distribution operations, we focus on improving grid resiliency through activities such as retrofitting and vegetation management to reduce incidents that result in outages. In our modular structures and logistics activities, we look to leverage our expertise to produce high-efficiency structures in response to evolving building codes.

## ENVIRONMENTAL MANAGEMENT

We believe environmental protection is critical, and minimizing environmental impacts associated with our operations is the responsibility of all of our people. We work diligently to minimize our footprint and protect the environment in the unique settings where we operate. We incorporate environmental considerations into the full lifecycle of every project and regularly monitor, assess and report our performance.

One example is Alberta PowerLine's comprehensive Caribou Protection Program that sets a new standard for construction in Alberta. The approach minimizes impacts to caribou with practices such as identifying routes that follow existing linear disturbances, focusing on vegetation retention and management, and limiting fragmentation of the land to reduce the effects of predation.

Also, for our Jasper Interconnection Project, we used innovative construction that allowed us to narrow the power line right of way from the standard width of 18 metres to 10 metres, allowing more vegetation to remain.

As we continue to expand our diverse lines of business in areas such as storage and water management services, we identify and manage unique environmental risks and opportunities while delivering creative solutions.

### Incident & Risk Management

We mitigate our environmental impacts through the systematic and responsible management of our operations. We are committed to continually improving our environmental and operational integrity programs by regularly sharing best practices through industry associations and our internal Environment Network.

#### Natural Gas Pipeline Integrity

We own and operate more than 9,000 km of natural gas transmission and 55,000 km of natural gas distribution pipelines, so the safe management of this infrastructure is integral to our business. In 2018, we brought the total length of in-line inspected transmission pipeline to over 2,500 km, as part of a continuing program. Our target is to inspect all transmission lines of more than eight inches in diameter and five kilometres in length by 2024. We have also mapped water crossings and continue to regularly inspect environmentally sensitive areas.

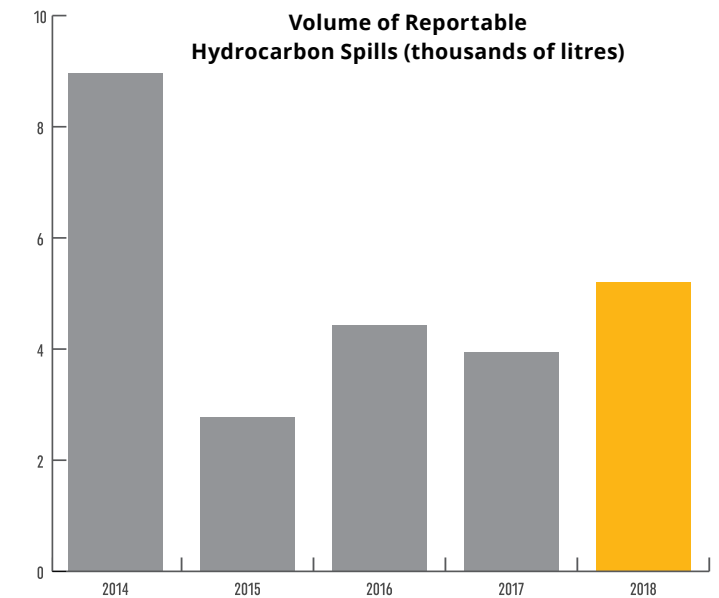
Our smaller diameter natural gas distribution pipelines require a different approach. In 2018, we partnered with Picarro to pilot new leak detection technology, improving operational efficiency and survey coverage up to four times.

#### Environmental Incident Management

One aspect of our environmental management is spill prevention; we prevent, manage and mitigate spills through a variety of measures including equipment design, training, and operating and maintenance procedures. When spills do occur, we assess the unique circumstances to ensure all appropriate steps are taken to minimize environmental impacts and that similar incidents do not happen in the future.

As 99 per cent of our pipelines transport natural gas, most of the hydrocarbon liquids we manage are related to fuel management solutions in northern and remote communities, hydrocarbon storage solutions in Alberta's Industrial Heartland, and small

volumes in operating equipment in electrical transmission and distribution. However, the majority of reportable hydrocarbon-related spills in 2018 were related to equipment in electrical transmission and distribution systems, predominantly caused by third-party incidents such as damage to electrical transformers from automobile accidents and vandalism.



Although our hydrocarbon spill volume has been reduced by over 40 per cent in the last five years, it increased over the past year. The majority of hydrocarbon spills are related to our electrical business, and include third party caused incidents such as damage to electrical transformers due to automobile accidents and vandalism.

Non-hydrocarbon liquids, such as waste water, are part of our workforce housing services and in 2017, the spill volume of this treated waste water increased. Our 2018 performance has returned to previous levels. In addition, our innovative, industrial water service provides a multi-user system that allows customers to tap into common infrastructure, eliminating the need for duplicative river intakes, transportation pipelines or water storage and clarification facilities, and thus reducing regional potential for spills.

2018 REPORTABLE SPILLS		
	REPORTABLE SPILLS (NUMBER)	VOLUME OF REPORTABLE SPILLS (THOUSANDS OF LITRES)
Hydrocarbon	13	5.2
Non-hydrocarbon	6	45.7

Non-hydrocarbon spills are often comprised of high volumes of saline water or water containing small quantities of other substances. After the large 2017 non-hydrocarbon spill volume, we returned closer to our historical average, and continue to focus on reducing these types of spills. Of the 2018 non-hydrocarbon spill volume, 99 per cent was related to a single incident involving the early release of treated water that otherwise met all regulatory release requirements.



# SAFETY AT ATCO

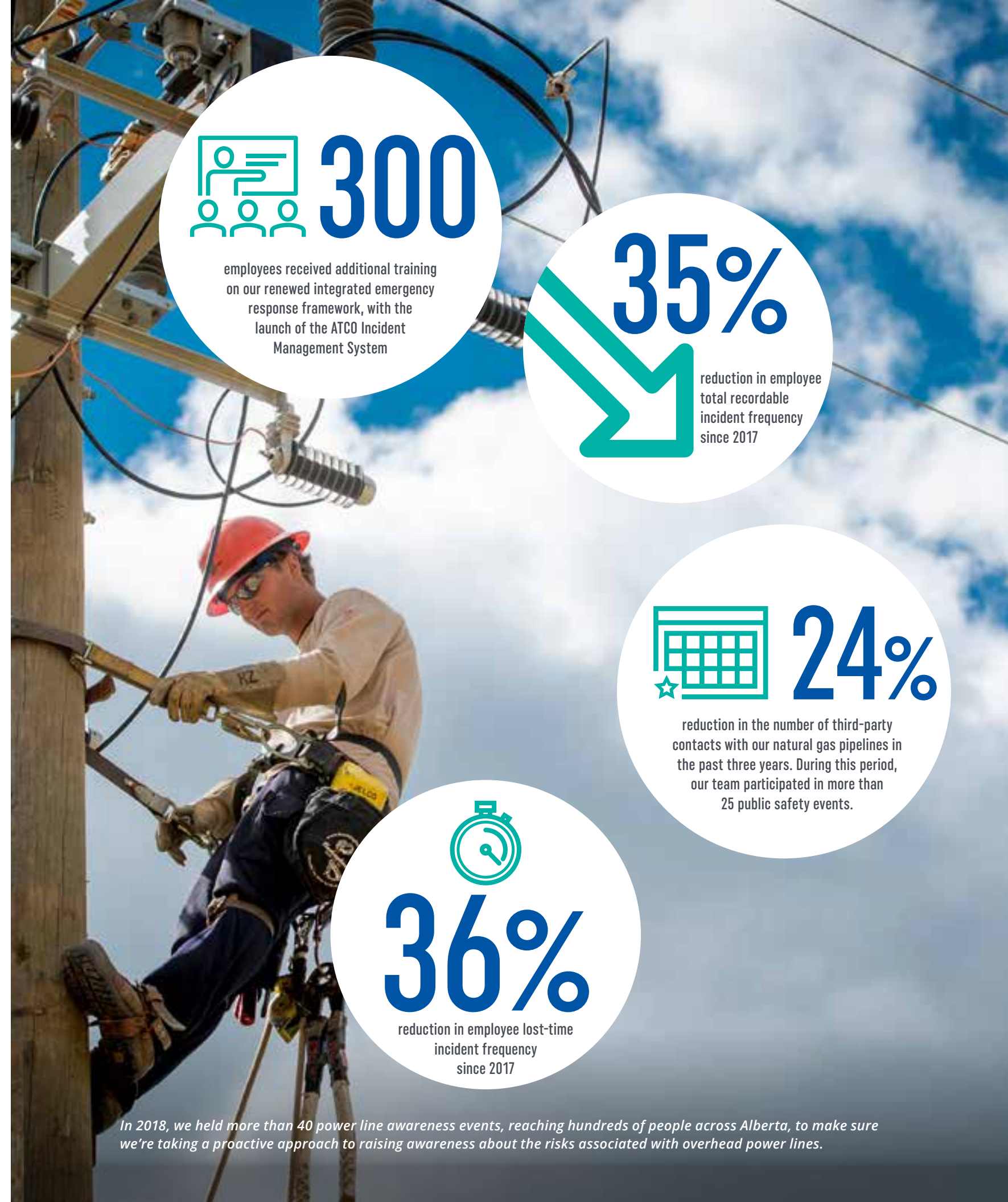
Safety is the first consideration in everything we do. Providing a safe work environment for our people is ingrained in our culture: a shared belief that directs our day-to-day priorities and decisions. We actively engage with first responders, regulators, government and the communities we serve to promote the importance of safety and provide emergency response. We are also committed to the highest safety standards across all our products and services.



EMERGENCY  
PREPAREDNESS &  
PUBLIC SAFETY



EMPLOYEE AND  
CONTRACTOR  
HEALTH & SAFETY

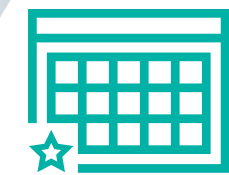


**300**

employees received additional training on our renewed integrated emergency response framework, with the launch of the ATCO Incident Management System

**35%**

reduction in employee total recordable incident frequency since 2017



**24%**

reduction in the number of third-party contacts with our natural gas pipelines in the past three years. During this period, our team participated in more than 25 public safety events.



**36%**

reduction in employee lost-time incident frequency since 2017

*In 2018, we held more than 40 power line awareness events, reaching hundreds of people across Alberta, to make sure we're taking a proactive approach to raising awareness about the risks associated with overhead power lines.*





*Our crews are prepared to respond whenever and wherever they are needed, even in the most extreme weather conditions. In Alberta, when ice and snow disable power lines, our power line technicians work round-the-clock to ensure that service is restored to customers as soon as possible.*

## EMERGENCY PREPAREDNESS & RESPONSE

Public safety and emergency preparedness are vital to ATCO's operations as a provider of housing, site services, and energy and infrastructure solutions. We respond to emergencies and disasters, wherever and whenever they occur, and leverage our comprehensive safety programs and global footprint to educate communities on the importance of energy safety.

As providers of essential services, emergency response and incident management is a key aspect of our business. We take a proactive approach to potential incidents, tracking risks such as extreme weather and readying our response. When incidents occur that impact our natural gas and electrical utilities,

minutes matter. We work quickly to restore services and support first responders. After incidents, we debrief to learn how we can improve.

For decades, ATCO has had emergency coordination and incident management plans that are overseen by Crisis Management Teams within our business units and escalated to our enterprise-wide Crisis Management Committee when required.

As part of our commitment to continual improvement, we conducted a comprehensive review of our response to the Fort McMurray wildfire. The updated ATCO Crisis and Incident Management System provides a framework for an integrated 'One ATCO' response that enables us to quickly leverage our full

organizational capabilities, coordinating efforts and resources across business units and, in some cases, regions.

With millions of people relying on our natural gas and electrical utilities, it is critical that our emergency response and incident management is effective and efficient. We demonstrated these capabilities when we responded to a storm in central Alberta that caused significant infrastructure damage. Our teams worked around the clock to repair power lines in difficult conditions and restored power to nearly 5,000 homes and businesses within three days, without any safety incidents.

Our teams responded quickly and safely to a forest fire around Lower Post in northern British Columbia that brought power

down for 13 days. When the community returned home, the power system was once again fully operational with all fire-damaged trees removed from around our power lines. Our employees met people at their homes to ensure power was properly and safely restored.

To further support both our residential and commercial customers, we launched ATCO's online outage notification system in 2017. With further refinements in 2018, the system provides information about all outages, planned and unplanned. Updates to status and estimated restoration time occur every 15 minutes, based on real-time information provided by our people.



## DISASTER & EMERGENCY MANAGEMENT SERVICES

ATCO's Frontec division provides disaster and emergency management services around the globe. A valued partner in countless responses, from the 2005 earthquake in Pakistan to British Columbia's 2017 wildfires, we have supported the Canadian Armed Forces, NATO and various non-government organizations in areas of humanitarian need.

As extreme weather events—floods, wildfires, hurricanes, earthquakes—become more frequent, our consulting and training services are a growing dimension of Frontec's operations, as we share our expertise from preparedness planning to disaster recovery efforts.

## PUBLIC SAFETY

We take a proactive approach to safety across all our operations, including public safety. Through our safety campaigns, we raise awareness on the importance of safe digging near natural gas pipelines and the risks associated with overhead power lines and carbon monoxide in homes.

For example, the goal of ATCO's Pipelines & Liquids Damage Prevention Team is to eliminate damages to our natural gas distribution and transmission infrastructure while promoting safety and industry best practices. We have a team of dedicated individuals who work with utility members, municipalities, design firms, excavation companies, government, homeowners and a variety of vendors to promote awareness regarding ground disturbances. In 2018 alone, we participated in more than 25 public safety events, contributing to a 24 per cent reduction in the number of third-party contacts with our natural gas pipelines in the past three years.

We also continue to participate in and promote the "Where's the Line" campaign, formed to collectively address the safety issue of power line contacts in Alberta. We held more than 40 power line awareness events in 2018, reaching hundreds of people around the province.

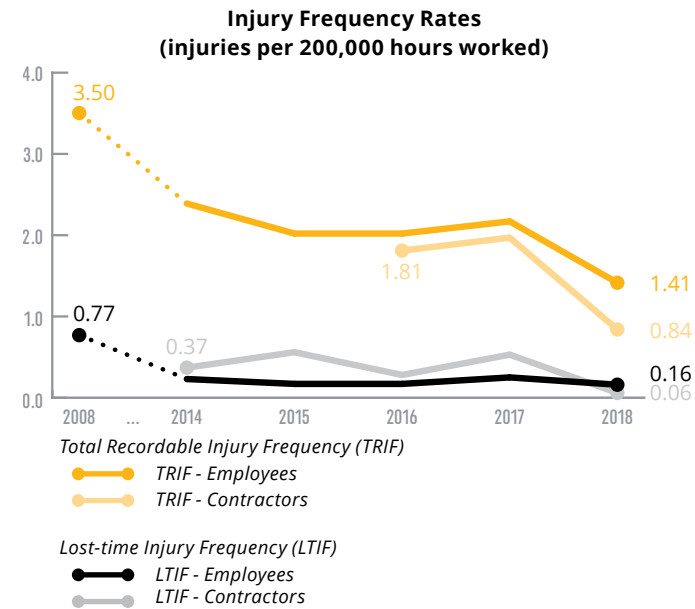
## EMPLOYEE AND CONTRACTOR HEALTH & SAFETY

All our employees and contractors have the right to a safe and healthy workplace. As we continue to expand our global footprint, we remain committed to ensuring our operations are safe and our people are appropriately trained to deliver integrated solutions safely. We seek to incrementally improve safety performance year-over-year through a number of initiatives.

### Employees

ATCO measures safety performance with multiple metrics including lost-time employee incident frequency and total

recordable incident frequency. We successfully improved both rates in 2018, achieving a 36 per cent reduction in the lost time incident frequency and a 35 per cent reduction in the total recordable incident frequency.



*Through a focus on awareness and incident prevention campaigns, we saw a decrease in both employee and contractor incident rates. Changes to contractor incident rates year-over-year vary depending on the type of significant capital projects which occur during that year.*

Although our successful performance was achieved across ATCO, we are made up of several distinct business units, each facing unique safety risks. Each business unit aligns with, and contributes to, developing industry best practice. They also select and track leading indicators that will drive performance improvements in their sector. We have an internal Safety Network comprised of experts from across the company who meet to share learnings and best practices.

One way we achieved our safety results was to focus on awareness and incident prevention campaigns that addressed specific types of incidents; for example, after an assessment of operational risks, our electricity business undertook a focused initiative and was successful in reducing targeted injuries by almost 50 per cent. We also make policy changes where appropriate; for example, in 2018 our Pipelines & Liquids Global Business Unit increased the personal protective footwear allowance to ensure employees would have boot traction control in all seasons, minimizing slips, trips and falls.

More broadly, we continue to raise employee risk awareness about how injuries occur and can be prevented through open discussion and information sharing, including company-wide events and conferences focused solely on safety. Our Pipelines & Liquids Global Business Unit worked with DuPont Sustainable Solutions, an industry leader in safety processes, to further enhance our safety culture.



*All our employees and contractors have the right to a safe and healthy workplace; we remain committed to ensuring our operations are safe and our people are appropriately trained to deliver integrated solutions safely.*

### Contractors

ATCO oversees contractor safety throughout the contract relationship, starting from hiring and onboarding through ongoing monitoring on the job.

Enhancing our screening processes before making a hiring decision, we implemented new software to make our processes more efficient. Our onboarding approach for new contractors, tailored to the needs of each ATCO business line, is often a key driver of safety success. 2018 strategies included computer-based training, particularly for remote locations, and a full-day contractor safety summit facilitated by our electricity transmission and distribution businesses and attended by multiple external agencies and contractors.

Implementing safety programs in new facilities can be challenging, especially when expanding to a different country. In 2016, we partnered with Mexican counterpart RANMAN Energy to supply an innovative electricity generation solution

in the rapidly developing World Trade Centre Industrial Park in San Luis Potosí, Mexico. Since then, contractors have operated the facility, which has expanded generating capacity by 300 per cent, while maintaining a health and safety record of zero recordable incidents. We are proud of the safety training we've provided to contractor personnel and the facility's record of safety excellence.

### Mental Health

ATCO recognizes the importance of health and wellness for our people. In 2018, we continued our Not Myself Today campaign and trained 100 more volunteers to share monthly modules focused on these topics. These "Mental Health Champions" provide various educational opportunities to employees to engage on topics such as mindfulness, occupational wellness and most recently the science of happiness. 200 employees participated in the program in 2018, and we have a target to engage 500 employees in 2019.



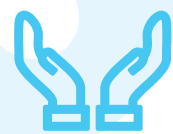
# COMMUNITY & INDIGENOUS RELATIONS

Building respectful and mutually beneficial relationships has long defined how we do business. Along with our Indigenous and community partners, we are continually exploring new ways to collaborate.

As we diversify our business operations, we also recognize the need to continue to work to understand unique perspectives of neighbouring communities and Indigenous Peoples, and take a long-term approach to building relationships based on trust.



ENGAGEMENT



PARTNERSHIPS




EMPLOYMENT



EDUCATION



  
**\$7.9M**  
 community investments made by ATCO through gifts-in-kind, sponsorships, donations and our matching contribution to the employee-led ATCO Employees Participating in Communities (ATCO EPIC) program.

more than  
**1,600**   
 connections with area landowners, municipalities and Indigenous communities in 2018 as part of our Fort McMurray West 500-kV Transmission Project

**47**   
 revenue generating partnerships, joint ventures and relationship agreements with Indigenous communities, generating more than \$250 million in revenue for our Indigenous partners in 2018.

  
**1,276**  
 additional Indigenous awareness training courses attended by our employees in 2018, including both intensive in-person and online training

*ATCO is committed to providing Indigenous education and training programs that allow us to contribute to vibrant communities, build stronger workforces and create opportunities to share experiences and learn from local expertise.*



## COMMUNITY ENGAGEMENT

We build upon open and transparent dialogue, engaging with communities near existing and new projects throughout their lifecycles. In 2018, significant projects included Alberta PowerLine and Jasper Interconnection.

Alberta PowerLine, a partnership with Quanta Services, remained committed to excellence in building the Fort McMurray West 500 kilovolt (kV) Transmission Project from west of Edmonton to Fort McMurray. We engaged extensively with landowners, counties, municipalities and 20 First Nations along the route. We listened carefully to their feedback and appropriately adjusted our approach in response.

We are committed to engaging with people throughout the life of our projects; for example, Alberta PowerLine maintained close contact with people in the area and connected over 1,600 times to provide construction details and updates.

The Jasper Interconnection Project will join Jasper National Park to Alberta's electrical grid, eliminating the use of diesel and natural gas to generate power in the community and lowering air emissions. After five years of successful and committed consultation, construction began in 2018.

These two examples are in addition to ongoing engagement and consultation on many of our projects.

## COMMUNITY INVESTMENT

We develop partnerships with non-profit organizations and community groups to offer a range of support, including employee volunteer efforts, expertise and financial support.

Our ATCO EPIC (Employees Participating in Communities) program combines fundraising events, volunteerism and individual donations to support more than 800 non-profit organizations around the world. ATCO matches employee donations made to human health and wellness charities. As well, we support our employees' volunteer efforts through our Time to Give Program, with a financial contribution to the charity of their choice. In 2018, ATCO and its employees donated \$2.7 million and more than 8,600 hours to make communities better places to live and work.

ATCO is also proud to be a Building Partner of the Homes for Heroes Foundation. The foundation assists homeless Canadian Armed Forces veterans by providing housing and support

systems. Utilizing our expertise in modular housing, our employee teams built two homes in 2018, with the community ultimately to include up to 20 tiny homes.

At ATCO, we believe sports can have a tremendous impact on communities and youth as a tool to build leadership, confidence and a sense of unity. We continued our sponsorships of the 2018 Arctic Winter Games in the Northwest Territories, Alberta Winter Games in Fort McMurray and 2018 Alberta Summer Games in Grande Prairie, Alberta.

We also remain a supporter of Spirit North—a program aimed at helping communities move from introductory cross-country ski days to community-led, sustainable programs that promote lifelong well-being. The Spirit North program visited 30 communities, involving approximately 3,200 students and over 30 schools during the 2017/18 ski season.



more than  
**\$41M**  
raised for charities through our  
ATCO EPIC campaign since it's  
inception in 2006

## INDIGENOUS RELATIONS & COMMUNITY DEVELOPMENT

There are many evolving factors shaping how Indigenous communities, businesses and governments navigate their relationships across Canada and globally. We have a long history of working in collaboration with Indigenous communities, businesses and Peoples. With this foundation, we remain steadfast in our commitment to build long-lasting relationships with Indigenous communities, now in the context of Truth & Reconciliation. As we continue along this path, our comprehensive strategy—and the metrics to measure it—are based on the four pillars of meaningful engagement, economic participation, training and employment and awareness education.

### Meaningful Engagement

ATCO recognizes there are different ways to engage. First and foremost, we listen and seek to understand the needs and interests of the communities we serve through proactive, transparent engagement. Together, we identify optimal solutions, resolve concerns and work through different relationship and partnership models that can include regular meetings, investment in community initiatives, joint business ventures, employment and training, or ways to jointly connect with other partners or government participation. We take this approach across our lines of business and around the world.



*At ATCO, we believe sports can have a tremendous impact on communities and youth as a tool to build leadership, confidence and a sense of unity. During the 2017/18 ski season, the Spirit North program visited 30 communities, involving approximately 3,200 students and over 30 schools.*

Sometimes meaningful engagement means resolving specific concerns of communities near our operations, such as with the 14 Indigenous communities near our hydro plant in Mexico. We visit regularly and work collaboratively to foster mutually beneficial relationships.

Other times our engagement strategy includes Relationship Agreements that formalize long-term commitments with communities. These agreements require regular, strategic discussions about how we can work together, now and in the future, and become the foundation for project-specific memoranda of understanding (MOUs) and joint venture partnerships. We signed eight Relationship Agreements in 2018, bringing our total to ten across the company, and continue to work on new opportunities in 2019.

Our engagement has resulted in a range of opportunities for collaboration, including incorporating renewables into remote communities' energy mix, connecting communities to the electrical grid, and focusing on energy efficiency, sustainable water solutions and performing clean energy efficiency audits.

In 2018, we signed five MOUs with Indigenous communities. In particular, MOUs between ATCO and communities in northern Alberta and Yukon paved the way to offset diesel-powered generation with off-the-grid renewable energy that reduces localized air emissions and energy costs, while increasing energy reliability.

### Economic Participation

We actively pursue partnerships with Indigenous groups on business opportunities that deliver shared social and economic benefits. We maintained or launched 47 business arrangements in 2018 that generated over \$250 million dollars of revenue for our Indigenous partners in 2018, with some partnerships in place for over 35 years.



**13**

engagement commitments signed with  
Indigenous communities in 2018,  
including eight long-term  
relationship agreements

As highlighted on page 8, new partnerships in 2018 include a solar project with Three Nations Energy in Fort Chipewyan. Three Nations Energy will co-own the project, allowing the communities to directly participate in the development of their energy future and earn revenue from the project, while reducing environmental effects of diesel consumption.

We are also working on solar power in Old Crow, Yukon. This partnership includes a 25-year energy agreement where ATCO will buy the solar energy, feed it into the power grid and redistribute it to the community.

ATCO is working with our joint venture partners from the Haisla Nation on the largest accommodation facility ever built in Canada to support the LNG Canada energy project. As well, we are working together to provide workforce homes and operational support services for three residences in the Haisla territory that will support construction of the Coastal GasLink pipeline.





*Our employees shared their expertise and experience with over 100 high school students from Indigenous communities across Alberta in 2018, as part of an important pilot project aimed at showcasing career opportunities to Indigenous youth.*

For our Alberta PowerLine project, we have been meeting with Indigenous communities to forge an equity ownership model that will afford the opportunity to acquire a stake in the project following energization. This model enables Indigenous communities to become direct owners in Alberta's energy sector and supports community development opportunities.

Economic participation is also woven into our procurement approach. We look for opportunities to implement Indigenous contracting strategies to help create jobs, opportunities for skills training and local economic development; for example, our work in Fort McMurray, Alberta, and Jasper National Park has included community development and contracting arrangements with 27 Indigenous communities.

In Australia, we supported a new Indigenous-owned travel agency by committing to engage their services for all ATCO's Australian travel needs, providing them with a foundation to grow their business.

### Training & Employment

An important aspect of our Indigenous Relations approach is providing training, scholarships and employment opportunities, including providing summer student placements for Indigenous youth.

2018 highlights include:

- ATCO piloted a program inspired by the Governor General's Canadian Leadership Conference to showcase career

opportunities to Indigenous youth. In 2018, 119 Grade 9 students from eight Indigenous communities across Alberta participated in one-day trips to local businesses to show perspectives on opportunities available to high school graduates. Building on this foundation, 17 students participated in a multi-day program where they met with leaders across many sectors about future opportunities. We will build on the success of this pilot program to inspire the next generation of leaders.

- We continued the Canada-wide expansion of the Indigenous Education Awards program to provide opportunities for Indigenous students in high school and post-secondary institutions, providing 50 awards totaling \$65,500.
- Our Blue Flame Kitchen hosted two Kitchen Skills Training programs for Indigenous students focused on food safety and cooking nutritious meals, including a school program that reached seven Alberta communities and engaged 539 students. In addition, we partnered with BC Hydro to provide a five-day pre-employment training program to Treaty 8 Nation and British Columbia Indigenous candidates.
- We offered an eight-day program for Tsuut'ina Nation youth to teach skills in gas utility operations. The pilot program offered a combination of health and safety courses along with basic hands-on gas utility equipment training. Courses were designed to be transferable not only to other industries and companies, but to students' everyday lives.

- In Mexico, we work with the non-profit organization Peraj Mexico and the Instituto Tecnológico Superior de Zongolica to reduce school dropout rates of children from disadvantaged families. During 2018, ATCO Mexico supported this program by providing 18 Indigenous university students with scholarships as they each mentored one Indigenous elementary school student. In addition, we are currently working with a local non-profit to develop a job training program in carpentry skills for Indigenous youth who live close to our hydroelectric power station in Veracruz.

### Awareness Education

Educating our people on the unique cultural and historical status of Indigenous Peoples and communities through our Indigenous relations training is a core part of employee development.

In Canada, almost 500 employees completed online Indigenous awareness course work, and more than 180 have taken a further step with intensive training sessions at our operating locations, in addition to over 175 employees engaged in lunch and learn sessions. We have also partnered with the University of Calgary's Indigenous Relations program to certify 30 ATCO employees in an intensive

week-long course. As we work to broaden our awareness and outreach, we also started Métis history training in partnership with the Métis Nation of Alberta.

Our commitment to building and maintaining respectful connections with Indigenous communities has grown with ATCO's global investments. In Australia, we have collaborated to create an inaugural Reconciliation Action Plan that translates the idea of reconciliation into actionable steps, committed to building and maintaining respectful connections with Aboriginal and Torres Strait Islander Peoples. After working closely with local Aboriginal Elders and community representatives, one of our first projects was developing a community garden as an educational tool about the local culture for staff and visitors.

As a business, we continue to work hard to integrate this approach into our core operations and ensure that respect for Aboriginal and Torres Strait Islander Peoples is embedded in the way we conduct our business every day. To support this goal, online awareness training was completed by almost 400 employees in our Australian team.

over  
**\$75,000**



awarded globally in  
Indigenous scholarships



# SUSTAINABILITY DEVELOPMENT GOALS

ATCO supports the United Nations' Sustainable Development Goals (SDGs) and associated efforts towards building an inclusive, sustainable and resilient future.

7 AFFORDABLE AND  
CLEAN ENERGY



8 DECENT WORK AND  
ECONOMIC GROWTH



11 SUSTAINABLE CITIES  
AND COMMUNITIES



13 CLIMATE  
ACTION



*The Park Avenue building in Churchlands, Western Australia, utilizes rooftop solar panels and other energy-efficient design to provide building residents with a sustainable source of energy.*



While ATCO contributes to all 17 of the SDGs, as a provider of energy and other essential services, we have the ability to make significant contributions to four SDGs in particular (Goals 7, 8, 11 and 13).



**We aim to provide access to secure, reliable and affordable energy to support the vitality of our communities.**

- **INNOVATIVE ENERGY**
    - We continue to work with customers to provide access to clean and affordable energy by identifying the right balance of innovative technologies. Examples include hybrid residential homes and solutions integrating mCHP, rooftop solar panels and energy storage, as well as larger integrated-systems scale solutions such as the CHP unit at Mount Royal University.
    - At our Clean Energy Innovation Hub we are looking at microgrid solutions that integrate hydrogen production, natural gas, solar and battery storage.
- 2018 Performance Examples:**
- Hybrid houses demonstrated 42 per cent reduction in GHG emissions when compared to conventional homes
  - 1,003 solar panels installed at our Clean Energy Innovation Hub
- **REMOTE COMMUNITIES**
    - We signed an agreement to develop a solar array to be operated by the Vuntut Gwitchin Nation in Old Crow, Yukon, and began installing a solar farm in Fort Chipewyan, Alberta.
- 2018 Performance Examples:**
- 1,000,000 L of diesel displaced by enabling fuel switching in remote communities

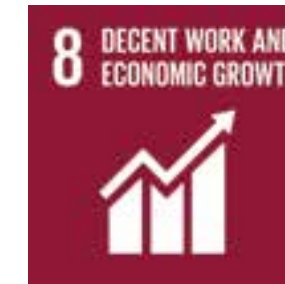
**We seek to understand the evolving energy needs of our customers, and develop efficient and effective energy solutions that support the transition to a lower-emitting energy system.**

- **ENERGY EFFICIENCY**
    - We collaborate with customers and partners to enable more energy efficient solutions such as using natural gas to generate heat and power at construction sites, building an on-site cogeneration facility for a chemical facility in Mexico, and working with communities served by our utilities in Alberta to install intelligent LED streetlight systems.
- 2018 Performance Examples:**
- 80 per cent average energy reduction from intelligent LED streetlight system, when compared to conventional streetlights



**We engage openly, transparently and honestly and create long-lasting relationships. Our services contribute to sustainable communities and economic development.**

- **HOUSING / SERVICES**
    - With the Homes for Heroes Foundation, we showcased the first of our permanent modular ‘tiny homes’ designed and constructed to meet the needs of Canadian military veterans and help them transition from homelessness.
    - We were awarded four government-sponsored, affordable housing projects in British Columbia. These projects showcase our ability to rapidly deliver residential solutions using energy efficient modular construction techniques to address the growing demand for affordable housing.
- 2018 Performance Examples:**
- 2 Homes for Heroes built by the end of 2018
- **LOW-CARBON TRANSPORTATION INFRASTRUCTURE**
    - We enabled low-carbon transportation solutions such as compressed natural gas (CNG) buses in Red Deer and Calgary, and expanded electric vehicle (EV) charging infrastructure in Alberta.
- 2018 Performance Examples:**
- 38 CNG buses in operation
  - 3 EV charging stations installed
- **DISASTER RELIEF**
    - We continued to support the Canadian Armed Forces, NATO, and various non-government organizations in disaster and emergency response services.



**We keep our people safe. We seek and respect diverse thoughts and perspectives.**

- **SAFETY**
    - Our safety programs include all employees and contractors in all locations. We actively share best practices when we move into a new region, demonstrated by our power generation facility in Mexico that has zero recordable incidents since we entered the joint partnership in 2016.
- 2018 Performance Examples:**
- 35 per cent reduction in employee total recordable incident frequency since 2017
- **DIVERSITY / INCLUSION**
    - The strength of our workforce comes from diversity. Our policies ensure we hire people based on their experience and expertise.
- 2018 Performance Examples:**
- 31 per cent women in total workforce
  - 19 per cent women in senior management
- **EMPLOYABILITY**
    - We provided skills training, including utility equipment skills for youth at Tsuut’ina Nation and kitchen skills for Indigenous students across seven communities.
- 2018 Performance Examples:**
- Hosted a Blue Flame Kitchen skills program engaging with 539 Indigenous students
- **INDIGENOUS PARTNERSHIPS**
    - We created opportunities for economic participation including the Three Nations Energy partnership, a joint venture with the Haisla Nation, and are working on an equity ownership model for Alberta PowerLine.
- 2018 Performance Examples:**
- \$250 million in revenue generated for our Indigenous partners in 2018



**We reduce both the direct and indirect GHG emissions associated with our operations by exploring new and more efficient ways to generate, transport and conserve energy.**

- **GHG EMISSIONS**
    - To achieve immediate GHG emission reductions, we enabled a 50 per cent conversion from coal to natural gas at one of our power generation units with full conversion of a second unit underway.
- 2018 Performance Examples:**
- Absolute GHG emissions reduced 37 per cent since 2008
- We continued to phase in renewables, and in 2018 we acquired a 35 MW hydro facility in Mexico. In addition, we have 75 MW of potential solar projects in Alberta.
- 2018 Performance Examples:**
- GHG intensity from power generation reduced 6 per cent since 2017
- We created efficiencies in fleet management through centralized planning and roll out of our aerial meter reading program—reducing fuel and emissions. We also added EVs to our vehicle fleet.
- 2018 Performance Examples:**
- Reduction of over 1,000,000 km driven
  - 2 EVs added to our vehicle fleet in 2018, representing a reduction of 1,108 kg of CO<sub>2</sub>e



# SUSTAINABILITY AT ATCO

As a global provider of modular housing, disaster response, logistical support, and energy infrastructure products and services, we play a central role in delivering long-term, sustainable solutions. Innovation is key: from integrated energy systems to partnerships with Indigenous communities, we are solving customer challenges in a way that balances responsible development with safety and environmental stewardship and the interests of communities and landowners.



*Uqsuq Corporation is a joint venture company between Nunavut Petroleum Corporation and ATCO's Frontec business. Uqsuq operates under a Government of Nunavut contract to lease and operate the bulk fuel storage facility and pipeline distribution system in Iqaluit, Nunavut.*





We have a long and successful history of building effective partnerships with Indigenous communities across Canada. The NorthwestTel project—operated by our 50/50 joint venture with the Northern Aboriginal Services Company (NASCo)—sees 157 NorthwestTel microwave sites across 96 different communities in the Northwest Territories, Yukon, Nunavut and northern British Columbia maintained at the highest standards.

CORE VALUES	
	<p><b>INTEGRITY</b> We are honest, ethical and treat others with fairness, dignity and respect.</p>
	<p><b>TRANSPARENCY</b> We are clear about our intentions and communicate openly.</p>
	<p><b>ENTREPRENEURSHIP</b> We are creative, innovative and take a measured approach to opportunities, balanced with a long-term perspective.</p>
	<p><b>ACCOUNTABILITY</b> We make good decisions, take personal ownership of tasks, are responsible for our actions and deliver our commitments.</p>
	<p><b>COLLABORATION</b> We work together, share ideas and recognize the contribution of others.</p>
	<p><b>PERSEVERANCE</b> We persevere in the face of adversity with courage, a positive attitude and a fierce determination to succeed.</p>
	<p><b>CARING</b> We care about our customers, our employees, their families, our communities and the environment.</p>

*It is ATCO's Heart and Mind that drives the company's approach to service reliability and product quality; employee, contractor and public safety; and environmental stewardship. Our pursuit of excellence governs the way we act and make decisions. At ATCO we strive to live by these core values.*

## 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 strategy on sustainability is woven into all aspects of the business and can be found throughout this report.

## GOVERNANCE

Key elements of our corporate governance system include the oversight and diligence provided by the Board, the lead director, the Audit & Risk Committee and our Corporate Governance, Nomination, Compensation and Succession Committee (GOCOM).

The Audit & Risk Committee, comprised of independent directors, 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.

We have an established enterprise risk management process that allows us to identify and evaluate risks and opportunities by both severity of impact and probability of occurrence. This evaluation also includes non-financial risks and opportunities such as regulatory, transitional, physical and reputational risks.

The senior executive of each operating division reports on operating results and risks to a designated audit director, who in turn reports to the Audit & Risk Committee. In addition, each division prepares a Stewardship Report, which is presented to the Audit & Risk Committee on a bi-annual basis, and includes topics such as safety, environment and Code of Ethics compliance.

The sustainability function at ATCO is overseen by the Vice President of Indigenous and Government Relations & Sustainability who reports directly to the President & Chief Strategy Officer and is managed collaboratively across numerous groups, including Human Resources, Indigenous Relations, Health & Safety, Environment, Marketing & 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 is 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.

For more detailed information on our corporate governance and management approach, please refer to the Governance section of the Management Proxy Circulars for ATCO Ltd. and Canadian Utilities Limited.





*Our Intelligent Street Light Project, in Lloydminster, Alberta, uses wireless motion sensors and a control system for LED street lights to deliver light on demand.*

## REPORTING ON OUR MATERIAL TOPICS

Our sustainability reporting is focused on Energy Stewardship, Environmental Stewardship, Safety, and Indigenous & Community Relations. These topics were identified during our 2016 materiality assessment process as being highly relevant to both the company and parties most commonly interested in our sustainability performance, including Indigenous leaders, customers, community members, non-governmental organizations, suppliers, investors, our employees and regulators; and the topics continue to be relevant today.

Our Sustainability Report provides both qualitative and quantitative performance updates for 2018 on these four material topics. This report references the internationally recognized Global Reporting Initiative (GRI) Standards. Our reporting is also guided by frameworks such as the Sustainability Accounting Standards Board (SASB) and the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

For more on our approach to our key material topics, please visit [ATCO.com/en-ca/our-commitment/sustainability.html](https://www.atco.com/en-ca/our-commitment/sustainability.html)

For more information on our key policies, please visit our website at [ATCO.com/en-ca/about-us/governance/code-ethics.html](https://www.atco.com/en-ca/about-us/governance/code-ethics.html)

For more information on other disclosures, including the Sustainability Framework Index, Annual Reports, and Management Proxy Circulars, please visit our website at [ATCO.com/en-ca/about-us/investors/documents-filings.html](https://www.atco.com/en-ca/about-us/investors/documents-filings.html)

## REPORTING SCOPE AND BOUNDARIES

- 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.
- Our most recent previous Sustainability Report was released in June 2018, and reflects operations as of December 31, 2017.
- This report communicates our sustainability performance in 2018, and reflects operations as of December 31, 2018.
- Our Performance Summary includes data for the three years ending December 31, 2018, unless otherwise noted, for ATCO, our subsidiaries and joint ventures. Exceptions are explicitly noted with the relevant information. For brevity, data from 2009 through 2015 is not included in the performance summary, however this historical data is available on our website. Performance data specific to Canadian Utilities Limited only is available on the website.

- Data for 2008, our baseline year for many reporting indicators, is included where available. Certain indicators that have been included in our sustainability reporting more recently may not have data available for 2008; however, graphs will show available trending.
- Financial data is in Canadian dollars and environmental data is in metric units.
- Environmental performance metrics reported include 100 per cent for facilities where ATCO, or one of its subsidiaries has operational control, regardless of percentage of financial ownership. Operational control is defined in alignment with the GHG Protocol.
- There was no material change to the scope of our power generating plant assets in 2018. We include full environmental data for power plants that operated under power purchase arrangements (PPA) during all or part of 2018 including Sheerness and Battle River.
- The following facilities are not included when considering operational control: Primrose, McMahan, Muskeg, Rainbow 4, Scotford, ATCO Espaciomovil and ATCO Sabinco S.A.

- For select sustainability performance indicators, we also provide reporting on an ownership basis in our Sustainability Framework Index, available on our website. Data reported on an ownership basis is prorated to the percentage we own of ATCO subsidiaries, joint operations and joint ventures. In line with standard sustainability reporting practice, all sustainability performance data excludes non-controlling equity investments, such as Neltume Ports. The treatment of joint ventures may be addressed differently in ATCO's 2018 Annual Report with respect to financial performance.
- In 2018, ATCO acquired a 40 per cent interest in Neltume Ports, a leading port operator and developer in South America. ATCO does not have operational control of Neltume Ports. Neltume Ports is a subsidiary of Ultramar, already a strategic partner with ATCO, and operates primarily in Chile and Uruguay along with operations in Brazil and Argentina. As with any investment, a review of health and safety risks, including anti-bribery and corruption, was undertaken to confirm alignment of values.



# ATCO LTD. PERFORMANCE SUMMARY

Indicator <sup>1,2,3,4,5</sup>	Units	2018	2017	2016	...	2008
<b>ENVIRONMENT</b>						
<b>Air Emissions<sup>6</sup></b>						
Direct greenhouse gases <sup>7</sup>	kilotonnes CO <sub>2</sub> e	10,808	10,713	10,378		17,049
Indirect greenhouse gases <sup>8</sup>	kilotonnes CO <sub>2</sub> e	43	189	174		-
Sulphur dioxide	tonnes	35,242	40,150	42,111		63,182
Nitrogen oxides	tonnes	15,938	16,051	17,019		26,566
Particulate matter (PM2.5)	tonnes	458	439	438		510
Carbon monoxide	tonnes	2,131	2,523	2,205		3,768
Volatile organic compounds	tonnes	270	216	274		168
Mercury	kilograms	27	31	37		157
Ozone depleting substances	kilograms	0	74	101		77
Water Use <sup>9</sup>	million m <sup>3</sup>	21.2	22.4	18.5		22.1
<b>Spills<sup>10,11</sup></b>						
Hydrocarbon - number	number	13	14	14		-
Hydrocarbon - volume	thousand litres	5.2	3.9	4.4		-
Non-hydrocarbon - number	number	6	7	7		-
Non-hydrocarbon - volume	thousand litres	45.7	2,059.4	34.4		-
Hazardous Waste <sup>12</sup>	tonnes	3,947	1,651	857		-
Environmental Fines and Penalties	\$ thousand	0	0	0		0
<b>SOCIAL</b>						
<b>Health &amp; Safety</b>						
Lost-time injury rate (employees)	cases/200,000 hours worked	0.16	0.25	0.17		0.77
Lost-time injury rate (contractors) <sup>13</sup>	cases/200,000 hours worked	0.06	0.53	0.28		-
Recordable injury rate (employees)	cases/200,000 hours worked	1.41	2.17	2.02		3.50
Recordable injury rate (contractors) <sup>13</sup>	cases/200,000 hours worked	0.84	1.97	1.81		-
Fatalities (employees)	number	0	0	0		0
Fatalities (contractors)	number	0	0	0		0
Employees <sup>14</sup>	number	6,241	6,752	6,751		7,781
Voluntary Turnover Rate	per cent	6.1	7.2	8.3		12.8
Employees in Employee Unions or Associations	per cent	48	50	51		54
<b>Diversity</b>						
Women in workforce	per cent	31	31	32		29
Women in senior management	per cent	19	17	17		14
Women on Board of Directors	per cent	30	30	30		9
<b>Human Rights and Ethics Incidents<sup>15</sup></b>						
Discrimination incidents	number	0	0	0		-
Indigenous rights incidents	number	0	0	0		-
Corruption Incidents	number	0	0	0		-
Customer Privacy Breaches	number	6	1	0		40
Number of Regulatory Non-compliance Incidents <sup>16</sup>	number	2	4	3		-
Fines and Penalties for Regulatory Non-compliance	\$ thousand	15.3	10.8	0.9		-
<b>ECONOMIC<sup>17</sup></b>						
Economic Value Generated <sup>18</sup>	\$ million	4,888	4,600	4,045		3,266
<b>Economic Value Distributed</b>						
Suppliers	\$ million	2,084	1,870	1,263		1,127
Employees <sup>19</sup>	\$ million	599	514	581		466
Lenders	\$ million	485	414	394		239
Shareholders	\$ million	387	348	318		166
Governments <sup>20</sup>	\$ million	448	433	369		365
Communities <sup>21</sup>	\$ million	8	8	7		5
Economic Value Retained <sup>22</sup>	\$ million	877	1,013	1,113		897
Financial Assistance Received from Governments <sup>23</sup>	\$ million	1.51	2.07	0.73		-
Coverage of Defined Benefit Pension Plan Obligations	per cent	91	92	93		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.

- This performance summary consolidates data for ATCO Ltd. (ACO.X, ACO.Y). Although we have historically reported metrics for the whole ATCO Group of Companies, in 2018 we aligned our reporting with the traded entities to help shareholders and other stakeholders to make informed decisions. A performance summary for Canadian Utilities Limited (CU, CU.X) can be found online.
- Data is reported on an operatorship basis, which does not align with financial reporting. Operatorship basis means that environmental performance metrics reported include 100 per cent from operations over which ATCO, or one of its subsidiaries, has operational control, regardless of percentage of financial ownership.
- We have also provided a limited number of environmental performance metrics on an asset ownership basis in our Sustainability Framework Index.
- This report includes performance data on indicators that were not included in all previous reports. Data for the new indicators is not provided for previous years, and is denoted with a "-" symbol.
- Due to differences in government reporting systems, some of the environmental data from our Australian operations is based on a July to June reporting period. Although this does not align with the conventional January to December time period, data reported reflects their annual environmental performance.
- 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. In a few instances, we have estimated the environmental impacts of certain facilities.
- Our direct emissions for 2018 exclude any carbon offsets that we have generated or purchased to meet our regulatory obligations. Although historically we have deducted these amounts from our direct emissions, they represent less than 1 per cent of our total scope 1 emissions, and we will continue to exclude them on a go-forward basis.
- The reduction in indirect emissions for 2018 is predominantly due to improved calculation methodology and reporting scope. As indirect emissions account for only a small portion of our total emissions, historical figures have not been restated.
- Water use = water diverted minus water returned.
- 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.
- Non-hydrocarbon spills are often comprised of high volumes of saline water or water containing small quantities of other substances.
- Increase in hazardous waste volumes is mainly attributable to the decommissioning of our generating station in Garden River, Alberta and construction of the Alberta PowerLine project.
- Our contractor safety rates do not cover all our contractors since some of our business units only track safety statistics for contractors conducting certain work scopes or greater than a threshold contract size. Changes to contractor incident rates year over year vary depending on significant capital projects which occur during that year.
- Includes our temporary workforce but does not include joint venture employees.
- We track and address concerns through several channels, including our internationally accessible ATCO Integrity Line. Only incidents that have been substantiated by an external authority have been included.
- Non-environmental regulatory non-compliance incidents include one incident regarding power generation response time requirements, and one incident related to the operation of our natural gas transmission system.
- Figures for 2017 have been restated to account for the impact of IFRS 15.
- Economic value generated includes revenues, gains on asset dispositions, and interest income.
- Payments to employees include the expensed cost of wages and benefits.
- Payments to governments substantially increased and include income, property, and franchise taxes.
- Distributions to communities include donations, in-kind contributions, and sponsorships.
- 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.
- 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.