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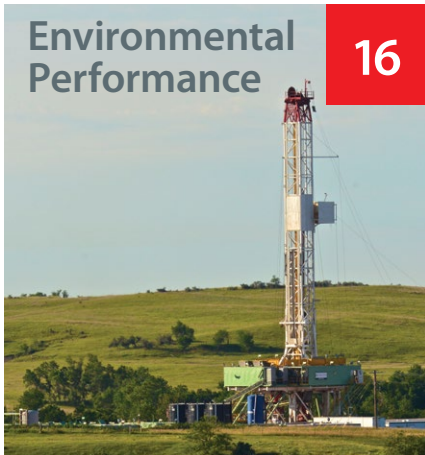


**Responsible Operations**

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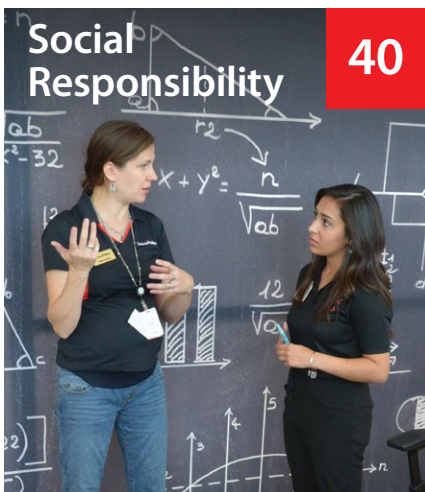
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Companies that produce oil and natural gas operate in a market undergoing continual change, while serving stakeholders whose expectations are also evolving. Our strategies must adapt to changing times and address multiple challenges. For example, in recent years we have taken a broad range of actions to withstand weak oil and natural gas prices by streamlining operations and improving efficiency. These actions have reduced our cost of supply — all the capital, overhead and operating expenses that it costs to produce oil and natural gas. And we've seen many of these actions also enhance our performance as a safe and responsible employer, community member and environmental steward.

We are developing innovative ways to recycle and reuse water; reduce our own energy and materials use in the production process; shrink the land footprint used for drilling sites; and decrease resulting emissions. These and other measures contributed to a projected 33 percent reduction in our annual adjusted operating costs in 2016 as compared to 2014 while lessening our environmental impact.

We are also pleased to report that 2016 was our best overall year yet in safety performance. We believe this improvement in performance stems from our focus on formally adopting Life Saving Rules and follow-up programs to verify and reinforce them in the field. This achievement is a credit to our people, who are working safely while exceeding operational targets.

Additionally, we further reduced our greenhouse gas emissions and updated our Marginal Abatement Cost Curve used to assess possible future reductions. Since 2009, we've reduced almost 7 million tonnes from business as usual by investing in and implementing cost effective technologies. We will continue to look for emission reduction projects across the global portfolio, but it is more challenging to find new economic opportunities.

Technological innovation in water management during 2016 yielded new fit-for-purpose water recycling and reuse projects for hydraulic fracturing applications and improved water recycle rates in the Canadian oil sands. To inspire future innovation, we have invested in the ConocoPhillips Center for a Sustainable WE<sup>2</sup>ST (Water-Energy Education, Science



Chairman and CEO Ryan Lance

and Technology) at the Colorado School of Mines. It enables faculty and students to work on overcoming the water challenges associated with oil and natural gas operations.

Sustainability also creates lasting value for our stakeholders. Our stakeholder engagement teams strive to understand the unique and evolving expectations of people living near our operations. Examples include:

- Efforts to develop local capacity among indigenous peoples in Timor Leste, Australia and Canada.
- Utilization of local, small and women-owned businesses in the U.S.
- Charitable support of community-based programs focused on health, education and conservation globally.

As we continually strive to position ConocoPhillips for future success, we are proud of our emphasis on sustainability, and of our ability to reduce costs while improving environmental and social performance. This report highlights these efforts. We remain focused on developing energy responsibly, while creating lasting value for communities and stakeholders.

*Ryan M. Lance*

# Positioning ConocoPhillips for Future Success

"We embrace our role in responsibly accessing, developing and producing oil and gas to help meet the world's energy needs, operating globally with a relentless focus on safety, social and environmental stewardship. By pursuing these objectives together with cost improvements, we are able to prioritize opportunities that can contribute to profitability and sustainability."

**Chairman and CEO Ryan Lance**

## Employees

**13,300**

## Capital Expenditures

**\$4.9** Billion

## Production

**1,569** Thousand  
barrels of oil  
equivalent per day

## Total Spend with Suppliers

**\$9.27** Billion

## GHG Emissions

**26.8** Million  
Tonnes CO<sub>2</sub>e

## Dividends Paid

**\$1.3** Billion

## Safety

**0.18** Total  
Recordable Rate

*As of Dec. 31, 2016.*

**Our work in 2016 includes projects that reduced costs, environmental footprint, emissions and material use, while benefitting communities.**

## Supplier Collaboration in Facility Design

New approach at our Surmont asset in the Canadian oil sands yields a 22% reduction in cost per well pair, with substantial environmental benefits:

- 30% smaller land footprint
- 65% less structural steel used
- Reduced environmental impact during decommissioning

*Read more on page 49.*



## Footprint Reduction for Wells and Infrastructure

A new water gathering and distribution system in the Delaware Basin of West Texas and Southeast New Mexico enables reuse of facilities throughout the program life cycle, shrinking the environmental impact, addressing community concerns, and reducing cost for future wells.

- 300 trucks removed from roads daily, enhancing safety and reducing cost by over 50%
- 70% smaller land footprint

*Read more on page 29.*



## Improved Technology with Flow Control Devices

Installation of flow control devices in the Canadian oil sands decreases our environmental impact and improves production.

- Lowers the steam-oil ratio, reducing energy use per well
- Improves bitumen recovery and revenue per well
- Up to 50% uplift in initial production rates

*Read more on page 23.*



## Reduced Emissions through Energy Efficiency

Optimization of compression and power usage decreases emissions from venting and exhaust at our Ekofisk and Eldfisk complexes offshore Norway.

- Emissions reductions of 55,000 tonnes of CO<sub>2</sub>e
- Reduced power costs and carbon taxes of \$57/tonne

*Read more on page 18.*



# Our Approach

Change is constant in the oil and natural gas industry. In 2016, we faced challenges including low prices and volatility, changing energy supply and consumption patterns, geopolitical instability and diverse stakeholder concerns. However, continuing to create enduring social, economic and environmental value wherever we operate provides a competitive advantage, regardless of industry conditions.

## Planning for action

As our business units address unique challenges and opportunities, our sustainable development [action plans](#) contain multi-year commitments and forward-looking qualitative and quantitative goals to manage key priority issues, and our policies and positions provide consistent governance on a range of issues. This complete management system tracks progress across our operations, guiding innovation and process improvements. Since we began using this approach in 2008, we have delivered GHG reductions of almost 7 million tonnes, developed water sourcing alternatives and reuse for hydraulic fracturing, expanded community and global stakeholder mapping and engagement, worked closely in key assets on respecting human rights and took actions to protect biodiversity both near our assets and through our charitable signature programs.

Our action plans are built around five key performance components to provide a complete and comprehensive approach.




We start by mapping and measuring our social and environmental footprint. This includes improving the quality of our environmental metrics and building social performance indicators. Managing our day-to-day operations and projects involves assessing and improving operating conditions and prioritizing and implementing technologies. One example from 2016 is the reduction of fugitive emissions. To manage our risks and opportunities we prepare for emerging issues and assess potential challenges. This includes periodic risk assessments for assets and at key decision milestones for projects. External engagement is critical to our success and includes listening, sharing best practices, and collaborating with a diverse group of stakeholders. This happens within organizations such as Canada’s Oil Sands Innovation Alliance (COSIA) and the Massachusetts Institute of Technology (MIT) Joint Program on the Science and Policy of Global Change or in meetings and town halls with stakeholders in communities close to our operations. Finally, programs such as internal knowledge sharing and human rights training build our capacity as a company to meet current and future challenges. Over time, our intention is to build a culture of sustainability as strong as our safety culture is today.

The company-wide plan provides both a “bottoms up” compilation of key actions from business specific action plans and a “top down” view of overall performance on key topics including [water](#), [biodiversity](#), [stakeholder engagement](#) and [climate change](#). Managing our environmental and social performance is integrated into

“We pay attention to sustainability at all levels of the organization, from project inception to operations. The existence of executive leader Sustainability Champions, who are charged with providing direction, advice, oversight and leadership for our performance, underscores our commitment.” **Senior Vice President Legal, General Counsel and Corporate Secretary Janet Langford Carrig**




business decisions to provide a holistic understanding of the alternatives. Our action plans outline specific tactics and goals to be completed within a three- to five-year span. Examples of voluntary and regulatory compliance actions, both completed and in-progress, are highlighted throughout this report.

 [Read more about Our Approach.](#)

### Sustainability governance

We have clear and effective governance structures in place throughout the company supported by standards, policies and guidelines. They are the foundation for how we operate. Our corporate governance structure includes

the Board of Directors, four board committees, and the Executive Leadership Team (ELT). The Public Policy Committee of the board provides oversight and guidance of our sustainability practices and performance. We have ELT champions for key issues in sustainability: overall implementation, stakeholder engagement, human rights, climate change, water and biodiversity. Strategic planning and implementation are reviewed by the Sustainable Development Leadership Team (SDLT), Health, Safety and Environment Leadership Team (HSELT), and stakeholder engagement leaders comprised of senior functional and operational leaders from across the business.

 [Read more about our approach to governance.](#)

## United Nations Sustainable Development Goals

The United Nations General Assembly has adopted 17 [Sustainable Development Goals](#) (SDGs) that set the global agenda for equitable, socially inclusive, and environmentally sustainable economic development. Our core

business of delivering energy to the world contributes directly to:

**Goal 7:** Ensure access to affordable, reliable, sustainable and modern energy for all.

**Goal 8:** Promote inclusive and sustainable economic growth, employment and decent work for all.

community investment activities support the other goals such as those on clean water, industry, infrastructure and innovation, and life below water and on land. SDG icons throughout the report indicate examples of our activities that support the goals.

We are working with IPIECA, the global oil and gas industry association for environmental and social issues, on the role the oil and gas industry can most effectively play to support the achievement of the globally-endorsed framework of the SDGs. We continue to monitor the goals as they move to international and national implementation.

**Goal 13:** Take urgent action to combat climate change and its impacts.

Many of our business and



## Ensuring ethical business practices

Our reputation and integrity depend on each employee, officer, director and those working on our behalf maintaining personal responsibility for ethical business conduct.

Our [Code of Business Ethics and Conduct](#), along with our [SPIRIT Values](#), provides clear direction to all employees, contractors and suppliers about how to behave ethically and in accordance with our standards. The Code covers a range of topics including business ethics, anti-trust, anti-corruption, gifts and entertainment and political involvement.

We continue to provide web-based training periodically to all employees and require annual confirmation of compliance with the Code. We encourage employees and contractors to ask questions and seek guidance about ethical concerns and to understand their responsibility to report actual or suspected misconduct. We have several confidential reporting mechanisms for employees, contractors, shareholders and the general public. In order to create an environment where we can report suspected violations without fear, our company does not tolerate retaliation of any kind. In 2016, we received guidance requests from employees and stakeholders across all our

businesses, investigated concerns and took appropriate action. Depending on the scale and type of concern, issues are elevated to provide appropriate management level oversight.



[Learn more about our approach to Business Ethics and Conduct.](#)

## Stakeholders

Active stakeholder engagement and dialogue is an integral part of our sustainability commitment. It is a key component of our action plans and our business units develop fit-for-purpose solutions to assess and address stakeholder priorities at all stages of operations. Our stakeholders are as diverse as the communities they live in or the organizations they represent. The breadth of the perspectives they provide give us a greater understanding of not only concerns and expectations, but also options and opportunities to create lasting value. We engage with our stakeholders in a range of ways as we work to improve our performance.

## Supporting industry dialogue

We actively work with different organizations and associations around the world to ensure we have a full understanding of the issues and trends facing our industry

## Stakeholder Priorities and Engagement

	Stockholders	Governments	Communities	Employees	Suppliers
Top Priorities	<ul style="list-style-type: none"> <li>• Governance</li> <li>• Financial sustainability</li> <li>• Climate change</li> <li>• Carbon asset risk</li> <li>• Water</li> <li>• Hydraulic fracturing</li> <li>• Human rights</li> </ul>	<ul style="list-style-type: none"> <li>• Job protection and creation</li> <li>• Environmental protection</li> <li>• Hydraulic fracturing</li> <li>• Energy supply</li> <li>• Regulation</li> <li>• Taxes and royalties</li> </ul>	<ul style="list-style-type: none"> <li>• Local employment</li> <li>• Economic development</li> <li>• Training</li> <li>• Emergency response</li> <li>• Air and water impacts</li> <li>• Noise and traffic</li> <li>• Safety</li> <li>• Human rights</li> <li>• Traditional land use</li> <li>• Hydraulic fracturing</li> </ul>	<ul style="list-style-type: none"> <li>• Safety</li> <li>• Compensation and retention</li> <li>• Environmental responsibility</li> <li>• Career development</li> <li>• Health and wellness</li> <li>• Company strategy</li> <li>• Ethics and compliance</li> </ul>	<ul style="list-style-type: none"> <li>• Performance expectations</li> <li>• Supplier diversity</li> <li>• Cost efficiencies</li> <li>• Local content development</li> </ul>
Engagement	<ul style="list-style-type: none"> <li>• Investor presentations and conferences</li> <li>• Analyst calls</li> <li>• Annual Shareholder Meeting</li> <li>• SEC filings</li> <li>• Socially Responsible Investor meetings and conferences</li> <li>• Tours</li> </ul>	<ul style="list-style-type: none"> <li>• Advocacy</li> <li>• Policy development</li> <li>• Industry and trade association representation</li> <li>• Regulatory compliance</li> <li>• Permit reviews</li> <li>• Regulatory audits</li> <li>• Regional development</li> <li>• Tours</li> <li>• Collaboration on community investment projects</li> <li>• Town halls</li> <li>• Multi-stakeholder initiatives</li> </ul>	<ul style="list-style-type: none"> <li>• Websites, media and social media</li> <li>• Community investment programs</li> <li>• Royalty relations</li> <li>• Community engagement</li> <li>• Local procurement</li> <li>• Employment</li> <li>• Landowner meetings</li> <li>• Town halls</li> <li>• Volunteering</li> </ul>	<ul style="list-style-type: none"> <li>• Performance management</li> <li>• Training and development</li> <li>• Internal communications</li> <li>• Intranet</li> <li>• Code of Conduct</li> <li>• Participation on trade and industry association committees</li> <li>• Safety meetings</li> <li>• Networks of Excellence</li> <li>• Ethics Helpline</li> <li>• Volunteering</li> </ul>	<ul style="list-style-type: none"> <li>• Bid process</li> <li>• Contract negotiations</li> <li>• Project management</li> <li>• Supplier forums</li> <li>• Annual performance reviews</li> </ul>



### Issue Priority Matrix



#### Responsible Operations

- Safety & Health
- Business Ethics
- Governance
- Transparency & Corruption
- Workforce


#### Environmental Performance

- Carbon Asset Risk
- GHG Emissions
- Carbon Policy
- Methane
- Sensitive Environments
- Water Sourcing
- Water Disposal

#### Social Responsibility

- Stakeholder Engagement
- Local Content
- Community Impacts
- Human Rights
- Indigenous Peoples

and company. The benefits we receive from trade and industry associations range from best practice sharing to technical standard setting and issue advocacy. We do not always agree with all positions taken by the organizations that we work with. For example, we may not always agree with the positions they take on climate change or regulatory reform. In these cases, we make our views known and seek to influence their policy positions. We have strong governance around our association activities and [annually report](#) on trade association memberships with dues in excess of \$50,000. We also work with many other local organizations around the world.

 [Learn more about our collaboration with organizations and associations.](#)

### Prioritizing reporting topics

Our sustainability reporting focuses on the environmental, social and governance (ESG) issues that matter to our business and our stakeholders. To select content for our 2016 sustainability reporting, we used a process involving:

**Identification:** Through meetings and discussions with key stakeholders, we identified and gained an understanding of important topics. We also received feedback

on our 2015 report and considered international reporting guidelines and rating agency survey questions. This was aligned with topics important to our business strategy to develop a comprehensive list.

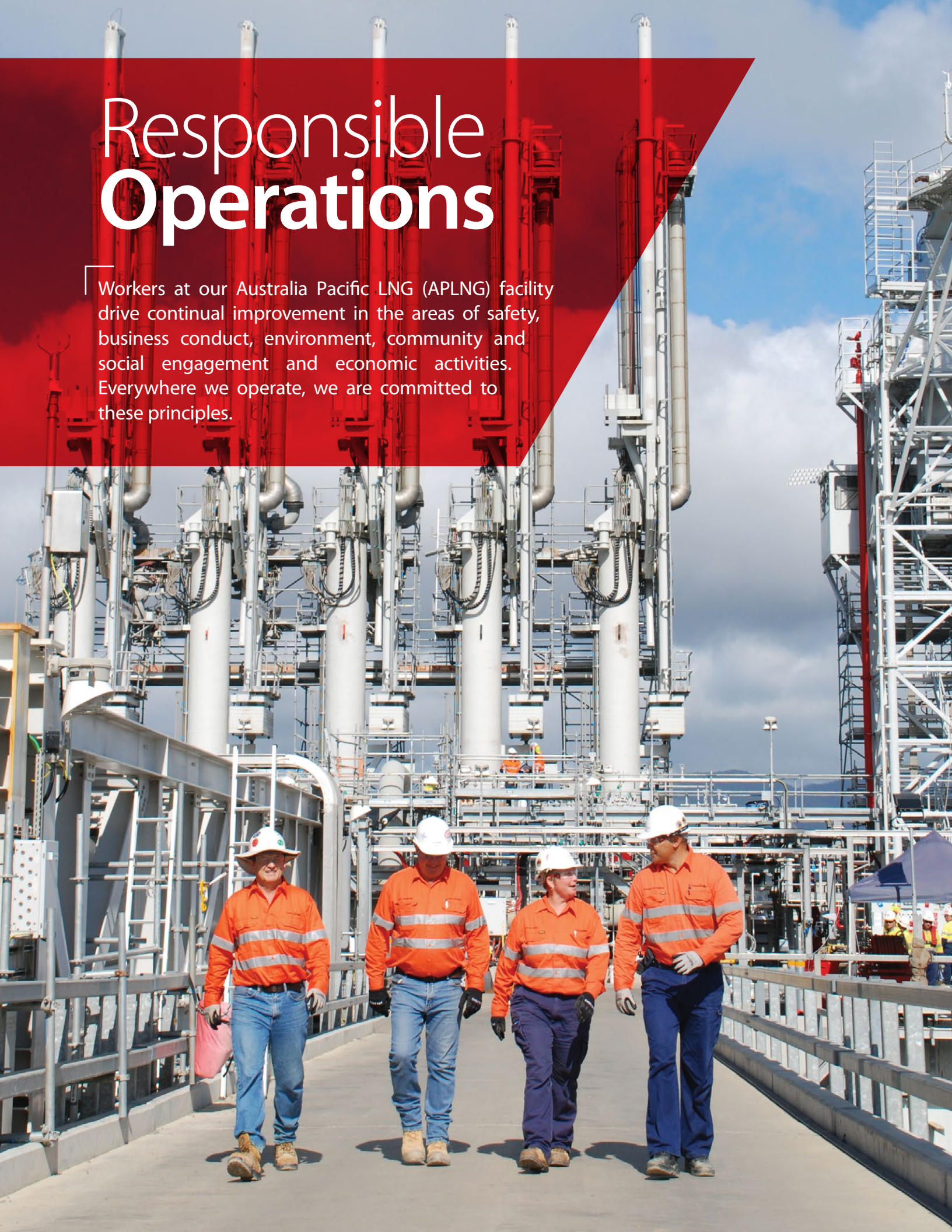
**Prioritization:** Subject matter experts from key functions in our organization then provided further insight and prioritized topics based on level of interest or concern to key stakeholders and strategic importance to the company. We validated these priorities in our ongoing engagements with external stakeholders.

**Final Prioritization:** Topics with the highest priority are included in the annual sustainability report and lower priority issues are covered less comprehensively. Foundational information with additional details are also on the website. Our Annual Report and financial reporting also include environmental and social risks when they reach a “material” level as defined by regulatory requirements. Information about issues deemed material to our investors may be found in our [Security and Exchange Commission \(SEC\) filings](#).

In 2016, we have included governance as a priority and reframed our water priorities to include water sourcing and water disposal.

# Responsible Operations

Workers at our Australia Pacific LNG (APLNG) facility drive continual improvement in the areas of safety, business conduct, environment, community and social engagement and economic activities. Everywhere we operate, we are committed to these principles.





# Safety

Safety is core to how we operate. Everything we do depends on the safety of our operations, our people and the communities around us. Across our operations we want a work environment in which safety is deeply embedded in our culture. This is guided by our long standing principle that “our work is never so urgent or important that we cannot take time to do it safely and in an environmentally responsible manner.”

## Our focus

Our goal is to prevent all injuries, occupational illnesses and incidents. The framework through which we safely manage our operations, the Health, Safety and Environment (HSE) Management System Standard, emphasizes occupational safety, risk management, emergency preparedness and environmental performance, along with an intense focus on process safety.

In 2016, our workforce continued to build momentum as we further embedded effective programs into our operations through the following actions:

- Aligned our policies and programs with a risk-based operating model, and implemented an audit strategy focused on high-risk issues.
- Continued implementation of the Process Safety Strategy with focus on technical and process safety defenses.
- Continued implementation of Learning Teams to better learn from successes and challenges, and where defenses can be built or modified to strengthen the system.
- Enhanced integration of the 8 Life Saving Rules within the company’s global operations through field verification.
- Continued strengthening of crisis and emergency management capabilities.

## Personal safety

Building on our strong personal safety performance in 2015, we had no fatalities and once again broke records in 2016, with significant reductions in serious incidents and workforce recordable injuries.

# 17%

Serious Incident Rate improvement vs. 2015

# 0.18

Total Recordable Rate, improvement of 11% vs. 2015

A continued focus on the Life Saving Rules in 2016 is believed to have contributed to the improvement in our Serious Incident Rate. Business units developed and implemented field verification programs to verify that work is being done according to minimum requirements, and learnings are shared to ensure effective programs are in place.

## Process safety

A process safety incident is any unplanned release of hazardous material. Under industry standards, we measure and report according to the significance



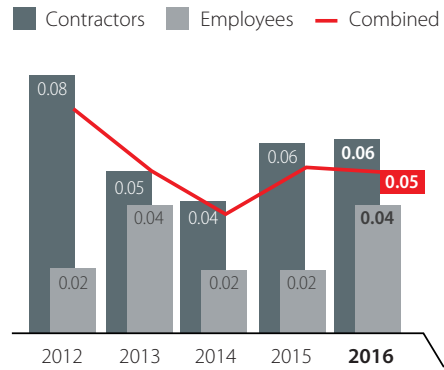
[Read our Health, Safety and Environment Policy.](#)

of the incident, with Tier 1 as the most significant potential. With implementation of our global Process Safety Strategy, process safety awareness continues to build among the workforce. However, we experienced two serious Tier 1 Process Safety Events in 2016: a condensate leak from a pipeline in Alberta, Canada, and a compressor fire in New Mexico, United States. We are using learning teams to better understand the context surrounding these events so that we can strengthen our systems and prevent similar incidents in the future. We continue to place significant emphasis on process safety competency and preventing losses of containment in our operations.

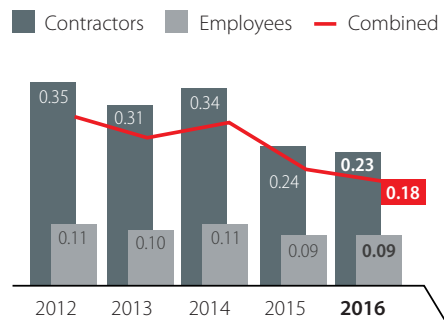
We are always looking for ways to better manage our health, safety and environmental performance. In 2016, we focused on high-risk issues by revising policies, programs and our audit strategy to be more fit-for-purpose. Rather than a "one size fits all" approach, we prioritized activities and assets that posed the highest risk, and focused our improvement efforts on them.

Metrics continue to be an important part of managing our performance. By combining leading metrics like Life Saving Rules verification, leadership visibility, auditing and process safety defenses with lagging metrics like Total Recordable Rate and Significant and High Risk Incident Rate, we are able to evaluate a more balanced view of performance and focus on activities designed to strengthen barriers and ultimately, prevent incidents.

### Workforce Lost Workday Case Rate



### Workforce Total Recordable Rate



### Spills

We take numerous precautions to reduce the risk of a spill in our operations. Design, operation and maintenance of our facilities plays a key role in protecting the environment where we operate. Our global



A safety meeting at the Helena plant in Texas.

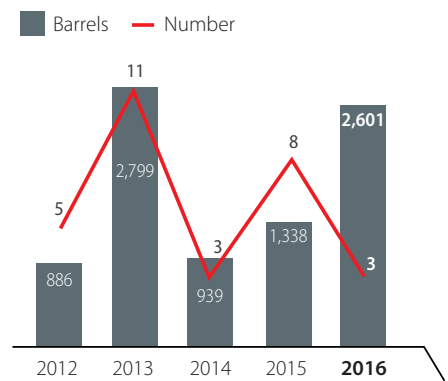
Process Safety Strategy focuses on enhancing training, governance, documentation and communications to prevent spills and releases. We are also focused on strengthening our oil spill response capability through our systematic, multi-tiered approach to emergency preparedness and crisis management.

In 2016, there was a significant reduction in the number of spills greater than 1 barrel (50 percent reduction) and greater than 100 barrels (63 percent reduction). All hydrocarbon spills are considered serious, with those impacting a sensitive area and those greater than 100 barrels immediately reported to management. The spill volume increased in spills greater than 1 barrel and greater than 100 barrels due to the pipeline release in Canada. In 2016, we experienced three hydrocarbon spills greater than 100 barrels. Asset integrity programs, spill prevention teams and monitoring activities are credited for the overall improved performance since 2013.

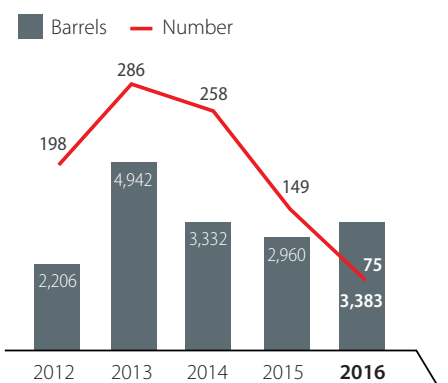
**Prevention, preparedness and response**

We place the highest importance on preventing spills and losses of containment. Recognizing that our people play a significant role in preventing spills, we train our personnel regularly, carefully select the right contractors and execute our operations in a manner that maintains safety and environmental stewardship. We incorporate proper well design, critical well reviews, hazard and operability studies, spill risk analyses and

**Volume of Spills >100 BBL**



**Volume of Spills >1 BBL**



**Field verification is key**

The 8 Life Saving Rules were introduced in 2013 to reduce the risk of serious incidents while workers perform critical, high-risk activities, and to save lives. They define how we work and communicate expectations to employees, contractors and partners. While minimum requirements have always been associated with each rule, we've taken it one step further by implementing a system to ensure that our workforce is working within those requirements.

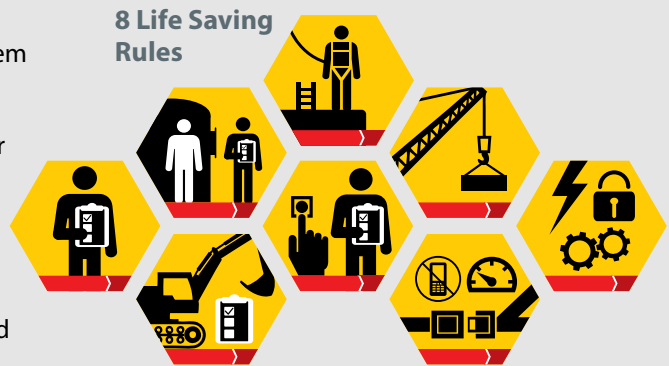
All operations are required to perform verifications of the Life Saving Rules in the field. This means performing sample checks periodically to verify workers are performing work according to the minimum requirements and appropriate controls are in place. The verification process can take different forms, from a paper checklist to an app or other existing methods, but we've learned that an effective

field verification system engages workers in meaningful dialogue and results in a better understanding of work and expectations. This process helps create a culture of verification, where controlled work is a habit.

Company and contractor management reviews data trends and analysis of Life Saving Rules verifications each month to assess areas for improvement. As an example, more than 1,600 Life Saving Rules verifications were performed in Alaska in 2016, and analysis of these verifications identified an opportunity to develop enhanced energy isolation training.

"Our field verification process is a two-directional learning opportunity,"

said Scott Fahrney, superintendent of fieldwide operations on Alaska's North Slope. "It is something that we use to more effectively communicate the risks involved in the job, and how to appropriately mitigate those risks. At the same time, we hear back from the workers about what their challenges are, and how we can improve the system to address those challenges."



**SPOTLIGHT**



[View "Field Verification in Alaska."](#)

“During a time in our industry where activity and oil prices have fluctuated dramatically, we’ve remained steadfast in our commitment to operating in a safe and environmentally responsible manner. Our strong health, safety and environmental performance reflects that commitment.” **Health, Safety and Environment Vice President Dirk Faveere**



task specific job hazard analyses to identify and mitigate our risks.

Preventing spills or incidents is our primary objective. However, if a spill or other unplanned event occurs, we respond immediately with a robust set of plans and processes designed to ensure an effective response. For any incident, our response priorities are people, the environment, assets and our reputation, in this order.

We dedicate significant resources to enhancing our emergency preparedness and response capabilities. As part of our Global Incident Management Assist Team (GIMAT), more than 120 employees received third-party

certified training in the internationally recognized Incident Command System (ICS). We conducted three regional emergency response exercises in Australia, the United States and Norway. The Norway exercise was carried out in collaboration with Statoil where our GIMAT integrated directly into Statoil’s emergency response structure. For further assurance, we subscribe to land, on-water and subsea oil spill and emergency response entities, participate in mutual aid agreements and collaborate with regulators and external agencies which may further augment and support a response, if needed. We are also a founding member of the Marine Well Containment Company (MWCC) and Subsea Well Response Project.

**SPOTLIGHT**

## This is not a drill: Emergency response in Canada

In May and June 2016, two significant emergency events impacted our Canadian operations: a wildfire in northern Alberta and a pipeline release in western Alberta. The emergency response to both incidents demonstrated ConocoPhillips Canada’s objective to safely protect people, the environment and the company’s assets.



Wildfire at Fort McMurray

In May, a massive wildfire in the Fort McMurray area threatened our Surmont facility. At one point the fire came within less than one mile from a well pad. We safely evacuated 800 personnel, including 200 members of the public, from the Surmont area to a safe location hundreds of miles away.

With significant effort and teamwork from the site Incident Command Team, employees, contractors and the Calgary Emergency Management Support Team (EMST), the Surmont facility was safely shut down. Staff and equipment were deployed for more than 20 days to monitor the facility and protect critical infrastructure from being impacted by

the wildfire. This dedicated team also planned and executed a safe remobilization and facility startup once the evacuation order was lifted.

In early June, the emergency response team was activated when a leak was discovered on a condensate pipeline in the Resthaven field, a remote area in western Alberta. The critical objective of the emergency response was to protect the environment and minimize potential impacts of the release. The location’s remote and hilly terrain, along with extremely wet conditions, created significant challenges for responders. Under the direction and teamwork of the Incident Command Center, with support from the Calgary EMST, a response consisting of more than 200 personnel and significant equipment was deployed to help contain and clean up the spill. The response team successfully mitigated environmental impacts and implemented a cleanup and remediation plan with approval from the regulators.



# Workforce

We invest in our employees to develop a diverse, talented and engaged global workforce that drives our business success.

## Our workforce

In 2016, our company experienced significant changes. We took steps to adapt to the challenging price environment and ensure we have the necessary skills to support our long-term strategy. At year-end, our global workforce included approximately 13,300 employees. This reflects a 16 percent workforce reduction and internal restructuring to position our company to operate in a world with greater price volatility.

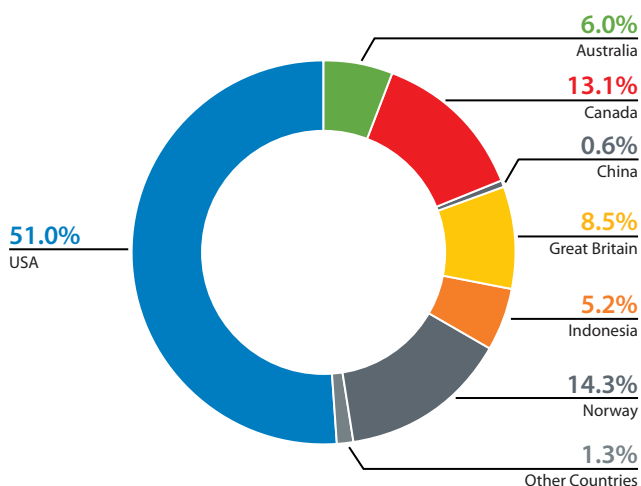
## Diversity and inclusion

We respect and value the contributions and differences of every individual and use these to create competitive advantage, personal growth and, ultimately, business success. By striving to reflect the global communities in which we live and work, we gain an improved understanding of — and are better positioned to meet our stakeholders' expectations and needs.

To help foster a diverse workforce and create an inclusive environment of mutual respect, trust and understanding, we support 14 employee networks with more than 6,200 employee participants and numerous chapters across 10 countries. Open to all employees, these groups provide personal and professional development, networking and community involvement opportunities. An executive sponsor helps guide, promote and mentor each network. Networks like our Native American Network in Oklahoma and the Aboriginal Network in Canada reflect local communities near our operations.

All employees, including non-members, are invited to participate in various network-sponsored community and development events. New networks and chapters are created as a result of employee interest and initiative, with support from Human Resources. In 2016,

## Payroll Country Distribution



the Women's Network launched a new chapter in our Western Australia business unit, which includes members across offices in Perth, Darwin and Dili. Two leadership team members, one male and one female, sponsor the network. The Australia chapter joins existing chapters in Houston, Bartlesville, Anchorage, Calgary and Midland.

## Learning and development

Through a combination of on-the-job development, networking, formal training and feedback, we strive to attract, develop and retain employees to enhance our business success.

In 2016, our employees completed more than 275,000 hours of online and in-person training, averaging 19 hours per person. We increased the amount of virtual training, utilizing commercially available technology and our own products, to offer global training across all time zones to all business units. We also increased our application



Members of the Asian American Network celebrate 25 years. 2016 also marked the 25<sup>th</sup> anniversary of our Women's Network.

*"Good for You!" helps employees improve their health through programs that reduce risks and improve overall well-being.* **Chief Medical Officer**  
**Dr. Paul Hodgins**



of eLearning courses, independent learning programs, external resources, instructor-led courses and virtual training offerings. Individual business units and functions also

offered supplemental employee development opportunities and training throughout the year.

During our annual performance management process, supervisors and employees work together to set business and development goals, discuss progress and receive feedback. All employees can utilize our 360 survey tool to gain feedback on individual strengths and development opportunities.

Our 17 Talent Management Teams (TMTs) are responsible for managing — either globally or regionally — shared skills critical to business success. Each TMT is comprised of senior representatives from business units and corporate functional organizations. Collectively, TMTs enable our company to build high-performing teams.

### Wellness

Strong health and wellness is good for our employees and therefore good for our company. Through our global *Good for You!* campaign, we provide biometric screenings, as well as nutrition and physical activity programs



We aim to recruit and train local citizens for jobs at all levels across our company. In 2016, Indonesian nationals represented 98.6 percent of our ConocoPhillips Indonesia employee base.



## Wellness Programs Improve Employee Health and Well-Being

**70%**

Global participation in biometric screening

**4,000**

Employees, family members and contractors engaged in *Energy in Action!*

**10%**

Decrease in obesity among global employees in past 3 years

**26%**

Decrease in blood pressure among global employees in past 3 years

**8%**

Decrease in cholesterol among global employees in past 3 years

aimed to raise awareness and reduce health risks. Since the program's inception in 2012, obesity has decreased 10 percent, high blood pressure decreased 26 percent and high cholesterol decreased 8 percent among our global employees.

In 2016, almost 4,000 employees, family members and contractors participated in *Energy in Action!*, a global event promoting fitness, fun and friendly competition. Participants earned points by tracking physical activities online over an eight-week period. Participants logged an average of 47 hours of exercise during the challenge, for a

global total of approximately 180,000 hours.

Our various locations provide individual programs to complement our global wellness offerings. For example, in 2016 our Canada business unit launched a "Five-in-Five Campaign" to promote mental health and resiliency. Participants shared stories of real-life challenges so others could relate and discuss their experiences. In addition, many locations encouraged proper nutrition by hosting farmer's markets, healthy nutrition presentations and programs. In the U.S., employees who participated in our 2016 wellness programs lost an average of 10 pounds.



*Energy in Action!* participants at Bayu-Undan conduct an exercise session during their "Biggest Loser" competition.



# Environmental Performance

A drilling rig operates in the Bakken Formation. We set high environmental standards to responsibly develop energy needed for economic growth and development globally.





# Climate Change

We are committed to addressing concerns related to greenhouse gas (GHG) emissions while providing the energy needed to support global economic growth and well-being. Achieving the goals of the 2015 Paris Agreement while providing affordable energy to everyone, as set out in the United Nations Sustainable Development Goals, will require collaboration between governments, citizens and businesses, including the natural gas and oil industry.

## Our focus

We manage several of our [high priority issues](#) — GHG Emissions, Methane, Carbon Policy and Carbon Asset Risk — through our Climate Change Action Plan. Our multi-year, comprehensive plan is refreshed annually as part of our long-range planning process. As goals and actions are identified, they are assessed against GHG emission price forecasts, commodity price forecasts, and our position statements for climate change and sustainability.

Our current [Climate Change Action Plan](#) includes 72 specific actions and projects. Priorities related to managing climate change risks in 2016 included:

- Identifying and carrying out emission reduction projects.
- Engaging with external agencies on future regulation that is practical and both economic and environmentally effective.
- Monitoring and engaging in proposed legislation and regulations across the globe following the Paris Agreement.

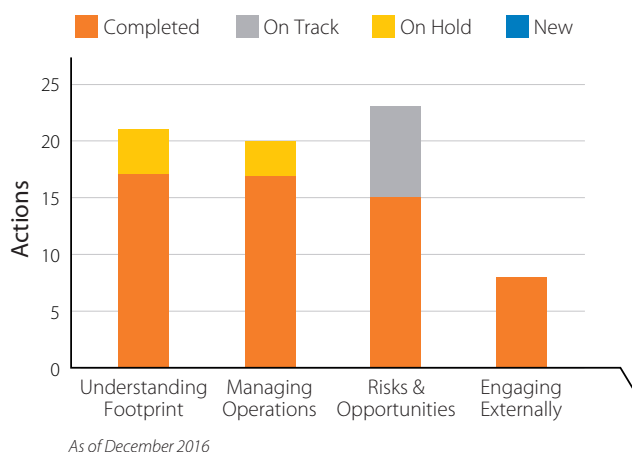
## Climate Change Action Plan

**57** actions completed

**8** actions on track

**7** actions on hold

## 2016 Action Plan Status



Some of the actions completed in 2016 include work with the province of Alberta's Climate Change and Emissions Management Corporation (CCEMC) and projects to reduce GHG emissions from Norway's Greater Ekofisk Area. On track activities include our adaptation resiliency planning for our major business units that includes updating physical climate change risk assessments, and plans to be able to influence other industry operators where we see opportunities to reduce climate related risk. We deferred our plans to develop a global strategy for offsets and allowances due to the repeal of the Australia carbon legislation, thus they will be reviewed annually in the context of the global regulatory environment.



“It’s important to continue to reduce emissions while we invest in technological solutions for future step-changes. It takes leadership throughout the organization and commitment to implementing our action plan to strengthen our competitive position and drive cleaner, lower cost performance.” **Strategy, Exploration & Technology Executive Vice President Matt Fox**

### GHG emissions

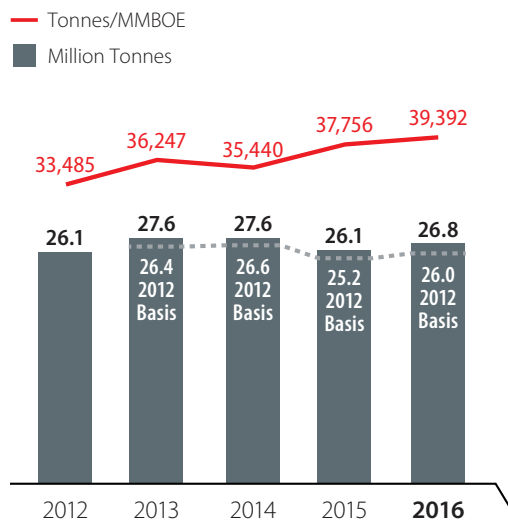
In 2016, total CO<sub>2</sub>e gross operated GHG emissions were approximately 26.8 million tonnes, an increase of about 2.7 percent, or 0.7 million tonnes, from 2015. We reduced our emissions by 114,000 tonnes CO<sub>2</sub>e from business-as-usual, bringing our total reduced or avoided to 6.9 million tonnes since 2009. These actions have kept our emissions nearly flat at 26-27.5 million tonnes since 2009. Primary drivers for increased CO<sub>2</sub> from operations in 2016 were startup of the Australia Pacific LNG (APLNG) operation, rampup of Surmont 2 Oil Sands operation in Canada, and venting of CO<sub>2</sub> in Lower 48, which was previously sold for use in enhanced oil recovery. This was partly offset by reductions from dispositions and discontinued operations. While overall emissions increased slightly, methane emissions were reduced 14 percent from 2015. Primary drivers for reduced methane emissions were asset dispositions in Lower 48 and Canada, partly offset by regulatory reporting changes in Lower 48. Emissions intensity increased 4.3 percent due to our increased emissions, as well as a 1.7 percent decrease in gross operated production.

### Working to reduce our emissions

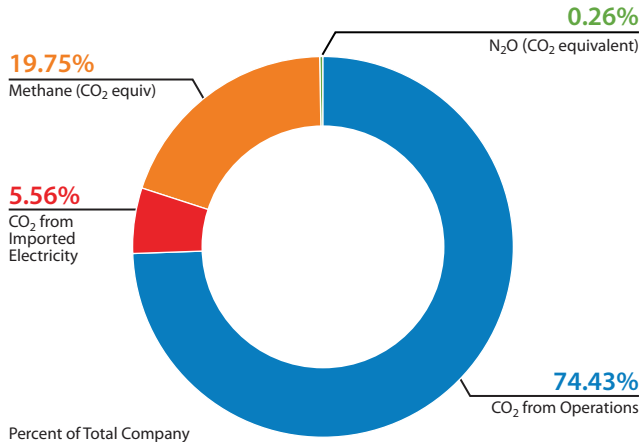
Energy efficiency and technology implementation were key to managing our GHG emissions in 2016, even as we adjusted our level of activity amid the continued downturn in prices of natural gas and oil.

In Norway, we exceeded our business unit target and achieved emission reductions of 55,000 tonnes of CO<sub>2</sub> equivalent at our Ekofisk and Eldfisk complexes, mainly through the optimization of compression and power usage. The modification of the water injection system at Eldfisk allowed us to shut down one of the water injection turbines, which reduced emissions by 17,500 tonnes of CO<sub>2</sub> equivalent for the latter half of the year. The projects also helped us to reduce power costs and carbon taxes of \$57 per tonne.

Total GHG Emissions (CO<sub>2</sub> Equivalent)



Total GHG Emissions



**Methane leak detection and repair**

Managing methane, which is the primary component of natural gas, is one of our key priorities. Reducing methane emissions, even the small releases known as “fugitive emissions,” is a crucial aspect of our global well management principles and where appropriate we use technology to help. Audio visual olfactory (AVO) inspections are routinely performed as part of operator rounds to identify any leaks or other issues. Leak detection and repair (LDAR) is a work practice used to identify and quickly repair leaking components, including valves, compressors, pumps, tanks and connectors, to reduce GHG emissions and increase efficiency. At many of our locations, especially those with control devices and compressor stations, we instituted a periodic (typically annual) voluntary fugitive monitoring program using forward looking infrared (FLIR) optical gas imaging (OGI) cameras to enhance our LDAR.

In the San Juan Basin in the U.S., we implemented several emission reduction projects and programs that resulted in reducing emissions by almost half since 2011. This included a voluntary leak detection program, replacing high bleed pneumatic devices with lower bleed pneumatics, plunger lift optimization and compression optimization projects. These helped reduce or prevent approximately 9 billion cubic feet of methane emissions from our facilities in the U.S. Lower 48 over the past six years and reduced our global methane emissions by 12.8 percent.

We also investigated new technologies for more effective and lower cost leak detection, including the use of



Jack Birchfield, production supervisor, inspects a wellhead in the San Juan Basin in New Mexico.

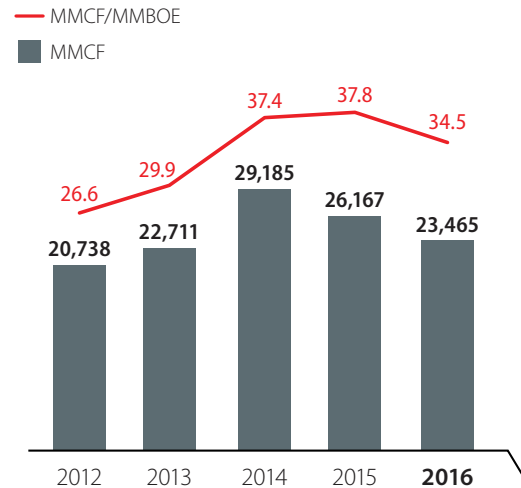
satellite imaging and drone flyovers. These pre-commercial evaluations have not resulted in a practical solution to date, but we will continue to pursue innovative solutions.

**Flaring**

Flaring is a process for safely burning off excess gases that might otherwise pose a hazard.

In 2016, our total volume of flared gas was 23.5 BCF, a decrease of 10 percent from 2015. Although post-combustion flaring emissions represent less than 6 percent of our GHG emissions, reducing flaring continues to be a priority. The decrease is primarily related to improved pipeline availability to export gas for sales which was partly offset by startup flaring at the APLNG facility. Our rate of flaring per unit of production decreased by 9 percent to 34.5 MMCF/MMBOE and we continue to have improvement goals in key assets through our action plan.

**Total Flaring Volume**



**Operational improvements**

In 2016, along with other operating companies in North Dakota, we signed a consent decree with the [North Dakota Department of Health](#) (NDDOH) that ensures our compliance with existing emission limits from storage tanks and associated vent lines. The NDDOH is the regulatory body that oversees air quality in the state and the consent decree is a settlement for prior alleged emissions exceedances. A major aspect of the consent decree is implementation by the companies of a semi-annual LDAR program using FLIR optical imaging cameras.

### Evaluating further reduction projects

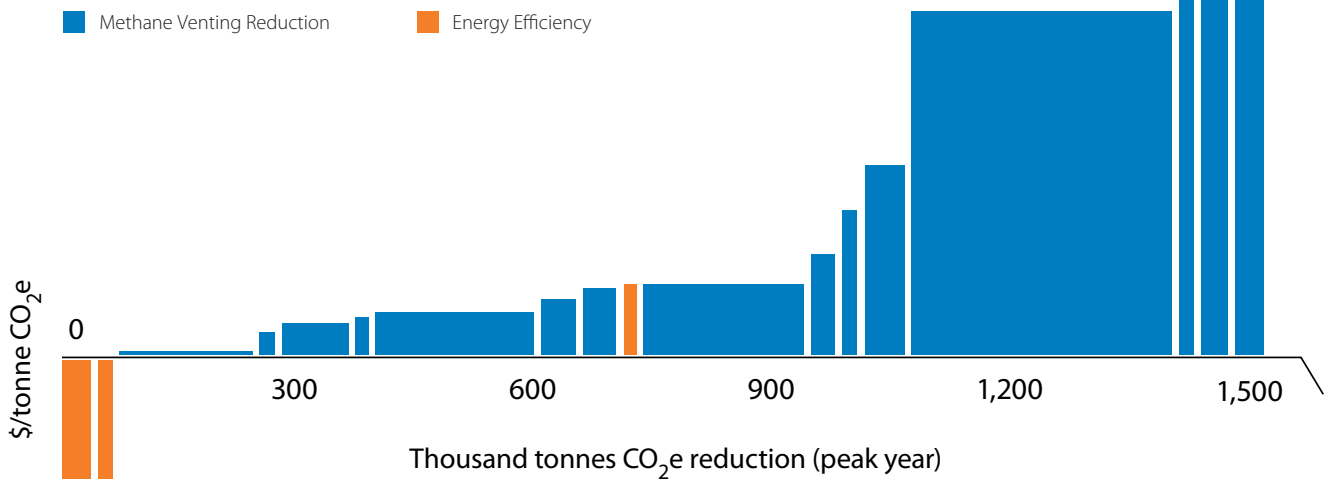
One goal in our action plan was to redesign and refresh the Marginal Abatement Cost Curve (MACC) to evaluate emissions reductions projects across the company in 2016. The tool helps to highlight and prioritize emissions reduction projects, and has become increasingly important as we have already reduced our annual emissions by almost 7 million tonnes since 2009. The curve plots a breakeven cost of carbon that considers capital cost, operating costs, and potential increased revenue for each project, against the cumulative GHG emissions that can be reduced. For example, a project that installs a compressor to move previously flared gas into a sales pipeline will have an upfront cost, increased expenses to operate and maintain, and increased revenue from natural gas sales. Depending on the volume and natural gas price, this could lead to either a positive or negative breakeven cost of carbon associated with executing the project.

The redesigned process included initial data gathering for insights into project viability such as planning time, technology availability, partners and permitting. We performed more detailed economic analysis on the more promising projects to see which might achieve the most emission reductions at the lowest cost, if implemented.

Our business units submitted nearly 50 projects to be screened for consideration. Of those projects:

- 38 percent were included on the final curve for comparison.
- 21 percent have an excessively high breakeven cost and will be provided as input to operations and technology development to seek ways to reduce costs.
- 41 percent were excluded for other reasons (such as relating to assets that were being, or would be, divested before the detailed planning for the emission reduction projects could be completed).

### Marginal Abatement Cost Curve



Projects below the line are economic and have a negative breakeven cost of carbon. The project on the left side of the chart, Flow Control Devices at Surmont, has already been included in our Long-Range Plan for capital investment. Projects above the line are not economic — the taller the bar, the higher the breakeven cost of carbon. The width of the bar indicates the annual emissions saving that would occur should the project be undertaken — the wider the bar, the greater the emission saving.

The screening process indicated that our most cost-effective emission reduction projects have already been carried out. Even if it were practical to do these additional 40-plus projects in one year, the associated emissions reductions would be lower than our historical average. The number of emissions reduction projects in our inventory has been declining over the past four years as regulations have increased and discretionary opportunities have been more limited. We will need to tap into creative operational solutions, new monitoring and measurement technology, and new operating technologies to further reduce emissions.

Our next step is to look at more details for the lower cost projects and plan our future capital investments. In addition to our producing assets, we also consider projects that are not yet in operation. By evaluating emission reduction projects at early stages in the life cycle, we may be able to reduce the cost of emission reductions and reduce possible future compliance costs by avoiding expensive retrofits.

 [View our global progress.](#)

## SPOTLIGHT

### Recognition for energy efficiency

We received an Emerald Award for implementing and sharing energy efficiency innovation in Canada. The award honors environmental initiatives by corporations, individuals, not-for-profit associations, community groups and governments. Our Western Canada business unit (WCBU) was lauded in the Large Business category for the work of the Energy Efficiency team, now known as the Emissions Management Engineering (EME) team. Our Energy Efficiency

program was established in 2008 to implement energy efficient technology at many of our well sites and facilities, to reduce costs and to make a significant reduction in our GHG emissions footprint. With the assistance of a grant from the Climate Change and Emissions Management Corporation (CCEMC) in 2011, this program has implemented more than 1,870 projects, for a cumulative emissions reduction of over 470,000 tonnes CO<sub>2</sub>e per year — the equivalent of taking

about 98,000 cars off the road. These projects include technologies that capture and utilize waste heat and normally-vented methane, improve control of the air-fuel ratio of compressor station engines, and replace natural gas-driven pumps with solar-powered alternatives. To expand the impact, we hosted a workshop for more than 200 representatives from peer companies, service providers, regulators and other stakeholders to share learnings from our program.



Gas plant in Alberta, Canada.



**Incentivizing innovation**

Eight of Canada’s Oil Sands Innovation Alliance (COSIA) member companies, led by ConocoPhillips Canada, partnered with NRG Energy, a leading integrated power company in the U.S., to back a global competition to research technologies to capture and transform CO<sub>2</sub>. The NRG COSIA Carbon XPRIZE challenges the world to reimagine what we can do with CO<sub>2</sub> emissions by incentivizing and accelerating the development of technologies that convert CO<sub>2</sub> from an environmental waste into valuable products.

Launched in September 2015, the \$20 million NRG COSIA Carbon XPRIZE received 46 entries before the field was narrowed to 27 semi-finalist teams in October 2016. Among the teams competing are innovative carbon capture technology companies, top-tier academic institutions, nonprofits, and new startups, from Canada, China, India, Switzerland, Scotland and the United States. Semi-finalist teams will test converting CO<sub>2</sub> into various products like enhanced concrete, biofuels, toothpaste, nanotubes, fish food and fertilizer.

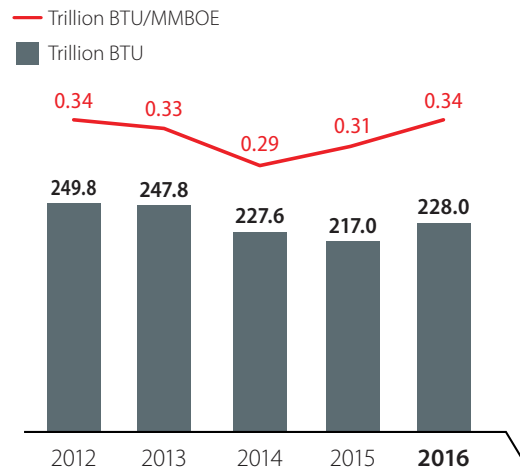
The four-and-a-half-year competition gives finalists the opportunity to demonstrate their technology at commercial scale under real-world conditions at the Integrated Test Centre in Wyoming for the coal track or at the Alberta Carbon Conversion Technology Centre in Calgary for the natural gas track.

Ten finalists will be announced in early 2018 and will share a \$2.5 million purse to test their technologies. Ultimately, the winning team in each of the natural gas and coal tracks will be awarded a \$7.5 million grand prize in the spring of 2020.

**Energy efficiency**

Total energy consumption in 2016 was approximately 228 trillion British Thermal Units (BTUs), an increase of about 5 percent. Of the 2016 consumption, about 97 percent was from combustion of fuel for our own energy use and about 3 percent was from purchased electricity. Combustion energy increased about 5 percent due to startup of the APLNG facility and the ramp up of Surmont 2 operations, partly offset by a change in calculation methodology in Lower 48 and discontinued operations. Purchased electricity increased about 8 percent due to the rampup of Surmont 2 operations, partly offset by reductions in Lower 48. Intensity, expressed as Trillion BTU/MMBOE, increased 9 percent due to the higher energy demands and lower operated production volumes.

**Total Energy Use**



**Monitoring and engaging in climate policy**

We believe that governments will continue to act to address global climate change concerns. Therefore, we recognize the importance of playing a constructive role in public policy dialogue to devise practical, equitable and cost-effective approaches to reduce GHG emissions and address the implications of climate change so that we can continue to succeed in a low carbon economy.

We have sponsored the Massachusetts Institute of Technology (MIT) Joint Program on the Science and Policy of Global Change for several years. The program conducts research, independent policy analysis and public education related to global environmental change. In 2016, MIT program directors visited ConocoPhillips to meet with our ELT and climate change issues working group. Engagement with research establishments such as MIT helps us to learn about these issues and share knowledge throughout the organization.



**SPOTLIGHT**

## More efficient use of steam in the oil sands

We continue to implement the use of flow control devices (FCDs) in the Canadian oil sands to improve our economic and environmental performance. The devices have contributed to a 50 percent production uplift early in well life and improved steam-to-oil ratio (SOR) by up to 10 percent. The lower steam to oil ratio means we're producing more oil for the same amount of steam, lowering our GHG emissions per barrel of oil produced.

In Steam Assisted Gravity Drainage (SAGD) operations, FCDs may be employed in both the injector and producer wells. Using FCDs moves the steam across the reservoir to

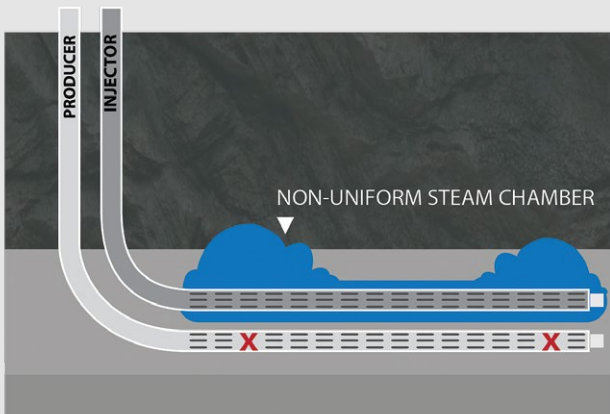
more efficiently heat the bitumen and improve how it flows into the well bore, especially in areas of complex geology. Increased use of FCDs has also reduced circulation time by 25 percent, which allows wells to start producing more quickly while decreasing our GHG emissions. FCDs also allow us to produce bitumen during the circulation period; we've seen about an 80 percent increase in production at conversion to SAGD from circulation, meaning that the wells are effectively paying for themselves before they officially begin production.

"Using less steam helps us protect the environment by reducing SOR and

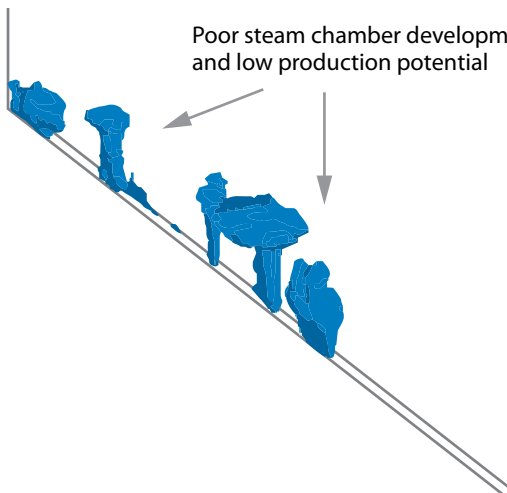
therefore greenhouse gas intensity levels. It's good news on all fronts," states Oil Sands Development and Subsurface Vice President Nick McKenna.

We have been exploring FCDs for SAGD since 2006. A 2012 lab study in Alberta led to understanding the physics of FCDs such that we can now design FCDs specifically for SAGD. We lead the industry in both technology and laboratory testing and are seeing impressive performance results from FCD implementation.

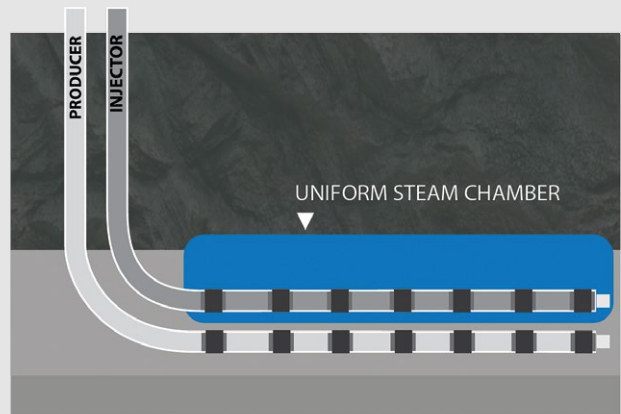
### Without FCDs



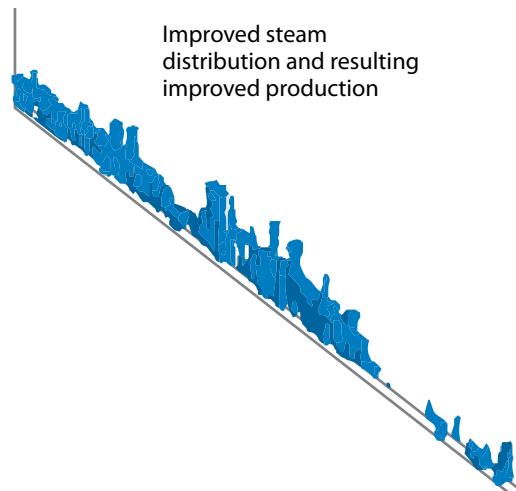
Poor steam chamber development and low production potential



### With FCDs



Improved steam distribution and resulting improved production



Our [Climate Change Position](#) outlines our principles of effective climate change policy. These principles guide our engagement on climate change policy in countries where we operate, and as we work with trade associations, industry peers and other key stakeholders. In the U.S., our efforts are reflected by our [history of policy engagement](#) on climate change.

### Low-emission pathways

Climate Change Director Malcolm Fawcett led the development of [IPECA's Low Emissions Pathways](#), a publication that provides perspective on the elements and enablers of pathways toward a low-emissions future. The paper draws on three common elements found in the construction of 2-degree Celsius scenarios: improving efficiency and saving energy; reducing emissions from power generation; and deploying alternative low-emission options in end-use sectors. It also describes the challenges to achieve the aims of the Paris Agreement and concludes that with collaboration, effective policy, market-oriented solutions, the development of carbon capture and storage and the availability of financing, they can be met. We believe that it is possible to address climate change risks while also meeting growing global energy demand and supporting economic development.

### Adopting emission limits for oil sands

In Canada, one element of the Climate Leadership Plan enacted by the government of Alberta is the Emissions Limit for oil sands. In 2016, through our progressive work with leading environmental groups in Canada, we secured a seat on the Oil Sands Advisory Group (OSAG), one of only seven industry seats. Designed to advise the government on the implementation of the limit and other oil sands environmental issues, the OSAG includes members from industry, environmental organizations, and indigenous and non-indigenous peoples.

The primary focus of the group is to consider how to implement the 100 million tonnes of CO<sub>2</sub> equivalent per year GHG emissions limit for the oil sands industry. The group will also provide advice on local and regional environmental performance, as well as innovation to increase efficiency and reduce emissions intensity.

By bringing our voice to the table, we are constructively influencing the implementation of the emissions limit and environmental requirements for the oil sands industry. Ultimately, the policy creates the conditions for improved environmental performance, carbon competitiveness and economic success. It also strengthens the competitive position of Alberta's oil industry, and its capacity to create sustained economic development and jobs, by driving cleaner, lower cost performance.

A wellpad at Surmont 2.



# Water

Communities, ecosystems and economic development all rely on water, and fresh water can be a limited resource. Across the globe, we encounter water management challenges that can be environmental, social or economic in nature and meeting those challenges are key to our business success.

## Our focus

Responsibly managing the water we need to produce energy includes working to prevent adverse impacts from water withdrawals and from water produced from our operations. Our [high priority issues](#) in 2016 included challenging water sourcing for some assets and water disposal. These were managed through our [Water Action Plan](#), which serves as a strategic tool for goalsetting and tracking risk mitigation actions with a focus on improving our performance. Our current plan includes 107 specific actions or projects.

## Water Action Plan

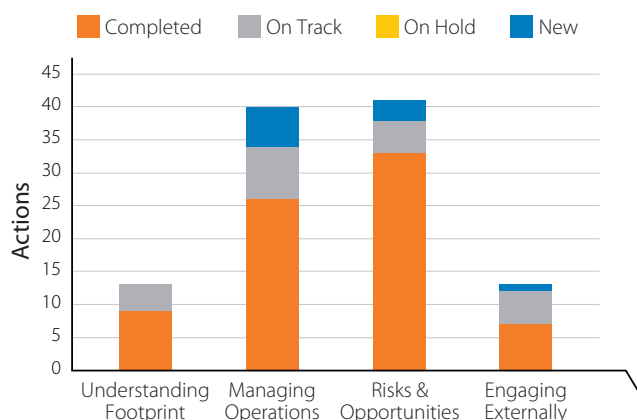
**75** actions completed

**22** actions on track

**10** new actions

 [Read our Water Sustainability Position.](#)

## 2016 Action Plan Status



As of December 2016

In 2016, new actions included produced water treatment pilot studies as well as updates to our water sourcing, discharge and disposal risk assessments. We continued our work to reduce residual oil in water concentration for produced water discharges in Norway and further optimized steam quality for our oil sands operations. Completed actions include the launch of a Water Technology Toolkit, qualifying highly saline completion fluids for use with treated produced water and operational groundwater and surface water monitoring plans for several assets globally.

“We know water is an important issue to our stakeholders, and it’s just as important to us. We can’t keep our operations running efficiently without reliable, timely and environmentally sound solutions for water sourcing and disposal or reuse.” **Lower 48 President Don Hrap**



### Integrating technology to manage local water risks

Physical risks from local water scarcity and evolving stakeholder expectations can impact our operations. Some of our assets are in regions experiencing water scarcity or are predicted to do so in the future. We rely on risk assessment, innovation and fit-for-purpose technology to find local solutions that work for our operations, communities and ecosystems. Our Global Water Sustainability Center in Qatar develops advanced technologies for produced water reuse and our lab in Oklahoma provides scientific, analytical and technical water treatment support as we develop innovative solutions.

By integrating technology, engineering and sustainability, we have been innovative in our water management in several areas of our operations in 2016 while at the same time reducing our costs.

In the Canadian oil sands, at our Surmont 1 and Surmont 2 facilities, we use steam to recover bitumen from the ground through the SAGD process. We contribute to the COSIA performance goal of reducing freshwater intensity usage by 50 percent by 2022, and continue to investigate, apply and optimize a number of water management practices. For example, the Surmont 2 project was constructed and commissioned with saline water capability,

which helps to reduce freshwater requirements. In 2016, we used 39 percent saline water for our steam generation. The facility uses boiler blowdown evaporators to recover additional portions of usable water from wastewater streams prior to disposal. The facility also employs innovative well design, construction and retrofit improvements, such as vacuum insulated tubing and [flow control devices](#) — which preserve the latent heat of the steam and deploy it to the optimal location within the well — to ensure steam is being distributed efficiently while maximizing bitumen recovery. To further reduce water usage, steam quality improvement trials have recently been completed at Surmont 1 and Surmont 2. Initially, these facilities were designed to operate at 75 to 78 percent steam quality, meaning the percentage of boiler feedwater converted to wet steam after passing through the steam generators. Through a series of experiments, steam quality has now been successfully pushed to — and maintained at — more than 80 percent within the steam generators. This steam quality improvement could result in 15 percent less makeup water use. Enhanced steam assisted gravity drainage (e-SAGD) pilot projects and studies are also evaluating the commercial viability of solvent-aided SAGD processes to both improve bitumen recovery and reduce water intensity.

Actively encouraging dialogue about local water use and engaging with local stakeholders allows us to understand concerns about the use and protection of local water resources. In the U.S., our Lower 48 business unit developed a water tool and presentation to help illustrate to local communities and regulators how the natural gas and oil industry uses data, science and engineering to protect groundwater and manage water use in the Eagle Ford Basin. The presentation highlights the details of well construction and how aquifers are protected during drilling and production. The 3-D water tool provides a visualization of the subsurface, offering a 3-D image that details the locations of aquifers, water wells and natural gas and oil wells. We use the 3-D tool in meetings to demonstrate that we target deeper, more brackish water sources, which are not used by local landowners for municipal, domestic or agricultural purposes.



Water Solutions Engineer Joel Minier Matar working in the Global Water Sustainability Center lab.

## SPOTLIGHT

## Designing water reuse technology in Western Canada

Successful development of the liquids-rich Blueberry Montney area, located in British Columbia, requires effective water management as drilling and completing a well can require upwards of 500,000 barrels. Local water licenses are limited for industry use due to social and regulatory concerns and limited availability during seasonal low-flow or droughts — making water sourcing costs high.

We evaluated additional ways to conserve water and lower water-related costs, such as the reuse of water produced from oil and natural gas operations for hydraulic fracturing. We leveraged experience from other assets such as the Permian Basin in the U.S. to develop and implement a water treatment technology pilot to assess the opportunity.

“We have limited access to surface water at Blueberry Montney, with two small rivers offering limited availability throughout the year,” said Western Canada Water Management Senior Coordinator Scott Hillier. “And stakeholders in the area, including two Indigenous

Nations, are understandably sensitive about the use of fresh water for oil and gas production.”

This first-of-its-kind project in Western Canada required collaboration between experts from our Global Production and Global Wells groups to tackle the technical challenges associated with treating and reusing very salty produced water with high levels of iron.

The team designed and safely executed an industrial-size pilot project to test various treatment technologies. Results from the pilot were used to develop an optimized water treatment process that is scalable

for full-field development. This work has demonstrated that up to 100 percent of the produced water generated could be reused.

The project shows that we can lower overall water management costs while at the same time addressing stakeholder concerns and regulatory restrictions on local water use. Significant investment opportunities in water management infrastructure to facilitate produced water reuse in future asset development were also identified.



[Read more about our water recycling and reuse.](#)



[View our 3-D water tool.](#)



[View our global progress.](#)

### Seismicity

In some instances, oil and natural gas operations may correlate with seismic activity due to unique geological conditions. In 2016, we developed a risk-based Global Induced Seismicity Guideline for the salt water (produced water) injection wells we own and operate. The guideline helps characterize seismicity risks by assessing historical seismicity, identifying geological faults of concern, assessing actual or proposed injection operating conditions, and considering proximity to people and population centers. It also provides possible monitoring, management and response planning options if the assessed risk

is elevated. We are working with our peers and academic researchers to better understand and document if, where and how fluid injection and hydraulic fracturing may contribute to the phenomenon of increased rates of seismicity over background trends.

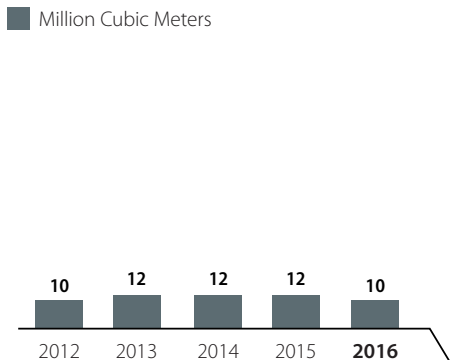
### Water use

In 2016, ConocoPhillips-operated assets withdrew 10.2 million cubic meters of freshwater, a decrease of approximately 1.5 million cubic meters, or 13 percent. The decrease was primarily due to fewer completions, less exploration activity and lower oil throughput at a U.K. terminal. It was partly offset by a one-time construction activity, ramp up of Surmont 2 and the addition of APLNG. We have also begun to report externally on two new metrics: non-freshwater withdrawn and produced water recycled/reused. Our 2016 non-freshwater withdrawn was 42.9 million cubic meters. The decrease from 2015

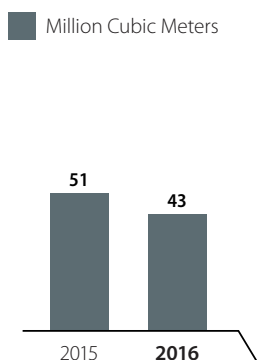
was primarily due to less seawater being withdrawn during an asset’s scheduled maintenance shutdown. We recycled or reused over 73 million cubic meters of produced water in 2016, a decrease of about 7 percent. The

decrease was primarily due to less water injected for beneficial use during a transmission line outage, less produced water in one area, and asset dispositions. This was partly offset by ramp up of the Surmont 2 facility.

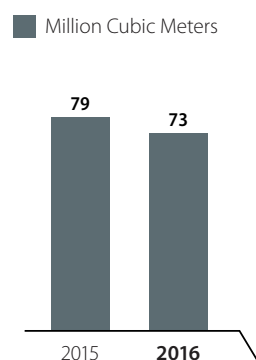
**Freshwater Withdrawn**



**Non-Freshwater Withdrawn**



**Produced Water Recycle/Reuse**



**SPOTLIGHT**

**WE<sup>2</sup>ST Center: Delivering sustainable water solutions**

As water resources become stressed locally, finding solutions to the diverse and specialized challenges affiliated with competition for water use is crucial. That is why we invested in the ConocoPhillips Center for a Sustainable WE<sup>2</sup>ST (Water-Energy Education, Science and Technology) at Colorado School of Mines. The center aims to be the go-to institution for research, education and outreach associated with water resources and energy production. WE<sup>2</sup>ST faculty and students work to address the range of challenges associated with water lifecycle for oil and natural gas operations, with a specific emphasis on finding ways to use less fresh water.

the science behind water use while exploring the issue holistically — not just in one department, but across all disciplines. It also provides the center access to actual ConocoPhillips well site data on water quality, consumption and competition for water use among communities, agriculture and oil and gas companies. Research ranges from extreme desalination using a process called membrane distillation to biological treatment of produced water using microbes to digest organics, to using sunflowers to provide insight into how purified produced water can be safely and effectively used for agricultural irrigation. In addition to research, the center specializes in public outreach programs and educational programs pertaining to energy development, water use and conservation for faculty, students and community members.

Our unique relationship with the center offers opportunities for students to learn and research



[View “WE<sup>2</sup>ST Center: Delivering Sustainable Water Solutions.”](#)



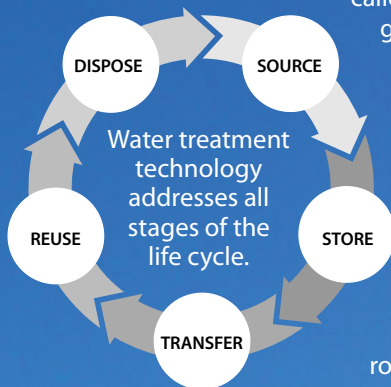
[View “Independent research on produced water desalination.”](#)

“The work we do here is not theoretical. People can use the information to make decisions; we are developing tools and studies that can inform the public and stakeholders.” **WE<sup>2</sup>ST Center Director Terri S. Hogue**



## Innovative water management in the Delaware Basin

In the water-stressed Permian Basin in the U.S., we have worked to improve our treatment and use of produced water since 2012. Water supply, reuse, transportation, and disposal can average 20 percent of well completion costs and operating expenses and the area has limited surface and groundwater resources available. Since water-to-oil ratios are between 1:1 and 7:1 in the basin, produced water is abundantly available. Given the limited water in the area and resulting well cost implications, there is both an environmental and economic incentive to utilize produced water whenever feasible.



Our solution in the western portion of the basin, called the Delaware Basin, is a central water gathering and distribution system with a portable treatment system that can accept water from the drilling site then return it for use in hydraulic fracturing. This infrastructure, tailored to the region, offers flexibility for water disposal or reuse, both reducing our surface footprint and eliminating emissions, dust, and road noise associated with truck transportation. The produced water pipelines took 300 trucks off the roads per day in 2016 and reduced disposal costs by over 50 percent.

In 2016, we also piloted technology to assure safety and environmental protection in open-top water storage, including:

- Use of green biocide to prevent water quality deterioration.
- Containment designed to exceed regulatory standards.
- Use of technology to significantly reduce evaporation.

When rig activity increases in our Delaware Basin assets, produced water reuse will be the best option, economically and environmentally, for full-cycle water management.



[Read about our previous water efforts in our 2015 Sustainability Report.](#)



# Biodiversity

Terrestrial and marine plant and animal species and ecosystems, known as biodiversity, are important to maintaining ecosystem health and to human well-being. We operate in diverse environments across the globe and work to understand and mitigate biodiversity impacts.

## Our focus

We have identified sensitive environments as a [high priority](#) issue for 2016 and we manage it through our [Biodiversity Action Plan](#). The plan applies throughout the life cycle of our assets, including planning, operations, decommissioning and reclamation. Our current plan includes 75 actions, the majority of which address local biodiversity risks for our operations.

In 2016, our actions focused on:

- Understanding and protecting sensitive environments.
- Reducing the footprint of our operations.

Everywhere we operate, science-based research informs our actions for evaluation and mitigation of our potential impact on biodiversity. Understanding sensitive environments and minimizing our physical footprint helps lower operating costs and conserves sensitive environments.

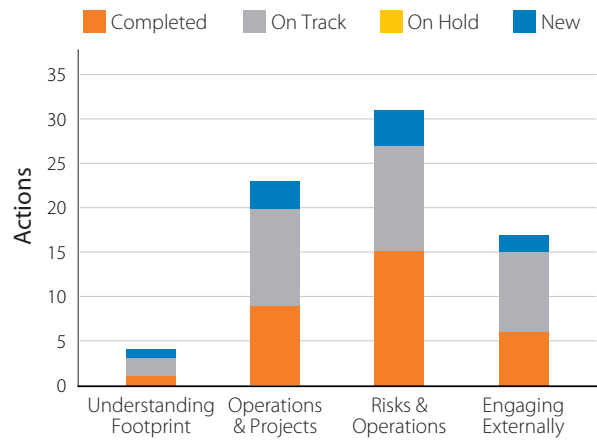
## Biodiversity Action Plan

**31** actions completed

**34** actions on track

**10** new actions

## 2016 Action Plan Status



As of December 2016

Examples of actions in progress in 2016 were:

- The regulated removal of infrastructure associated with the Viking offshore facilities in the United Kingdom.
- Baseline assessments in Norway, Indonesia and Australia.
- The collection of ocean meteorological and natural resource data in the Barents Sea using autonomous, solar powered wave gliders.
- Collaboration with the Australian Institute of Marine Science on a new biodiversity survey project across the offshore shoals.



[Read our Biodiversity Position.](#)



## Respecting and protecting sensitive environments

At our Alpine oilfield in Alaska, before any off-pad work is conducted during the sensitive nesting window, we employ avian biologists to carefully search the tundra for nesting Spectacled Eiders. This is done in accordance with permit conditions aimed at protecting this sea duck, a listed species under the Endangered Species Act. At our Kuparuk oilfield, even though we don't have a regulatory requirement, avian biologists search from the road system in habitats that have historically had Spectacled Eider nests. If any nests are found in either field, a "do not enter" buffer is placed around the nest and activity in the area is limited until after the ducklings have hatched and fledged.

At our Darwin LNG facility in Australia, a bird nest was unexpectedly discovered in a 150-foot telecommunications tower during a regular inspection. We consulted with the Parks and Wildlife Commission of the Northern Territory, who identified a pair of Whistling Kites with young chicks using the nest. On recommendation of the Parks and Wildlife Ranger, the nest remained undisturbed for eight weeks to allow the kites to finish using it. The rescheduled inspection then took place, with the ranger on site to provide advice, and maintenance workers discovered a new egg in the nest. Work on the tower was again delayed for a few months until the egg hatched.

In 2016, we began a multi-year, landscape-scale assessment project for funding a conservation plan for grasslands across the U.S. Great Plains. The recipient of the funds is the North Dakota Natural Resources Trust working through the [Prairie Potholes Joint Venture](#). The need for grassland conservation is becoming well-recognized in the conservation community and numerous organizations are holding discussions regarding grassland and grassland bird conservation. The goal is to coordinate and catalyze organizations and joint ventures already working on local or regional projects to share knowledge and science that can help improve ecosystem understanding and assess conservation programs that sustain populations of grassland birds. These grasslands stretch from Canada (parts of Alberta and Saskatchewan) to Mexico. A report on this collaborative effort, due after assessments are completed in 2019, will detail the amount of grassland remaining, the juxtaposition of grassland complexes or patches and the pace of change in these grasslands. The desired outcome is a set of recommendations for a grasslands conservation framework across the Great Plains that could attract scaled up support and multi-donor funding. This project fits well with the collaboration we have had with the U.S. Fish & Wildlife Service in [bird joint ventures](#) for over 25 years.

In the Canadian oil sands, we worked with the University of Alberta to pilot innovative technology that "listens"

## Mitigating biodiversity risks through baseline assessments in Indonesia

In Central Kalimantan, Indonesia, we collaborated with a local university to conduct baseline assessments on our newly acquired Kualakurun Block prior to conducting seismic surveys as the first step of natural gas and oil exploration. The environmental and social conditions of the area, prior to any exploration activity, were documented in an Environmental Baseline Assessment (EBA) conducted by the Centre for Coastal and Marine Resources Studies – Bogor Agricultural University. The scope of the EBA included biodiversity, social

economy, culture and community health of the area.

The Kualakurun Block is an area of mixed use, including natural and industrial forest areas, plantations, mining concessions and residential areas of the Dayak Ngaju and Dayak Kapuas indigenous peoples. Researchers identified 65 species of birds, 17 species of mammals and eight species of amphibians and reptiles. Sensitive species identified by researchers included the Helmeted Hornbill and the

Red-Naped Trogon. No orangutans were spotted during field activities, although some locals said they are seen occasionally. The data and information collected for the EBA was used to develop an environmental management and monitoring plan, which was approved by the government environmental agency. The plan will guide our environmental management during and after the seismic exploration process.



### SPOTLIGHT

“We operate in some of the most biodiverse regions of the world, so we engage with communities to understand their priorities and collaborate with researchers to get the scientific facts to better understand and protect plant and animal species and ecosystems near our operations.”

**Asia Pacific & Middle East President Bill Bullock**



to the sounds of wildlife in the boreal forest. Partnering with other members of COSIA, we deployed acoustic recording units (ARUs) to capture sounds from birds, amphibians and mammals for extended periods of time. This emerging technology will allow us to better understand the effects of different types of land-use on wildlife species. Graduate students and technicians identified the animals behind the sound recordings to calibrate the technology. Sounds were also matched to their source using images from wildlife cameras installed at each sound station. This pilot will enable the development of automated methods of computer-based recognition of species, which is particularly useful for locating rare and endangered species that call less frequently. The ARU technology increases data reliability, reduces costs associated with performing field surveys, and allows ongoing wildlife monitoring in remote areas and difficult terrain. Data from the project will be compiled for use by the industry and other interested parties.

### Reducing our footprint

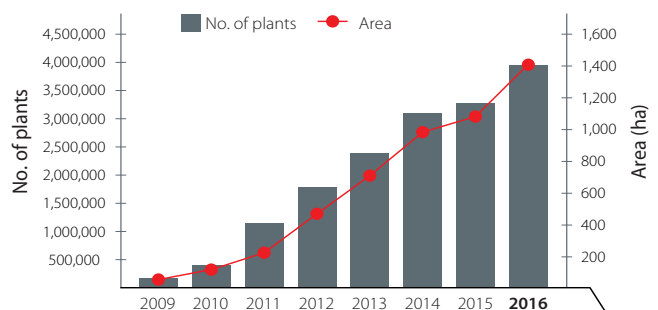
Where possible, we are drilling longer laterals and using improved completions techniques to more efficiently develop reservoirs while decreasing our land footprint. Drilling one 10,000-foot lateral can be more efficient than drilling two that are 5,000 feet long. This strategy has boosted flow rates and the amount of resource we expect to recover, while also lowering cost of supply by reducing the need for additional well pads and facilities. This shrinks our footprint while increasing capital efficiency, making such wells more economically robust in a low-price environment. A great deal of analysis and testing has been devoted to optimizing stacking and spacing, especially in the Eagle Ford, where a combination of technology, geochemistry, seismic and data analytics techniques are being employed.

We led the development and adoption of the first quantitative, proactive performance goal for land-use intensity at Canadian oil sands operations. COSIA's Land Performance Goal is focused on reducing the footprint

intensity and impact of oil sands operations on the land and wildlife in Northern Alberta. Members will strive to [reduce land intensity by 10 percent by 2022](#). The purpose of the goal is to stimulate technological innovations that reduce the land-use intensity at existing in situ oil sands operations and to inspire innovative thinking for future development and permanent reclamation. Land footprint includes facilities, well pads, roads, and pipelines as well as other infrastructure. COSIA will publicly report aggregate member company performance against the goal on an annual basis.

We continued to lead the COSIA Faster Forests program in Canada as well this past year, working with an increasing number of industry partners to accelerate the reclamation of areas impacted by exploration activities through better construction techniques and native shrub and tree planting. In 2016, the members collectively exceeded the previous single year total for area treated since program inception.

### Faster Forests Cumulative Totals: All Companies



In the offshore Barossa and Bayu-Undan Gas Fields in the Timor Sea, innovation in marine seismic survey technology improved data quality and allowed us to reduce the size and duration of the survey, reducing cost. The Bayu-Undan and Barossa Compressive Seismic Imaging (CSI) acquisition and processing programs are the first full-scale streamer surveys acquired using our proprietary CSI technology. Higher quality program

## Conservation and Preservation Through Offsets

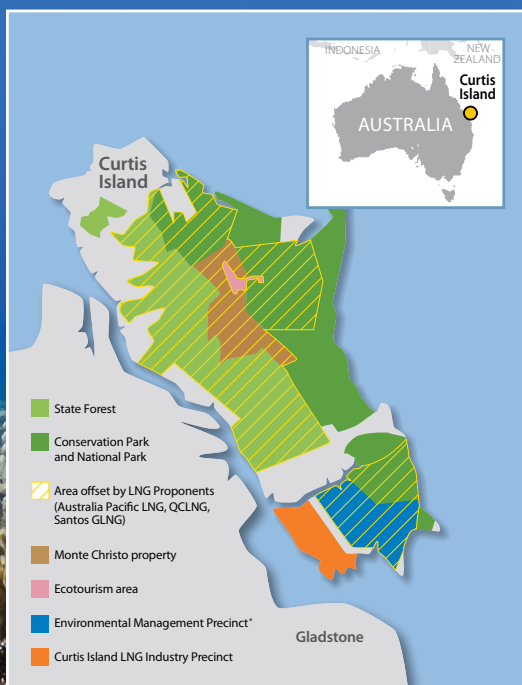
In Australia, federal and state environmental approvals to develop major construction projects require biodiversity offsets to counterbalance disturbance. These offsets can involve conserving, enhancing and/or protecting areas of national environmental significance, marine habitat, endangered and of-concern regional vegetative ecosystems and/or significant fauna and their habitat. We are involved in efforts to protect these critical environments both onshore and offshore. On Curtis Island, the LNG industry's landmark conservation initiatives put nearly two-thirds of the island under a conservation management strategy. Combined with the existing national park, more than 59 percent of the island is actively managed under a conservation management plan, compared to just 2 percent used by LNG projects on the southern tip. This will protect the island's unique ecology and heritage for future generations and contributes

to conservation of about 100 square miles in perpetuity. The multi-million-dollar collaboration involved our Australia Pacific LNG (APLNG) facility and other LNG proponents on Curtis Island working together to purchase a former grazing property and associated leases. These titles will transfer to the state government, allowing recovery of fragile marine plain ecosystems and long-term restoration of environmental values on this island located within the Great Barrier Reef World Heritage Area.

Additionally, APLNG entered a 'Reef Trust' Memorandum of Understanding with the Commonwealth of Australia in 2016. The agreement resulted in APLNG providing financial contributions to offset the indirect impacts of the APLNG project. These funds are invested in projects that protect, repair or mitigate damage to the Mackay/Capricorn section of the Great Barrier Reef World Heritage Area. Commonwealth legislation allows for the pooling of funds (such as from other LNG proponents in Queensland) through the Reef Trust for Great Barrier Reef to protect and manage the World Heritage Area.



Delivery of this offset package protects and enhances the World and National Heritage values of the Great Barrier Reef. This includes the natural connectivity between habitat for over 22 threatened fauna species (including a Critically Endangered sub-species of Yellow Chat and Vulnerable Water Mouse), significant marine and fish habitat areas, migratory shorebird habitat and declared wetlands. Additionally, control of feral pests is expected to improve turtle hatchling survival on adjoining beaches. Implementation of Reef Trust projects directly contributes to the Australia Reef 2050 plan submitted to United Nations Educational, Scientific and Cultural Organization (UNESCO), which addresses the Great Barrier Reef being placed on the "In Danger" list. The scale of the offset also allows for the implementation of a whole-of-island management approach by the government to improve environmental outcomes.



data also resulted in significant optimization and cost savings for the upcoming drilling effort. Concerns from local commercial fishers related to underwater noise and displacement of fishing efforts during the Barossa survey prompted adjustment of the project timing and footprint. This reduced potential impact to fisheries while maintaining an efficient survey process and results.

We also continued to support a tree reforestation program addressing existing sparse areas in Timor Leste. With our support, Santalum, a local nonprofit organization that runs natural conservation programs, has planted about 27,000 trees and provided 57,000 trees

for community planting across the country since 2007. Activities are year-round and include work at existing and new reforestation sites. At the existing sites, fences are repaired to avoid further damage from humans and cattle, grass is cleared and the site is pruned to minimize the threat of fire during dry seasons. Plants impacted by droughts and fires are replaced. In 2016, the program had nine full-time local employees with about 40 temporary workers hired for planting season. To date, about 45,000 acres have been reforested.

 [View our global progress.](#)

## SPOTLIGHT

### Caribou recovery in Canada

Woodland caribou live in Canada's northern boreal forests, staying in small groups and not migrating large distances. Woodland caribou are designated as threatened under the Canadian Species at Risk Act.

Woodland caribou populations in western Canada are declining due to landscape changes caused by both human and natural impacts. We are working with stakeholders to explore innovative ways to recover caribou, including a focus on restoring corridors and access routes in the forest created during exploration activities. Another key project designed to support caribou recovery aims to increase populations of declining caribou by creating a "safe zone" for females and their young calves. The COSIA Caribou Recovery Pilot project, led by ConocoPhillips, is one tool in the portfolio of caribou recovery options. The pilot project proposes to use a predator fence, a conservation approach that establishes and maintains a small breeding subpopulation of caribou in a large fenced enclosure. The fence, covering an area of approximately 25,000 acres, is designed to exclude wolves and bears so that caribou calf survival is improved, allowing some yearlings from within the fence to be moved outside to supplement



the surrounding range population. The pilot project is in the final design stages and potential locations are being discussed with a wide range of stakeholders. The Government of Alberta released its first Draft Range Plan for caribou in west-central Alberta in 2016, which also adopted the predator

fence concept as one of the tools for caribou recovery. We will continue working with peers and through the Canadian Association of Petroleum Producers (CAPP) and COSIA to inform governments of the full spectrum of efforts underway to restore and conserve critical caribou habitat.



 [Listen to the boreal forest](#)

## SPOTLIGHT

### Reuse and recycle: Decommissioning in Norway

Decommissioning and reclamation is the final step in our footprint reduction efforts. In the North Sea, areas for marine fauna and other users of the sea are being restored. The ongoing project involves environmental studies, material recovery and disposal. The disposal of several first generation Ekofisk

platforms, known as the Ekofisk I Cessation Project, continued in 2016. These platforms were installed in the 1970s, and the fields are no longer producing, or installations have been replaced with new infrastructure. About 143,000 tons of structure have been removed and more than 97 percent (excluding hazardous waste) has been reused or recycled so far.

Our decommissioning plan for Ekofisk I was based on environmental impact assessments and an analysis of alternatives for structure removal and disposal. It was approved by Royal Decree. Old platform installations are cut at least three feet below the seabed so that they do not interfere with fisheries. Man-made debris has been removed within a 1,600-foot radius of the installations. Safety zones have been removed around most installations, leaving the areas accessible to other users of the sea such as fisheries and sea transport.

The installations (topsides and jackets) have been demolished by a local company and disposed of per

our strict environmental disposal requirements utilizing a state-of-the-art water processing plant and double impermeable surface barriers at the disposal site.

“Health, safety and environment have always been our highest priority,” said Dag Roar Johansen, manager, Ekofisk I Cessation. “Safety challenges for a removal are greater than in a new-build because we are dealing with old structures with inherent uncertainties. The project safety performance has been outstanding.”

Maximizing the re-use and recycling of material has been a primary focus of the project and material is accounted for and tracked to final disposal. About 85 percent of the installation is metal, which is cut into smaller pieces and recycled. Non-metals, marine growth and salable items account for about 10 percent. Marine growth is converted into compost. About 5 percent of the total waste is hazardous and is disposed of at sites authorized to handle hazardous waste.



## CASE STUDY MIGRATORY BIRDS

# Migration Matters: Tracking the Habits of Native Birds

The Long-Billed Curlew was a mystery to scientists. Where exactly did it travel? Breed? Rest? How many of the large North American shorebirds still existed? And how could conservationists help protect the species from extinction?

Once so common in the southeast U.S. that John James Audubon's famous painting of the Long-Billed Curlew features Charleston in the background, hunting and breeding habitat loss has devastated the eastern population of curlews. This year, researchers from the Smithsonian Conservation Biology Institute's Migratory Bird Center tracked a male Long-Billed Curlew, which came from a near-extirpated wintering population of less than 100 curlews along the Atlantic Coast, to its summer breeding habitat in Saskatchewan, Canada — the first time that anyone has tracked a curlew from this vanishing group. Thanks to this lone bird, scientists are finally

getting answers about this species' unknown migration.

Tracking the Long-Billed Curlew is just one of the many migratory bird tracking and habitat conservation programs we support through our Charitable Investments Signature Program focused on water and biodiversity stewardship and conservation efforts.

In North America, more than a third of bird species are at risk of extinction, according to a 2016 study by the North American Bird Conservation Initiative. The first of its kind to look at the vulnerability of bird populations in Canada, the United States

and Mexico, the study found that 37 percent of the 1,154 species on the continent need urgent conservation action. Understanding and tracking bird migration is crucial for conserving habitats that are essential to species survival. Migrating birds are what is known as an "indicator species" — their issues foretell other problems within the ecosystem and provide an opportunity to mitigate potential risks.

Taking a wide-angle approach by supporting educational and conversation efforts offers an opportunity to leverage research and establish priorities for action. Conservation work such as these strategic migratory bird projects

*This page:* A Long-Billed Curlew, North America's largest shorebird, flies over a channel at Mustang Island State Park on Texas' Gulf Coast.

*Opposite page:* The antenna of a miniature solar-powered satellite transmitter is visible on this female Black-Bellied Plover. She was tagged on the North Slope of Alaska in June and is now spending the winter in Peru, while her mate is overwintering along the Gulf Coast of Mexico. The aluminum band, on her upper right leg, and the uniquely positioned plastic color bands help to identify her from afar.





“Years ago, we noted that many of the migratory pathways in the Americas and Asia are near our operations. Because of where our assets are positioned, we have a unique opportunity to support conservation in these areas.” **Production, Drilling & Projects Executive Vice President Al Hirshberg**

also helps us learn about ecosystems near our operations, develop local relationships, and provide volunteer opportunities to spend time in nature. Additionally, by supporting research we can reduce the chance that regulatory or policy decisions based on missing or inconclusive scientific data negatively impacts our operations.

### Preserving habitats

Working with the National Fish and Wildlife Foundation (NFWF), we fund the ConocoPhillips SPIRIT of Conservation and Innovation Program to support projects focused on the restoration of ecosystems and habitats, particularly those focused on high-priority North American migratory species. We also support innovative conservation technologies and techniques in areas where we operate.

We partner with Ducks Unlimited to help manage and conserve U.S. Gulf Coast wetlands — important wintering habitats for waterfowl. By identifying effective coastal restoration and mitigation projects and working closely with diverse stakeholders, we support a variety of efforts, including freshwater-introduction and marsh-terracing projects, shoreline stabilization, coastal ridge restoration, and hydrologic improvements.

“The loss of coastal wetlands is not just a local problem, it is a national issue,” said ConocoPhillips Coastal Wetlands Director Phil Precht. “These areas provide critical protection of the nation’s maritime trade, seafood and energy industries. The habitat in this area is also critical to the survival of many species of concern. Wetlands loss is crisis that requires the cooperation of public and private entities. We are proud to be on the front lines of this effort through our support of several important programs.”

“ConocoPhillips is an excellent partner because their stewardship principles are similar to ours, and they have a very good reputation for working with agencies and moving projects forward,” said Jerry Holden, director of conservation programs for Ducks Unlimited.

In northeast China, we worked with the International Crane Foundation to manage and restore wetlands in Momoge National Nature Reserve, the largest global staging area for Siberian Cranes. About 3,600 are present daily, approximately 95 percent of the world population, for almost two months of each migration season. Significant water shortages threaten the habitats of Siberian Cranes and other species. Until now, no one has studied these habitats systematically or developed

conservation recommendations and the species appears to be under threat.

### Tracking migratory patterns

We help advance the conservation and understanding of migratory birds through work with the Smithsonian Conservation Biology Institute’s Migratory Bird Center. Through this partnership, we gain a better understanding of the important habitats throughout their migration cycle, and how we can take a coordinated approach for more effective conservation. The center conducts both long-term and applied research.

Using advanced tracking technologies, we are involved with six projects chart-

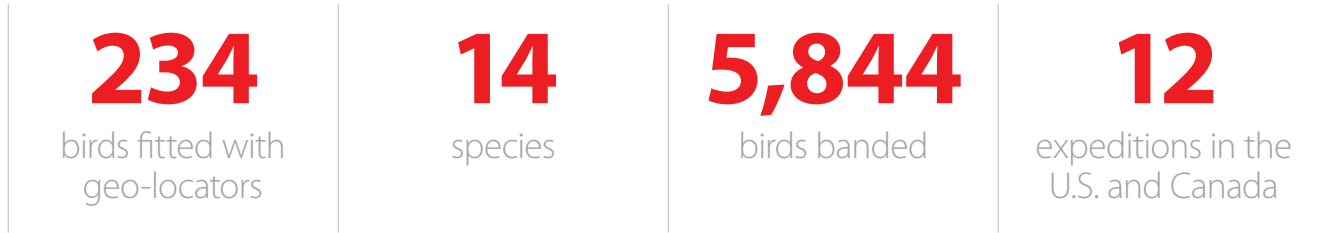


[Watch “Restoring the Louisiana Delta.”](#)



MIGRATORY BIRDS

Smithsonian Institution: Migratory Connectivity Project 2015–2016 Impact



ing the journeys of 12 migratory bird species, several of which spend parts of their migration cycle near our areas of operation in Alaska, Alberta, Saskatchewan, Colorado, and Texas. In 2016, a range of innovative tracking devices were used to fit a variety of birds with tracking tags. Species included

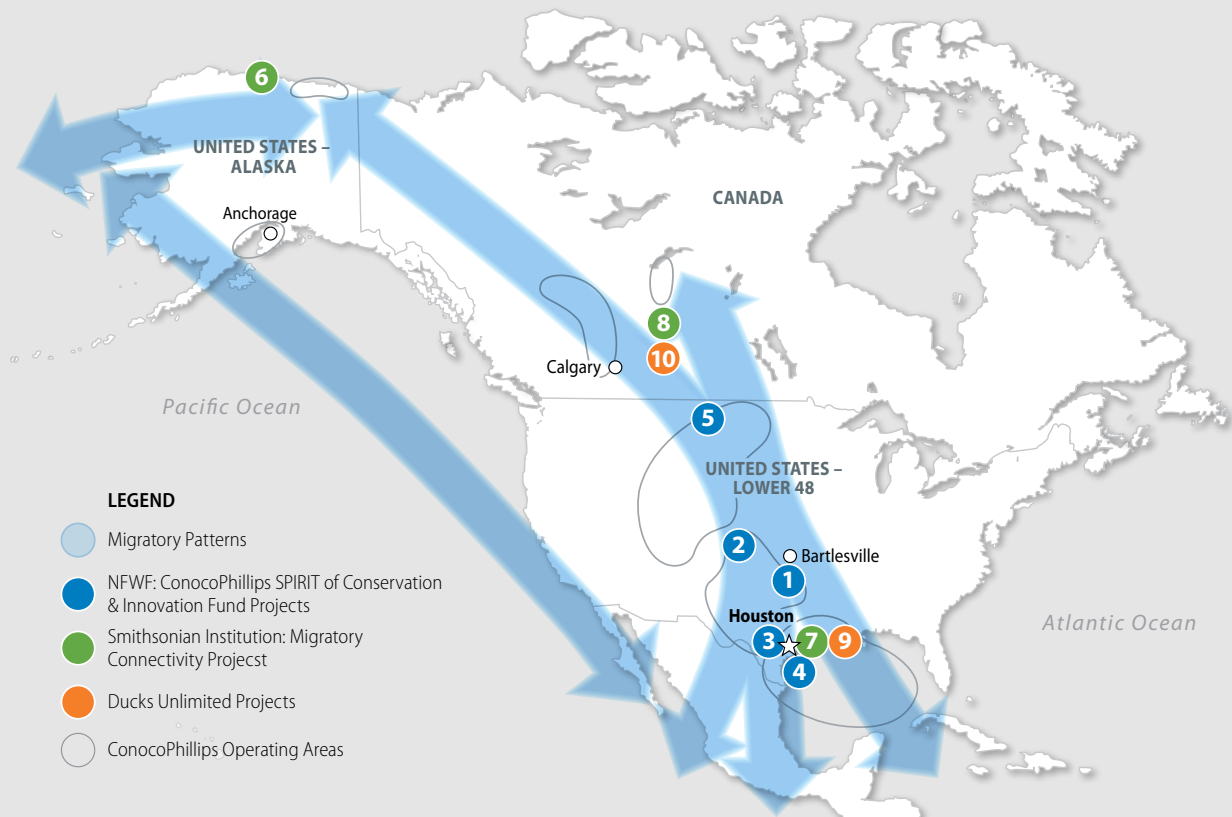
Pacific Loons, Black-Bellied Plovers, Canada Warblers, Connecticut Warblers, Rusty Blackbirds, Common Nighthawks, Olive-Sided Flycatchers, Mountain Plovers, Glaucous Gulls, and Long-Billed Curlews.

In Alaska, ConocoPhillips employees helped tag

Pacific Loons and Black-Bellied Plovers near our Alpine facility on the north slope. A hoop net was used to catch the birds, which were then fitted with a satellite tag that transmits daily data about connectivity information including migratory pathways, stop locations and wintering areas,

and the different patterns of individual birds of the same species. We discovered a distinct migratory divide between North Slope and Western Alaska Pacific Loon populations. The former crosses over to Russia, China and South Korea, while the latter flies directly south to Mexico.

ConocoPhillips Migratory Bird project support and impacts







“Understanding and tracking animal movement is crucial for conserving the habitats that are essential to species survival. Without an understanding of migratory connectivity, conservation investments can be ineffective because they are implemented at the wrong place or time, or for the wrong purpose.”

**Dr. Pete Marra, head of the Smithsonian Migratory Bird Center**

### NFWF: ConocoPhillips SPIRIT of Conservation & Innovation Fund projects

- **Texas, Oklahoma** – Enhanced or restored 13,570 acres of habitat for grassland bird species, such as Loggerhead Shrike, Eastern Meadowlark and Scissor-Tail Flycatcher in partnership with the Parks and Wildlife Foundation of Texas and the Texas Parks and Wildlife Department. Private land habitat restoration and enhancement will lead to increasing quality and quantity of grassland habitat.
- **Midwest** – Enhanced or restored over 600 acres of habitat for the Lesser Prairie Chicken in Colorado, Kansas, New Mexico, Oklahoma and Texas in partnership with the Western Association of Fish and Wildlife Agencies. The project will contribute to stabilizing Lesser Prairie Chicken populations by creating additional habitat connectivity.
- **Houston, Texas** – Increased the number of oyster reefs and migratory bird islands in Galveston Bay to provide critical habitat for oysters, Whooping Cranes, Gulf Coast Ocelots and thousands of migratory birds through collaboration with Houston Wilderness. The project is a key step to protecting and preserving the unique biodiversity of the Greater Houston Region.
- **Texas Gulf Coast** – Restored and enhanced over 1,700 acres of native prairie and wetland habitat on four Texas Parks and Wildlife Department Wildlife Management Areas on the Central Coast, working with the Texas Rice Industry Coalition for the Environment. The project will restore 600 acres of prairie and enhance and restore 1,162 acres of wetland in an area that is crucial to migratory birds.
- **Eastern Montana** – Radio tagged, collected data, coordinated and analyzed grassland bird demographic monitoring for Bairds and Grasshopper Sparrows, Sprague’s Pipit, Chestnut-Collared and Lark Bunting in partnership with the Rocky Mountain Bird Observatory. The project will inform conservation efforts and management actions in the Northern Great Plains and full annual cycle demographic monitoring across the full migratory range.

### Smithsonian Institution: Migratory Connectivity Project

- **Barrow, Alaska** – Helped deploy GPS tags on nine Glaucous Gulls at Alaska’s North Slope. This study was the first to focus its attention on immature arctic seabirds, who were originally thought to spend their first year along the U.S. west coast. Data revealed however, that these birds actually migrate to Russia.
- **Texas Gulf Coast** – Helped tag more than 2,100 birds at the Mad Island Marsh Preserve, a rest-stop for the birds after flying across the Gulf of Mexico. This effort by our volunteers will allow scientists to track the migratory patterns of songbirds from the Smithsonian Bird Banding Center.
- **Fort McMurray, Alberta** – Tagged 43 migratory birds, working with students and faculty from the University of Alberta Edmonton. Wildfires near Fort McMurray, in the summer of 2016 significantly altered the habitats of birds that had been tagged in previous years.

### Ducks Unlimited

- **Louisiana coast, Liner Canal, Carencro Bayou and Lost Lake** – Restored more than 2,500 coastal acres of waterfowl wintering areas through the Liner Canal, Carencro Bayou and Lost Lake projects, working with the Louisiana Coastal Protection and Restoration Authority and the North American Wetlands Conservation Council. Preserving this marshland is crucial as it is an important area for migrating waterfowl.
- **Cypress Hills, Alberta** – Established the ConocoPhillips Bullshead Conservation Area, with more than 2,050 acres of native grasslands and high-value wildlife and plant species, including large numbers of waterfowl. Protecting this land means protecting important habitat features that many of these species need to survive.



[View migration maps.](#)



# Social Responsibility

Project Engineer Sasha Schmick discusses oil exploration with an Applied Math Program (AMP!) teacher. Relationships matter – that’s why we strive to be a safe and responsible neighbor, operator, and employer.





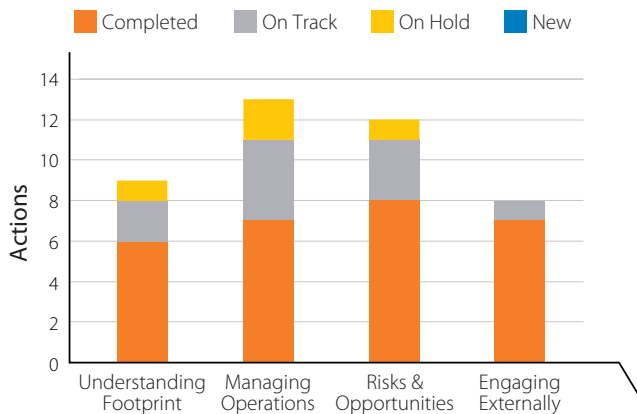
# Stakeholder Engagement

Engaging with people who may impact or be impacted by our business — our stakeholders — is a cornerstone of our operations across the globe and contributes to our business success. We engage with our stakeholders to understand their perspectives, values and interests and to clarify their expectations and concerns so we can incorporate what we learn into our business plans and actions.

## Our focus

We have identified stakeholder engagement, community impact, human rights, and indigenous peoples as [high priority issues](#), based on their importance both to our business and our stakeholders. Our activities to manage these issues are guided by our multi-year Stakeholder Engagement Action Plan, our Human Rights Position and our Stakeholder Engagement Principles. Our current plan includes 42 specific goals and actions. Actions are implemented via [management systems](#) for indigenous peoples, human rights, community engagement, security and human rights, social investment and supplier engagement.

2016 Action Plan Status



As of December 2016

## Stakeholder Engagement Action Plan

**28** actions completed

**10** actions on track

**4** actions on hold

Our priority work in 2016 included:

- Engaging with communities near our operations.
- Working with indigenous communities to maximize benefits from our operations.
- Implementing social performance indicators.

Examples of actions completed in 2016 include conducting updates to stakeholder mapping in business units across the globe to better understand our footprint

and engaging fisheries in Indonesia in a safety initiative around our offshore facilities. On track activities include managing our risks through refining our social performance indicators and updating our social risk assessment tools. We deferred the development of a sustainability training module for suppliers to a later date due to the economic environment.

## Engaging with communities

By seeking early and frequent engagement with our stakeholders, we can build trust, garner respect, and develop mutually beneficial relationships. Our stakeholder engagement professionals integrate community input into our business decisions to create better outcomes for communities and our company. Engaging with communities proactively provides the opportunity to address community concerns that might otherwise lead to costly delays.

## Wildfire fosters community collaboration

Our engagement efforts are sometimes unplanned, such as when a wildfire threatened the Fort McMurray area near our Surmont operations in Canada. The fire broke out in May 2016 and grew quickly, forcing the largest wildfire evacuation in Canada's history within 48 hours. It eventually destroyed approximately 2,400 homes and buildings and burned 1.5 million acres of forest.

At the onset of the blaze, our



leadership knew immediately that we needed to pro-actively respond to the community's needs. We called leaders in local indigenous communities and asked what they needed urgently, and stayed in contact daily. At their request, we deployed buses to transport members of these communities to Surmont. Other area residents who were evacuated were also bused to Surmont. We donated and delivered much needed supplies to an isolated community that

was not evacuated, but on standby for the entire event. North Cariboo Air, our long-time supplier, provided air charter transport support and their terminal facility for 800 people when Surmont and the surrounding

area were evacuated at short notice, in the middle of night. Since the blaze was near our Surmont operations, about 1,200 rooms at the Surmont Regional Residence were made available to emergency response teams once the area was declared safe. We lent laptops to the Red Cross for crisis use which were later donated to local nonprofits. In Calgary and other field offices, we held a fundraising sale of company merchandise like logoed jackets and shirts with the proceeds going to the Red Cross.

Staff members volunteered at the local food bank and used our matching gifts program to increase their cash donations for relief efforts. A total company contribution of about \$445,000 was directed to the Fort McMurray Fire recovery.

### Reducing community impacts

Throughout the life cycles of our projects, we place a high priority on sustaining stakeholder engagement. In Central Kalimantan, Indonesia, we collaborated with the Center for Coastal and Marine Resources Studies – Bogor Agricultural University to conduct social mapping and engagement in 2016 prior to starting exploration activities near our newly acquired Kualakurun Block. The mapping included identifying commercial interests and villages in the area, including indigenous peoples. We then met with local leaders to discuss our proposed development activities and listen to their priorities. It was important that we worked with the Dayak tribe to understand their traditional sites and forest in a detailed way. That information was then provided to our seismic contractor to ensure that seismic lines do not cross those traditional sites. We also participated with the Dayak people in a traditional ceremony that honored their customs and beliefs prior to our seismic activities.

After completion of our Australia Pacific LNG (APLNG) facility in Queensland, Australia, we conducted a post-project survey of key stakeholders to assess our performance and the effectiveness of our engagement process and to establish a baseline of post-construction

perceptions of ConocoPhillips by key stakeholders in the Gladstone area. The survey measures our performance in areas such as: Citizenship, Community Expectation, Community Concerns, and Social Compliance. This survey fulfills a goal we set in our Stakeholder Engagement Action Plan. The survey is also part of our public commitments to continue consultation and engagement programs to ensure stakeholder views are understood and considered throughout the life of the project, and to participate with government in local and regional planning processes.

In Malaysia, we collaborated with PETRONAS, other oil and gas companies and the Malaysia Maritime Enforcement Agency (MMEA) in the ongoing "Sahabat Maritim" program to promote safe fishing activities through community engagement and education in areas near oil and gas facilities. The effort focused on the dangers of fish bombing and fishing activities conducted within the 1,640-foot safety radius surrounding offshore operations.

Across our operations, we try to minimize traffic and road safety concerns, which typically increase with higher activity levels, by reducing the number of trucks on the road. Since oil and natural gas operations require the

movement of goods and services and local infrastructure is sometimes not designed for increased traffic, streamlining our operations and reducing our physical footprint can reduce our impact on local communities.

**Strategic community investments**

Our charitable investments are strongly aligned with our business plans. With significantly lower capital spending in 2016 compared to 2015, we modestly curtailed our spending on charitable investments. However, while our global charitable investment level was lower than in previous years, we contributed \$34.9 million to support the communities where our employees live and work through charitable giving, employee volunteerism and civic leadership. Our charitable investment strategy is built around three giving pillars:

**Signature Programs** help unify our global giving around relevant themes and make our charitable investments program significantly more impactful. The company focuses on two signature causes: water and biodiversity stewardship (global) which aligns with our sustainability commitments to protect the environment; and math education (Houston) which is key to academic and career success and aids in building capacity in communities. In 2016, our support of essential conservation efforts continued with the [Smithsonian’s Migratory Connectivity](#)

[Project and National Fish & Wildlife Foundation’s SPIRIT of Conservation](#). In Houston, we also supported innovative teacher and student development math education programs offered by Rice University, United Way, and the Boys & Girls Clubs of Greater Houston.

**Local Contributions** help meet each community’s unique needs and enhance and protect ConocoPhillips’ reputation as a good corporate citizen and neighbor. In 2016, our efforts ranged from providing disaster relief after floods in the U.S. and fires in Canada, to support for health and social services, to aid for children with congenital heart disease in China and those with life-threatening medical conditions in the United Kingdom.

**Employee Programs** recognize that employees and retirees are often the company’s best liaison with the communities in which we operate. We encourage and support their involvement in local charitable activities through several Employee and Retiree Giving Programs including the United Way, Matching Gift, Volunteer Grant

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**\$34.9 million**  
contributed to communities

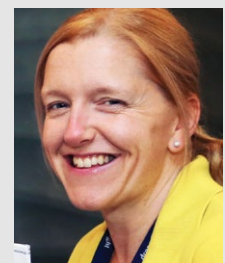
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## Helping dreams take flight

In the U.K., Dreamflight helps ill and disabled children leave their troubles behind when they take a 10-day dream vacation to Orlando, Florida. It is one of the programs sponsored through our Local Contributions giving pillar. For the past five years, we have provided funding and volunteers to support the nearly 200 local children who visit the area’s famous theme parks each October. An extensive network of doctors, nurses, physiotherapists and nonmedical volunteers care for them during the trip. A chartered 747 filled with medical equipment ensures the children have a safe and secure flight, and the medical staff has access to detailed information on each child’s medical needs. Doctors and nurses across the U.K. nominate the youths for the Dreamflight trip.



“The trip gives children who have been through a really tough time an opportunity to have a good time — they’re children first, and their illnesses and disabilities come second. We treat them as kids, help grow their confidence and let them make friends and share their experiences. ConocoPhillips has been instrumental in helping our fundraising and supporting us.” **Dreamflight Director Sally Wrampling**



**“We believe that the most effective social and charitable investments come through strategic relationships with organizations dedicated to serving the needs of the community.”** **Investor Relations & Communications Vice President Ellen DeSanctis**



and Dependent Scholarship programs. In 2016, we supported local communities by participating in six United Way campaigns raising more than \$5.9 million from employee and corporate contributions, and logging over 28,000 volunteer hours in the U.S. and Canada.

**Providing energy education tools**

Resource access, energy supply diversity, technological innovation, energy efficiency, industry competitiveness and environmental stewardship can and should be achieved together. In the U.S., we support the [National Energy Education Development \(NEED\) Project](#), funding energy education workshops for teachers to provide tools to educate students on a wide range of topics from energy conservation to energy sources, including renewable energy. Teachers receive curriculum guides and experiment ideas to promote innovative thinking and encourage a dialogue about energy. Since 2007, we have sponsored NEED workshops in 95 cities, throughout 35 states, attended by 6,279 teachers, reaching 5,093,150 students. In 2016, teachers who attended the program impacted about 218,000 students.

**Building healthy communities**

Congenital heart disease is one of the most common birth defects in China, especially in high-altitude and remote areas. Residents of these areas typically lack medical facilities and local medical professionals are unable to

diagnose and treat patients with the condition. The Love and Hope Project, a local project we have supported since 2008, funds heart surgery for children from poverty-stricken families who suffer from congenital heart disease. In 2016, we provided funding for a screening van to tour remote areas and provide free diagnosis for underprivileged children, in addition to funding for treatment and surgery. Our donations have funded surgery for more than 400 children.

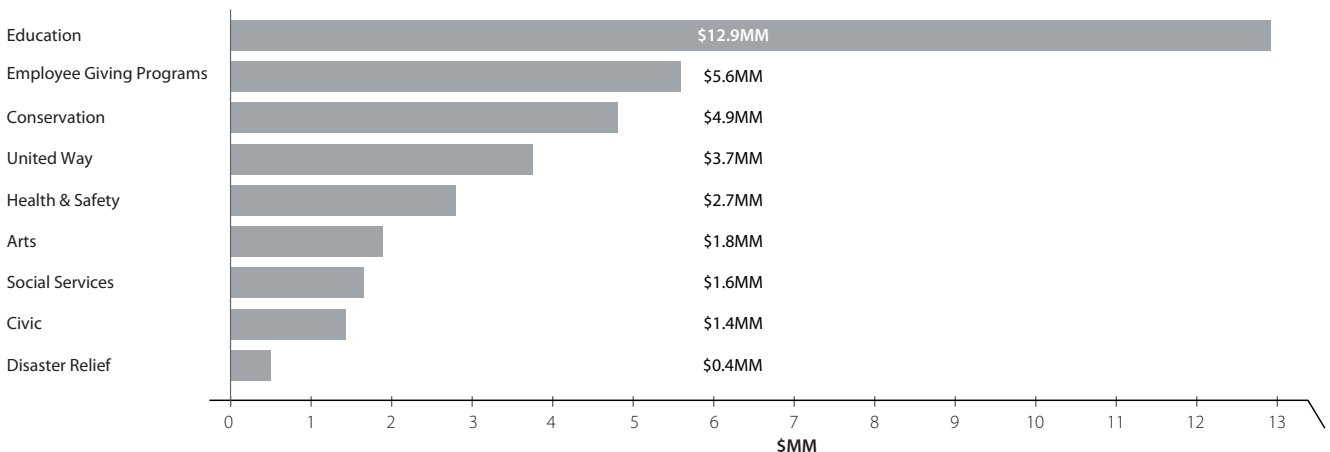
**Addressing human rights**

We believe businesses have a constructive role to play to advance respect for human rights throughout the world and conduct business consistent with the human rights philosophies expressed in [global frameworks](#). Our actions are embedded in our Social Impact Assessments and Action Plan. In 2016, we updated our human rights training module which reviews the company’s position on respecting human rights, the importance to our business and our approach to managing human rights issues. It includes education on issues related to indigenous peoples, cultural awareness, labor standards risks, and risks associated with security and human rights.

**Indigenous peoples**

Wherever our operations neighbor with indigenous communities, we seek to partner and engage with them to diminish the negative aspects of our operations and

**2016 Global Community Investment Spend by Type**




maximize the social and economic benefits we can bring. In the U.S. Lower 48, we have formal and informal meetings with the Jicarilla Apache, Southern Ute, and Navajo Nation to maintain open dialogue about ongoing development plans, regulatory matters and tribal vendor selection. We regularly discuss high priority items related to compliance and permitting. Additionally, our social investment activities in the tribal communities provide informal consultation opportunities.

We support the Clontarf Foundation, a national organization that exists to improve the education, discipline, life skills, self-esteem and employment prospects for young indigenous men across Australia. The Clontarf Academy, a football academy established in partnership with local schools, encourages participants to stay in school by making academy activities only open to students. Additionally, the organization provides mentors to counsel students on a range of behavioral and lifestyle issues.

We continued to build local capacity in Australia in 2016, launching the Indigenous Land & Sea Ranger Program in Gladstone. This new project is the first ranger partnership program in Queensland between corporations and state

government. The program focuses on protecting the environment and the local cultural heritage by increasing the number of indigenous peoples participating in environmental management. This highly successful Queensland program is delivering real environmental and employment outcomes in some of the most sensitive parts of the state. It is based on a structured work and training plan designed to provide qualification in conservation and land management that will develop into a self-sustaining business.

 [View "Queensland Indigenous Land and Sea Ranger program."](#)

We also pursue opportunities to support economic development opportunities consistent with indigenous communities' culture and community development plans. The West Arnhem Land Fire Abatement (WALFA) project in Australia centers around an innovative mix of customary indigenous fire management techniques and contemporary technology to manage late dry season fires to protect important places and encourage new growth. In 2016, the program abated more than 280,000 tonnes of CO<sub>2</sub> equivalent, a new annual record, bringing

## Respecting human rights in Colombia

Our Human Rights Position and Stakeholder Engagement Principles serve as the framework for our interaction with stakeholders in Colombia. Our community engagement practitioners, including contractors and security personnel, receive training on the Position and the Principles, as well as our Code of Ethics and the Voluntary Principles on Security and Human Rights (VPSHR).

In 2016, we were preparing to test a previously drilled well and planning an exploration program in the Middle Magdalena Valley, located in the Cesar department in northern Colombia. We collaborated with agencies of the Colombian national government to conduct more than 100 meetings with stakeholders, including local communities, to listen to concerns and address questions about our exploration plans. These meetings focused on the legal,

technical, social and environmental aspects of our plans. They also included discussions about our existing, government-approved environmental license that allows us to conduct the vertical, conventional production test, the environmental impact assessment for exploration of unconventional resources that we are preparing to submit to the government, and our community benefit plan.

Protests by a local anti-fracking group began illegally blockading the public road to our well site, preventing us and government authorities from entering the site. We suspended work activities while we engaged with the activists with the help of the Colombian National and Local authorities, including the Regional Ombudsman, but were unsuccessful in demobilizing the protest. An interagency meeting determined

government support was needed to address the blockade and the local Security Council requested federal government intervention. We emphasized our commitment and expectations regarding the government's commitments to the VPSHR at the local, regional and national levels. The government deployed the National Police, accompanied by a Human Rights advisor, and the blockade was dispersed safely without material incidents and we were able to resume our permitted activities.



### SPOTLIGHT

the program total to 1.9 million tonnes. The project offers economic, environmental, social and cultural benefits for local indigenous community members across 17,574 square miles of remote, biodiversity- and culturally-rich Aboriginal land adjoining the Kakadu National Park. WALFA supports over 200 indigenous jobs per year, conserves rainforest vegetation, protects local wildlife and rock art sites and allows cultural aspects of land management to be passed down to younger generations. It also reduces greenhouse gas emissions cost effectively and is one of Australia's top 10 largest offset programs. All of this makes it a truly sustainable project with social, environmental and economic benefits. The program is so successful that it has now been emulated in more than 40 other projects across Northern Australia.



[View "Fire with Fire."](#)

### Implementing social performance indicators

We implemented social indicators related to human rights and indigenous peoples across our operations in 2016. These reflect how potential human rights issues are tracked and addressed via a risk evaluation process. Indicators include the number of engagements or consultations and agreements with indigenous communities as well as the number of employees who take our human rights training.



[View our global progress.](#)

## SPOTLIGHT

### Building sustainable benefits

In Canada, we operate within the traditional territories of Indigenous Peoples including First Nations, Inuit and Métis. We seek to understand their interests and concerns before and during resource development and production, and actively work to minimize any potential infringement on their traditional rights. While provincial and federal governments regulate processes for consulting Indigenous communities, we develop consultation and engagement plans to support successful relationships now and over the long term. We have a values and interest approach, which includes exploring, planning, action and reflection. We also work

to provide access to the economic benefits of development, including contracts for goods and services, jobs, training and education opportunities.

Our Indigenous Operator Trainee program offers the education and training necessary to become a Power Engineer. We have trainees in all of our asset areas. Of the trainees recently selected within the oil sands region, two were affiliated with the [Sustainable Communities Initiative](#) as youth or youth workers, an example of cross-pollinating efforts to guide youth to positive futures. We have another three apprentices currently working in a maintenance training

program, in the final years of their millwright and instrumentation apprenticeships. In 2016, we added a new Heavy Equipment Technician program as well as shift supervisor training specific to Indigenous community members near the oil sands.

We also celebrated an important milestone of building sustainable relationships with Indigenous leaders and communities in 2016. The Cooperation and Mutual Benefits Agreement (CMBA) with Fort McMurray First Nation (FMFN) represents multiple years of engagement to build trust and respect, mutual areas of interest and benefit, and a formal commitment to a stronger relationship. This agreement has a process to resolve concerns about rights infringement from our activities at Surmont and includes language that commits both parties to work toward beneficial economic and social dimensions of our relationship.

By respecting the historic cultural connections that indigenous peoples have to the land and incorporating our community framework guidelines, we can help ensure that they share the long-term sustainable benefits from natural resource development.





# Supply Chain

Supply chain sustainability is integral to our operations — we work with thousands of contractors, suppliers and local businesses across the globe. Our reputation and the success of our operations are influenced by those who support our operations at our worksites and beyond.

## Our focus

Three of our [highest priority issues](#) — safety and health, local content, and business ethics — can all be impacted by supplier performance. Our commitment to operating responsibly extends to our suppliers, and we have processes to address risks and opportunities in our supply chain. We integrate sustainability criteria into our supplier selection and evaluation, and clearly outline [our expectations](#) regarding integrity, labor and human rights, supplier inclusion, health, safety and the environment for contractors and suppliers.

In 2016, our actions focused on:

- Developing and utilizing local suppliers
- Working with suppliers to develop key sustainability performance indicators

## Local content

Our operations require a range of products and services to do business effectively at a local level. We promote economic growth in communities where we operate by employing and training local workers and supporting local suppliers and service providers. Along with our strategic community investments, this allows us to provide sustainable economic benefits, both direct and indirect, to the local communities where we work.

We are continuing to address the challenge of increasing local participation and encouraging local business in Timor Leste. This requires close collaboration with our key contractors at the Bayu-Undan facility, including Clough

AMEC who provides labor for our offshore operations and maintenance. A key component of their contract is skill development for local Timorese. By improving the training of Timorese personnel and formalizing plans linked to in-role development, they improved productivity and significantly increased the overall percentage of Timorese personnel in the workforce. This effort is consistent with the expectations of the Bayu-Undan regulator and reinforces our commitment to sustainable development in Timor Leste.

We also work to promote supplier diversity by supporting access to business opportunities and fostering relationships with diverse businesses. Our U.S. Supplier Diversity Program yielded expenditures of \$391 million with minority and women owned businesses and \$313 million in expenditures with small businesses in 2016.

 [Read more about our Code of Business Ethics and Conduct.](#)

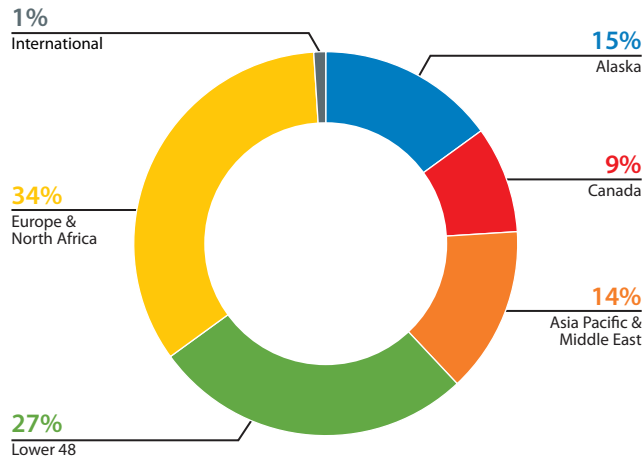


Supplier Diversity & Special Projects Lead Tami Hunter meets with a small business owner.

“About 80 percent of our spend goes through our suppliers, so we want to work with companies that align with our values and focus on sustainable development. Making sure we operate in a sustainable way is key to our business and therefore also important for our suppliers.” **Wells & Operations Senior Vice President Steinar Vaage**



**2016 Total Spend by Segment**



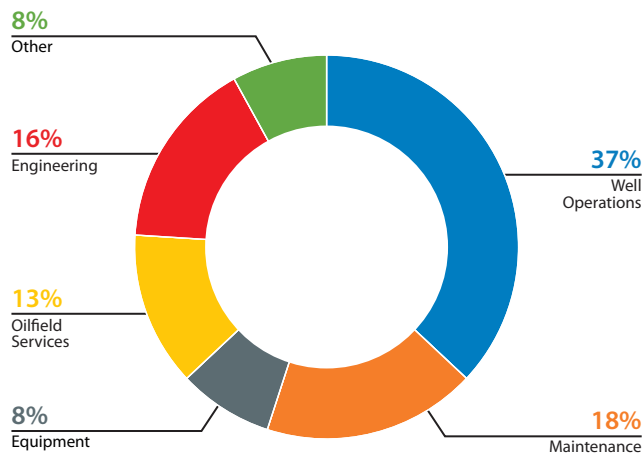
**Engaging with suppliers**

We recognize contractors and suppliers play an important role in helping us meet our business objectives, and how they manage their impacts on the environment and community reflects on our performance. We expect our suppliers and contractors and their employees to act in accordance with our Code of Business Ethics and Conduct. We provide greater clarity about our Code through our Expectations of Suppliers and Commitment to Supplier Inclusion documents which provide clear, concise insight into our operating philosophies and expectations.

**\$9.27 billion**

Total spend with contractors and suppliers in 2016

**2016 Total Spend by Category**



Questions related to sustainability are included in our bid processes and we work with our suppliers to identify and manage risks, foster supplier inclusion, and increase productivity and efficiency within the supply chain. We collaborate with suppliers to improve our sustainability performance together. In 2016, we worked with our larger suppliers to develop and rollout key standardized environmental performance indicators (KPIs). These KPIs are meant to support our action plans and focus on opportunities for improving efficiency and reducing waste. They require key suppliers to report annual performance in several categories, including greenhouse gas emissions, amount of fresh water consumed and weight of solid waste disposed. A yearly review with each supplier regarding their results will focus on year-over-year changes to performance, the drivers for positive change in performance such as technology or processes, and the current or potential application of those drivers to be used more broadly within our operations. We hope that these KPIs will help clarify

performance expectations, track results and identify continuous improvement opportunities and options.

Our annual Supplier Recognition Awards honor suppliers who positively impact our business while exhibiting exceptional leadership and alignment with our SPIRIT Values. There are two categories of nominations. Execution recognizes criteria such as delivering the plan; flexibility and adaptability; superior budget and schedule control; and innovative solutions. Doing Business Better recognizes criteria such as contributing sustainable cost reductions, process improvements and waste elimination; fit-for-purpose solutions; alignment with our brand; and demonstrated teamwork and initiative. Sustainability is an integral consideration for these supplier awards. In 2016, awards ranged from reducing footprint and materials when constructing facilities and well sites, to improving community engagement and local content.

## 2016 Supplier Recognition Award Winners

Bristow Norway AS/Bristow Helicopters Ltd.

Clough Amec Pty. Ltd.

Halliburton Energy Services, Inc.

IKM Testing

MMA Offshore Ltd.

North Cariboo Air

UGL Limited

WorleyParsons Canada Service Ltd. (WorleyParsons Group)

## SPOTLIGHT

### Reducing footprint and cost with innovative design

In Canada, we formed a multi-functional team to rethink well pad design at our Surmont oil sands facility. Our aim was to reduce well pad cost through reduced footprint, a simplified and repeatable design, and a manufacturing approach to execution. WorleyParsons Group worked with us to design our Integrated Wellpads Program. The team adopted a zero-based approach that challenged conventional development processes and

brought internal stakeholders to the table to focus on actual, rather than perceived, value drivers. The result was a reduction in the amount of structural steel required of 65 percent, a 30 percent reduction in footprint, and a 30 to 40 percent reduction in well pad costs. It also reduced the amount of site work required which minimized social and environmental disruptions associated with road traffic. We delivered an innovative fit-for-purpose design

that can be replicated for future well pads. WorleyParsons received a 2016 Supplier Recognition Award for their detailed design work and execution of the project. This reduces environmental footprint, improves economics and benefits communities by reducing truck deliveries.

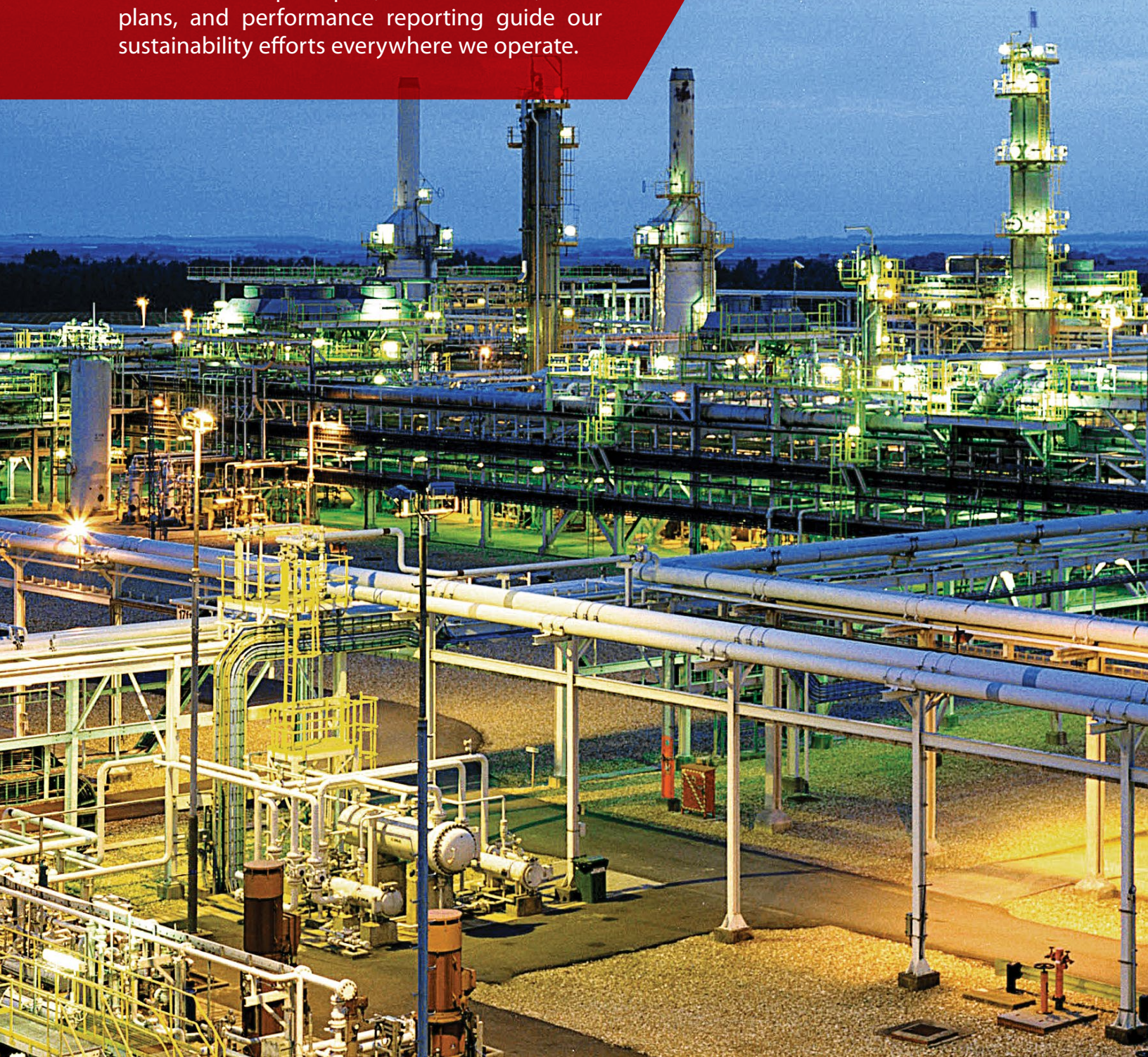


[View "Collaborating with WorleyParsons."](#)



# About Our Report

Dawn at the gas terminal at Theddlethorpe, Scotland. Our principles, commitments, action plans, and performance reporting guide our sustainability efforts everywhere we operate.





# About Our Report

## Reporting frameworks

We report our sustainability performance using internationally recognized reporting standards and frameworks. Our reporting is informed by the reporting guidelines, indicators and terminology developed by IPIECA and the Global Reporting Initiative (GRI) G4 guidelines and the Oil and Gas Sector Supplement. To help stakeholders find information easily, we have mapped relevant IPIECA and GRI indicators on our website.

We provide regular information to the CDP (formerly known as the Carbon Disclosure Project), Dow Jones Sustainability Index (DJSI) and other top tier organizations that assess the economic, social and environmental performance of companies. It is not practical to respond to all the surveys that rate companies so we focus on those with credibility and topics of interest to key stakeholders.

## Reporting scope

The 2016 Sustainability Report covers data from January 1 to December 31, 2016. Our Data Methodology appendix outlines the scope and methodologies of our data reporting.

## Assurance

Accurate assessment of our performance is crucial and we have a detailed reporting process in place to deliver our safety, health, and environmental metrics. This process includes:

- Ensuring that business units understand the corporate reporting obligations associated with safety, health and environmental metrics.
- Establishing standardized methods of data collection and expected reporting procedures.
- Verifying that the data provided by business units is accurate and complete.
- Reviewing and questioning the results.
- Assessing results to identify trends, and better understand the drivers of year-over-year changes.

Our internal quality assurance process begins at the business unit level. There are three phases of data verification at this level - during submission, review, and approval. Before the data is sent from the business unit to the corporate level it undergoes vetting by technical peers and leaders, who challenge any findings that they find questionable. When the final business unit data is submitted to the corporate level it contains an explanation for all variances greater than 10 percent from the prior year. Reasons for significant variances may include start-ups or dispositions. At the corporate level, data submitted for each asset is further reviewed and challenged by a team of subject matter experts utilizing a data quality checklist.

Once all business unit data is compiled at our corporate level it undergoes further verification by subject matter experts. During this effort, an intensity analysis is conducted to measure total volumes and production throughput and year-over-year data changes to help identify any inconsistencies. The data is also compared to similar operations during this process. The information is then analyzed in aggregate by metric to understand the significant drivers behind any year-over-year change in company values. After this process, the data is presented to company leaders, who have an opportunity to review and challenge the information, possibly spurring additional verification. Final data undergoes executive-level approval prior to publishing.

## ABOUT OUR REPORT

In the U.K., Canada and Norway, we conduct reasonable and limited assurance per regulatory requirements to verify reported emissions. Voluntary limited assurance review of select corporate-level metrics, including reported overall Scope 1, Scope 2 and Scope 3 greenhouse gas (GHG) volumes, and voluntary third-party review of asset-level methods used to report HSE data to the company's corporate HSE metrics database is also

conducted periodically. We are in the process of independent external assurance for 2016 data with ERM CVS, which will be completed in August 2017. This is in line with our triennial process for assurance, as the [previous assurance statement](#) was issued in 2014. The assurance will include Scope 1 and Scope 2 emissions, flaring volume, energy used, water metrics, safety metrics, and other selected environmental metrics.

## We value your feedback

Please send any comments, suggestions or questions about our 2016 Sustainability Report or our sustainability performance to [sdteam@conocophillips.com](mailto:sdteam@conocophillips.com).

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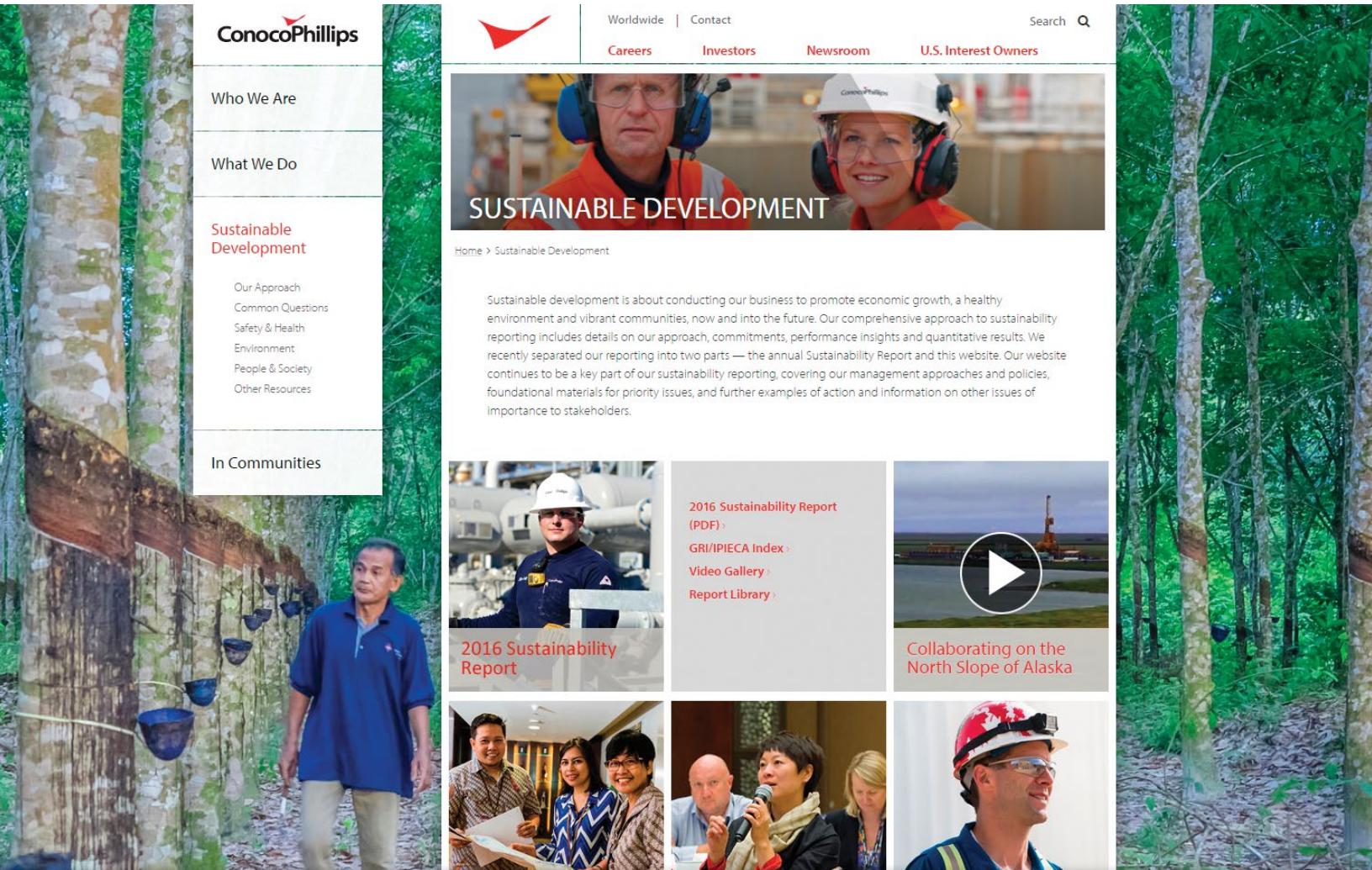
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ConocoPhillips

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What We Do

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## SUSTAINABLE DEVELOPMENT

Home > Sustainable Development

Sustainable development is about conducting our business to promote economic growth, a healthy environment and vibrant communities, now and into the future. Our comprehensive approach to sustainability reporting includes details on our approach, commitments, performance insights and quantitative results. We recently separated our reporting into two parts — the annual Sustainability Report and this website. Our website continues to be a key part of our sustainability reporting, covering our management approaches and policies, foundational materials for priority issues, and further examples of action and information on other issues of importance to stakeholders.



2016 Sustainability  
Report

2016 Sustainability Report  
(PDF) >  
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Collaborating on the  
North Slope of Alaska



# Our Performance by Year

METRIC	Operated Total <sup>1,2,3</sup>				
	2016	2015	2014	2013	2012
<b>Total Operated Production</b> (MMBOE <sup>4</sup> )	680	692	780	760	780
<b>Safety</b> (rate per 200,000 hours worked)					
Workforce Fatalities (number)	0	0	0	2	2
Workforce Total Recordable Rate	0.18	0.20	0.28	0.26	0.29
Workforce Lost Workday Rate	0.05	0.05	0.04	0.05	0.07
Employee Total Recordable Rate	0.09	0.09	0.11	0.09	0.11
Employee Lost Workday Rate	0.04	0.03	0.02	0.04	0.02
Contractor Total Recordable Rate	0.23	0.24	0.34	0.31	0.35
Contractor Lost Workday Rate	0.06	0.06	0.04	0.05	0.08
<b>Greenhouse Gases</b> (thousand tonnes)					
CO <sub>2</sub> from Operations	19,900	18,600	19,400	18,600	19,000
CO <sub>2</sub> from Imported Electricity	1,500	1,300	1,400	1,600	1,600
Methane (CO <sub>2</sub> equivalent) <sup>3,7</sup>	5,300	6,100	6,700	7,300	5,300
Nitrous Oxide (CO <sub>2</sub> equivalent) <sup>7</sup>	100	100	100	100	200
Total Greenhouse Gases <sup>3</sup>	26,800	26,100	27,600	27,600	26,100
<b>Energy Use</b> (trillion BTUs)					
Combustion Energy	222	211	222	242	243
Imported Electricity	6	6	6	6	7
Total Energy	228	217	228	248	250
<b>Waste Gases</b> (million cubic feet)					
Flaring Volume (routine and non-routine)	23,500	26,200	29,200	22,700	20,700
Total Flaring	23,500	26,200	29,200	22,700	20,700
<b>Criteria Air Pollutants</b> (tonnes)					
Volatile Organic Compounds (VOC)	93,100	97,900	87,600	125,200	98,000
Nitrogen Oxides (NOx)	60,400	88,500	100,600	97,800	107,000
Sulfur Oxides (SOx)	8,200	7,100	8,500	7,200	9,700
Particulate Matter (PM)	1,300	1,600	2,000	2,000	3,100
Total Criteria Air Pollutants	163,000	195,500	198,700	232,200	217,800
<b>Wastes</b> (tonnes)					
Hazardous Wastes	20,900	13,800	36,800	37,300	35,100
Non-Hazardous Wastes	259,200	193,000	113,600	248,200	283,300
Recycled Wastes	148,300	130,700	327,300	262,600	276,600
Total Wastes	428,400	337,500	477,700	548,100	595,000
<b>Water</b> (thousand cubic meters)					
Freshwater Withdrawn	10,200	11,600	12,100	12,000	9,700
Non-freshwater Withdrawn <sup>5</sup>	42,900	50,100	—	—	—
Produced Water Recycle/Reuse <sup>6</sup>	73,500	78,700	—	—	—
<b>Liquid Hydrocarbon Spills</b>					
Spills > 100 Barrels	3	8	3	11	5
Volume from Spills > 100 Barrels (barrels)	2,600	1,300	900	2,800	900
Spills > 1 Barrel	75	149	258	286	198
Volume from Spills > 1 Barrel (barrels)	3,400	3,000	3,300	4,900	2,200
Volume Recovered from Spills > 1 Barrel (barrels)	400	1,100	1,800	3,300	1,200

continued on page 54

# Our Performance by Year *(continued)*

METRIC	ConocoPhillips Total		
	2016	2015	2014
<b>Economic Contribution</b>			
Charitable Investments (\$ million)	34.8	44	50
Payments to Vendors and Suppliers (\$ billion) <sup>8</sup>	9.27	17.1	26.0
Shareholder Dividends (\$ billion)	1.3	3.7	3.5
Capital Investments (\$ billion) <sup>9</sup>	4.9	10.1	17.1
<b>Workforce</b>			
Employees at Year-End	13,300	15,900	19,100
Employees — Women	27%	27%	28%
Top Leadership — Women	17%	14%	20%
Leadership — Women	21%	20%	20%
Junior Leadership — Women	21%	21%	22%
Professional — Women	28%	27%	28%
Non-U.S. Employees	49%	50%	48%
Non-U.S. Top Leadership	24%	24%	18%
Non-U.S. Junior Leadership	55%	57%	53%
Non-U.S. Leadership	51%	52%	49%
<b>Additional Workforce Statistics (U.S.)</b>			
Employees — Minorities	23%	24%	24%
Top Leadership — Minorities	10%	8%	7%
Leadership — Minorities	16%	16%	16%
Junior Leadership — Minorities	18%	18%	19%
Professional — Minorities	22%	23%	23%
<b>Average Daily Net Production<sup>4,10</sup></b>			
Crude Oil (MBD)	598	605	595
NGL (MBD)	145	156	159
Bitumen (MBD)	183	151	129
Natural Gas (MMCFD)	3,857	4,060	3,943
Total (MBOED)	1,569	1,589	1,540
Total Proved Reserves at Year-End (billion BOE)	6.4	8.2	8.9

<sup>1</sup> Health, safety and environmental (HSE) data are based on ConocoPhillips assets we operate and assets where we have operational control. Environmental data are represented as 100% ownership interest regardless of actual share owned by ConocoPhillips.

<sup>2</sup> Former operations that were included in the 2012 spinoff of downstream are excluded.

<sup>3</sup> To provide the most current and accurate data available, we have updated previously reported data for prior years as needed.

<sup>4</sup> Data is normalized using barrels of oil equivalent (BOE) from production operations, including gas plant liquid production of ethane, propane, butane and condensate and LNG production from third party gas not accounted for in production operations (APLNG). For gas production, 6,000 standard cubic feet of gas is assumed to be equal to one BOE.

<sup>5</sup> Includes water withdrawn from saline/brackish groundwater aquifers and seawater.

<sup>6</sup> Includes produced water recycled for production (e.g., steam generation) or completions (e.g., hydraulic fracturing) and produced water reused for enhanced oil recovery.

<sup>7</sup> The Global Warming Potential factor (GWP) for reporting methane emissions was changed from 21 to 25 in 2013, and GWP for reporting N<sub>2</sub>O was changed from 310 to 298.

<sup>8</sup> Payments to Vendors and Suppliers is an estimate based on Production and Operating Expenses and Capital Program; this reflects a methodology change versus the 2014 Sustainable Development Report.

<sup>9</sup> Includes discontinued operations and excludes \$2,810 million FCCL prepayment in 2013.

<sup>10</sup> Production data is average daily net production from continuing operations.

MBD — Thousands of barrels per day.

MMCFD — Millions of cubic feet per day. Represents quantities available for sale and excludes gas equivalent of natural gas liquids included above.

MBOED — Thousands of barrels of oil equivalent per day.



# Our Performance by Country

METRIC	Operated Total					2016
	U.S.A.	Canada	UK/Norway	Australia	All Others*	
<b>Total Operated Production</b> (MMBOE <sup>4</sup> )	300	82	124	91	82	680
<b>Greenhouse Gases</b> (thousand tonnes)						
CO <sub>2</sub> from Operations	7,100	3,100	2,100	3,900	3,700	19,900
CO <sub>2</sub> from Imported Electricity	900	600	0	0	0	1,500
Methane (CO <sub>2</sub> equivalent) <sup>7</sup>	3,700	1,300	100	100	100	5,300
Nitrous Oxide (CO <sub>2</sub> equivalent)	0	0	0	0	0	100
<i>Total Greenhouse Gases</i>	11,700	5,000	2,200	4,000	3,800	26,800
<b>Energy Use</b> (trillion BTUs)						
Combustion Energy	77	55	18	51	21	222
Imported Electricity	3	2	0	0	0	6
<i>Total Energy</i>	80	57	18	51	21	228
<b>Waste Gases</b> (million cubic feet)						
Flaring Volume (routine and non-routine)	11,400	500	2,300	7,500	1,800	23,500
<i>Total Flaring</i>	11,400	500	2,300	7,500	1,800	23,500
<b>Criteria Air Pollutants</b> (tonnes)						
Volatile Organic Compounds (VOC)	81,900	4,400	3,300	1,100	2,400	93,100
Nitrogen Oxides (NOx)	30,100	8,600	5,200	5,600	10,900	60,400
Sulfur Oxides (SOx)	7,000	600	100	100	400	8,200
Particulate Matter (PM)	800	100	200	100	100	1,300
<i>Total Criteria Air Pollutants</i>	119,800	13,700	8,800	6,900	13,800	163,000
<b>Wastes</b> (tonnes)						
Hazardous Wastes	0	12,900	6,200	800	1,000	20,900
Non-Hazardous Wastes	224,300	31,400	1,600	700	1,200	259,200
Recycled Wastes	127,600	700	16,600	3,100	300	148,300
<i>Total Wastes</i>	351,900	45,000	24,400	4,600	2,500	428,400
<b>Water</b> (thousand cubic meters)						
Freshwater Withdrawn	5,200	2,400	1,800	600	200	10,200
Non-freshwater Withdrawn	16,000	900	25,900	0	100	42,900
Produced Water Recycle/Reuse	59,900	13,600	0	0	0	73,500
<b>Liquid Hydrocarbon Spills</b>						
Spills > 100 Barrels	2	1	0	0	0	3
Volume from Spills > 100 Barrels (barrels)	200	2,400	0	0	0	2,600
Spills > 1 Barrel	64	7	3	0	1	75
Volume from Spills > 1 Barrel (barrels)	900	2,500	0	0	0	3,400
Volume Recovered from Spills > 1 Barrel (barrels)	200	200	0	0	0	400

\* All Others includes Indonesia, Malaysia, Deepwater Gulf of Mexico, Senegal.



[Read our GRI/IECA table for more information.](#)

# Quick Links

The following links provide additional information about topics included in this report.

## Introduction

<b>About ConocoPhillips</b>	Fact Sheets and Financial Data   <a href="http://bit.ly/2rSfwDY">http://bit.ly/2rSfwDY</a>
<b>Integrating Sustainability</b>	Our Approach   <a href="http://bit.ly/2qDrCMG">http://bit.ly/2qDrCMG</a>
<b>Governance</b>	Accountability and Governance   <a href="http://bit.ly/2rC6ewj">http://bit.ly/2rC6ewj</a>
<b>Positions</b>	Policy and Positions   <a href="http://bit.ly/2rSHNua">http://bit.ly/2rSHNua</a>
<b>Action Plans</b>	Sustainable Development Strategies and Action Plans   <a href="http://bit.ly/2r8ZPaD">http://bit.ly/2r8ZPaD</a>
<b>Political Contributions</b>	Our Political Contributions   <a href="http://bit.ly/2ru8DIA">http://bit.ly/2ru8DIA</a>

## Responsible Operations

<b>Safe Operations</b>	Operations Excellence   <a href="http://bit.ly/2rC0WB8">http://bit.ly/2rC0WB8</a>
<b>Life Saving Rules</b>	<a href="http://bit.ly/2qDWDAc">http://bit.ly/2qDWDAc</a>
<b>Well Principles</b>	Global Onshore Well Principles   <a href="http://bit.ly/2rF1IT4">http://bit.ly/2rF1IT4</a>

## Environmental Performance

<b>Climate Change Action Plan</b>	Taking Action on Climate Change   <a href="http://bit.ly/2rhFz4l">http://bit.ly/2rhFz4l</a>
<b>Methane Emissions</b>	How is ConocoPhillips reducing methane emissions   <a href="http://bit.ly/2qz14wZ">http://bit.ly/2qz14wZ</a>
<b>Climate Change Strategy</b>	Scenario Planning   <a href="http://bit.ly/2sbinFn">http://bit.ly/2sbinFn</a>
<b>Water Action Plan</b>	Our Approach to Water   <a href="http://bit.ly/2sbvtmg">http://bit.ly/2sbvtmg</a>
<b>Produced Water</b>	Managing Local Water Risks   <a href="http://bit.ly/2rhFK01">http://bit.ly/2rhFK01</a>
<b>Biodiversity Action Plan</b>	Our Biodiversity Action Plan   <a href="http://bit.ly/2rloGs2">http://bit.ly/2rloGs2</a>
<b>Global Signature Program</b>	Water and Biodiversity Stewardship   <a href="http://bit.ly/2rC9CqP">http://bit.ly/2rC9CqP</a>

## Social Responsibility

<b>Stakeholder Engagement Action Plan</b>	<a href="http://bit.ly/2smkCVF">http://bit.ly/2smkCVF</a>
<b>Human Rights</b>	Human Rights Overview   <a href="http://bit.ly/2rSjxt">http://bit.ly/2rSjxt</a>
<b>Indigenous People</b>	Respecting Indigenous People   <a href="http://bit.ly/2rShdBk">http://bit.ly/2rShdBk</a>

## About Our Report

<b>Data Tables</b>	<a href="#">2016 Metrics</a>
<b>Reporting Frameworks</b>	<a href="#">GRI/IECA/UNGP Index</a>

## Awards and Recognition

### Dow Jones Sustainability Index North America

### Utah Board of Oil, Gas, and Mining Earth Day Award

United States

### National Philanthropy Day, Education Award

Canada

### Emerald Award

Canada

### Sriwijaya CSR Award

Indonesia

### Forbes and Just Capital 100 Best Corporate Citizens

United States

### Colorado Environmental Leadership Program, Gold Leader

United States

### Maximizing Economic Recovery Awards

Southern Wye Project, United Kingdom

### Minority Business News Corporate 101: Most Admired Companies, Supplier Diversity

United States

### National Traffic Safety Award

United States

### Newsweek Green Rankings

### Padmamitra Award

Indonesia

### President's Council on Service and Civic Participation, President's Volunteer Service Award

United States

### Progressive Policy Institute Top 25 Investment Heroes Award

United States

### Stewardship and Sustainability Award, Alaska SeaLife Center

United States

## Explore ConocoPhillips

### Fact Sheets

The ConocoPhillips fact sheets provide detailed operational updates for each of the company's six segments. The fact sheets are updated annually and are available at [www.conocophillips.com/factsheets](http://www.conocophillips.com/factsheets).



### Annual Report

The ConocoPhillips Annual Report provides information about the company's financial and operational performance.



[Read our Annual Report.](#)



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Certain disclosures in this annual report may be considered "forward-looking" statements. These are made pursuant to "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. The "Cautionary Statement" in the Management's Discussion and Analysis in ConocoPhillips' 2015 Form 10-K should be read in conjunction with such statements.

"ConocoPhillips," "the company," "we," "us" and "our" are used interchangeably in this report to refer to the businesses of ConocoPhillips and its consolidated subsidiaries.

  
**ConocoPhillips**