

# Corporate sustainability report

Our commitment to responsibly  
develop Canada's energy resources  
and protect tomorrow, today.



## Letter to stakeholders

Energy drives our society and is fundamental to modern life. As the world's population continues to increase, we will need to use all practical forms of energy to support economic growth and improve living standards for growing populations.

Canada has the opportunity to provide the globe with responsibly produced energy. Our world-class resources, our stringent regulatory processes and our strong socially responsible performance are key enablers.

The discussion about Canada's role in an evolving worldwide energy landscape is dynamic and complex. As we look ahead 20 years, we see global energy demand that continues to grow with a significant focus on environmental and corporate responsibility, and community engagement.

Providing energy to support economic growth while reducing environmental impacts is the Canadian oil and gas industry's current and long-term challenge. Fortunately, this is not an "either-or" scenario.

Our ability to ensure Canada's ongoing success, however, lies in our collective commitment to innovation and to an open and ongoing dialogue on constructive and collaborative solutions. Because if Canada does not supply the world's growing oil and gas needs, the demand will be met by other countries, some of which who do not share our commitment to strong environment, safety and human rights standards of performance.

For nearly 140 years, Imperial has been in the business of providing energy solutions to Canadians through dramatically changing times. The potential of technology, our industry's ingenuity and Imperial innovation should not be underestimated. When the company was formed in the late 1800s, we produced waxes and lamp oils, we transported fuel products by horse-drawn carriages, gasoline was dispensed through a garden hose and our geologists searched for new discoveries in canoes.

Today, we use virtual reality for safety training, drones for surveying, night vision cameras to monitor wildlife, and satellites to measure greenhouse gas emissions. We've developed technologies that significantly reduce emissions from our operations, invested in cogeneration to increase energy efficiency and reduce the GHG emissions intensity of our sites, and introduced advanced oil recovery technologies at our oil sands operations that reduce greenhouse gas intensity and water use. We've even created an app which lets our customers pay for fuel from their car.

At Imperial, we strive to protect tomorrow, today. To that end, we recently announced an anticipated 10 percent decrease in greenhouse gas emissions intensity at our oil sands operations by 2023, compared with 2016 levels. We intend to achieve this target through the application of next-generation oil recovery technology at our Cold Lake in-situ operations, improvements in reliability at our Kearl mining facility and continuous improvements in energy efficiency.

Through the decades, it has been Imperial's ongoing investment in research and development that has allowed us to adapt and improve. Over the last 20 years, we have spent more than \$2.1 billion in research and technology development. We continue to invest more than \$150 million on research annually and we have over 100 researchers and scientists, and over 90 PhDs, dedicated to continued progress.

Going forward, you will see enhanced reporting on our commitment to sustainability - focused not just on performance, but strategy, targets and measurement. Our 2018 corporate sustainability report will be guided by the Task Force on Climate-related Financial Disclosures (TCFD) framework. We have also recently created a dedicated sustainability team to ensure our sustainability commitment is reflected throughout our business and reporting is in line with stakeholder expectations.

At Imperial, we are committed to responsibly developing Canada's energy resources now and in the future, helping Canada and Canadians to prosper by providing reliable and affordable energy worldwide.

*Rich Kruger*  
Chairman, President and CEO



## Our position on climate change

At Imperial, we have the same concerns as people everywhere – and that is how to provide the world with the energy it needs while addressing the risks of climate change.

**Imperial supports the work of the Paris signatories**, acknowledges the ambitious goals of this agreement and believes the company has a constructive role to play in developing solutions.

As a global issue, climate change requires global solutions. Both developed and developing countries should work together in crafting policies aimed at mitigating greenhouse gas emissions, while recognizing differing national priorities.

As policymakers develop mechanisms to meet the goals set in Paris, we encourage them to focus on **reducing the greatest amount of emissions at the lowest cost to society**. At the same time we urge them to recognize important shared humanitarian needs, including providing reliable and affordable energy to improve living standards.

**Ensuring Imperial does its part to reduce the risks of climate change is a priority and we are working hard across our businesses to find effective solutions.**

Learn more at [imperialoil.ca/climatechange](https://imperialoil.ca/climatechange)





## Applying new technologies to reduce oil sands greenhouse gas emissions intensity

On August 28, 2018, Imperial announced plans to apply advanced technologies and improvements in efficiency to **reduce the greenhouse gas emissions intensity of our operated oil sands facilities\***. The company's plans build on a longstanding commitment to improve the environmental footprint and economics of production associated with our oil sands operations.

The application of next-generation oil recovery technology at Imperial's Cold Lake in-situ operations, improvements in reliability at our Kearl mining facility and continuous improvements in energy efficiency are expected to be key drivers behind the reductions, which are anticipated to result in a **10 percent decrease in greenhouse gas emissions intensity by 2023**, compared with 2016 levels.

"We are accelerating the pace of our innovation and applying technologies with the goal of delivering industry-leading environmental and economic performance," said Rich Kruger, Imperial chairman, president and chief executive officer. "We see high potential for commercializing game-changing technologies we've been developing, which should not only lead to significant reductions in greenhouse gas emissions and water use, but also greatly enhance the economics of our operations."

## Environment: GHG emissions and emissions intensity

We are taking action to reduce emissions from our operations by mitigating emissions from our own facilities, developing scalable technology solutions, providing solutions for our customers and engaging on climate change policy.

### **Mitigating emissions from our own facilities**

We are using cogeneration to improve energy efficiency and reduce emissions. Cogeneration is used at our Kearl, Cold Lake, Nanticoke and Sarnia operations. We are also currently constructing a cogeneration unit at our Strathcona refinery.

### **Creating scalable technology solutions**

Imperial is evaluating the first commercial application of its breakthrough cyclic solvent process, which could virtually eliminate the use of steam and reduce emissions intensity up to 90 percent in certain areas of the company's Cold Lake field.

### **Providing solutions for customers**

Our Synergy™ gasoline is designed to help provide better fuel economy, lower emissions and improve engine responsiveness.<sup>1</sup>

### **Engaging on climate policy**

Climate change is a global issue that requires the collaboration of governments, companies, consumers and other stakeholders to create worldwide solutions. We engage a variety of stakeholders on climate change issues to advocate for responsible policies that would be effective in addressing the risks of climate change.



Hear from Imperial research scientist, Leyli Mirmontazeri, about our efforts to reduce GHG emissions and energy use in the oil sands.

View the video on YouTube at: [youtu.be/2EHM4kDaDek](https://youtu.be/2EHM4kDaDek)

Learn more at [imperialoil.ca/air](https://imperialoil.ca/air)

In action

## Environment: air quality

We protect air quality by producing cleaner fuels, reducing energy use and investing in controls to reduce emissions. Our businesses have well-established leak detection and repair programs to monitor and reduce hydrocarbon emissions from small leaks in equipment such as tanks, pumps and valve connections. We also collaborate with government, industry and other groups to maintain regional air monitoring networks that measure and track long-term air quality trends.

### Sarnia



**60%**

reduction in sulphur dioxide emissions since the early 2000's



**88%**

reduction in benzene emissions over the past 25 years

### Nanticoke



**16%**

reduction in sulphur dioxide emissions since the early 2000's



### In action

Hear from Derek Chan, an environmental specialist at our Sarnia site, on how we are working to improve our environmental performance – including through the use of infrared cameras.

View the video on YouTube at:  
[youtu.be/qlT8PwUgue0](https://youtu.be/qlT8PwUgue0)

Learn more at [imperialoil.ca/air](https://imperialoil.ca/air)

## Environment: water





Water and energy are interrelated, and both are critical for society, economic development and the environment.

Imperial takes water use and conservation seriously in all aspects of our operations.

Imperial supports provincial and industry water strategy initiatives and intensity goals. We have subject matter experts and research facilities identifying innovative ways to conserve water.

The company identifies and manages water resource risks through our Operations Integrity Management System.

Our water management principles are to:

-  protect human health and the environment
-  consider local water needs when addressing operational requirements
-  continuously improve capabilities and performance
-  engage stakeholders in sustainable water solutions

Learn more about our water use and commitment to conservation at [imperialoil.ca/water](https://imperialoil.ca/water)

**Did you know?** Imperial's major operating sites are located outside of water-short areas, include mitigation for low water availability, and have systems in place to focus on conservation, efficiency and productivity opportunities. These aspects manage Imperial's exposure to current and future water risks.

**90 percent**

reduction in freshwater intensity at our Cold Lake operation since 1985

**50 percent**

reduction in absolute freshwater use at our Cold Lake operation since 1985

**About 80 percent**

of water used at Kearl is recycled from within operations

In action





## Environment: land

We operate in a variety of ecosystems - some with sensitive characteristics. Our Upstream operations in particular can affect different wildlife areas, including foothills, prairie ecosystems and northern peatland areas.

Imperial carefully considers land use, biodiversity and ecosystem services in all aspects of our upstream operations, from new development planning to ongoing operations and reclamation.

Imperial is also a member of the Regional Industry Caribou Collaboration (RICC), which is a group of energy and forestry companies that contribute to conservation of caribou and restoration of their habitat through collaborative range-based efforts. RICC is intended to coordinate caribou habitat restoration in priority areas and support scientific research on caribou ecology and caribou-predator-landscape relationships.



63

surplus properties returned to  
productive use in 2017

800+ hectares

reclaimed at Kearl and Cold Lake in 2017

Supported monitoring of **rare bird species**



### In action

#### **We set out to leave behind self-sustaining habitats**

Hear from Imperial's biodiversity lead, Lori Neufeld, on how we are progressively reclaiming land in the oil sands.

View the video on YouTube at:  
[youtu.be/xi5WRV4Phfg](https://youtu.be/xi5WRV4Phfg)

Learn more at [imperialoil.ca/land](https://imperialoil.ca/land)

## Innovation & research

Taking an innovative approach is part of who we are. Nearly 100 years ago, we established Canada's first oil and gas research department. Today, we're one of the country's only energy producers with dedicated research laboratories, and a leading research spender across all industries. Through these efforts, we aim to continually identify new ways to recover oil that are safer and more efficient, while contributing to local economies and minimizing impact on local environments.

More than  
**\$2.1 billion**  
spent on research and  
technology development over  
the past 20 years

### Focus areas



#### Air

Tackling oil sands emissions head on



#### Land

A constant focus on land use, biodiversity and ecosystems



#### Water

Our journey to reduce and recycle the water we use in oil sands production

In addition to our in-house research, we partner with academic institutions, industry peers and third-party companies to accelerate the pace of environmental performance improvement in Canada. Imperial is a charter member of Canada's Oil Sands Innovation Alliance (COSIA). COSIA member companies have shared 981 distinct technologies and innovations that cost more than \$1.4 billion to develop.

Learn more at [imperialoil.ca/innovation](https://imperialoil.ca/innovation)

## Leveraging ExxonMobil research

Through our relationship with ExxonMobil\*, we have access to global R&D spending of ~\$1 billion per year and access to industry-leading insights and experts at all times.

ExxonMobil is at the forefront of developing many exciting technologies, including research on advanced biofuels and carbon capture and storage (CCS), which can play big roles in a lower-carbon future.



### Algae and other advanced biofuels

ExxonMobil is actively researching biofuels made from algae. Algae naturally produce lipids that can be turned into a renewable, lower-emission fuel for transportation. Because the manufacturing processes for algae biofuels and today's transportation fuels are similar, algae biofuels could be processed in existing refineries to supplement supplies of conventional gasoline, diesel and other fuels.

### Carbon capture and storage

ExxonMobil has extensive experience in carbon capture and has a working interest in more than **one-fifth of the world's total carbon capture and storage capacity**. Carbon capture and storage (CCS) is the process by which CO<sub>2</sub> that otherwise would be emitted into the atmosphere is captured, compressed and injected underground for permanent storage.

\*Exxon Mobil Corporation (ExxonMobil) owns approximately 69.6 percent of the outstanding shares of Imperial Oil Limited.

## A better way to recover oil

An important part of our oil supply is “heavy oil,” also called bitumen. It has a high viscosity and is found mixed into sand and clay underground, which means it can be challenging to get out.

In the past, we exclusively used steam to heat and mobilize the oil so we could recover it and bring it to the surface. But in recent years, we’ve developed advanced oil recovery technologies that are more efficient and environmentally friendly.

### Mobilizing with lighter oils

Light oils like propane and butane flow more easily and are a natural component of heavy oil. Injecting these oils underground, along with some steam, mobilizes the heavy oil so it can be brought to the surface.

This approach recovers more heavy oil using less steam, significantly reducing greenhouse gas (GHG) emissions and water use.

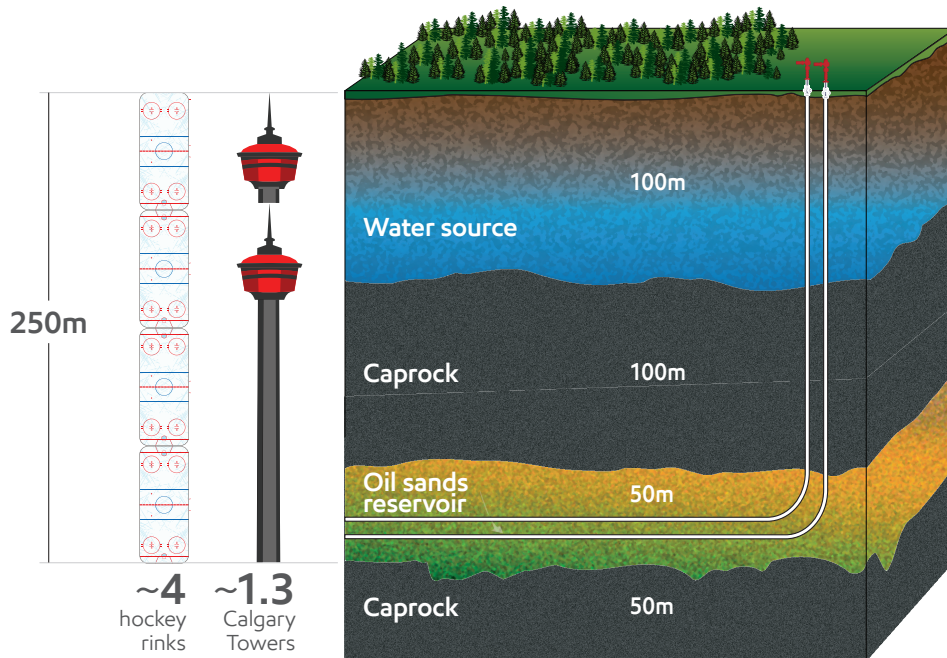


Illustration based on the Aspen project location

# Game-changing technologies

## LASER

(Liquid Addition to Steam for Enhanced Recovery)

### Environmental benefit<sup>1</sup>:

Up to 25% ↓ GHG intensity

Up to 25% ↓ steam

### Status:

- Currently in use in about 240 wells at Imperial's Cold Lake operation.
- Expansion of program underway.

## CSP

(Cyclic Solvent Process)

### Environmental benefit<sup>1</sup>:

Up to 90% ↓ GHG emissions by eliminating the use of steam

Up to 100% ↓ steam

### Status:

- Initiated \$100 million pilot facility at Cold Lake in 2014.
- Successfully piloted the technology at our Cold Lake operation for more than four years.

## SA SAGD

(Solvent-Assisted, Steam Assisted Gravity Drainage)

### Environmental benefit<sup>2</sup>:

Up to 25% ↓ GHG intensity per barrel

Up to 25% ↓ steam

### Status:

- Successfully piloted for more than seven years at our Cold Lake operation.
- Proposed technology at Aspen project.

<sup>1</sup>Compared to cyclic steam stimulation (CSS) production methods.

<sup>2</sup>Compared to steam-assisted, gravity drainage (SAGD) production methods.

## EBRT

(Enhanced Bitumen Recovery Technology)

### Environmental benefit<sup>2</sup>:

Up to 60% ↓ GHG emissions

Up to 90% ↓ steam

### Status:

Advancing a field trial to demonstrate the process and validate it for commercial use.

## In action



In May 2018, Imperial was awarded \$10 million by Emissions Reduction Alberta towards development of our Enhanced Bitumen Recovery Technology.

## Indigenous engagement

Our goal is to collaborate with Indigenous communities on a common vision for progress, sustainable prosperity and environmental stewardship.

As Imperial answers the Truth and Reconciliation Commission's calls to action, we are committed to encouraging our employees to be collaborative agents for positive change.

Mutually beneficial relationships with Canada's Indigenous people are critical to the success of Imperial and Canada's energy industry. For Imperial, that means collaborating with Indigenous communities on a common vision for progress, sustainable prosperity and environmental stewardship.

# \$2.37 billion

spent with Indigenous suppliers over the past 10 years

# \$3 million

provided for Indigenous community development programs in 2017

# 123

supervisors at our Kearl oil sands operation received a 4-hour Indigenous Awareness training in 2017

Imperial's commitment is reinforced by our Indigenous relations strategy and supported by four key pillars:



Consultation



Workforce development



Business development



Community relations

### In action



Imperial was recently certified as a committed member of the Canadian Council for Aboriginal Business: Progressive Aboriginal Relations Program (PAR), which helps companies measure progress on Indigenous employment, business development, building capacity and enhancing relations with Indigenous communities. Imperial aspires to receive gold level PAR distinction.

## Indigenous engagement

### Workforce development

For 25 years, the Imperial Indigenous Network at Cold Lake has worked to support, develop and grow our Indigenous workforce. The program has produced approximately 65 percent of the company's Indigenous workforce at our Cold Lake operation.

Our goal is to continue increasing our Indigenous employee workforce.

In 2017, Imperial hired two former First Nations Chiefs to represent the company in our operating communities.

**3.9%**

of Imperial's workforce  
identified as Indigenous in 2017

**700+**

Indigenous workers at our  
Upstream assets in 2017



**In action**

Hear from employee Tony Badger on the important role mentorship plays in Indigenous workforce development.

View the video on YouTube at: [youtu.be/M20S3KpOirM](https://youtu.be/M20S3KpOirM)

Learn more at [imperialoil.ca/indigenous](https://imperialoil.ca/indigenous)

## Community investment

We recognize that business success depends on the economic, social and environmental health of the communities where we operate. Imperial supports local programs and organizations through financial contributions, in-kind donations and through employee volunteers.

Imperial, through the Esso brand, is a long-time supporter of minor hockey in Canada. We have been a premier partner of Hockey Canada for more than 30 years and have awarded more than two million Esso Medals of Achievement to minor hockey players across the country.

### Focus areas



#### Community

Building strong communities with our neighbours and employees

**\$55,000** for the Sahtu Search and Rescue Society, located near our Norman Wells operation, since 2016.



#### Innovation & sustainability

Inspiring creative thinking to help solve energy challenges in new ways

**\$75,000** for Mount Royal University's Institute for Environmental Sustainability since 2015.



#### Indigenous leadership

Collaborating and creating opportunities with Indigenous communities

**\$3 million** since 2010 for the Indigenous Women in Community Leadership program at the Coady International Institute.

# \$16 million

invested in Canadian communities in 2017

# \$3.6 million

raised for United Way organizations across Canada in 2017

Nearly

# 6,000 hours

volunteered as part of United Way Days of Caring projects

Learn more at [imperialoil.ca/community](http://imperialoil.ca/community)



# Workforce engagement

Imperial has more than 5,500 staff across Canada, needless to say we are not all the same – and that’s a good thing. Imperial’s focus on diversity and inclusion helps create a workplace where people’s unique contributions and perspectives are respected and valued. These different ideas and viewpoints ultimately strengthen the company and help it grow and innovate.

We support voluntary, employee-led networks that foster a culture of diversity and inclusion by offering development programs, community service opportunities and mentoring. Our local employee resource groups include:

- Black Employee Success Team (BEST)
- Indigenous Network
- Network Advisory Program for new hires (NAP)
- Senior Network Advisory Program (SNAP)
- People for Respect, Inclusion and Diversity of Employees (PRIDE)
- Women’s Interest Network (WIN)



In action

Imperial has participated in the Calgary PRIDE Parade since 2015 and has been a platinum sponsor of the event since 2016.

## Economic development

Our goal is to create long-term economic and social benefits for our communities. We provide economic support to our local communities, including workforce and supplier development, and strategic community investments as well as revenue for governments. Enhancing education, developing a skilled workforce, creating jobs and supporting reliable local supply networks drive both economic growth and a higher standard of living.

**\$1.4 billion**

paid in wages and benefits

Nearly

**\$5.5 billion**

in payments for goods and services

Nearly

**3,800**

suppliers



### Workforce development

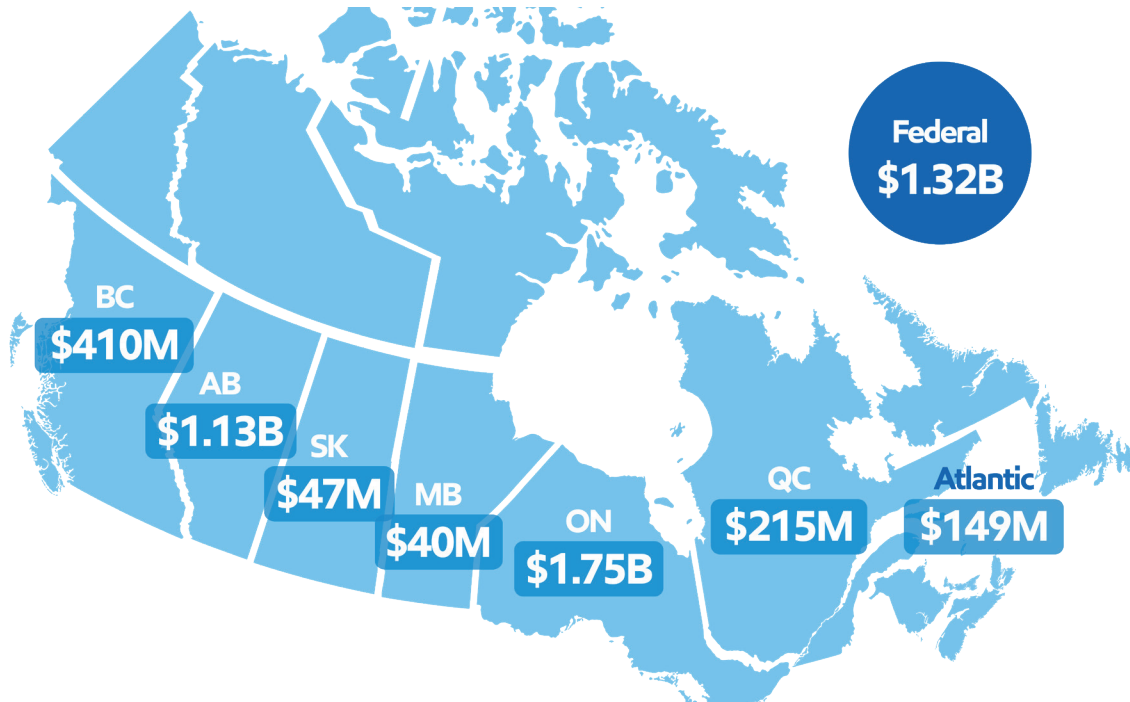
Imperial's more than 5,500 employees contribute to the success of our business; we are committed to contributing to their career goals and professional development.

### Supplier development

Developing and using local vendors for the supply of goods and services is a central component of Imperial's business strategy.

## Taxes & royalties

In 2017, Imperial paid more than \$5.1 billion in taxes and royalties to government. These taxes help fund school systems, roads, hospitals, social programs and much more.



In action



Hear from one of our Indigenous suppliers, Seven Lakes, on their experience working with Imperial.

View the video on YouTube at: [youtu.be/37AmczlGBxl](https://youtu.be/37AmczlGBxl)

Learn more at [imperialoil.ca/economicdevelopment](https://imperialoil.ca/economicdevelopment)

# Safety

Safety is a core value in every aspect of Imperial's operations. Ensuring the safety of the people who work in or live near our operations is our number one priority.

## OIMS

We continue to make progress on our commitment to achieve a workplace where Nobody Gets Hurt through a strong focus on leadership behaviours, workforce engagement, risk management and consistent application of our Operations Integrity Management System (OIMS).

OIMS is a comprehensive framework with a common set of expectations that embodies our commitment to managing personnel and process safety, operational and environmental risks inherent in our business.

**~340 drills**

conducted at our operations in 2017

**120 participants**

in major training exercise at Imperial's  
Strathcona refinery



## Emergency response

While we manage our business with the goal of preventing incidents, we are prepared for emergencies and respond quickly, effectively, and with care to emergencies or incidents resulting from our operations. In the event of an incident, local trained personnel are supported by a regional and North American response team to control the situation, minimize impacts and restore operations in as short a time possible.

Learn more at [imperialoil.ca/safety](https://imperialoil.ca/safety)

# Governance

At Imperial, we have an unwavering commitment to high ethical standards, legal compliance and integrity, starting with our board of directors and our corporate governance policies.



## **Board of Directors**

Our Board of Directors is responsible for the stewardship of the company and routinely reviews sustainability issues through participation on various committees. The members bring diverse backgrounds, experience and a commitment to represent the interests of our shareholders.

## **Standards of Business Conduct**

Imperial's comprehensive Standards of Business Conduct clearly communicate the expectations we have of our employees and directors. Policies within the Standards of Business Conduct ensure a common understanding of the business, legal and regulatory steps we must follow.

Imperial's open-door communication encourages employees to refer issues or concerns relating to any of the company policies or internal controls to their supervisors. These policies are reviewed on a regular basis and Imperial's operations are audited internally with unrestricted access to facilities, business units, personnel and records.

Learn more at [imperialoil.ca/governance](https://imperialoil.ca/governance)

# 2017 performance data

Environment	2013	2014	2015	2016	2017
<b><sup>1</sup>Air emissions</b>					
Sulphur oxides (expressed as SO <sub>2</sub> - thousand metric tonnes/year)	23.9	24.1	22.9	21.4	20.9
Nitrogen oxides (thousand metric tonnes/year)	12.0	13.1	15.5	15.9	16.5
Volatile organic compounds (thousand metric tonnes/year)	17.2	14.3	14.0	10.5	10.4
<b><sup>1</sup>GHG emissions and energy consumption</b>					
Direct GHG emissions - including Cogen					
Downstream & Chemical (million metric tonnes of CO <sub>2</sub> e)	4.6	4.9	4.8	4.8	4.7
Carbon dioxide emissions (million metric tonnes)	4.5	4.8	4.8	4.8	4.6
Methane emissions (million metric tonnes)	0.0014	0.0024	0.0011	0.0010	0.0011
Nitrous oxide emissions (million metric tonnes)	0.0001	0.0001	0.0001	0.0001	0.0001
Upstream (million metric tonnes of CO <sub>2</sub> e)	5.5	5.8	8.0	8.2	8.4
<sup>2</sup> Carbon dioxide emissions (million metric tonnes)	5.4	5.7	7.8	8.0	8.2
Methane emissions (million metric tonnes)	0.0029	0.0016	0.0019	0.0023	0.0018
Nitrous oxide emissions (million metric tonnes)	0.0001	0.0002	0.0003	0.0003	0.0003
Operated oil sands (million metric tonnes of CO <sub>2</sub> e)	5.4	5.7	7.9	8.1	8.3
<sup>2</sup> Carbon dioxide emissions (million metric tonnes)	5.3	5.6	7.7	8.0	8.2
Methane emissions (million metric tonnes)	0.0023	0.0013	0.0016	0.0020	0.0017
Nitrous oxide emissions (million metric tonnes)	0.0001	0.0002	0.0003	0.0003	0.0003
<sup>3</sup> Imported electricity and associated indirect GHG emissions					
Downstream & Chemical - imported electricity (million MWhr)	1.08	1.17	1.10	1.07	1.04
Downstream & Chemical - associated indirect GHG emissions (million metric tonnes of CO <sub>2</sub> e)	0.40	0.43	0.41	0.39	0.39
Upstream - imported electricity (million MWhr)	0.29	0.55	0.70	0.83	0.92
Upstream - associated indirect GHG emissions (million metric tonnes of CO <sub>2</sub> e)	0.11	0.20	0.26	0.31	0.34
Operated oil sands - imported electricity (million MWhr)	0.29	0.55	0.70	0.83	0.92
Operated oil sands - associated indirect GHG emissions (million metric tonnes of CO <sub>2</sub> e)	0.11	0.20	0.26	0.31	0.34
<sup>3</sup> Exported electricity and associated GHG emissions					
Downstream & Chemical - exported electricity (million MWhr)	0	0	0	0	0
Downstream & Chemical - associated GHG emissions (million metric tonnes of CO <sub>2</sub> e)	0	0	0	0	0
Upstream - exported electricity (million MWhr)	0.28	0.33	1.25	1.48	1.45
Upstream - associated GHG emissions (million metric tonnes of CO <sub>2</sub> e)	0.10	0.12	0.46	0.55	0.54
Operated oil sands - exported electricity (million MWhr)	0.27	0.32	1.24	1.47	1.45
Operated oil sands - associated GHG emissions (million metric tonnes of CO <sub>2</sub> e)	0.10	0.12	0.46	0.55	0.53
<sup>4</sup> GHG emissions					
Downstream & Chemical (million metric tonnes of CO <sub>2</sub> e)	5.0	5.4	5.2	5.2	5.1
Upstream (million metric tonnes of CO <sub>2</sub> e)	5.5	5.9	7.7	7.9	8.2
Operated oil sands (million metric tonnes of CO <sub>2</sub> e)	5.4	5.8	7.7	7.8	8.2
Production/throughput					
<sup>5</sup> Downstream & Chemical - refining throughput (million m <sup>3</sup> )	22	23	22	21	22
<sup>6</sup> Upstream - production (million m <sup>3</sup> )	11	14	20	21	21
<sup>7</sup> Operated oil sands - production (million m <sup>3</sup> )	10	13	19	20	21
<sup>8</sup> GHG emissions intensity					
<sup>5</sup> Downstream & Chemical (metric tonnes of CO <sub>2</sub> e/m <sup>3</sup> refining throughput)	0.23	0.23	0.23	0.25	0.23
<sup>6</sup> Upstream (metric tonnes of CO <sub>2</sub> e/m <sup>3</sup> upstream production)	0.50	0.42	0.40	0.38	0.39
<sup>7</sup> Operated oil sands (metric tonnes of CO <sub>2</sub> e/m <sup>3</sup> upstream production)	0.52	0.44	0.40	0.39	0.39
Total energy use (million gigajoules)					
	170	184	219	220	223
<sup>9</sup> Fuels refining energy intensity - normalized versus 1990					
	0.831	0.813	0.811	0.808	0.804
<b><sup>1</sup>Flaring and venting</b>					
Hydrocarbon flaring - company total (hundred tonnes)	534	564	696	739	705
Gas (hydrocarbon) flaring from oil production (million cubic feet per day)	1.5	1.5	3.9	3.9	3.5
<b><sup>1</sup>Water consumption</b>					
Freshwater consumption					
Downstream & Chemical (million m <sup>3</sup> of fresh water consumed)	9.2	9.7	10.5	10.4	9.9
Upstream (million m <sup>3</sup> of fresh water consumed)	10.6	15.6	41.0	30.2	32.6

# 2017 performance data

Fresh water consumption intensity					
<sup>5</sup> Downstream & Chemical ( <i>m<sup>3</sup> of fresh water consumed/m<sup>3</sup> refining throughput</i> )	0.42	0.42	0.47	0.49	0.45
<sup>6</sup> Upstream ( <i>m<sup>3</sup> of fresh water consumed/m<sup>3</sup> upstream production</i> )	0.96	1.12	2.10	1.46	1.56
<b>Waste management</b>					
Hazardous waste disposed from operations ( <i>thousand tonnes</i> )	18.7	14.1	9.7	10.9	20.9
Hazardous waste – external beneficial reuse ( <i>thousand tonnes</i> )	3.2	2.8	7.6	5.1	6.9
<b>Investments</b>					
Gross research expenditures, before credits	\$199	\$175	\$195	\$195	\$154
Environmental expenditures ( <i>millions of dollars</i> )	\$1,500	\$1,700	\$1,200	\$700	\$600
<b>Economic development</b>					
Capital and exploration expenditures ( <i>billions of dollars</i> )	\$8.0	\$5.7	\$3.6	\$1.2	\$0.7
Payments for goods and services ( <i>billions of dollars, approximate</i> ) <sup>10</sup>	\$12.3	\$11.6	\$9.5	\$8.0	\$5.5
Taxes and royalties to government ( <i>billions of dollars</i> )	\$5.7	\$6.0	\$5.4	\$5.2	\$5.1
<b>Employment</b>					
Wages and benefits ( <i>billions of dollars</i> )	\$1.4	\$1.4	\$1.5	\$1.4	\$1.4
Education assistance program ( <i>thousands of dollars</i> )	\$505	\$478	\$627	\$685	\$588
Scholarships for employee dependents ( <i>millions of dollars</i> )	\$2.8	\$2.3	\$2.1	\$1.9	\$2.0
Number of regular employees at year end <sup>11</sup>	5,328	5,498	5,917	5,706	5,523
Percentage of women at year end	26.7	26.6	25.8	25.0	25.1
Percentage of visible minorities at year end <sup>12</sup>	11.1	11.5	10.9	11.2	11.2
Percentage of persons with disabilities at year end <sup>12</sup>	1.5	1.5	1.2	1.0	0.9
<b>Indigenous</b>					
Spending with Indigenous businesses (direct and subcontracted) ( <i>millions of dollars</i> )	\$350	\$433	\$329	\$225	\$200
Percentage of Indigenous Peoples at year end <sup>12</sup>	3.3	3.5	3.7	3.9	3.9
<b>Community engagement</b>					
Community investment ( <i>millions of dollars</i> ) <sup>13</sup>	\$17.2	\$20.3	\$27.0	\$21.2	\$16.0
Contributions to United Way – Centraide campaigns ( <i>millions of dollars</i> ) <sup>14</sup>	\$4.5	\$4.7	\$4.8	\$4.2	\$3.6
<b>Safety</b>					
Fatalities – employees and contractors	0	0	0	0	0
Lost-time incident frequency – employees per 200,000 hours worked	0.02	0.05	0.03	0.00	0.01
Lost-time incident frequency – contractors per 200,000 hours worked	0.01	0.04	0.01	0.01	0.04
Total recordable incident frequency – employees per 200,000 hours worked	0.14	0.27	0.22	0.08	0.15
Total recordable incident frequency – contractors per 200,000 hours worked	0.39	0.33	0.30	0.39	0.36
Total recordable incident frequency – workforce per 200,000 hours worked	0.33	0.32	0.27	0.26	0.26
<b>Corporate governance</b>					
Corporate political contributions ( <i>thousands of dollars</i> ) <sup>15</sup>	\$67	\$70	\$65	\$61	\$24
Common shares outstanding ( <i>millions of shares</i> ) <sup>16</sup>	848	848	848	848	831
Dividends ( <i>millions of dollars</i> ) <sup>12</sup>	\$407	\$441	\$449	\$492	\$524

**Note:** Adjustments may have been made to some data points to reflect internal updates. All references to financial information is in Canadian dollars.

1 Data represents Imperial owned and operated assets (including 100% Kearl; excluding ExxonMobil Canada, XTO Canada and Syncrude). Dartmouth refinery (shut down in 2013), retail stations (sold in 2016) and other assets that were divested between 2013-2017 are not included

2 Excluding CO2 emissions from biomass

3 Imported/exported electricity GHG emission factor (0.37 tonnes CO2e/MWhr) consistent with the benchmark established for electricity from 2018 CCIR (Carbon Competitiveness Incentive Regulation) and draft OBPS (Output Based Pricing System) from Dec 2018

4 GHG emissions calculated as sum of direct emissions and emissions associated with imported electricity less (minus) emissions associated with exported electricity

5 Throughput basis: Refinery throughput is the volume of crude oil and feedstocks that is processed in the refinery atmospheric distillation units; excluding Dartmouth refinery (shut down in 2013)

6 Production basis: Represents bitumen/crude production at Kearl, Cold lake and Norman wells; Kearl and Cold lake production basis same as reported under Alberta provincial regulation

7 Production basis: Operated oil sands (Kearl and Cold lake) production basis same as reported under Alberta provincial regulation

8 GHG emissions intensity is the ratio of GHG emissions to production or throughput

9 The energy intensity index is a measure of energy efficiency for petroleum refineries. A lower energy intensity index number indicates a more energy-efficient facility.

10 Includes spending for Imperial and ExxonMobil companies in Canada.

11 All Imperial employees as of December 31, 2017.

12 Statistics are collected from self-identification questionnaires.

13 Imperial's 2015 total value to community includes \$6.6 million in government contributions to the Institute for Oil Sands Innovation.

14 Represents combined donations from the company, employees and retirees.

15 Imperial no longer makes political contributions as on January 1, 2018.

16 For complete disclosure and additional information, see the 2017 Annual financial statements and management discussion and analysis.

# Learn more at [imperialoil.ca/sustainability](http://imperialoil.ca/sustainability)

Our corporate citizenship reporting is guided using the International Petroleum Industry Environmental Conservation Association (IPIECA) and the American Petroleum Institute (API) Oil and Gas Industry Guidance on Voluntary Sustainability Reporting. This report also cross-references Global Reporting Initiative (GRI) G3.1 indicators. These standards can be downloaded at [ipieca.org](http://ipieca.org) and [globalreporting.org](http://globalreporting.org). Learn more at [imperialoil.ca/index](http://imperialoil.ca/index).

**\*Cautionary statement:** Statements of future events or conditions regarding planned reductions to greenhouse gas emissions and economic enhancement in this release are forward-looking statements. Actual future results, including the amount and timing of emission reductions; the economic impact of new technologies; receipt, in a timely manner, of regulatory approvals; project plans, dates, costs and capacities; production rates; capital efficiencies and cost-savings; and capital and environmental expenditures could differ materially depending on a number of factors such as political or regulatory events, including changes in law or government policy; environmental regulation, including climate change and greenhouse gas restrictions; timely completion of planned projects including project management and schedules; availability and allocation of capital; response to unexpected technological developments; unanticipated operational disruptions; and other factors described in Item 1A of Imperial's most recent Form 10-K. Forward-looking statements are not guarantees of future performance and involve a number of risks and uncertainties, some that are similar to other oil and gas companies and some that are unique to Imperial. Imperial's actual results may differ materially from those expressed or implied by its forward-looking statements and readers are cautioned not to place undue reliance on them. Imperial undertakes no obligation to update any forward-looking statements contained herein, except as required by applicable law.

<sup>1</sup>Improvements, such as fuel economy, are based on Synergy-branded gasoline, where and when available, compared to gasoline meeting minimum Canadian government detergency standards. Actual benefits will vary depending on factors such as vehicle type, driving style and gasoline previously used.



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