

# Managing Climate-Related Risks

Building a resilient strategy  
for the energy transition

2019 UPDATE

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## CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This report includes forward-looking statements based on management's current expectations relating to our operations and business plans. Examples of forward-looking statements contained in this report include the scenarios used in our strategic planning process, including the underlying assumptions, the estimated impacts on our business, including operating costs, revenues and cost of capital, and technology related to climate-related risks. Words or phrases such as "anticipate," "estimate," "believe," "budget," "continue," "could," "intend," "may," "plan," "potential," "predict," "seek," "should," "will," "would," "expect," "objective," "projection," "forecast," "goal," "guidance," "outlook," "effort," "target" or similar expressions that convey the prospective nature of events or outcomes generally indicate forward-looking statements. The reader should not place undue reliance on these forward-looking statements, which speak only as of the date of this report. These statements are not guarantees of future performance as they involve assumptions that, while made in good faith, may prove to be incorrect, and involve risks, uncertainties and other factors, many of which are beyond the company's control and we cannot predict. Actual results could differ materially from anticipated results and reported results should not be considered an indication of future performance. Factors that could cause results to differ include, but are not limited to: the impact of significant declines in prices for crude oil, bitumen, natural gas, LNG and natural gas liquids; potential failures or delays in achieving expected reserve or production levels from future oil and gas developments, including due to operating hazards, drilling risks and the inherent uncertainties in predicting reserves and reservoir performance; unsuccessful exploratory drilling activities or the inability to obtain access to exploratory acreage; legislative and regulatory initiatives addressing environmental concerns, including initiatives addressing the impact of global climate change or further regulating hydraulic fracturing, methane emissions, flaring or water disposal; reduced demand for our products or the use of competing energy products, including alternative energy sources; substantial investment in and development of alternative energy sources, including as a result of existing or future environmental rules and regulations; general domestic and international economic and political developments, including changes in governmental policies relating to crude oil, bitumen, natural gas, LNG and natural gas liquids pricing, regulation or taxation; competition in the oil and gas exploration and production industry; failures in risk management and other factors discussed in this report and described in Item 1A—Risk Factors in our 2018 Annual Report on Form 10-K and any additional risks described in our other filings with the Securities and Exchange Commission (SEC). Unless legally required, ConocoPhillips undertakes no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise. Third-party scenarios discussed in this report reflect the modeling assumptions and outputs of their respective authors, not ConocoPhillips, and their use or inclusion herein is not an endorsement by ConocoPhillips of their likelihood or probability.

**Cautionary Note to U.S. Investors** – The SEC permits oil and gas companies, in their filings with the SEC, to disclose only proved, probable and possible reserves. We use the term "resource" in this report that the SEC's guidelines prohibit us from including in filings with the SEC. U.S. investors are urged to consider closely the oil and gas disclosures in our 2018 Form 10-K and other reports and filings with the SEC. Copies are available from the SEC and from the ConocoPhillips website.

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# A Letter from our Chairman and CEO Regarding Climate Change

With this report, ConocoPhillips is consolidating our climate-related disclosures to provide improved accessibility and meet evolving reporting guidelines and rising stakeholder expectations. We have transparently reported on our efforts to reduce our greenhouse gas (GHG) emissions and manage climate-related risk since 2003, when we developed our Climate Change Position. This report further aligns our reporting to the recommendations of the Task Force on Climate-related Financial Disclosures to provide investors and the financial community with information to evaluate our performance and progress.

We have the governance structure in place to manage climate-related risks and opportunities throughout the organization, from strategic planning to operating decisions. Our board of directors plays an oversight role in climate-related strategic planning and enterprise risk management, with our Executive Leadership Team responsible for direct management and assisting our business units in planning and implementation. Climate-related risks are mapped to relevant enterprise risks, and our Climate Change Action Plan includes line-of-sight goals for business units and key functions.

Our current business strategy, including our asset portfolio mix and capital allocation approach, has been tested and showed resilience in a volatile and challenging marketplace. We have managed through a severe industry downturn, emerging with greater efficiency, enhanced technical capability and reduced cost of supply. We have also divested higher-emission-intensity assets such as oil sands and some older natural gas fields.

Consumer choices, government policies and technology advances will drive many possible pathways to a lower-carbon transition. We integrate climate-related risk scenarios into our strategic planning process to test our portfolio and we utilize annual GHG price forecasts for long-range planning and project evaluation. Consideration of these scenarios and monitoring of emerging issues provide the ability to manage risk, optimize opportunities and respond effectively to uncertainties. We believe that this capacity, along with our capital and portfolio flexibility and strong strategic planning process, equips us to manage long-term transitions in energy markets.

As we go about our primary mission of competitively delivering reliable, affordable and sustainable energy to meet demand, we aspire to be a leader in managing climate-related risk. We believe we have the governance structure, strategy, risk management processes and engagement approach that will enable us to achieve these goals and provide disclosure that transparently tracks our performance.



*Chairman and CEO Ryan Lance*

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

Ryan Lance, Chairman and Chief Executive Officer

February 2019

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# Managing Climate-Related Risks

As we work to safely find and deliver energy to the world, addressing climate-related issues is a high priority. We recognize that human activity, including the burning of fossil fuels, is contributing to increased concentrations of greenhouse gases (GHGs) in the atmosphere that can lead to adverse changes in global climate. While uncertainties remain, we continue to manage GHG emissions in our operations and to integrate climate change-related activities and goals into our business planning.

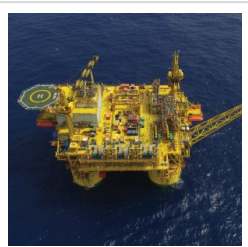
## IN THIS SECTION

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### Introduction

Reporting aligned with TCFD recommendations.



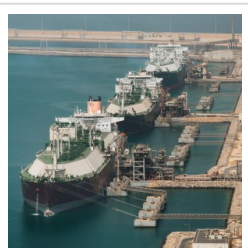
### Governance Framework

A comprehensive governance process.



### Strategy

Climate-related risks integrated into strategic planning.



### Risk Management

Assessing and managing climate-related risks.



### Performance Metrics & Targets

Key metrics and targets to measure and monitor our performance.

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# Introduction

We have aligned our climate-related risk reporting with the four central themes of the [Task Force on Climate-related Financial Disclosures \(TCFD\)](#) recommendations — Governance, Strategy, Risk Management and Metrics and Targets.

The purpose of the report is to describe:

- Our climate-related risk governance from the board of directors, through executive and senior management to the implementation levels in our business units.
- How we integrate climate-related risk considerations into our corporate strategy and business unit goals.
- How we identify, assess, characterize and manage climate-related risks.
- Key metrics and targets that demonstrate our performance and progress in managing climate-related risks.

## Structure of the Report

We have addressed the TCFD recommendations in order to provide better understanding of our processes and integrated decision-making. Following the TCFD recommendations leads necessarily to repetition. For example, we address the use of scenarios in the Strategy section where they inform our strategy and in Risk Management where they inform our risk assessment.

## Engagement

We engaged in development of the TCFD recommendations from the outset through the consultation process, our membership in [IPIECA](#), the oil and gas industry association for environmental and social issues, and through participation in panels and workshops with key stakeholders. Senior management and, when necessary, board members also remain engaged with investors and the financial sector to share perspectives and progress on effective disclosure of climate-related risks and opportunities.

We are committed to continuing that discussion and look forward to working with the TCFD and industry to implement, build on and refine the framework over time, while protecting proprietary or commercially sensitive company information. We see the annual updating of this report as a constructive step in that process.

An important disclosure issue requiring further engagement is the use of scenario planning as a tool to characterize and disclose comparative financial risk. We believe different 2-degree Celsius scenarios that depict a wide range of future possibilities should be used to facilitate strategic planning, not as reference scenarios to compare companies. The key to scenario planning is the use of a wide-enough range so that uncertainty can be characterized, rather than

trying to correctly guess specific future variables or parameters. For example, addressing market price uncertainty has led us to significantly change our portfolio, capital flexibility and cost structure over a short period of time. This illustrates how misleading it can be to compare companies based on a static view of a current portfolio that will continue to change, to a single “reference” scenario of the thousands that are possible. We believe that the thoughtful application of scenarios in strategic planning is core to a company’s ability to navigate future uncertainty and is a practical way of conveying this information in a decision-useful manner.

## Feedback

We welcome your feedback on our approach to scenario planning or any other content in this report. If you have comments, suggestions or questions, please send them to our Sustainable Development team at

[SDTeam@ConocoPhillips.com](mailto:SDTeam@ConocoPhillips.com).



# Governance Framework

We have a comprehensive climate-related risk governance framework that extends from the board of directors, through executive and senior management to the working levels in each of our business units.



## Board Oversight

In-depth board engagement.



## Executive Management

Day-to-day leadership.



## Organizational Management

Cross-cutting collaboration.



## Key Processes

Integrated business planning.

# Board Oversight

The ConocoPhillips **Board of Directors** oversees our position on climate change and related strategic planning and risk management policies and procedures, including those for managing climate-related risks and opportunities.

**GHG intensity target** — In 2017, the board endorsed a long-term target to reduce our GHG emissions intensity between 5 and 15% by 2030, from a Jan. 1, 2017 baseline. This goal demonstrates our commitment to GHG emission reductions and managing climate-related risks and issues throughout the business. It also ensures that appropriate risk management discussions occur throughout the lifecycles of our assets.

The board delegates certain elements of its climate oversight functions to one or more of its five standing **committees**: Executive, Audit and Finance, Human Resources and Compensation, Directors' Affairs, and Public Policy. Each committee, other than the Executive Committee, is made up of independent directors and convenes at least quarterly.

The **Audit and Finance Committee** (AFC) mandate includes enterprise risk management (ERM). The AFC facilitates appropriate coordination among the committees to ensure that our risk management processes, including those related to climate change, are functioning properly with necessary steps taken to foster a culture of prudent decision-making throughout the company. The AFC receives annual updates on how enterprise risk is being addressed, mitigated and managed across the company, including climate-related considerations that influence market, reputational, operational and political risks within the ERM system.

The **Public Policy Committee** (PPC) is responsible for identifying, evaluating and monitoring climate-related trends and risks that could affect business activities and performance. The PPC reviews sustainable development (SD) as a standing agenda item, including briefings and discussions on SD strategic priorities to advance the SD risk management process, implementation of the greenhouse gas (GHG) emissions intensity reduction target, and the use of reporting and disclosure frameworks such as the Task Force on Climate-related Financial Disclosures (TCFD). Other topics include climate-related risk scenarios and climate-related risk management strategy implementation. Issues considered by the PPC are regularly reported to the full board.



“The board regularly addresses climate-related matters. This includes in-depth engagement through the ConocoPhillips strategic planning process, consideration of climate-related risk scenarios and the inclusion of climate-related risk in enterprise risk management. We ensure that we have the information required to evaluate climate-related risk through periodic briefings by external experts and by engaging with investors and key stakeholders to gain their input and feedback.”



— BOARD PUBLIC POLICY COMMITTEE CHAIR, JODY FREEMAN

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Other board committees also address climate-related issues. The [Human Resources and Compensation Committee](#) oversees executive compensation and performance-based components, including sustainability performance. Annual incentive programs promote achievement of strategic milestones and objectives that address stakeholder issues essential to sustaining excellence in environmental and social performance.

[Read more](#) about the skills and qualifications of our board members.

## Executive Management

The Executive Leadership Team (ELT) manages day-to-day climate-related risks and opportunities and assists the businesses in implementing climate-related plans. Responsibility for managing climate-related issues rests with the chief operating officer (COO) and the senior vice president (SVP), Government Affairs, who report directly to the chief executive officer. The COO serves as the ELT’s climate change champion, with overall accountability for corporate planning and development, including corporate strategy and long-range planning. The SVP, Government Affairs, is responsible for public policy positions and engagement with government on climate-related public policy. These executives are briefed quarterly on emerging climate-related issues, strategic priorities and the Climate Change Action Plan in order to understand their implications and represent them to the ELT on an as-needed basis. The briefings also include our three regional presidents, who oversee our global operations and environmental performance, including setting business unit goals for GHG emissions, implementing action plans and reporting GHG emissions.

Climate-related risks are communicated and integrated into strategy through the SD risk management process and Enterprise Risk Management system. Climate-related risks from the corporate SD Risk Register are mapped to relevant enterprise risks. Owners of these enterprise risks, who are ELT members or senior managers, are briefed on the risks and our mitigation activities. Enterprise risks are then presented to the Audit and Finance Committee of the board.



# Organizational Management

## Leadership Teams

The Sustainable Development Leadership Team (SDLT) is comprised of global business unit presidents and functional department heads. Chaired by the global head, Sustainable Development, the SDLT provides consultation and approval for SD focus areas, goals, priorities, action plans and results. The Health, Safety and Environment Leadership Team (HSELT) is made up of global leaders within the function and the global head of Sustainable Development. Chaired by the vice president (VP), Health, Safety and Environment, it reviews HSE performance and drives implementation of company-wide initiatives, including implementation of the GHG emissions intensity reduction target. Strategic planning, goalsetting, implementation performance and reporting for climate-related risk are reviewed by the SDLT and HSELT.

## Sustainable Development Team

Within Corporate Planning and Development, the SD team is responsible for informing the ELT and board of long-term climate-related risks and opportunities for our business and ensuring that these issues are integrated appropriately into strategic decisions. The SD group reports to the VP, Corporate Planning and Development, who reports to the COO. The Global Head, Sustainable Development, chairs the SDLT, sits on the HSELT and leads the standing SD agenda item for the PPC.

## Health, Safety and Environment

The SD team works closely with the Environmental Assurance group within HSE to ensure that climate-related risks and opportunities are identified and monitored by our business units and environmental metrics are provided for public disclosure. The groups collaborate to ensure that the requisite climate risk tools, processes and procedures are developed and integrated into the company's HSE Management System. The Environmental Assurance group reports to the VP, HSE, who reports to the COO.

# Climate Change Issues Working Group (CCIWG)

The CCIWG is an internal global cross-functional group of subject matter experts that meets quarterly to discuss the external context for climate-related risk, including:

- Legislative and regulatory actions.
- Trade association activities.
- Internal activities to address climate-related risks and opportunities, including energy efficiency and emissions-reduction projects.
- Technology.
- Carbon price outlook.
- Long-range plan.

The objective is to share key climate-related risk learnings across the company, identify issues and work to resolve them as they arise.

## Business Units

Each ConocoPhillips business unit is responsible for integrating sustainability issues, as appropriate, into day-to-day operations, project development and decision-making. They are held accountable through an annual goal-setting process that includes the Climate Change Action Plan and GHG target implementation plan, and they report progress to the ELT.

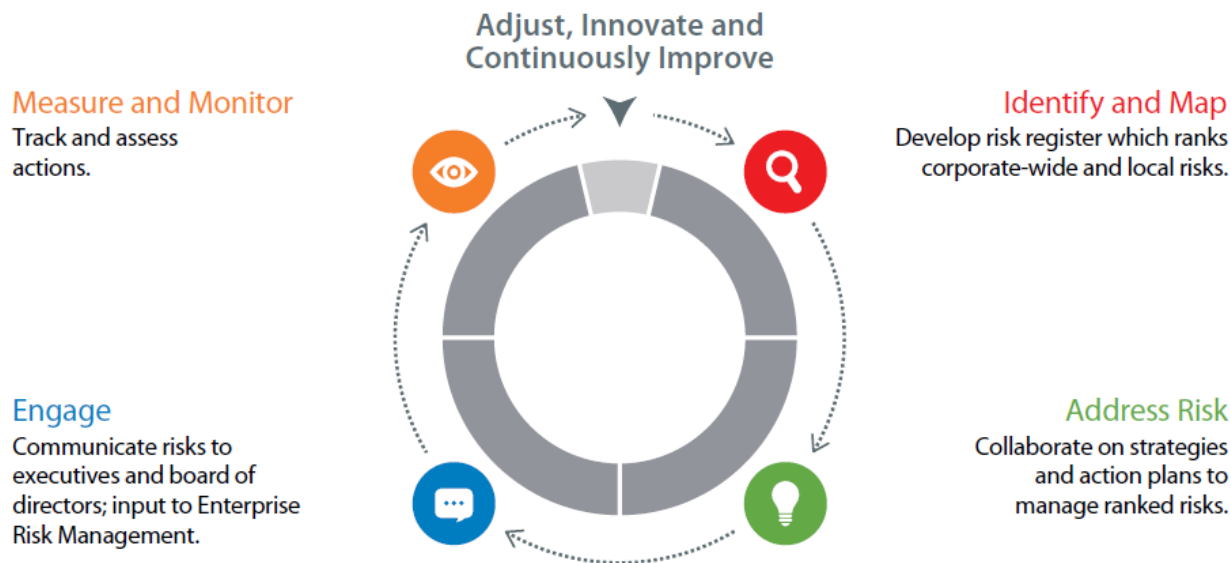
# Key Processes

Climate-related considerations are integrated into the key business planning processes for the company:

- Scenario planning.
- Corporate strategy.
- Long-range plan.
- SD risk management process.
- Enterprise risk management.

Our SD risk management process, risk register and Climate Change Action Plan are used to track performance and guide goal setting. Line-of-sight goals for business units and key functions are shown as specific action items within the action plan. Progress against the plan is reported through our governance structure to the ELT and board of directors.

## Management System Approach to Climate-Related Risk



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# Strategy

Our objective is to manage climate-related risk, optimize opportunities and equip the company to respond to changes in key uncertainties, including government policies around the world, technologies for emissions reduction and alternative energy technologies.



## Resilience

The strength of strategic planning.



## Scenario Planning

Understanding a range of risks.



## Short, Medium & Long-Term Risks

Time horizons for climate-related issues.



## Climate Change Action Plan

Addressing priority risks.



## Impact on Business and Strategy

Areas for potential impact.



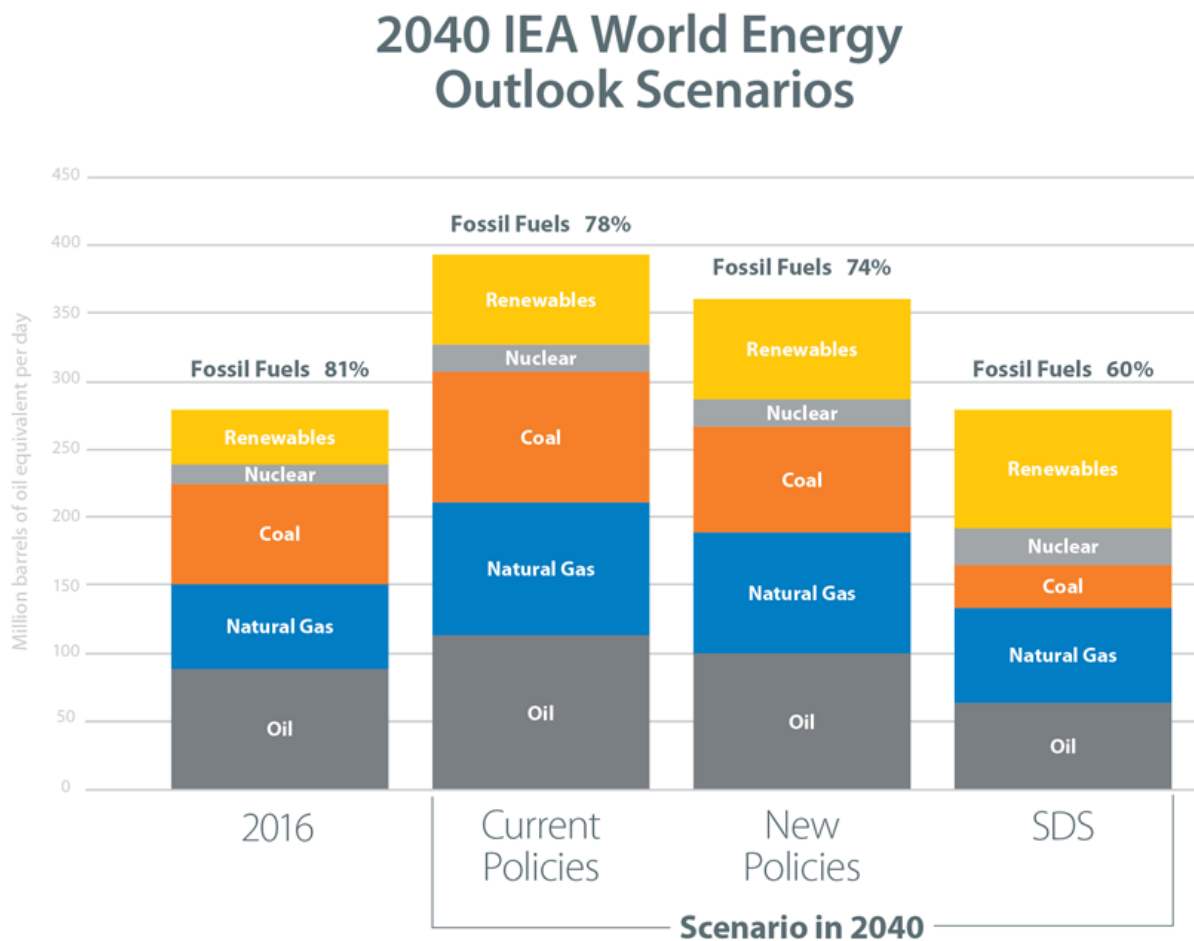
## Financial Planning

Effect on financial planning.



# Resilience

In its **2018 World Energy Outlook**, the International Energy Agency (IEA) illustrated a range of different energy mix scenarios in 2040. Total energy demand increases in IEA's Current Policies and New Policies scenarios, but remains relatively stable compared to 2016 in the 2-degree Celsius Sustainable Development Scenario (SDS). Demand for natural gas and oil have different outcomes across the IEA scenarios. Oil demand grows relative to 2016 in the Current and New Policies scenarios but declines in SDS. In contrast, natural gas demand increases by year 2040 across all the IEA scenarios.

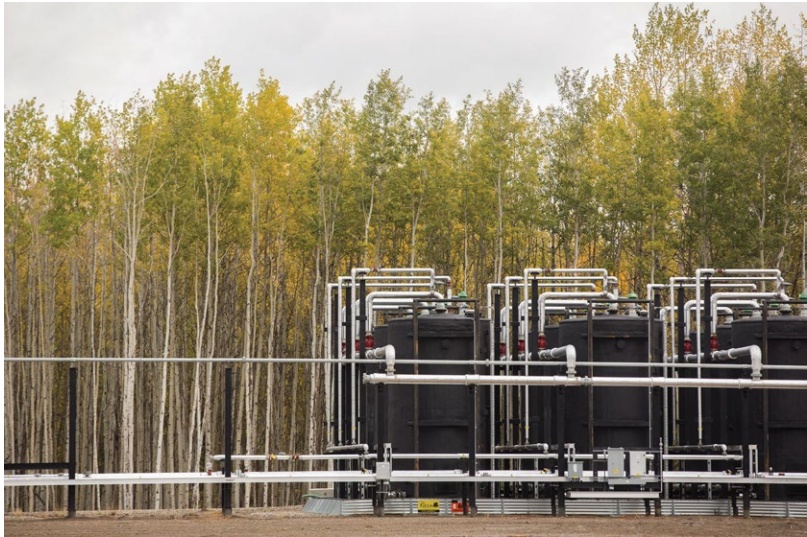


Achieving the IEA's 2-degree Celsius scenario requires significant progress on several fronts:

- Improving energy efficiency of power generation, transportation and industrial processes.
- Reducing emissions from fossil fuels or capturing and storing or utilizing those emissions.
- Increasing the amount of non-carbon energy, such as renewables and nuclear power.

Changes in the energy system take time, as energy infrastructure components have long asset lives and change would have to go beyond replacing the power generation and distribution systems to include replacing the automobile, truck, ship and aircraft fleets or retrofitting them to meet tougher specifications. Increasing renewable power utilization would also require significant improvement in the daily reliability of wind- and solar-

powered electricity generation, or a significant improvement in energy storage that would reduce the amount of backup fossil fuel-fired electricity generation needed.



*Compression dehydration facility, Montney, British Columbia*

These widely varying factors are the reason scenario planning is important. There is not just one pathway to a 2-degree future, there are numerous ways in which government action and technology development could interact with consumer behavior to bring about a lower-carbon future. Performance on climate-related risk is driven by the strength of strategic planning, including the use of widely varying scenarios, as well as the financial strength and asset flexibility to manage across a range of possibilities.

## Scenario Planning

Scenarios represent plausible potential future states of the world. We use scenarios in our strategic planning process to:

- Gain better understanding of external factors that impact our business.
- Test robustness of our strategy across different business environments.
- Communicate risks appropriately.
- Adjust prudently to changes in the business environment.

Using scenarios enables us to understand a range of risks around commodity prices, and the potential price risk associated with various greenhouse gas (GHG) reduction scenarios. To assist our capital allocation decisions, we can test our current portfolio of assets and investment opportunities against these future possibilities and identify where weaknesses may exist.

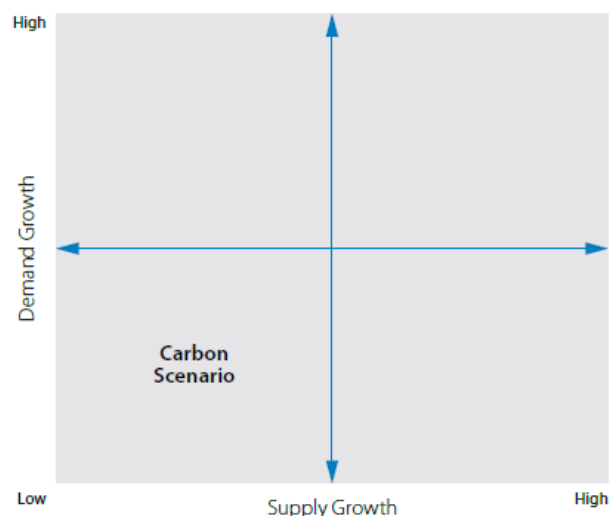
Analyzing and modeling potential outcomes is not the end of the process, as we also need to understand the probability of the world moving toward a specific scenario. We use a scenario monitoring system to identify crucial signposts that would indicate whether we are moving toward one scenario or another. This analysis is presented to executive management and the board of directors to assist in strategic decision-making.

Our scenario-planning framework includes corporate scenarios for oil and natural gas supply and demand and climate-related risk scenarios that reflect possible pathways to a 2-degree Celsius (C) future through technology development and the introduction of government policies.

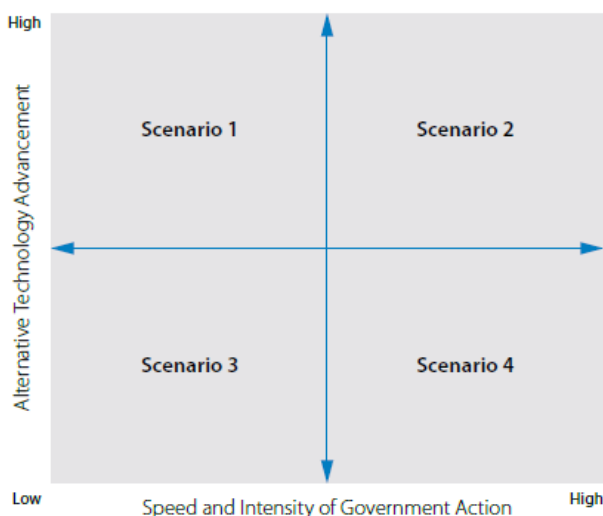
The corporate scenario with low demand and low supply has been used to reflect a world with carbon constraints. Our climate-related risk scenarios characterize possible pathways that could result from a mix of technology advancement and government policy actions. Technology development encompasses a wide variety of lower-carbon advances that influence demand for energy or ways to supply energy, including electric vehicle battery technology, designs for windmill turbines, carbon capture use and storage, and other innovations. Government policies include any local, state, federal or international actions that could correlate to reductions in future demand for oil or natural gas or to restrictions on carbon emissions.

Each of these plausible pathways is designed to stretch our thinking about potential rates of new technology adoption and policy development. Three of the four climate-related risk scenarios achieved a pathway in line with the [Intergovernmental Panel on Climate Change \(IPCC\)](#)'s scenario of achieving a 50% chance of limiting the increase in global average temperature to 2-degree C above the pre-industrial average.

### Corporate Scenarios



### Breakout of Carbon Scenario into Climate-Related Risk Scenarios



# Scenario Descriptions

Scenario 1 includes rapid technology development with a low carbon price introduced by governments to kick-start technology advancement. The technological progress accelerates the development and uptake of electric cars, battery storage, smart grids and renewable power, all of which reduce GHG emissions. The technological transformation is so rapid that CO<sub>2</sub> capture and storage is not required. Breakthroughs in technology, such as power storage, drive the adoption of alternatives to oil and natural gas together with energy efficiency improvements.

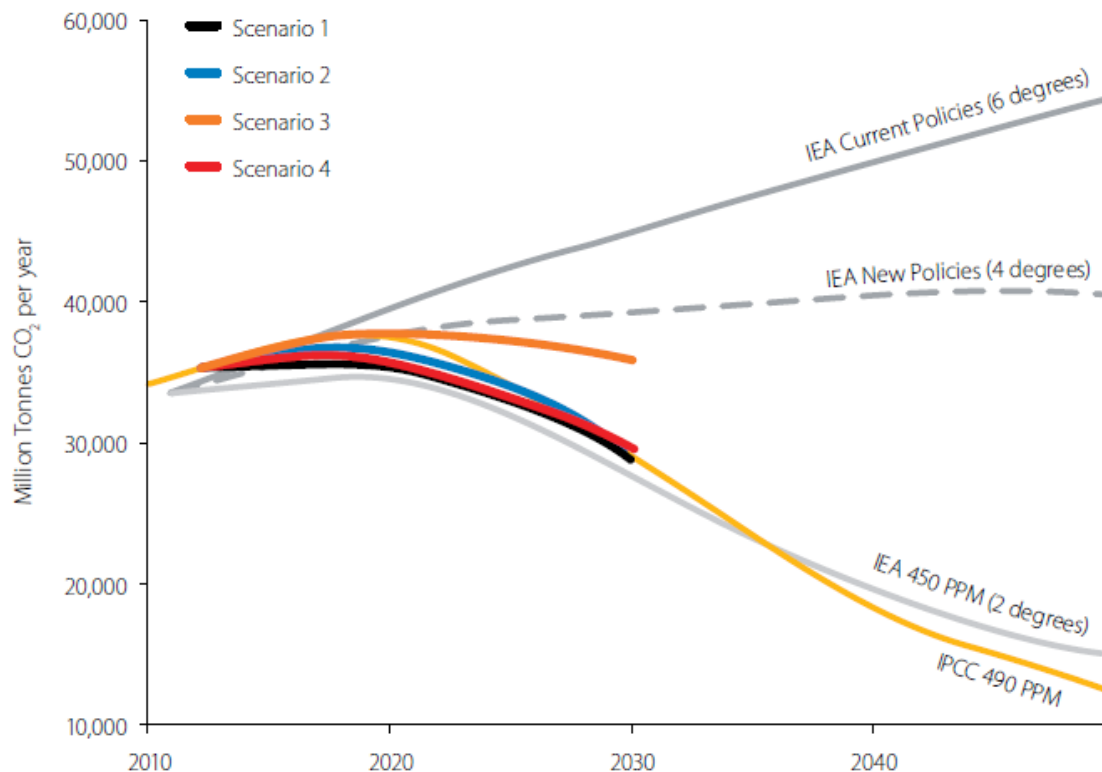
In Scenario 2, legislation takes the form of global agreements to limit GHG emissions primarily through linked carbon pricing mechanisms assisted by technological innovations. This could drive the development of lower-cost alternative energy and carbon capture and storage. In situations with an increasing carbon price, coal-to-gas fuel switching, efficiency improvement and renewables would be expected. This could also increase natural gas demand through 2030 before it is offset by increased use of renewables in power generation.

Scenario 3 envisions a world in which national trade and energy security are considered more urgent than emissions reductions and new technology adoption is slower. In this scenario, there could be expansion of energy efficiency, existing renewable technologies and nuclear power in countries that do not have access to domestic energy sources, and in those with abundant domestic supply, the use of fossil fuels, especially coal.

Scenario 4 is one in which governments respond to slower development of technology and costlier alternatives by introducing command and control measures, such as renewable portfolio standards, to force higher-cost technologies into the mix. Demand for natural gas stays higher for longer given the need to rapidly reduce the use of coal for power generation.

Our current climate-related risk scenarios were modeled with an end date of 2030. We are currently revising our global primary energy model and extending it to 2040, before rerunning our scenarios and reviewing our climate-risk strategy to gain new insights and further align with the TCFD recommendations. We will update this section following completion of that work.

## Scenario Comparison — Estimated Global Emissions Trajectories



## Key Strategic Linkages to our Scenario Planning

Our corporate strategy and Climate Change Action Plan reflect several findings from our scenario analyses. We have acted to:

- Use a “fully loaded” cost of supply, including cost of carbon where legislation exists, as an important metric in our project authorization process. Our portfolio changes have created a resource base of 16 billion barrels of oil equivalent with less than a \$40 per barrel cost of supply and an average cost of supply of less than \$30 per barrel. Our strategic objective is to provide resilience in lower price environments, with any oil price above our cost of supply generating an after-tax fully burdened return greater than 10%.
- Prepare for diverse portfolio and policy environments by maintaining a less than \$40 per barrel of oil equivalent sustaining price that will generate the cash to fund capital expenditure to keep production flat over time and generate a dividend to shareholders.
- Maintain diversification in our portfolio to be able to balance our production and capital expenditures, as commodity prices become more volatile.
- Provide a distinctive payout of cash flows to investors via both dividends and share repurchases.
- Identify and fund profitable emissions reduction projects, including methane emissions reductions. Reducing our Scope 1 and Scope 2 emissions intensity reduces the impact of any future regulations, or the introduction of carbon prices or taxes and helps maintain our low cost of supply into the future. We have upgraded the use of a marginal abatement cost curve (MACC) in Long-Range Planning to identify the most cost-effective emissions-reduction opportunities available to the company globally.

- Introduce a proxy cost of carbon into qualifying project sensitivities to help us be more resilient to climate-related risk in the short to medium term and provide the flexibility to remain resilient in the long term.
- Focus near-term technology investments on reducing both costs and emissions where feasible.
- Monitor for potential disruptive technologies that might impact the market for natural gas or oil, enabling us to take advantage of our capital flexibility and reduce our exposure to lower commodity prices at an early point in time.
- Monitor global regulatory and legislative developments and engage in development of pragmatic policies aligned with the climate policy principles outlined in our Global Climate Change Position.

## Short, Medium & Long-Term Risks

As described in the [Risk Management section](#), we evaluate and track our climate-related risk through our SD Risk Register and Climate Change Action Plan. Those risks broadly fall into four categories:

- GHG-related policy.
- Emissions and emissions management.
- Climate-related disclosure and reporting.
- Physical climate-related impacts.

The time horizons we use for climate-related issues are based on the time taken for the risks to manifest themselves, our planning time horizons and the time required to realize the majority of the net present value of our projects.

### Short-Term Risks

Our short-term time horizon is one to five years, during which we can complete short-cycle drilling campaigns and small projects. Our GHG forecasting and financial planning processes are used to determine risks and opportunities that could have a material financial impact for that period. Our short-term climate-related risks are generally government policy-related and managed at the business unit level through policy advocacy and technology to reduce emissions.



*Tubb McKnight Water Station, Permian, Texas*



Regulations to address climate-related risk, including GHG emissions, are a short-term risk for several of our businesses. For example, regulations issued by the Alberta government in 2007 under the [Climate Change and Emissions Act](#) require any existing facility with emissions equal to or greater than 100,000 metric tons of carbon dioxide or equivalent per year to reduce the net emissions intensity, with reduction increases over time. The cost of compliance and investment in emissions-intensity reduction technologies influence investment decisions for the Canada business unit. We are purchasing carbon offsets while evaluating and developing technology opportunities to reduce emissions for existing and new facilities. A good example of technology development is our piloting of flow control devices at our oil sand operations, which have improved steam-to-oil ratios by up to 15%, thereby decreasing GHG intensity.

GHG or carbon taxes are another near-term risk in some jurisdictions where we operate. For example, in our Norway business unit, we are managing the risk with specific actions to study emissions reduction opportunities and we also evaluate project economics with full CO<sub>2</sub> tax and European Union emissions allowance costs.

## Medium-Term Risks

Our medium-term time horizon is six to 10 years, during which we can complete most major projects and revise our portfolio significantly if required. Our GHG forecasting and financial planning processes are used to determine the risks and opportunities that could have a material financial impact for that period. Medium-term risks take longer to impact our business and may include emerging policy that is not yet fully defined. These risks are managed by business unit planning, but if significant, may also be managed by corporate strategies and company-wide risk assessments.

Offset requirements have been identified as both a medium-term risk and as an opportunity for some business units. For example, the Clean Energy Regulator in Australia has established the [Emissions Reduction Fund](#) for the sale and purchase of offsets. Since 2006, Darwin LNG has supported the West Arnhem Land Fire Abatement (WALFA) carbon offset program. Through this project, indigenous rangers in West Arnhem Land in the Northern Territory have offset almost two million tonnes of CO<sub>2</sub>e that would have resulted from wildfires by utilizing early dry-season preventive burning. In 2014, the [WALFA](#) project was formally recognized as an eligible offset program under the Australian federal government's Carbon Farming Initiative. During Emissions Reduction Fund abatement auctions, savannah-burning projects from across Australia have been successful in selling contracts for carbon abatement — all using the methodology pioneered by WALFA. View the "Fire with Fire" video below about the WALFA carbon offset program.

Chronic physical changes are a medium-term risk for some of our operations. Temperature extremes could impact facilities located in Arctic regions if warmer temperatures reduce the length of the ice road season and restrict well and facility construction times. Mitigation measures could include utilizing gravel road connections to reduce reliance on ice roads, pre-packing to extend the start of ice road season and constructing roads that prevent permafrost thawing.

# Long-Term Risks

Our long-term time horizon is 11 years and beyond. Generally, long-term risks are managed by our scenario analysis and climate-related risk strategy, as they include long-term government policy and technology trends that affect supply and demand. They may also include risks that align with long-term physical climate scenarios.

We recognize that our GHG intensity will be compared against peers, so we track this as a competitive risk at the corporate level. Investors, the financial sector and other stakeholders compare companies based on climate-related performance, and GHG intensity is a key indicator. For this reason, our GHG intensity target aligns with the long-term time horizon to ensure we manage the risk appropriately. It also demonstrates our goal to be a leader in managing climate-related risk.

Physical climate risk is a long-term risk for our business. In some parts of the U.S. we have identified potential storm severity as a risk for future operations, based on previous storms and flooding. Science suggests that future extreme weather events may become more intense or more frequent, thus placing at risk our operations in coastal regions and areas susceptible to typhoons or hurricanes. We have a crisis management system in place to manage that risk before, during and after a storm event.

# Climate Change Action Plan

Our Climate Change Action Plan addresses the significant or high risks from our Sustainable Development (SD) Risk Register and includes milestones over a number of years.

## Climate Change Action Plan

Risks	2018 Mitigation Actions And Milestones
<b>GHG Policy</b>	
GHG regulations, including carbon taxes	<ul style="list-style-type: none"> <li>Understand baseline levels for various efficiency measures (steam, electricity, etc.) to focus on GHG intensity reduction.</li> <li>Develop regional climate and energy position with regard to regional regulation.</li> <li>Aggregate marginal abatement cost curve for global business units.</li> <li>Review emerging issues with Public Policy Leadership Team each quarter.</li> <li>Complete energy optimization study.</li> <li>Obtain partner approval for power cable to offshore platform.</li> <li>Commence flare gas recovery study.</li> <li>Switch from main power generators to smaller temporary generators at gas terminal to finalize pipeline decommissioning.</li> </ul>
GHG Offset requirements	<ul style="list-style-type: none"> <li>Purchase qualifying offsets for compliance with emissions regulations.</li> <li>Monitor regulatory developments.</li> </ul>
<b>Emissions and Emissions Management</b>	
GHG intensity relative to peers	<ul style="list-style-type: none"> <li>Set up steering committee to oversee innovation focused on greenfield and brownfield sites, emissions detection and combustion alternatives.</li> </ul>
Air emissions regulations	<ul style="list-style-type: none"> <li>Monitor air emissions regulations and consult through industry associations.</li> </ul>
<b>Climate-Related Disclosure and Reporting</b>	
	<ul style="list-style-type: none"> <li>Complete standalone global climate-related risk report ready for publication.</li> </ul>
<b>Physical Climate-Related Impacts</b>	
	<ul style="list-style-type: none"> <li>Maintain safety systems and emergency response protocols.</li> </ul>

*Note: Actions relate to specific business units unless indicated as "global."*

# Impact on Business and Strategy

Climate-related risks have the potential to impact our business in several ways. Our SD risk management processes identify those risks and assess the potential size, scope and prioritization of each. We have aligned a description of these impacts with the recommendations of the TCFD.



*Central Tank Battery, Bakken, North Dakota.*

## Products and Services

Compliance with policy changes that create a GHG tax, emissions trading scheme or GHG reductions could significantly increase product costs for consumers and reduce demand for natural gas- and oil-derived products. Demand could also be eroded by conservation plans and efforts undertaken in response to global climate-related risk, including plans developed in connection with the Paris Agreement. Many governments also provide, or may in the future provide, tax advantages and other subsidies to support the use and development of alternative energy technologies that could impact demand for our products. However, there are also opportunities associated with increased demand for lower-carbon energy sources such as natural gas.

Our scenario analysis indicates that as the energy sector transitions, it will be important to be competitive on both cost of supply and carbon. We have adjusted our portfolio to concentrate on lower-cost production and have divested some of our higher-emissions-intensity natural gas and oil sands fields. We have also set a GHG emissions-intensity-reduction target for our Scope 1 and Scope 2 emissions.

## Supply Chain and/or Value Chain

We **engage with suppliers** on the environmental and social aspects of their operations and supply chains through each step of the procurement process, from supplier prequalification through supplier performance evaluation. This includes communicating our expectations and priorities and identifying opportunities for improvement and collaboration related to climate issues, including energy use, GHG management and environmental supply chain risks. We also engage through membership in several trade associations, such as **IPIECA**, that address climate-related issues through working groups and task forces that include downstream businesses as well as suppliers. We continue to monitor climate-related risks and opportunities related to our supply chain and value chain and believe that maintaining a global network of businesses and suppliers will mitigate physical climate-related risks.

# Adaptation and Mitigation Activities

While our business operations are designed and operated to accommodate a range of potential climate conditions, significant changes, such as more-frequent severe weather in the markets we serve or the areas where our assets are located, could cause increased expenses and impact to our operations. The costs associated with interrupted operations will depend on the duration and severity of any physical event and the damage and remedial work to be carried out. Financial implications could include business interruption, damage or loss of production uptime and delayed access to resources and markets. For example, a three-day shutdown of all U.S. Gulf Coast production would cause \$33 million in lost revenue, based on the 2018 average realized price of \$53.88 per barrel of oil equivalent (BOE). It is likely that not all our area production would be affected, as assets further inland are less susceptible to hurricanes than assets in the Gulf of Mexico.

Business-resiliency planning is a process that helps us prepare to mitigate potential physical risks of a changing climate in a cost-effective manner. During Hurricane Harvey in 2017, we put our hurricane and crisis response training and business continuity plans into action in the United States. The first priority was to account for every employee. Teams also monitored and evaluated conditions at our corporate and Lower 48 offices in Houston, while others worked to safely and efficiently restore operations to the Houston data center. Much of our corporate data center operations, including 658 servers housing 1.6 petabytes of data, were relocated to Bartlesville, Oklahoma, in about 10 hours in anticipation of the storm. Prior to Harvey's landfall, Lower 48 employees implemented their business continuity plan to safely shut down and secure Eagle Ford production and associated facilities. Personnel were evacuated from our Magnolia platform in the Gulf of Mexico, though production remained online. Once the storm passed, production in the Eagle Ford resumed within several days, despite unprecedented conditions and infrastructure constraints in the area.

We have conducted workshops on resiliency risks in key business units to establish future mitigations for potential physical changes to the operating environment. Business units in Texas, Alaska, Canada and Australia have participated in this process and integrated the results into their goals.

## Research and Development

Technology will play a major role in addressing GHG emissions, whether through reducing fugitive emissions or lowering the energy intensity of our operations or value chain. In Canada we are sponsoring an **XPRIIZE** to support development of innovative ways to reuse carbon associated with steam generation in the oil sands.

Our annual MACC process identifies and prioritizes our emissions-reduction opportunities from operations based on the cost per tonne of carbon dioxide equivalent abated. This data helps identify projects that might become viable in the future through further research, development and deployment. As a result of this work, we have focused our near-term technology investments on reducing both costs and emissions where feasible, such as improving the steam-to-oil ratio in the oil sands. One new research and development effort is the non-condensable gas co-injection pilot program to reduce the energy required in oil extraction.

# Operations

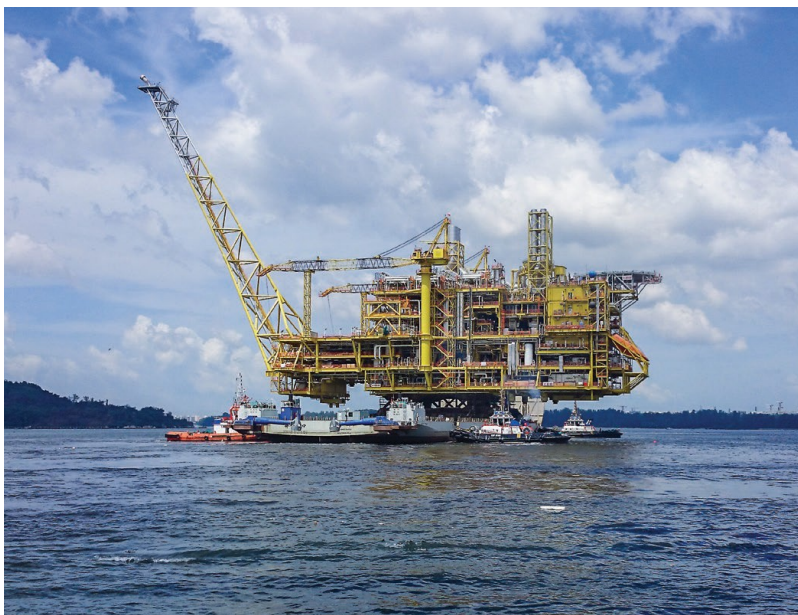
We have acted to mitigate our GHG emissions for many years. Our first Climate Change Action Plan was introduced in 2008 and we have voluntarily reduced our annual GHG emissions by almost 7 million tonnes of CO<sub>2</sub> equivalent per year compared to business as usual since 2009. Most of the reduction projects carried out over this period have paid for themselves through increased sales of natural gas, or in one case the sale of carbon dioxide to a third party for use in enhanced oil recovery. Around two-thirds of the projects carried out relate to the reduced emissions of methane from reduced venting, updated plunger lifts or replacing pneumatic controllers.

To continue those reductions, we have set up regional teams in North America, Australia, Southeast Asia and Europe to use the MACC process to identify energy efficiency projects for consideration in the Long-Range Plan. By evaluating our day-to-day decisions regarding flaring, drilling, completions and equipment use we have gained a sharper focus on energy consumption, along with increased revenue, reduced energy costs, reduced emissions and an improved overall cost of supply.

We are one of 25 companies participating in [The Environmental Partnership](#), a coalition of natural gas and oil companies focused on accelerating environmental performance improvements from operations across the United States. The partnership prioritizes managing methane emissions and aligns with our focus on emissions reductions and high environmental standards.

## Financial Planning

We take climate-related issues into account in our financial planning in several ways. In the short to medium term, we use a range of commodity prices derived from our corporate scenario work. In the long term our four climate-related risk scenarios provide insight into the possibilities for future supply, demand and price of key commodities. This helps us understand a range of risk around commodity prices, and the potential price risk associated with various GHG reduction scenarios. History has shown an interdependency between commodity prices and operating and capital costs. In the past, lower commodity prices have driven down operating and capital costs, whereas the opposite has been true when commodity prices have risen. We have aligned a description of the potential impacts on financial planning with the recommendations of the TCFD.



*Keabangan platform, Malaysia*



## Operating Costs and Revenues

We recognize the potential impact on our costs, demand for fossil fuels, the cost and availability of capital and exposure to litigation caused by new or changing climate-related policy. The long-term impact on our financial performance, either positive or negative, will depend on several factors:

- Extent and timing of policy.
- Implementation detail such as cap-and-trade or an emissions tax system.
- GHG reductions required.
- Level of carbon price.
- Price and availability of offsets.
- Amount and allocation of allowances.
- Technological and scientific developments leading to new products or services.
- Potential physical climate effects, such as increased severe-weather events, changes in sea levels and changes in temperature.
- Extent to which increased compliance costs are reflected in the prices of our products and services.

The long-term financial impact from GHG regulations is impossible to accurately predict, but is expected to rise globally.

## Capital Expenditures and Capital Allocation

We test our current portfolio of assets and investment opportunities against the future prices generated from our scenarios and identify where weaknesses may exist, assisting with our capital allocation. As a result of our strategy and scenario work, we have focused capital on lower cost of supply resources, reducing our investments in oil sands and exiting deep water, while increasing our investments in unconventional oil projects.

## Acquisitions and Divestments

Business development decisions consider the impact to our portfolio from the financial, operational and sustainability perspectives. In our long-range planning process, we run sensitivities on our GHG emissions intensity based on possible acquisitions, divestments and project decisions. We focus on cost of supply to account for lower and more volatile product prices and possible introduction of carbon taxes. In recent years, we have divested higher-emissions-intensity assets, such as oil sands and some older gas fields.

## Access to Capital

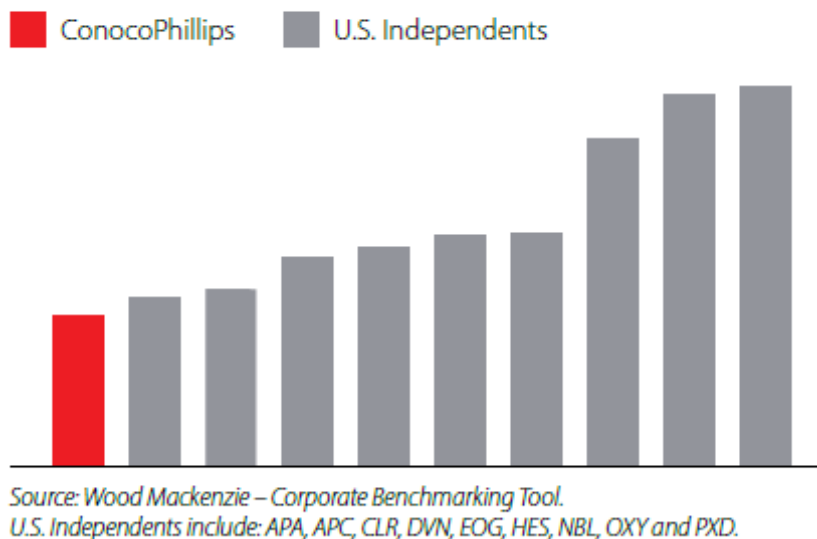
In addition to cost of supply and carbon, we also strive to compete more effectively by earning the confidence and trust of the communities in which we operate, as well as our equity and debt holders. We consider how our relative environmental, social and governance performance could affect our standing with investors and the financial sector, including banks and credit-rating agencies. Our engagement with investors has focused on climate-related risks in many one-on-one meetings and periodic conferences, such as with the [Interfaith Center on Corporate Responsibility](#). In 2018, we held a global Sustainable Development workshop in which stakeholders from banks, credit rating agencies and other financial institutions engaged with our sustainable development subject matter experts and members of our Executive Leadership Team. We have also engaged on climate-related issues and sustainability risks with institutions such as Moody's and Standard & Poor's. An important priority in our corporate strategy has been to pay down debt and target an "A" credit rating to maintain, facilitate and ensure access to capital through commodity price cycles.

## Carbon Asset Risk

Scenario analysis and our climate-related risk strategy help build optionality into our strategic plans to reduce the risk of stranded assets. Key elements of our climate-related risk management process include: considering a range of possible future carbon-constraint scenarios; developing strategic alternatives to manage shareholder value in a future with uncertain carbon constraints; testing strategies and asset portfolios in various scenarios; developing actionable insights and incorporating risk mitigation actions into the Long-Range Plan and Climate Change Action Plan.

We have taken action to reduce our cost of supply and are the only oil and natural gas company to transparently disclose the full cost-of-supply of our reserve base. Combined with the fact that we have the lowest sustaining capital required to maintain flat production among our peers, this demonstrates a competitive advantage in reducing "carbon asset risk."

### 2018 Sustaining Capital for Flat Production (\$/BOE)



The cost of supply of our resource base shown in the Metrics and Targets section supports our assertion that resources with the lowest cost of supply are most likely to be developed in scenarios with lower demand, such as the IEA's Sustainable Development Scenario.

All U.S.-based publicly traded companies must adhere to a consistent set of regulations that enable investors to evaluate and compare investment choices. We fully comply with such rules and regulations, including for reporting natural gas and oil reserves. In order to meet the Securities and Exchange Commission requirement that reserve estimates be based on current economic conditions, our reserves include a carbon tax calculation for jurisdictions with existing carbon tax requirements only. We have also increased our disclosure over the years to offer investors and stakeholders additional insights into the processes and procedures we use to manage climate-related risks, including carbon asset risk.

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# Risk Management

We utilize an integrated management system approach to identify, assess, characterize and manage climate-related risks. This system links directly to the enterprise risk management (ERM) process, which includes an annual risk review by executive leadership and the board of directors.



## Assessing Climate-Related Risks

Assessing physical and transition risk for operations.



## Managing Climate-Related Risks

Adapting to a range of scenarios.

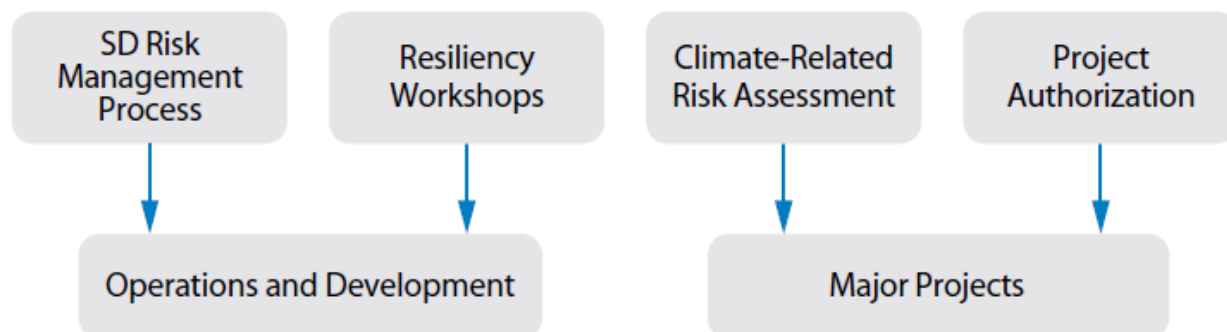


## Integrating Climate-Related Risks into ERM

Ranking risks to our business.

# Assessing Climate-Related Risks

The diagram below illustrates how we assess climate-related physical and transition risk for operations and developments, and new major projects.



Our management system includes practices and tools aligned with how we make business decisions to ensure the consistent global identification and assessment of climate-related risks.

## Scenarios

For the purpose of understanding long-term risk and mitigation options, we have developed four climate-related risk scenarios, three of which would achieve an emissions trajectory consistent with the Intergovernmental Panel on Climate Change (IPCC) “2-degree Celsius scenario.” Utilizing this scenario approach helps us evaluate distinct outcomes related to the potential timing and intensity of government climate change policy development and the pace of alternative energy technology development. This information is then used to shape our analysis and consideration of various outcomes for policy, technology and market risk. We describe our use of scenarios for the purpose of strategy formulation in the Strategy section.

We continually review emerging climate-related risks through our scenario monitoring system. A cross-functional team enters events into a centralized database that is reviewed regularly for indications that risks are changing or developing. We use this “early warning” system to inform our strategies in a timely manner so that we can identify and implement effective mitigation measures. The Scenario Monitoring System helps us understand how far and how fast we are moving in any direction. For example, if we found that regulations and technology were moving more quickly than in our scenarios, this would indicate that we might be moving to a 1.5-degree scenario similar to the range identified in the recent IPCC “1.5 degree” report. In our resiliency workshops, we use externally produced scenarios that describe the range of possible future physical risk.

# SD Risk Management Process

As part of our sustainable development (SD) risk management process, existing and planned exploration and production and major projects are examined against the physical, social and political settings of our operations. Climate-related risks are identified and described by a diverse group of subject matter experts in each business unit (BU) and project.



*Offshore platform, Bohai Bay, China*

Each risk is then plotted on a matrix that evaluates both its likelihood and consequence. In evaluating the intensity level, we consider potential impacts on employee and public safety, socio-cultural and economic impacts to stakeholders, environmental impact, and reputational and financial implications. Risks rated significant or high are included in the corporate SD Risk Register. As part of the process, we examine the interdependence of risks and work to identify emerging risks such as regulatory requirements and greenhouse gas (GHG) pricing regimes.

**Pricing sensitivity impact** - We evaluated an international gas development opportunity in an existing field with high native CO<sub>2</sub> content. Testing it against the \$40/tonne sensitivity price indicated it was economically challenged without the availability of offsets or the potential for carbon capture and storage. When we took the carbon price sensitivity into account with other risk factors, we decided not to pursue the project.

## Resiliency Planning Workshops

We facilitate resiliency planning workshops in key BUs to identify and assess the risks and opportunities associated with the physical impacts of changing climate and the potential technology and solutions to mitigate risks and take advantage of opportunities. These workshops are conducted on a periodic basis to ensure that our operations have access to the most up-to-date science provided by qualified consultants to inform their engineering and infrastructure decisions.



# Climate-Related Risk Assessment

A climate-related risk assessment is conducted on any project that costs more than \$50 million net and is expected to emit more than 25,000 metric tons CO<sub>2</sub> equivalent (CO<sub>2</sub>(e)) net to ConocoPhillips during any year of its lifespan. This assessment is mandatory for investment approval. Project teams for qualifying projects are required to assess the potential risks and opportunities associated with GHG emissions, GHG regulation and a physically changing climate. The climate risk assessment guideline provides a framework for project teams to:

- Forecast GHG emissions for the life of the project.
- Evaluate climate-related risks and opportunities, including physical and transition risks.
- Make decisions on GHG emissions control in project design, including energy efficiency solutions, power source selection, emissions management, carbon capture and storage/utilization, and external compliance options such as the purchase or origination of GHG offsets.
- Evaluate the potential cost of GHG emissions in project economics.

We assess climate-related risks early in the project engineering stage to better inform our investment decisions and facility design. The ConocoPhillips Health, Safety and Environment (HSE) Due Diligence Standard also provides further guidance on accounting for sustainable development issues for new acquisitions, new business ventures, joint ventures and real property transactions.

## Project Authorization

Our corporate authorization process requires all qualifying projects to run a GHG pricing sensitivity using a price of \$40 tonnes CO<sub>2</sub>(e) (TeCO<sub>2</sub>(e)), plus annual inflation, for all Scope 1 and Scope 2 GHG emissions produced in 2024 and later. Projects in jurisdictions with existing GHG pricing regimes must incorporate that price into their base case economics. Where the existing GHG price is below the corporate price, the \$40/TeCO<sub>2</sub>(e) sensitivity must also be run from 2024 onward. This ensures that both existing and emerging regulatory requirements are considered in our decision-making.

# Managing Climate-Related Risks

Our climate-related risk management process is designed to drive appropriate action for adapting to a range of possible future scenarios. Through integrated planning and decision-making, we develop mitigation plans for climate-related risk, track performance against our goals and adjust our plans as we learn and conditions evolve.

Local risks and opportunities related to our operations and projects are assessed and managed at the BU level, enabling tailored region-specific business goals to address the challenges and opportunities unique to their operations. Other overarching climate-related risks, such as GHG target-setting, prioritization of global emissions-abatement projects and disclosure and reporting, are managed at the corporate level.

The diagram below shows a simplified process flow of our climate-related risk management process.



## Corporate Strategy

Our corporate strategy and the embedded Climate- Related Risk Strategy are informed by the output of our scenarios and the risk management system. Examples of impacts on our corporate strategy include:

- Reducing the sustaining price of the company — the equivalent oil price at which we can sustain production and pay our dividend.
- Lowering the cost of supply to manage market risk.
- Maintaining a diversified portfolio of projects and opportunities.
- Developing technologies that reduce both costs and emissions.
- Monitoring alternative energy technologies.

The objective of our Climate-Related Risk Strategy is to manage climate-related risk, optimize opportunities and equip the company to respond to changes in key uncertainties, including government policies around the world, technologies for emissions reduction and alternative energy technologies. The strategy sets out our choices around emissions reductions, targets and incentives, emissions-related technology development, and our climate-related policy advocacy.

In 2017, in accordance with our strategy, we set a public long-term GHG emissions target based on the architecture of the Paris Agreement, with an aspiration to become a leader in GHG climate-related risk management.

## Long-Range Plan

The ConocoPhillips Long-Range Plan provides the data that underlies our corporate strategy and enables us to test our portfolio of projects against our climate-related risk scenarios, and thus make better-informed strategic decisions.

We use a marginal abatement cost curve (MACC) process to collect potential GHG emissions reduction projects from our business units, prioritize them based on their cost and reduction volume, and implement the most cost-effective projects. As a result of our focus on

emissions reductions, we have completed the installation of flow control devices (FCDs) in the Canadian oil sands to better distribute steam across the reservoir, more efficiently heating the bitumen and enhancing production while reducing energy consumption and emissions. In the U.S. Lower 48, the replacement of high-bleed pneumatic devices with lower-bleed pneumatics, plunger lift optimization and compression optimization has reduced methane emissions. To continue those reductions, we have set up regional teams in North America, Australia, Southeast Asia and Europe to use the MACC process to identify further energy efficiency projects. Output from the MACC will inform our annual budget, Long-Range Plan and technology strategy.



*Grissik Gas Plant, South Sumatra*

# SD Risk Management Process/ Climate Change Action Plan

The SD risk management process ensures that a Climate Change Action Plan is developed to track mitigation activities for each climate-related risk included in the corporate SD Risk Register. This plan includes details about our commitments, related responsibilities, resources and milestones. As part of regular updates to the register, the action plan and its effectiveness are evaluated, and decisions are made to continue mitigation measures, add new measures, or simply monitor the risk for further developments.

Risk Management Process	Scope	Description
Corporate strategy	Corporate/portfolio	Defines the company's direction for exploration and development, including portfolio, capital allocation and cost structure.
Climate-related risk strategy	Corporate/portfolio	Identifies options to reduce and mitigate climate-related risks as policies, markets and technologies develop over time.
GHG emissions intensity target	Business units and qualifying projects	Drives actions, reviews and management of future policy and market risk.
Long-Range Plan	Corporate/portfolio	Forecasts key data for our corporate strategy covering our proposed portfolio development and performance, including production, costs, cash flows and emissions.
Marginal abatement cost curve (MACC)	Business units	Collects a list of GHG emissions-reduction projects across our business units and prioritizes them based on cost and emissions abated.
SD risk management process	Corporate, business units and qualifying projects	Records all SD-related risks that are prioritized as significant and high in the SD Risk Register to ensure that mitigation progress is reported and issues are managed effectively.
Climate Change Action Plan	Corporate, business units and qualifying projects	Records mitigation actions, milestones and progress in managing climate-related risks from the SD Risk Register.

# Integrating Climate-Related Risks into ERM

Climate-related risks from the corporate SD Risk Register are mapped to key categories in the enterprise risk management process. Descriptions of these risks and mitigation measures are shared with Enterprise Risk Management (ERM) risk owners to inform their assessments of risk ranking, corporate actions and mitigations. Each risk owner evaluates and prioritizes risks in their area based on likelihood and consequences, thereby determining the relative significance of climate-related risks in relation to other enterprise risks.



*Jasmine Platform, North Sea, U.K.*

The ERM process is a direct input into our strategic planning process. By identifying major cross-cutting risks and trends, we closely link action plan efforts to key performance issues and address and mitigate identified risks. The ERM system and mitigation actions are reviewed regularly by the board.

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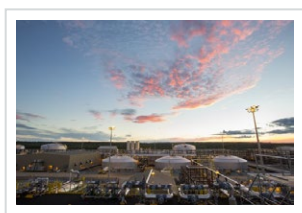
# Performance Metrics & Targets

We use key metrics and targets to measure and monitor our performance and progress in managing climate-related risks and opportunities in line with our strategy and risk management process. These include:

- Internal proxy carbon pricing and the financial impact of existing carbon pricing on our businesses across the globe.
- Scope 1, Scope 2 and Scope 3 greenhouse gas (GHG) emissions.
- Metrics for water, methane and flaring.
- GHG emissions intensity target.

We believe that these metrics and targets are the most useful in managing climate-related risks and opportunities and monitoring performance.

All data is from January 1 to December 31, 2018. Our Performance Metrics footnotes outline the scope and methodologies of our data reporting. The minimum boundary for reporting on environmental priorities is assets we operate.



## Strategic Flexibility & Planning

Robust and flexible corporate strategy.



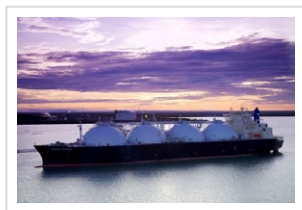
## GHG Emissions

Measuring our emissions performance.



## GHG Emissions Intensity Target

Reducing GHG Intensity.



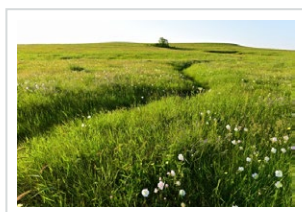
## Carbon Capture, Use & Sequestration

Converting carbon.



## Water

Climate change and water.



## Verification & Assurance

Independent, third-party verification.



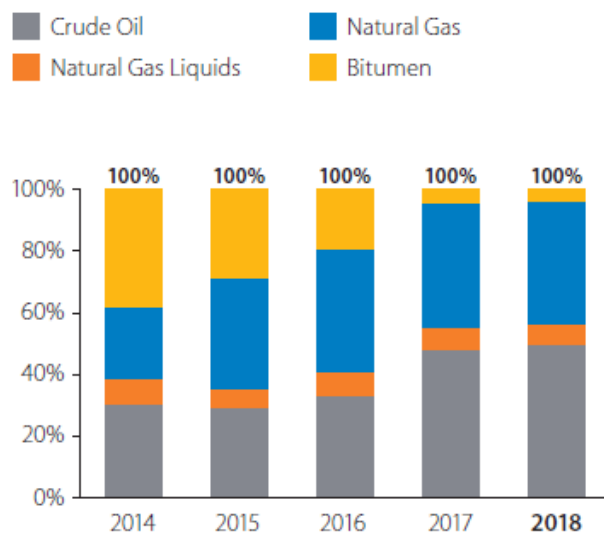
# Strategic Flexibility & Planning

A robust and flexible corporate strategy will be key to navigating the energy transition. The three key strategy components for an exploration and production company are portfolio, capital allocation and management of uncertainty. We manage uncertainty by focusing on the fundamental characteristics that drive competitive advantage in a commodity business — a low sustaining price, a low cost of supply, capital flexibility and a strong balance sheet. Based on our scenario analysis and monitoring of signposts, we decide when we should act and which actions to take.

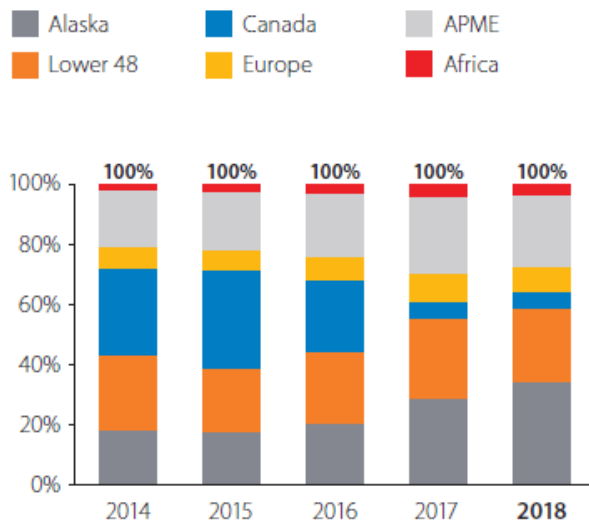
## Proved Reserves

The mix and location of the resources in our portfolio demonstrate flexibility and the ability to adapt to change as we monitor scenarios and global trends. Our short-cycle project times and capital flexibility enable us to redirect capital to the most competitive basins. Our extensive low cost of supply resource base allows us to divest higher cost assets to high-grade our portfolio as our strategy evolves. This applies not only to hydrocarbon mix, but geographic region as well. If policy in a country or region significantly impacts cost of supply, we can shift capital to other opportunities. Examples include our presence in the oil sands business in Canada and in North American natural gas. Changing market fundamentals led us to significantly reduce our focus on both, while our portfolio diversity enabled expansion in other areas.

**Percent of Proved Reserves by Hydrocarbon Type (Net Equity), 2014-2018**

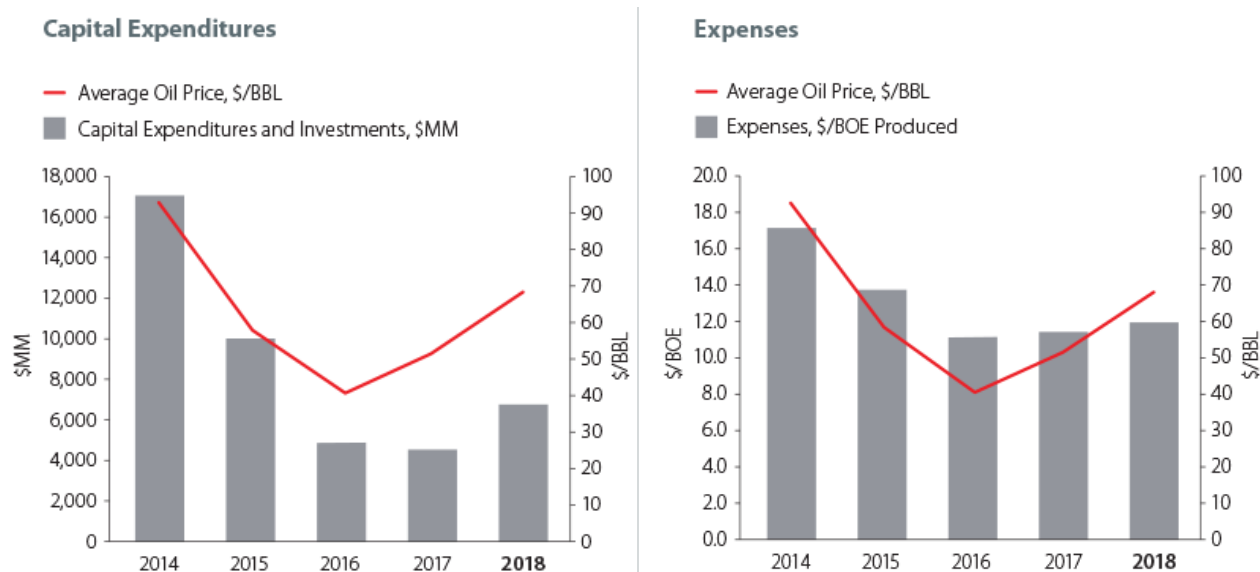


**Percent of Proved Reserves by Region (Net Equity), 2014-2018**



# Capital and Operating Spend

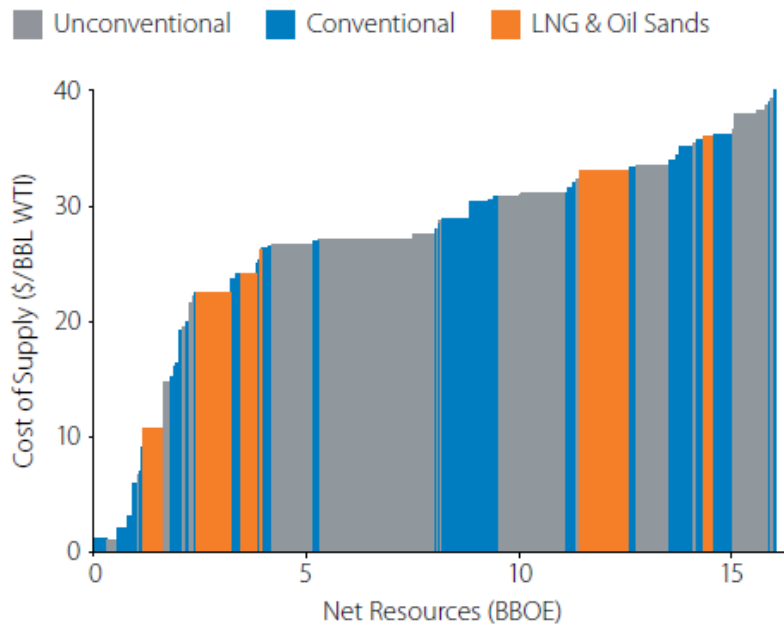
Our strategy is also made more robust by discipline in capital and operating costs. When oil prices dropped in 2014, we could quickly respond with changes to short- and long-term planning, as well as more cost-effective and efficient operations.



## Cost of Supply

Cost of supply is the West Texas Intermediate (WTI) equivalent price necessary to generate a 10% after-tax return on a point-forward and fully burdened basis. In our definition, cost of supply is fully burdened with exploration, midstream infrastructure, facilities cost, price-related inflation and foreign exchange impact, and both regional and corporate general and administrative costs. Cost of supply is the primary metric that we use for capital allocation, and it has the advantage of being independent of price forecasts. Any oil price above the cost of supply will generate an after-tax fully burdened return that is greater than 10%.

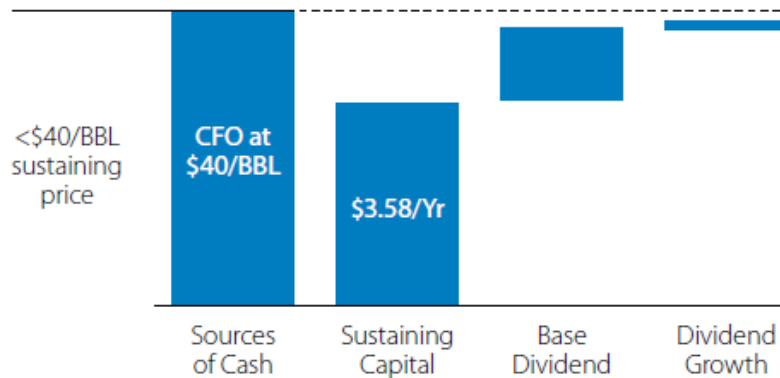
The cost of supply of our resource base supports our assertion that resources with the lowest cost of supply are most likely to be developed in scenarios with lower demand, such as the [IEA's Sustainable Development Scenario](#).



## Sustaining Price

Our sustaining price, which is the WTI price that generates enough cash flow to maintain flat production and grow the dividend, is less than \$40 per barrel and, we believe, is the lowest among U.S. independents.

### Estimated Sources and Uses of Cash



2018 Analyst and Investor Meeting

## Carbon Price

We use carbon pricing to navigate GHG regulations, change internal behavior, drive energy efficiency and low-carbon investment, and stress-test investments. The company uses a range of estimated future costs of GHG emissions for internal planning purposes, including an estimate of \$40 per metric tonne applied beginning in the year 2024 as a sensitivity to evaluate certain future projects and opportunities. The company does not use an estimated market cost of GHG emissions when assessing reserves in jurisdictions without existing GHG regulations.

## Cost of Compliance with Carbon Legislation

Carbon Legislation	2018 Cost Of Compliance, Net Share Before Tax (USD)	Operations Subject To Legislation	Percent Of 2018 Production*
European Emissions Trading Scheme (ETS)	\$5.6 million	U.K., Norway	16
Alberta Carbon Competitiveness Incentive Regulation (CCIR)	\$4 million	Canada	6
Norwegian carbon tax	\$30 million	Norway	10
British Columbia and Alberta carbon tax	\$0.6 million	Canada	6

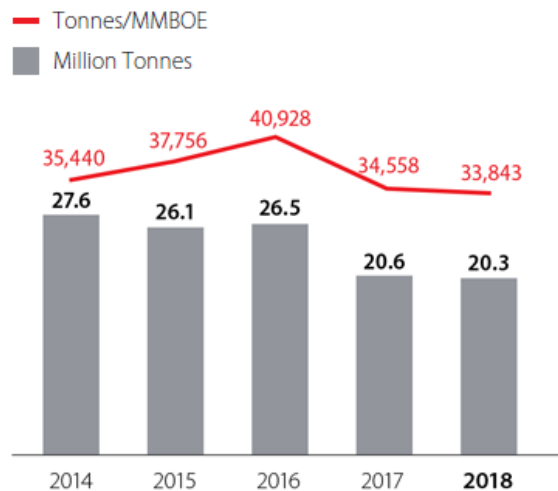
*\*2018 country production over total production; cost of carbon may only apply to some of our assets in a country, or to a portion of our emissions over a set baseline value.*

# GHG Emissions

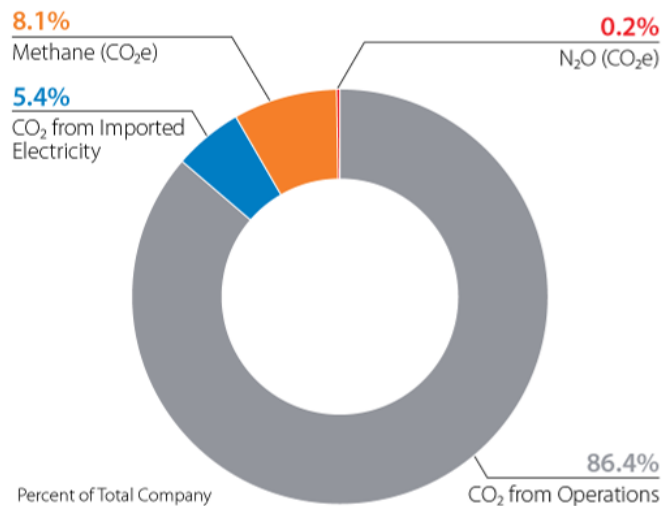
## Scope 1 and Scope 2 Emissions

Our Scope 1 and Scope 2 GHG emissions and emissions intensity directly measure our climate performance and help us understand climate transition risk. For example, our ability to manage GHG emissions can help us measure resilience to emerging carbon tax regulation. Since 2009, we have carried out discretionary projects that have reduced our annual GHG emissions by nearly 7 million tonnes CO<sub>2</sub>e compared to business as usual.

**Total GHG emissions and intensity (CO<sub>2</sub> equivalent)**

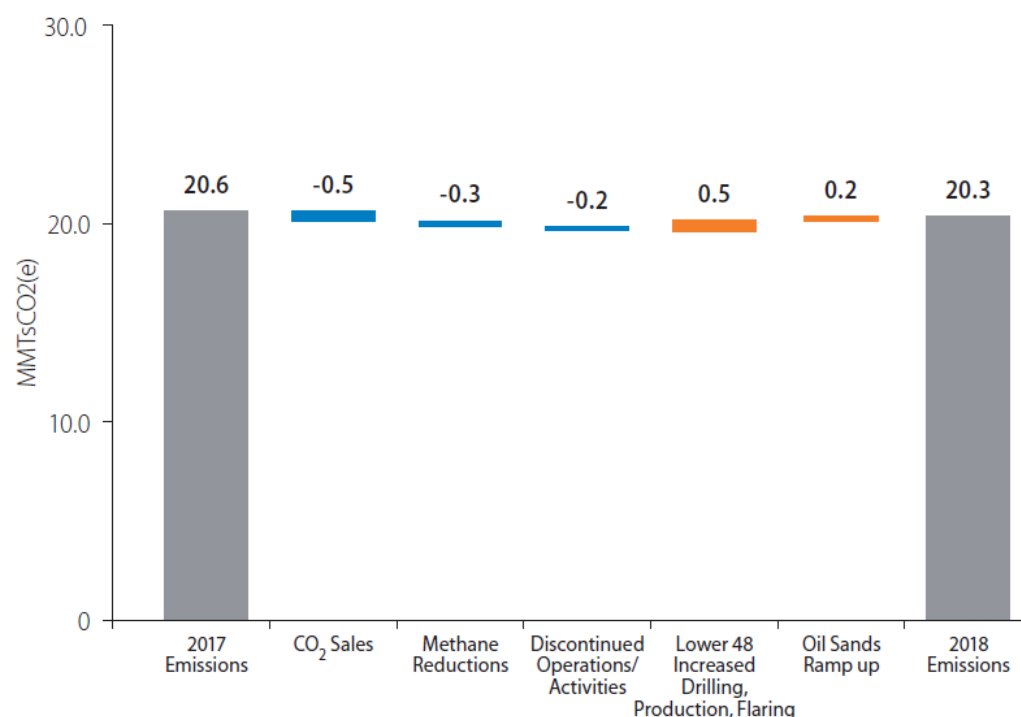


**Total GHG emissions**



In 2018, our total gross operated GHG emissions, in CO<sub>2</sub> equivalent terms, were approximately 20.3 million tonnes, a decrease of about 1.4%, or 0.3 million tonnes, from 2017. Increased emissions associated with continued development of Surmont oil sands and increased drilling, production and flaring in Lower 48, were more than offset by increased CO<sub>2</sub> sales for beneficial use, discontinued operation of some assets, and methane reductions. Our overall GHG emissions intensity decreased by 2% in 2018.

## 2018 GHG Emissions Changes



We report our operated emissions in the following regions, countries and provinces in accordance with regulation:

- **Australia:** The National Greenhouse and Energy Reporting Act 2007 (NGER Act) and the National Greenhouse and Energy Reporting (Measurement) Determination 2008
- **European Union:** EU Emissions Trading System, Monitoring and Reporting Regulation Council Directive 2003/87/EC, as amended by Council Directive 2009/29/EC
- **Norway:** Greenhouse Gas Emission Trading Act of 17 December 2004
- **United Kingdom:** The Greenhouse Gas Emissions Trading Scheme Regulations 2012
- **Alberta, Canada:** The Climate Change and Emissions Management Act: Specified Gas Reporting Regulation, Alberta Regulation 251/2004
- **British Columbia, Canada:** Greenhouse Gas Industrial Reporting and Control Act: Greenhouse Gas Emission Reporting Regulation, British Columbia Reg. 249/2015
- **Indonesia:** Minister of Environment Regulation No. 12 of 2013 regarding Guideline for the Emission Load Calculation for Oil and Gas Industry Activities
- **United States:** 40 CFR 98 Subparts C, PP, UU & W — Stationary Combustion Sources; Suppliers of CO<sub>2</sub>; Injection of CO<sub>2</sub>; Petroleum and Natural Gas Systems.

Our corporate reporting system uses the rules, emission factors and thresholds for regulatory emissions with the following amendments. We use a facility threshold for reporting of 25,000 tonnes per year increasing the corporate emissions reported for Alberta, Canada, which uses a regulatory threshold of 100,000 tonnes per year. In our

corporate reporting system, we include Scope 2 (emissions from imported electricity) which are not required under regulatory reporting.

**Scope 1** – Direct GHG emissions from sources owned or controlled by ConocoPhillips.

**Scope 2** – GHG emissions from the generation of purchased electricity consumed by ConocoPhillips.

**Scope 3** – All other indirect GHG emissions as a result of ConocoPhillips activities, from sources not owned or controlled by the company.

Read more about [GHG Protocol definitions](#).

## Scope 3 Emissions

For oil and natural gas exploration and production companies, Scope 3 emissions fall primarily into the “use of sold products” category. Our GHG intensity target does not cover Scope 3 emissions. As an exploration and production company with no downstream assets we have no control over how the raw materials we produce are transformed into other products or consumed. We do, however, calculate our Scope 3 emissions annually based on net equity production numbers. In 2018 our Scope 3 emissions decreased by 5%, primarily due to decreased net production.

Source	Estimated Million Tonnes CO <sub>2</sub> e
Upstream transportation and distribution	1.6
Downstream transportation and distribution	1.9
Processing of sold products	19.9
Use of sold products	155.6

## Flaring

Flaring is a regulated and permitted process for the controlled release and burning of natural gas during oil and gas exploration, production and processing operations. Flaring is required to safely dispose of flammable gas released during process upsets or other unplanned events, and to safely relieve pressure before performing equipment maintenance. Flaring is also used to control and reduce emissions of volatile organic compounds from oil and condensate storage tanks, and to manage emissions at well sites that lack sufficient pipeline infrastructure to capture gas for sale. Flaring has been reduced since 2014 by utilizing closed-loop completions, central gas gathering



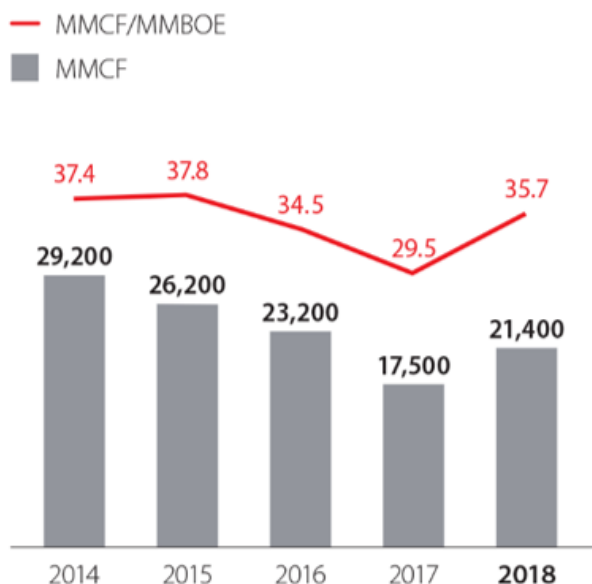
systems, vapor recovery units, directing condensate to sales pipelines and improving uptime through operational excellence (a major focus for all our operating facilities).

In 2018, our total volume of flared gas was 21.4 BCF, an increase of 22% from 2017. This was primarily due to the following increases:

- Gas production and flaring in assets where pipeline access and operating conditions could not accommodate the increased volume.
- Upset flaring events caused by a third-party gas gathering company.
- Facility shut-downs for maintenance.
- Number of wells requiring liquids removal.
- Volumes associated with flaring of storage tank and truck loading emissions.

Although post-combustion flaring emissions represent less than 7% of our GHG emissions, flare reduction continues to be a priority.

## Total flaring volume



## Methane and Fugitive Emissions

Managing emissions, particularly methane, is one of our key priorities. Reducing emissions, even the small equipment leaks known as fugitive emissions, is a key aspect of our [Global Onshore Well Management Principles](#). While there are differing methods and many measurement points, estimates of natural gas leakage rates between gas processing plants and electric power plants vary widely, from 0.7 to 2.6%.

We have standard operating procedures to detect and repair leaks. Audio-visual-olfactory (AVO) inspections are routinely performed during 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, in order to reduce GHG emissions and increase efficiency.

At many of our locations, especially high-rate producing wells and stand-alone compressor stations, we instituted a periodic voluntary fugitive monitoring program using forward-looking infrared (FLIR) cameras to enhance our LDAR. FLIR cameras create real-time images of gases or liquids leaking from pipes, vessels, tanks and other types of process equipment. FLIR surveys are completed at new or modified well sites and subsequent monitoring surveys are conducted at least annually. We fix leaks as soon as feasible, with many leaks repaired either the same day or within a few days of being detected. If additional time is required, we follow standard maintenance processes by adding the

required repairs to our maintenance tracking system. After repairs are completed, inspections ensure that the repairs are successful. We implement engineered solutions and/or operational changes if we identify developing trends of systemic hardware problems.

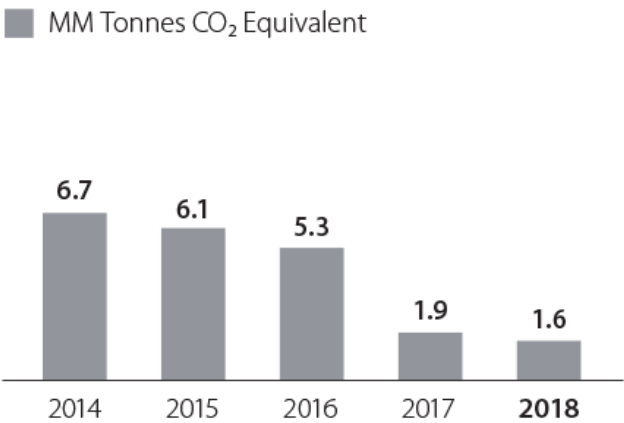
In 2018, methane emissions were reduced by 0.3 million tonnes of CO<sub>2</sub>e driven by an improved inventory of pneumatic devices, a decrease in equipment due to dispositions, replacement of pneumatic devices with electric solar pumps, and a change in the national calculation methodology for methane flaring in Australia. This was partly offset by the addition of sources not included in prior years.

## Energy Efficiency

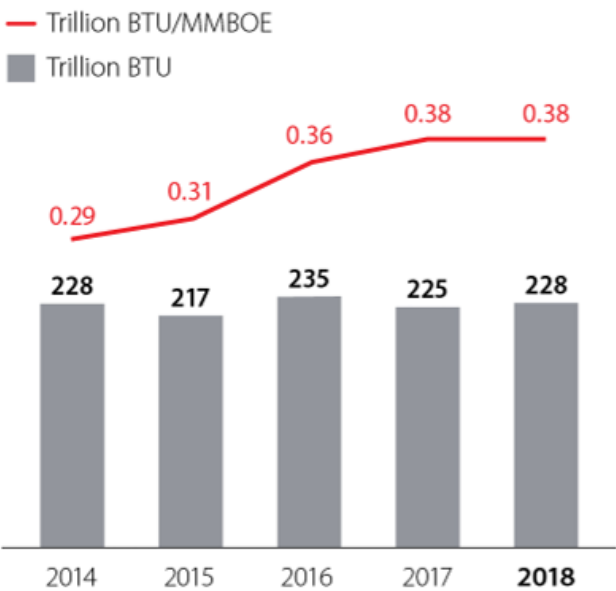
We continually strive to make our operations more energy efficient. This can provide an environmental benefit through reduced emissions, as well as an economic benefit through lower production costs or greater sales revenue. Through the natural decline of production, as our fields diminish in size, they tend to require either the same, or in some cases, even greater amounts of energy to extract the product and transport it for processing or refining. Newer operations tend to be more energy intensive as well.

Total energy consumption in 2018 was 228 trillion British Thermal Units (BTUs), an increase of about 1.6%, due to increased production of both steam and hydrocarbons at our Surmont 2 facility in Canada and increased drilling and production in the Lower 48 Gulf Coast. This was partly offset by reductions from the discontinued operation of a field in the UK. About 98% of our consumption was from combustion of fuel for our own energy use and the remaining 2% was from purchased electricity. Purchased electricity decreased about 9% due to the sale of assets. Intensity, expressed as Trillion BTU/MMBOE, increased about 1%.

### Total Methane Emissions



### Total Energy Use



## Low-Carbon Products

In 2018, we supplied consumers with approximately 1 trillion cubic feet (or 2.8 billion cubic feet per day) of natural gas. To put this in perspective, if all the natural gas we produced in 2018 had been used to replace coal for electricity generation, GHG emissions would have been reduced by approximately 52 million metric tons, more than double the company's combined Scope 1 and Scope 2 emissions for the year.

## CDP

The annual CDP survey collects a wide range of information concerning corporate efforts to manage climate change issues effectively and drive emissions reductions. It includes an emphasis on governance, strategy, actions and reporting to try to provide a complete view of companies' performance for comparison. It also provides a view of sector performance. ConocoPhillips has participated in the survey since 2003. Our most recent CDP submission can be found in the [2018 CDP document](#).

## GHG Emissions Intensity Target

We have a long-term target to reduce our GHG emissions intensity from five to 15% by 2030 from a Jan. 1, 2017 baseline. The target will support innovation on efficiency and emissions reduction, GHG regulatory risk mitigation and climate-related risk management throughout the lifecycles of our assets.

The target informs climate goals at the business level. Our performance will be based on gross operated GHG emissions, stated in carbon dioxide-equivalent terms, divided by our gross operated production, stated in barrels of oil equivalent. The target is set in relation to our Scope 1 emissions and Scope 2 gross operated emissions as these are the emissions over which we have the most control. The target covers all GHGs, but in practice will likely apply to carbon dioxide and methane emissions as our emissions of other greenhouse gases are a small fraction of the total. For comparability purposes we exclude transportation services (i.e. Polar Tankers and Global Aviation) which are not directly related to oil or gas production, from our emissions totals. This may give rise to small differences between the intensity we report for our GHG target purposes and the intensity we report in our annual Sustainability Report. Our current metrics also do not include the use of carbon offsets. Future reporting will show our progress with and without the use of offsets.

We intend to report our progress against the target on an annual, calendar-year basis. [Read more](#) about our target.

# Target Implementation

In 2018, we worked to develop an implementation plan that strengthens processes, tools and data required to support achievement of the target. This included:

- Validation of our baseline emissions to attempt to ensure an accurate and well-documented baseline.
- Continued collection and critical review of prospective emission reduction projects through our marginal abatement cost curve (MACC) process to assess completeness of the project list. We added 11 new projects to our inventory. Several projects are now part of our Long-Range Plan, including non-condensable gas co-Injection in Canada and air-assisted flares in some Eagle Ford facilities.
- Business units developing fit-for-purpose plans that focus on further emission reductions.
- The establishment of emissions-reduction steering groups in many business units to manage the planning process.
- Our North American business units collaborating to share knowledge about methane reduction projects.
- Continued engagement of our workforce to ensure broad alignment on target implementation.

Progress to implement the target and performance will be regularly reviewed by executive management and the board.

## Target Progress

The 2017 sale of older assets in the U.S. and Canada reduced our GHG emissions intensity significantly. In 2018, emissions intensity decreased slightly as an increase in emissions associated with continued development of Surmont oil sands and increased drilling, production and flaring in Lower 48, were more than offset by increased CO<sub>2</sub> sales for beneficial use, discontinued operation of some assets and methane reductions.

While we made strong progress in meeting the target during the first two years, as we adjust our portfolio and use new technologies in our developments, we believe we will continue to need a long-term

2018 GHG Emissions Intensity Target Progress



target range for several reasons. First, there are still 12 years before the target end date and we would expect GHG intensity to increase as natural gas and oil fields deplete and more energy is required to produce the same or lower volumes. Second, some of our reported emissions are the result of applying standard emissions factors which may underestimate or overstate our actual emissions. We expect industry technologies around emissions reporting to advance over the next 12 years and more accurately reflect actual performance. Third, our portfolio will continue to change over time and, depending on the intensity of new production, our future intensity could increase or decrease. For example, we expect an increase in intensity from 2018 to 2019 due to the upcoming disposition of our U.K. business unit, which is comprised of lower-intensity offshore developments.

We built in a five-year review process, similar to what is proposed in the Paris Agreement. If our emission projections appear to remain at the lower end of the target, we may adjust the target to a lower or smaller range in the future.

## Reducing Emissions

We have carried out discretionary projects that have reduced GHG emissions by almost 7 million tonnes CO<sub>2</sub>e per year since 2009, compared to business as usual. Our 2018 gross operated global business-as-usual GHG emissions have been reduced by approximately 26% as a result of these discretionary projects. We continued our voluntary emissions reduction program in 2018, with projects reducing GHG emissions in the U.S., Canada, Norway, Australia and the U.K. We are one of 59 companies participating in [The Environmental Partnership](#) in the U.S., a coalition of natural gas and oil companies working to improve methane emissions management. As part of our commitment, our U.S. Lower 48 operations have focused on two key areas:

- Leak Detection and Repair (LDAR) programs — We conducted more than 4,300 site surveys across our assets to detect leaks and quickly repair them. While this is a regulatory requirement in many areas, over 60% were done voluntarily. These surveys continue to provide a better understanding of where leaks occur and what we can do to minimize fugitive emissions.
- Pneumatic device evaluation and conversion — All high-bleed pneumatic controllers have been removed or replaced and we are focused on greenfield designs to reduce pneumatic emissions at new facilities. We have a complete inventory of pneumatic devices and continue to evaluate solutions to reduce emissions.

Other reduction projects in the U.S. include:

- Our Lower 48 business unit is coordinating with our corporate technology team to test the effectiveness of drone technology for detecting methane leaks from our operations. A pilot project was initiated in the Eagle Ford in late 2018.
- In the Bakken, natural gas from production must be less than a specified temperature to be eligible to go into the midstream pipeline; if it is not it may be flared. By having gas chillers available, we can get more gas and reduce flaring.

In Canada, GHG reduction projects include:

- The use of non-condensable gas in the oil sands. Read more [here](#).
- Carbon XPRIZE. Read more [here](#).

## Carbon Capture, Use & Sequestration

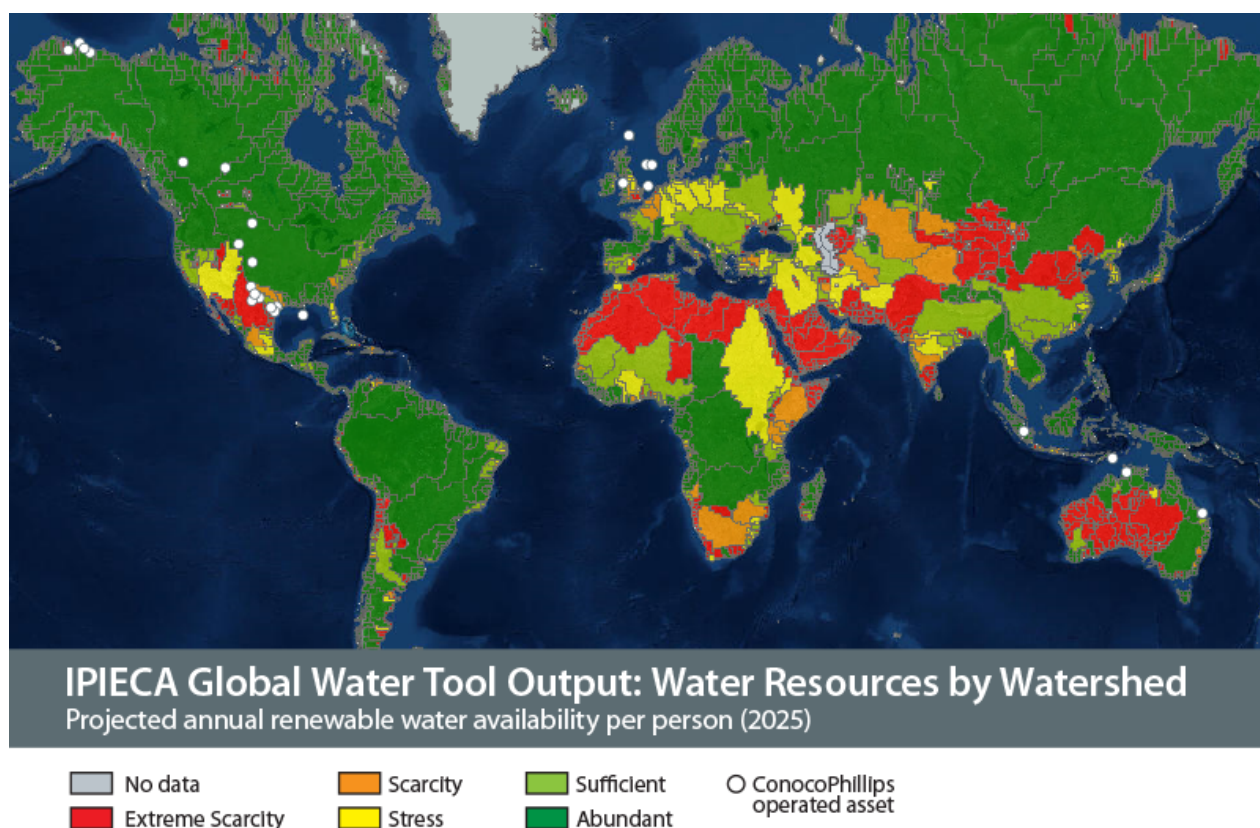
In the U.S. in 2018, we sold over 530,000 tonnes of CO<sub>2</sub> from process emissions to a third party that uses it for enhanced or tertiary oil recovery and reservoir pressure maintenance in oil reservoirs. Additionally, our operations at Buckeye East in New Mexico use recycled CO<sub>2</sub> for enhanced oil recovery, and in 2018 we purchased almost 300,000 tonnes of CO<sub>2</sub> for injection.

Seven of Canada's Oil Sands Innovation Alliance (COSIA) member companies, led by ConocoPhillips Canada, partnered with NRG Energy, an 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 can be done with CO<sub>2</sub> emissions by incentivizing and accelerating the development of technologies that convert CO<sub>2</sub> from fossil fuel combustion into valuable products. Ten teams from five countries were recently named finalists for the \$20 million competition. Teams range from entrepreneurs and start-ups to academic institutions and companies that have been tackling the carbon challenge for more than a decade. The competition has two tracks: one focused on testing technologies at a coal-fired power plant and one at a natural gas-fired power plant. The 10 finalists received equal shares of a \$5 million milestone prize to test their technologies at commercial scale under real-world conditions at the Integrated Test Center in Gillette, Wyoming for the coal track or at the Alberta Carbon Conversion Technology Centre in Calgary for the natural gas track. Teams will be scored on how much CO<sub>2</sub> they convert and the net value of their products. Ultimately, each of the two winning teams in the natural gas and coal tracks will be awarded a \$7.5 million grand prize in spring 2020.

# Water

Water is integral to our operations and may be affected by physical climate-related risks as some regions experience changes in temperature and precipitation patterns. Water metrics are used to assess risk related to water supply and disposal as well as opportunities for water recycle and reuse. In regions with physical, regulatory or social-related water risks, we explore alternatives to fresh water, including deep brackish groundwater, recycled produced water and reused municipal wastewater.

When evaluating water-related risks, we start at a high level with an enterprise-wide review of physical water supply risks around the world using the [IPIECA Global Water Tool for Oil and Gas](#). Each major operated asset has completed a water risk assessment and, if required, developed a Water Action Plan. We plot the locations of our operated assets on a Global Water Tool map showing projected water resources by watershed in 2025.



Some of our U.S. assets are in regions experiencing water stress or scarcity or that are predicted to do so in the future. We integrate water strategy and risk management into our Long-Range Planning and business processes and develop fit-for-purpose solutions to manage water risks for each asset within its local context. Our Water Action Plan includes multiple actions on freshwater conservation for our assets.



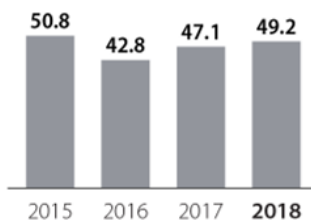
### Freshwater withdrawn

■ Million Cubic Meters



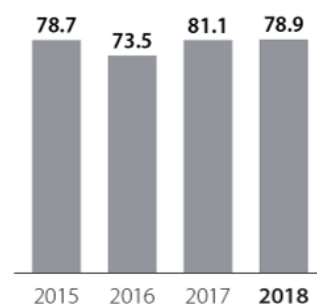
### Non-Fresh water withdrawn

■ Million Cubic Meters



### Produced water recycle/reuse

■ Million Cubic Meters

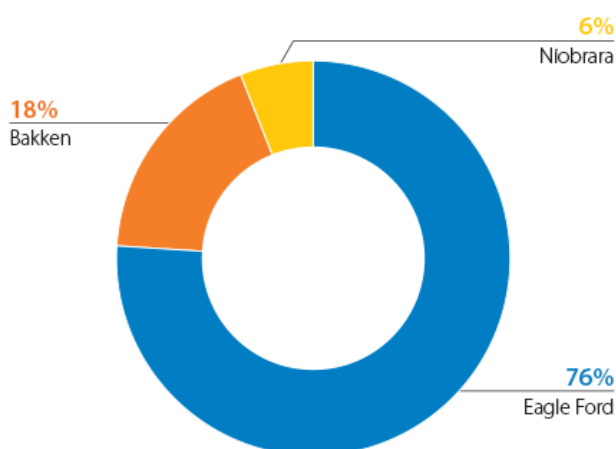


In the arid Delaware Basin of western Texas and southern New Mexico, we use non-fresh water for the majority of our drilling and hydraulic fracturing and have worked to improve our treatment and use of produced water through multiple pilot projects using recycled produced water since 2012. Our solution 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, reducing our surface footprint as well as emissions, dust and road noise associated with truck transportation.

In the Eagle Ford region of southern Texas, less water is produced with the natural gas and oil, so we target deeper, more brackish water sources that are not used for municipal, domestic or agricultural purposes. We've conducted several pilot projects, including using non-freshwater sources, treated municipal wastewater and recycled produced water to hydraulically fracture our wells. We have also developed a [three-dimensional visualization tool](#), which provides a 3-D digital model of aquifers, water wells and natural gas and oil wells.

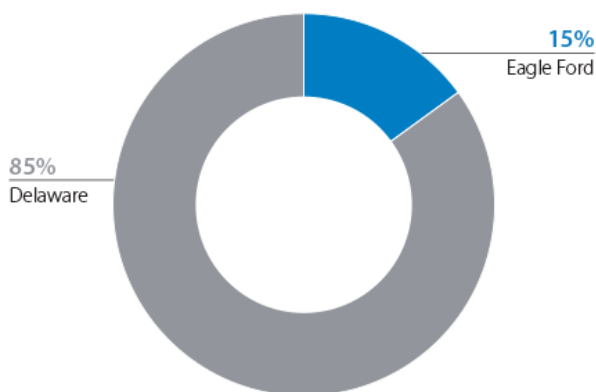
### 2018 Lower 48 Freshwater Withdrawal\*

■ Eagle Ford ■ Bakken ■ Delaware ■ Niobrara



### 2018 Lower 48 Non-freshwater Withdrawal\*

■ Eagle Ford ■ Bakken ■ Delaware ■ Niobrara



\*Basins not represented in the charts had no withdrawals.

# Verification & Assurance

Each of our business units is responsible for quantifying emissions and reporting the information to our corporate center for compilation and internal verification. Reporting to authorities and regulators is also the responsibility of business units.

The method of data collection at each individual source ranges from continuous emissions monitoring to emissions estimations. Estimating approaches meet applicable regulatory reporting requirements or industry guidance, as appropriate. The quality of estimating methodologies, measurements and calculations are audited on a routine schedule by our corporate HSE auditing team and periodically assessed by third parties.

We conduct independent third-party limited assurance for Scope 1, Scope 2 and Scope 3 emissions annually. Every three years, we also include assurance on energy use, flaring, criteria air pollutants, waste, liquid hydrocarbon spills, water and safety metrics. See our most recent [ERM CVS Assurance Statement](#).

[Read more](#) about our internal quality assurance and third-party verification.



 ConocoPhillips