

## C0. Introduction

### C0.1

#### (C0.1) Give a general description and introduction to your organization.

Occidental Petroleum Corporation's (Occidental's) integrated business model combines oil and natural gas exploration and production; Oxy Low Carbon Ventures, LLC, a subsidiary of Occidental, capitalizes on our enhanced oil recovery (EOR) leadership by developing carbon capture, utilization and storage (CCUS) projects that source carbon dioxide (CO<sub>2</sub>) and promotes innovative technologies that drive cost efficiencies and economically grows Occidental's business while reducing emissions; midstream and marketing; and, chemicals (OxyChem). OxyChem is a leading manufacturer of PVC resins, vinyls, chlorine and caustic soda – key building blocks to life-enhancing products such as pharmaceuticals, water treatment chemicals, building materials and plastics.

Founded in 1920, Occidental's success is built on technical expertise, business acumen, strong partnerships and our proven ability to deliver lasting results. With nearly 38,000 employees and contractors worldwide at year-end 2018, we are committed to being a [Partner of Choice®](#) everywhere we operate.

Occidental is committed to respecting the environment, operating safely and upholding high standards of social responsibility. Occidental applies a robust environmental risk management approach and operational practices to increase energy efficiency and reduce greenhouse gas (GHG) emissions and air pollution, even while expanding our production. At our business locations, we follow established procedures to gain an understanding of how Occidental's presence affects the surrounding area and the challenges faced by local communities. By investing in programs and initiatives that manage operational impacts and address key stakeholder concerns, Occidental strengthens relationships with communities and creates shared value for stakeholders and our business.

### C0.2

#### (C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Row 1	January 1, 2018	December 31, 2018	No

### C0.3

#### (C0.3) Select the countries/regions for which you will be supplying data.

Bolivia (Plurinational State of)

Canada  
Chile  
Colombia  
Oman  
Qatar  
United States of America

## C0.4

**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

USD

## C0.5

**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.**

Operational control

## C-CH0.7

**(C-CH0.7) Which part of the chemicals value chain does your organization operate in?**

Row 1

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**Bulk organic chemicals**

**Bulk inorganic chemicals**

Chlorine and Sodium hydroxide

**Other chemicals**

Other, please specify

vinyl chloride monomer (VCM), ethylene dichloride (EDC), caustic soda

## C-OG0.7

**(C-OG0.7) Which part of the oil and gas value chain and other areas does your organization operate in?**

Row 1

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**Oil and gas value chain**

Upstream

Midstream

Chemicals

**Other divisions**

Carbon capture and storage/utilization

## C1. Governance

### C1.1

**(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

#### C1.1a

**(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.**

Position of individual(s)	Please explain
Board-level committee	<p>At the Board level, oversight of sustainability and climate-related issues are principally divided between two of our standing Board committees: the Environmental Committee and the Governance Committee. Combined, the membership of these committees includes all of our independent directors. The Environmental Committee reviews and discusses climate-related risks and opportunities with management and oversees Occidental's environmental, health and safety programs and performance. The Governance Committee oversees public disclosures regarding environmental, social and governance (ESG) and sustainability matters.</p> <p>One of the specific responsibilities of the Environmental Committee outlined in its charter is to review and discuss climate-related risks and opportunities with Occidental's senior management.</p>
Chief Executive Officer (CEO)	<p>As part of Occidental's governance and risk management processes, senior management regularly reports to the Board of Directors on environmental and sustainability matters, including climate-related risks and opportunities. Occidental's CEO, who is a Board member, senior management team and the Board of Directors share a commitment to effective and ethical corporate governance, including the integration of climate-related issues into Occidental's business strategy.</p>

#### C1.1b

**(C1.1b) Provide further details on the board's oversight of climate-related issues.**

Frequency with which climate-related issues	Governance mechanisms into	Please explain
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are a scheduled agenda item	which climate-related issues are integrated	
<p>Scheduled – some meetings</p>	<p>Reviewing and guiding strategy</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding annual budgets</p> <p>Setting performance objectives</p> <p>Monitoring implementation and performance of objectives</p> <p>Overseeing major capital expenditures, acquisitions and divestitures</p> <p>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p>	<p>Our Board has made it a priority to include the consideration of emissions and a lower-carbon economy in our strategic planning. The Board addresses climate risk factors and is committed to continuous evaluation of the impact of climate risk on our business. For more than a decade, the Board has discussed issues significant to our business regarding climate risk at its regular meetings.</p> <p>Led by the Governance Committee, the Board conducts a robust annual evaluation of the performance of each of the Board’s committees. These annual evaluations are a critical tool in assessing the composition and effectiveness of the Board, its committees and its directors, and presents an opportunity to identify areas of strength and areas capable of improvement. The annual Board evaluation includes an assessment of, among other things, whether the Board and its Committees have the necessary diversity of skills, backgrounds and experiences to meet Occidental’s needs. The Governance Committee annually considers the format of its evaluation processes, which, in recent years, have intentionally included different formats, such as questionnaires, interviews, and the use of a third-party facilitator.</p> <p>The Board and Board-level Committees assess and integrate climate risk-related issues into Occidental's business strategy which helps inform our active shareholder engagement.</p> <p>Pursuant to its charter, the Environmental, Health and Safety Committee (Environmental Committee) reviews climate-related risks and opportunities as part of our risk management processes. The Audit Committee oversees our Enterprise Risk Management (ERM) process,</p>

		<p>which involves a cross-functional ERM team that reports to our ERM Council, a group of senior executives collectively responsible for policies and procedures involved in measuring, monitoring, managing and reporting enterprise risks, including climate risk.</p> <p>Occidental is committed to regular and transparent communication and engagement with its stockholders and other stakeholders. Occidental proactively offers engagement meetings with major stockholders and responds to engagement requests as they are received. Feedback from these meetings is shared with directors through senior management reports to the Board and its committees and by virtue of independent director participation in various stockholder engagements throughout the year.</p> <p>In 2018, we reached out to our largest stockholders and other ESG stakeholders to discuss matters related to the 2018 Annual Meeting and to gather feedback on our first climate report publication. In the fall, we conducted a broad-based engagement, and offered telephonic or in-person meetings to engage on ESG issues, including climate-related risks and opportunities, and executive compensation. One or more of our independent directors participated in these meetings, demonstrating the Board's commitment to engagement and the value the Board places on directly hearing the views of our stockholders.</p>
<p>Other, please specify                  Climate risk and opportunities, and report development aligned with TCFD recommendations</p>	<p>Reviewing and guiding strategy                  Reviewing and guiding major plans of action                  Reviewing and guiding risk management policies                  Reviewing and guiding annual budgets</p>	<p>Occidental has reported GHG and other air emissions publicly for over 15 years. Occidental articulated its governance and oversight of climate-related risks and opportunities in its climate report entitled, 'Climate-related Risks and Opportunities: Positioning for a Lower-Carbon Economy'. This report summarizes our governance and management approach using the four-element framework recommended by the Task Force on</p>

	<p>Setting performance objectives</p> <p>Monitoring implementation and performance of objectives</p> <p>Overseeing major capital expenditures, acquisitions and divestitures</p> <p>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p>	<p>Climate-related Financial Disclosures (TCFD), which covers governance, risk, strategy and metrics and targets. Occidental's Climate Report provides insight into how we incorporate information on climate-related risks and opportunities into our strategy, risk management and governance processes, including the governance role and oversight of the Occidental Board of Directors (Board).</p> <p>Pursuant to its charter, the Board's longstanding Environmental, Health and Safety Committee (Environmental Committee) reviews climate-related risks and opportunities as part of our strategic planning and risk management processes. The Environmental Committee holds joint meetings with the Corporate Governance, Nominating and Social Responsibility Committee (Governance Committee) to discuss key environmental, social, governance (ESG) and sustainability matters. This oversight structure and meeting schedule has been intended to ensure that important ESG and sustainability matters, including analysis of climate-related risks and opportunities, receive the attention of the full Board.</p> <p>In addition to oversight exercised through its strategy review, project approval and committee processes, the Board, through the Executive Compensation Committee, also influences management priorities by establishing the parameters and goals that determine executive compensation. For many years, Occidental's executive compensation program has included elements related to sustainability, focused primarily on safety and environmental performance. In 2018, the sustainability portion of the program was broadened to include a climate-related element associated with the advancement of CCUS.</p>
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## C1.2

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	As important matters arise
Safety, Health, Environment and Quality committee	Both assessing and managing climate-related risks and opportunities	Quarterly
Corporate responsibility committee	Both assessing and managing climate-related risks and opportunities	Quarterly

### C1.2a

**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

Occidental is governed by a Board of Directors (Board), which, among other duties, sets the company's policies, objectives and overall direction of the business and monitors and evaluates the senior management team. The Board is committed to strong corporate governance policies and practices and continually reviews evolving best practices in governance and seeks input from Occidental's stockholders. The Board is led by an independent chairman who, among other responsibilities, coordinates and approves all meeting agendas and serves as liaison between the Board and Occidental's stockholders.

To support the Board's oversight of strategy and risk management, senior management regularly reports to the Board on environmental and sustainability matters, including climate-related risks and opportunities. This interaction takes place informally during regular business, scheduled meetings and during annual strategy sessions.

Pursuant to its charter, the Board's longstanding Environmental, Health and Safety Committee (Environmental Committee) reviews climate-related risks and opportunities as part of our strategic planning and risk management processes. The Environmental Committee holds joint meetings with the Corporate Governance, Nominating and Social Responsibility Committee (Governance Committee) to discuss key environmental, social, governance (ESG) matters. Together these two committees include all of our independent directors, some of whom have unique expertise on ESG and sustainability issues.

In addition, the Audit Committee oversees Occidental's Enterprise Risk Management (ERM) process, which involves a cross-functional team that reports to our ERM Council, a group of senior executives collectively responsible for policies and procedures involved in measuring, monitoring, managing and reporting enterprise risks, including climate risk.

To support the Board's strategy and long-term goals, senior management regularly reports to the Board on environmental and sustainability matters, including climate-related risks and opportunities. This interaction takes place during scheduled meetings, annual strategy sessions and informally during regular business. During the Board's 2018 session, the Low Carbon Ventures team updated the Board on Occidental's low-carbon strategic process, including a review of objectives; CO2 economy and competitive landscape; and low-carbon investment opportunities. The discussion included insights from both internal and external experts. These agenda items reflect the Board's engagement and efforts to heighten its understanding of how a low-carbon economy might affect the company, while supporting and strengthening Occidental's shareholder value proposition. Future Board strategy sessions will continue to refine and enhance our consideration of climate-related risks and opportunities.

## C1.3

**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

Yes

## C1.3a

**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).**

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**Who is entitled to benefit from these incentives?**

Corporate executive team

**Types of incentives**

Monetary reward

**Activity incentivized**

Emissions reduction project

**Comment**

Occidental seeks to meet its strategic goals by continually measuring its success in its key performance metrics that drive total stockholder return. For many years, Occidental's executive compensation program has included elements related to sustainability, focused primarily on safety and environmental performance. For 2018-19, the sustainability portion of the program was broadened to include a climate-related element associated with the advancement of carbon capture, utilization and storage (CCUS) activity and expanded the component to comprise 10 percent of

the target company performance portion of the annual cash incentive award for executive officers.

**Who is entitled to benefit from these incentives?**

Chief Executive Officer (CEO)

**Types of incentives**

Monetary reward

**Activity incentivized**

Other, please specify  
 expansion of CCUS business

**Comment**

For many years, Occidental’s executive compensation program has included elements related to sustainability, focused primarily on safety and environmental performance. For 2018-19, the sustainability portion of the program was broadened to include a climate-related element associated with the advancement of CCUS and expanded the component to comprise 10 percent of the target company performance portion of the annual cash incentive award for executive officers.

**Who is entitled to benefit from these incentives?**

All employees

**Types of incentives**

Recognition (non-monetary)

**Activity incentivized**

Behavior change related indicator

**Comment**

Occidental's "On-the-Spot" recognition program rewards employees who demonstrate core values, promote a positive team environment and contribute to Occidental’s success.

## C2. Risks and opportunities

### C2.1

**(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.**

	From (years)	To (years)	Comment

Short-term	1	3	<p>Occidental is focused on delivering a unique shareholder value proposition through continual enhancements to its asset quality, organizational capability and innovative technical applications that provide competitive advantages. Occidental's oil and gas segment focuses on long-term value creation and leadership in health, safety and the environment. In each core operating area, Occidental's operations benefit from scale, technical expertise, environmental and safety leadership, and commercial and governmental collaboration. These attributes allow Occidental to bring additional production quickly to market, extend the life of older fields at lower costs, and provide low-cost growth opportunities with advanced technology.</p> <p>Our business decision-making process integrates climate change-related issues with other business priorities to help us effectively manage greenhouse gas (GHG) emissions, the social and economic impacts of Occidental's energy use and further the company's commitment to be an efficient, low-cost producer of oil and gas and chemicals. Efforts to mitigate or adapt to climate change while maintaining cost-effective energy and chemicals supplies and the reliable, energy-efficient production of electricity present both challenges and opportunities for society and for Occidental.</p> <p>Our current global strategy includes active investments in CO2 Enhanced Oil Recovery (EOR) and carbon capture, utilization and storage (CCUS), as well as other emissions-reducing technologies that will reduce our emissions through flaring minimization and low-carbon electricity consumption, positioning Occidental with a competitive advantage in lower-carbon scenarios, addressing all scopes of emissions.</p>
Medium-term	3	5	<p>Our business strategy includes the risk and opportunity aspects associated with climate change, such as physical, regulatory changes, commercial and reputational. Financial implications, both short and medium-term, are assessed by considering current and estimated future costs and prices for energy, raw materials and electricity, demand for fossil fuels and emission fees and permits. Occidental incorporates these considerations into business decision-making through management meetings. Outcomes of this process to integrate climate change considerations into our business strategy help inform our active engagement with institutional stockholders, state and national-level regulators, industry associations, users of our chemical products, environmental groups and other public stakeholders addressing climate risks.</p> <p>The scale and position of Occidental's CO2 EOR operations in the Permian Basin over the last 40 years are unmatched. Occidental is the</p>

		<p>world leader in CO2 EOR. It is a core business and critical to our returns-based value proposition.</p> <p>In early 2018, the U.S. Congress approved legislation (the FUTURE Act) in concert with the 45Q federal tax credit that could help incentivize the development of new CCUS projects, making more anthropogenic carbon dioxide available for geologic sequestration and for use in oil and gas production. This should provide additional opportunities for Occidental in a lower-carbon future.</p> <p>In July 2018, Occidental launched Oxy Low Carbon Ventures (OLCV), a new business segment that, among other things, seeks to identify and develop commercial opportunities to extend our competitive advantages in CO2 EOR and CCUS and investing in and developing technologies to drive CO2 capture cost efficiency. The types of medium-term business opportunities that OLCV could pursue include: expanding commercially viable anthropogenic CO2 sources; expansion of CO2 use in unconventional development; and, marketing low-carbon intensity fuels.</p>
Long-term	5	<p>On a longer-term basis, Occidental evaluates the steps to account for a lower-carbon economy and enhancements to our capital approval process and emissions metrics, and we detail the competitive advantages we believe that our CO2 EOR and international gas assets offer in lower-carbon scenarios.</p> <p>Longer-term, our business strategy may include: Direct Air Capture (DAC); global CO2 capture and EOR projects; reducing emissions of others through CCUS deployment and technical service partnerships; CO2 as chemical feedstock; and, CO2 to product applications (e.g., fuels, plastics, materials).</p>

## C2.2

**(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.**

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

### C2.2a

**(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.**

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Annually	>6 years	<p>Occidental's risk management approach incorporates analyses of the short- and long-term financial risks of a lower-carbon economy. Occidental considers various scenarios to assess potential future climate-related impacts on the company's assets.</p> <p>As part of our risks assessment, we modeled the most rigorous of the International Energy Agency (IEA) scenarios, the Sustainable Development Scenario, describing the Scenario's alignment with the goals of the Paris Agreement, out to the year 2040.</p> <p>Occidental's risk management approach incorporates analyses of the short- and long-term financial risks of a lower-carbon economy. We have the ability to be a leader in the production of less carbon intensive energy that the world needs now and will continue to need for the foreseeable future through our decades of experience and leadership in enhanced oil recovery.</p>

## C2.2b

### (C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

Our business strategy includes the risk and opportunity aspects associated with climate change, such as physical, regulatory changes, commercial and reputational. Financial implications, shorter and medium-term, are assessed considering current and estimated future costs and prices for energy, raw materials and electricity, demand for fossil fuels and emission fees and permits. Occidental incorporates these considerations into business decision-making through management meetings. Outcomes of this process to integrate climate change considerations into our business strategy help inform our active engagement with institutional stockholders, state and national-level regulators, industry associations, users of our chemical products, environmental groups and other public stakeholders addressing climate risks.

Occidental's risk management approach facilitates compliance with laws and regulations and the management of Health, Environmental and Safety (HES) and social risks to improve overall business performance. It encourages individual responsibility, values quantifiable results, provides opportunities to develop and implement effective processes and promotes communication among employees, contractors, neighboring communities, government authorities and other stakeholders. Occidental's Health, Environment and Safety Management System (HESMS) identifies and clearly defines the risk management policies, standards,

procedures and guidelines in-place at all operating locations and levels of the organization to identify, prioritize and apply feasible risk mitigation options.

The company's Risk Management Community of Practice leverages the collective expertise of the company's professionals to share opportunities for improvement. Higher-level risks are reported, validated by business segment management and reviewed annually with senior management and the Environmental, Health and Safety Committee of the Board of Directors, assuring that HES risk management is among Occidental's highest priorities. These risks undergo rigorous analysis to identify, prioritize and implement appropriate mitigation measures that are designed to improve performance.

Climate-related risks are integrated into the HESMS and strategic planning process to support readiness for emerging challenges and opportunities. Taking into consideration a range of energy scenarios, Occidental factors carbon pricing and energy intensity assumptions to understand a range of risk around commodity prices, returns on capital, and the risks and opportunities of greenhouse gas (GHG) abatement and CO2 utilization options. The scope of this assessment includes the consideration of international accords, treaties, legislation, regulation and fiscal policy initiatives that may affect the raw materials, other inputs and costs to produce our products, and the demand for and the restrictions on the use of our products. The process of risk evaluation also includes potential physical and social impacts relating to severe weather events and disruption due to proximity to flood-prone and water-stressed areas.

We recognize that additional climate scenarios are being developed using a spectrum of price and supply and demand assumptions. We believe our Enterprise Risk Management (ERM) and strategy for resilience — utilizing and sequestering CO2 at a price and volume that adjusts relative to potential economic or regulatory carbon constraints or incentives — is flexible enough to be attractive to investors in various carbon-constrained scenarios, while still aligning with the Paris climate accord goals. Nonetheless, we will continue to evaluate new scenarios and reassess our asset portfolio based on material changes in leading market forecasts, carbon pricing regimes or significant changes to our asset mix.

Other potential physical or resource risks that could arise from long-term shifts in climate, including water or raw material scarcity, changes or disruptions in energy markets, geopolitical risks, or other supply and logistics challenges, are considered in our routine business planning and ERM processes. We believe our strategy for resilience and sustainability, including resource conservation and smart logistics, is robust and flexible.

## C2.2c

**(C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?**

	Relevance & inclusion	Please explain
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Current regulation	Relevant, always included	<p>The scope of Occidental's climate-related risk assessment includes the consideration of international accords, treaties, legislation, regulation and fiscal policy initiatives that may affect the raw materials, other inputs and costs to produce our products, and the demand for and the restrictions on the use of our products. The process of risk evaluation also includes potential physical and social impacts relating to severe weather events and disruption due to proximity to flood-prone and water-stressed areas.</p> <p>Working with the Carbon Capture Coalition and others, we helped pass the FUTURE Act, which incentivizes CCUS. We continue to partner with these groups to advance legislative support for CCUS research, development and deployment.</p>
Emerging regulation	Relevant, always included	<p>Currently, no carbon tax applies to any of Occidental's oil and gas operations or products. However, as part of our commitment to informed capital planning and risk management, Occidental assumes a price on carbon in our capital approval process for the purpose of sensitivity modeling. This modeling allows our capital planners and senior management to analyze the long-term risks of exposure to carbon prices when extending the operating life or reserves of existing fields or entering new projects, while simultaneously instilling a culture of carbon-price sensitivity in our capital planning. The carbon price used for this sensitivity modeling was determined by considering the average project "cycle" (the time expected for the project to return the original capital investment, which is typically three years for shorter cycles and five or more years for longer cycles) and the risk of a price on carbon in each operating region.</p>
Technology	Relevant, always included	<p>In each core operating area, we benefit from scale, environmental and safety leadership, and technical expertise. Outcomes of the process to integrate emissions mitigation and technology considerations into Occidental's business strategy help inform our active engagement with institutional stockholders, state and national-level regulators, environmental groups and other public stakeholders addressing climate risks.</p> <p>During 2018, Occidental brought together innovative and diverse leaders from across the organization to form Oxy Low Carbon Ventures (OLCV) to pursue low-carbon business opportunities through zero and low-carbon technology, projects and services. An additional aspect of Occidental's low-carbon pursuits is to enable and create partnerships for improved business and climate solutions. Looking forward, collaboration in technology and low-carbon value chain opportunities will be critical to the speed and scaled deployment necessary for both enhanced profitability and carbon reduction.</p>

		<p>In September 2018, Occidental joined the Oil and Gas Climate Initiative (OGCI). OGCI is a voluntary CEO-led initiative taking practical actions on climate change. OGCI members leverage their collective strength to lower carbon footprints of energy, industry and transportation value chains via engagements, policies, investments and technology deployment.</p>
Legal	Relevant, always included	<p>The scope of Occidental's climate-related risk assessment includes the consideration of international accords, treaties, legislation, regulation and fiscal policy initiatives that may affect the raw materials, other inputs and costs to produce our products, and the demand for and the restrictions on the use of our products. The process of risk evaluation also includes potential physical and social impacts relating to severe weather events and disruption due to proximity to flood-prone and water-stressed areas.</p>
Market	Relevant, always included	<p>Today, we are focused on core domestic and international assets that are competitively advantaged through geography and scale, and provide long-term business opportunities under a wide range of low-carbon scenarios. Our portfolio carries low future capital commitments and allows us to adjust to market signals and emerging risks and opportunities. We can manage future carbon price impacts by shifting capital to lower CO<sub>2</sub>-intensity areas and projects, while also maintaining a competitive advantage against higher-cost operators that require more capital to sustain or grow.</p> <p>Oxy Low Carbon Ventures, is a new business segment that, among other things, seeks to identify and implement commercial opportunities to extend our competitive advantages in CO<sub>2</sub> Enhanced Oil Recovery (EOR) and carbon capture, utilization, and storage (CCUS) while simultaneously investing in and developing technologies that enhance our commitment towards a low carbon economy.</p>
Reputation	Relevant, always included	<p>Occidental is taking an industry leadership role and initiated several new actions to leverage our expertise in carbon capture, utilization and sequestration (CCUS) technologies with the goal of benefiting our business and the Earth's climate. Occidental is committed to leverage our industry- leading skills and assets to expand the use of CCUS globally, with a long-term aspiration of carbon neutrality. We are investing in opportunities to innovatively reduce the carbon footprint of ours and others' operations in ways that sustain and expand our business. These capabilities uniquely position us to succeed in our changing world and to reinforce our reputation as a respected Partner of Choice ®.</p> <p>Occidental's senior management team and the Board of Directors</p>

		<p>share a commitment to effective and ethical corporate governance, which we believe ultimately enhances stockholder value. Good governance also requires stakeholder engagement. Our integration of climate risk-related issues into our business strategy helps inform our stakeholder engagement.</p> <p>Senior management and the Board will continue to develop its knowledge to ensure its ability to provide effective and accountable oversight on climate risks and opportunities. As it has with past developments, such as reporting under the CDP framework and understanding potential implications of the Paris Agreement on our business, we will continue to apply our evolving knowledge to climate risk-based governance. The Board and management are committed to continuing our dialogue on emissions and climate risk issues with our shareholders and other key stakeholders through established reporting requirements as well as evolving reporting/disclosure frameworks.</p>
Acute physical	Relevant, always included	The scope of Occidental's climate-related risk assessment includes the consideration of international accords, treaties, legislation, regulation and fiscal policy initiatives that may affect the raw materials, other inputs and costs to produce our products, and the demand for and the restrictions on the use of our products. The process of risk evaluation also includes potential physical and social impacts relating to severe weather events and disruption due to proximity to flood-prone and water-stressed areas.
Chronic physical	Relevant, always included	The scope of Occidental's climate-related risk assessment includes the consideration of international accords, treaties, legislation, regulation and fiscal policy initiatives that may affect the raw materials, other inputs and costs to produce our products, and the demand for and the restrictions on the use of our products. The process of risk evaluation also includes potential physical and social impacts relating to severe weather events and disruption due to proximity to flood-prone and water-stressed areas.
Upstream	Relevant, always included	Across our upstream and midstream business segments, Occidental bases its strategic and capital planning processes on a returns-focused approach with the intent of maximizing the value of our portfolio and executing on our priorities. As part of our investment decision process, we evaluate a wide range of opportunities and consider the associated risks such as technical subsurface challenges and technology advances, regulatory and environmental developments, geopolitics, macro commodity-price outlooks and localized risks. In addition, new larger capital projects require a carbon price sensitivity analysis before approval.

Downstream	Not relevant, explanation provided	While Occidental does not own or operate downstream assets, Occidental is committed to significantly reducing and offsetting its total carbon impact, including carbon from products we sell. We are exploring options that can contribute meaningfully to our aspiration of carbon neutrality across our oil and gas value chain.
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## C2.2d

### (C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

Occidental integrates climate change issues into our business decisions through a team of managers and employees, with oversight from the Board of Directors' Environmental, Health and Safety Committee. The process to integrate climate issues into the business strategy is multi-tiered, occurring at the corporate, business unit and facility levels. It involves a cross-section of staff and management at all three tiers. Occidental also engages with investors, industry working groups, NGOs and other experts to assess their input. Financial implications are assessed considering current and estimated future costs and prices for energy, raw materials and electricity, demand for fossil fuels and emission fees and permits. Occidental incorporates these considerations into business decision-making through management meetings.

Occidental's assets and business segments are regularly reviewed by our Board and management to enhance strategic alignment and positioning for future opportunities and risks, including the aspects associated with climate change, such as physical, regulatory changes, commercial and reputational. Disclosure of this process is found in the Occidental Annual Report, Form 10-K, Occidental's Proxy Statement, in the Climate-related Risks and Opportunities Reports, and at its Social Responsibility website.

## C2.3

### (C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

## C2.3a

### (C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

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#### Identifier

Risk 1

#### Where in the value chain does the risk driver occur?

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Policy and legal: Mandates on and regulation of existing products and services

**Type of financial impact**

Increased costs and/or reduced demand for products and services resulting from fines and judgments

**Company- specific description**

In the U.S., there is uncertainty over new air pollution regulation, primarily as it relates to EPA GHG permitting regulations and policies.

**Time horizon**

Medium-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

These and other government actions relating to GHG emissions could require Occidental to incur increased operating and maintenance costs, such as costs to purchase and operate emissions control systems, to acquire emissions allowances or comply with new regulatory or reporting requirements, or they could promote the use of alternative sources of energy and thereby decrease demand for oil, natural gas and other products that Occidental's businesses produce. Any such legislation or regulatory programs could also increase the cost of consuming, and thereby reduce demand for, oil, natural gas and other products produced by Occidental's businesses. Also, there is potential indirect exposure over the next several years to higher electricity prices through suppliers.

**Management method**

Occidental's HESMS integrates compliance into our risk and operations management structure. Compliance and management costs are integrated into our operating cost

structure. Our longstanding policy is to seek continuous improvement in resource recovery, pollution prevention and energy efficiency. Occidental has ongoing efforts focused on identifying cost-effective and environmentally sound solutions that yield continuous improvement in the management of GHG, including the opportunity of expanding the use of CCUS technologies.

Occidental considers various scenarios to assess potential future climate-related impacts on the company's assets. It also adds an assumed price on carbon to its capital approval process to perform carbon sensitivity modeling for all larger projects. Lastly, Occidental operates and seeks to expand carbon capture and sequestration projects that can reduce its own GHG emissions and the emissions of third parties.

**Cost of management**

0

**Comment**

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**Identifier**

Risk 2

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Policy and legal: Enhanced emissions-reporting obligations

**Type of financial impact**

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

**Company- specific description**

In the U.S., at the federal and state level, Occidental is required to identify certain GHG emissions in greater detail than previously required.

**Time horizon**

Medium-term

**Likelihood**

More likely than not

**Magnitude of impact**

Unknown

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

Unknown until regulation has been defined and applied to applicable assets.

**Management method**

Occidental's HESMS integrates compliance into our risk and operations management structure. Compliance and management costs are integrated into our operating cost structure. Occidental considers various scenarios to assess potential future climate-related impacts on the company's assets. It also adds an assumed price on carbon to its capital approval process to perform carbon sensitivity modeling for all larger projects. Lastly, Occidental operates and seeks to expand carbon capture and sequestration projects that can reduce its own GHG emissions and the emissions of third parties.

**Cost of management**

0

**Comment**

Occidental's HESMS integrates compliance into our risk and operations management structure. Compliance and management costs are integrated into our operating cost structure. Our longstanding policy is to seek continuous improvement in resource recovery, pollution prevention and energy efficiency. Occidental has ongoing efforts focused on identifying cost-effective and environmentally sound solutions that yield continuous improvement in the management of GHG, including the opportunity of expanding the use of CCUS technologies.

---

**Identifier**

Risk 3

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Policy and legal: Exposure to litigation

**Type of financial impact**

Increased costs and/or reduced demand for products and services resulting from fines and judgments

**Company- specific description**

Increasing attention to climate change risks has resulted in an increased possibility of governmental investigations and additional private litigation against Occidental, which could increase our costs or otherwise adversely affect our business.

**Time horizon**

Short-term

**Likelihood**

More likely than not

**Magnitude of impact**

Unknown

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

Unknown until regulation has been defined and applied to applicable assets.

**Management method**

Occidental's HESMS integrates compliance into our risk and operations management structure. Compliance and management costs are integrated into our operating cost structure. Our longstanding policy is to seek continuous improvement in resource recovery, pollution prevention and energy efficiency. Occidental has ongoing efforts focused on identifying cost-effective and environmentally sound solutions that yield continuous improvement in the management of GHG, including the opportunity of expanding the use of CCUS technologies.

**Cost of management**

0

**Comment**

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**Identifier**

Risk 4

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Physical risk

**Primary climate-related risk driver**

Acute: Increased severity of extreme weather events such as cyclones and floods

**Type of financial impact**

Write-offs and early retirement of existing assets (e.g., damage to property and assets in "high-risk" locations)

**Company- specific description**

Occidental has several facilities located near the U.S. Gulf Coast (Texas and Louisiana) that have been in the path of hurricanes, which have at times resulted in the interruption of some operations. Significant changes in weather or climate could, unless the impacts of such changes were mitigated, affect access to or operation of these or other facilities. However, Occidental is not aware of credible projections that natural disasters, whether or not driven by changes in climate could result in immitigable impacts are probable within the anticipated operating life of its facilities.

**Time horizon**

Short-term

**Likelihood**

Likely

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

The occurrence of events such as hurricanes, floods, droughts, earthquakes or other acts of nature and other events that cause operations to cease or be curtailed may negatively affect Occidental's businesses and the communities in which it operates. Coastal operations are particularly susceptible to disruption from extreme weather events. Third-party insurance may not provide adequate coverage or Occidental may be self-insured with respect to the related losses.

### Management method

Occidental's HESMS integrates compliance into our risk and operations management structure. Compliance and management costs are integrated into our operating cost structure. Occidental stresses the importance of safety drills and preparing for various emergency scenarios across all its operations. Employees are trained in how to respond to emergencies and to test business resiliency systems, such as communications networks and data centers. Occidental coordinates its emergency plans with government institutions and public officials on issues of mutual importance, such as a storm response and evacuation. In the Houston-Galveston region, June through November marks the hurricane season. Occidental engages with federal, state and local agencies and local industry to coordinate hurricane plans and, on occasion, to participate in drills to simulate what would happen during a potential hurricane situation.

### Cost of management

0

### Comment

---

#### Identifier

Risk 5

#### Where in the value chain does the risk driver occur?

Customer

#### Risk type

Transition risk

#### Primary climate-related risk driver

Market: Changing customer behavior

#### Type of financial impact

Reduced demand for goods and/or services due to shift in consumer preferences

#### Company- specific description

Shifting consumer preferences toward lower carbon products could reduce demand for products and services, such as electricity, transportation fuel or plastics, which use traditional fossil fuels as inputs or feedstock. These shifts in consumer demand and preferences could promote the use of alternative sources of energy and thereby decrease demand for oil, natural gas and other products that Occidental's businesses produce.

In 2018, Occidental established Oxy Low Carbon Ventures (OLCV) to pursue low carbon business opportunities. The team has a dual objective – to enhance profitability and sustainability of our businesses while meeting the challenge of reducing atmospheric GHG concentrations. The shift in consumer preferences provides an opportunity for Occidental to stay abreast of changing consumer preferences to

profitably deliver low carbon solutions. For example, OLCV has partnered with an ethanol company to evaluate the economic feasibility of capturing CO<sub>2</sub> from ethanol facilities in order to deliver lower carbon transportation fuels to consumers.

**Time horizon**

Medium-term

**Likelihood**

More likely than not

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

The shift in consumer preferences provides an opportunity for Occidental to stay abreast of changing consumer preferences to profitably deliver low carbon solutions. For example, OLCV has partnered with an ethanol company to evaluate the economic feasibility of capturing CO<sub>2</sub> from ethanol facilities in order to deliver lower carbon transportation fuels to consumers.

**Management method**

In 2018, Occidental established Oxy Low Carbon Ventures (OLCV) to pursue low carbon business opportunities. The team has a dual objective – to enhance profitability and sustainability of our businesses while meeting the challenge of reducing atmospheric GHG concentrations. The shift in consumer preferences provides an opportunity for Occidental to stay abreast of changing consumer preferences to profitably deliver low carbon solutions. For example, OLCV has partnered with an ethanol company to evaluate the economic feasibility of capturing CO<sub>2</sub> from ethanol facilities in order to deliver lower carbon transportation fuels to consumers.

**Cost of management**

0

**Comment**

## C2.4

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

### C2.4a

**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

---

**Identifier**

Opp1

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Type of financial impact**

Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

**Company-specific description**

In alignment with the International Energy Agency (IEA), the UN Intergovernmental Panel on Climate Change, and other leading organizations, we believe that carbon capture, utilization and storage (CCUS) is a critical component for both satisfying society's demands for energy and better standards of living while at the same time meeting global climate goals. We are currently the global leader in CCUS. Our expertise in Enhanced Oil Recovery (EOR) differentiates us from most competitors in the hydrocarbon sector, making us capable of producing more from older fields with a substantially smaller environmental footprint. Further, our global leadership in CO2 EOR means that we can reduce our own CO2 emissions and safely and permanently store climate-scale volumes of captured third-party CO2, providing both emissions and cost reductions for our own operations and an adaptable business model in response to increasing carbon constraints.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

Establishment of tax credits or pricing on CO<sub>2</sub> could also stimulate CCS/CCUS projects to market. This would have implications both in terms of increased demand for our products but also potential new revenues from CO<sub>2</sub> storage. We are currently the global leader in CCUS. Our expertise in EOR differentiates us from most competitors in the hydrocarbon sector, making us capable of producing more from older fields with a substantially smaller environmental footprint. Further, our global leadership in CO<sub>2</sub> EOR means that we can reduce our own CO<sub>2</sub> emissions and safely and permanently store climate-scale volumes of captured third-party CO<sub>2</sub>, providing both emissions and cost reductions for our own operations and an adaptable business model in response to increasing carbon constraints.

**Strategy to realize opportunity**

Our global strategy includes a Low Carbon Venture business. This new business segment will seek commercial opportunities to extend our competitive advantages in CO<sub>2</sub> EOR and CCUS and investing in and developing technologies to drive cost efficiency.

Occidental is actively capturing anthropogenic CO<sub>2</sub> at its existing facilities. Occidental is at various stages of evaluating or implementing a wide range of new projects with GHG emission reduction potential, including Carbon Capture Utilization and Storage (CCUS), Carbon Capture and Storage (CCS) and Carbon Capture and Utilization (CCU). Occidental is also evaluating emerging or improving existing technologies around these carbon reduction potentials.

Occidental's participation within the Oil and Gas Climate Initiative (OGCI) includes contributions to a \$1 billion+ investment fund established to lower the carbon footprint of the energy and industrial sectors. Investments are focused on three objectives:

1. Reducing methane leakage, from the well head, through gas processing and transport, to endpoint distribution and use.
2. Reducing CO<sub>2</sub> by investing in efficiency solutions that lower the carbon footprint of the energy, industrial and transport sectors.

3. Advancing CCUS through projects that demonstrate the commercial viability and scalability of the CCUS value chain.

**Cost to realize opportunity**

0

**Comment**

---

**Identifier**

Opp2

**Where in the value chain does the opportunity occur?**

Customer

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Type of financial impact**

Increased revenue through demand for lower emissions products and services

**Company-specific description**

OxyChem began production of 4CPE, a new raw material used in making next-generation automobile refrigerants with low global warming and zero ozone-depletion potential. The 4CPE manufacturing process was developed and patented by OxyChem scientists.

**Time horizon**

Current

**Likelihood**

Very likely

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

### **Explanation of financial impact figure**

OxyChem began production of 4CPE, a new raw material used in making next-generation automobile refrigerants with low global warming and zero ozone-depletion potential. The 4CPE manufacturing process was developed and patented by OxyChem scientists.

### **Strategy to realize opportunity**

OxyChem began production of 4CPE, a new raw material used in making next-generation automobile refrigerants with low global warming and zero ozone-depletion potential. The 4CPE manufacturing process was developed and patented by OxyChem scientists.

### **Cost to realize opportunity**

0

### **Comment**

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### **Identifier**

Opp3

### **Where in the value chain does the opportunity occur?**

Supply Chain

### **Opportunity type**

Markets

### **Primary climate-related opportunity driver**

Use of public-sector incentives

### **Type of financial impact**

Increased revenues through access to new and emerging markets (e.g., partnerships with governments, development banks)

### **Company-specific description**

Under the California Low Carbon Fuel Standard (LCFS), which requires the oil industry to reduce the carbon-intensity of gasoline and diesel, a fuel provider meets its compliance obligation by ensuring that amount of credits it earns (or otherwise acquires from another party) is equal to, or greater than, the deficits it has incurred. Credits and deficits are generally determined based on the amount of fuel sold, the carbon intensity of the fuel, and the efficiency by which a vehicle converts the fuel into usable energy. Credits may be banked and traded within the LCFS market to meet obligations. Occidental is eligible for credits under the LCFS Program's "lower carbon" crude or fuel produced using CO<sub>2</sub> EOR with captured anthropogenic CO<sub>2</sub>.

**Time horizon**

Short-term

**Likelihood**

More likely than not

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

not available

**Strategy to realize opportunity**

Occidental's management approach at both company and asset levels will factor these trends and pricing signals as part of operations and capital allocation decisions.

**Cost to realize opportunity**

0

**Comment**

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**Identifier**

Opp4

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Energy source

**Primary climate-related opportunity driver**

Use of lower-emission sources of energy

**Type of financial impact**

Other, please specify

Reduced operating costs and carbon intensity of operations.

**Company-specific description**

Occidental is constructing a 16 MW solar generation facility in the Permian Basin that will supply electricity to an adjacent Occidental oil field. Approximately 120 acres will be utilized to install more than 174,000 solar photovoltaic modules to convert sunlight into direct current electricity.

**Time horizon**

Current

**Likelihood**

Virtually certain

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

not available

**Strategy to realize opportunity**

As part of OLCV, Occidental's power team continuously seeks opportunities to lower power costs while simultaneously reducing Occidental's carbon footprint.

**Cost to realize opportunity**

0

**Comment**

**C2.5**

**(C2.5) Describe where and how the identified risks and opportunities have impacted your business.**

	<b>Impact</b>	<b>Description</b>
Products and services	Impacted for some suppliers, facilities, or product lines	OxyChem's production of 4CPe is a raw material used in making next-generation automobile refrigerants with low global warming and zero ozone-depletion potential.

		OLCV has established a carbon services team, which will leverage expertise in CCUS to provide technical services related to CO2 sequestration, transportation, EOR and regulatory compliance through the full value chain of carbon management.
Supply chain and/or value chain	Not yet impacted	Carbon Capture, Utilization and Storage (CCUS) via Occidental's EOR capabilities qualifies for credits under the California Low Carbon Fuel Standard (LCFS) Program. The LCFS Program recognizes "lower carbon" crude produced using CO2 EOR with captured anthropogenic CO2.  Additionally, CO2 captured directly from the air may be eligible for credits.
Adaptation and mitigation activities	Impacted	Our global strategy includes a new Low Carbon Venture business, positioning Occidental with a competitive advantage in lower-carbon scenarios.
Investment in R&D	Not yet impacted	Occidental is at various stages of evaluating or implementing a wide range of new projects with GHG emission reduction potential, including Carbon Capture Utilization and Storage (CCUS), Carbon Capture and Storage (CCS) and Carbon Capture and Utilization (CCU). Occidental is also evaluating emerging or improving existing technologies around these carbon reduction potentials.  As a member of the Oil and Gas Climate Initiative (OGCI), Occidental contributes to OGCI Climate Investments, OGCI's \$1B+ investment fund established to lower the carbon footprint of the energy and industrial sectors.
Operations	Impacted for some suppliers, facilities, or product lines	Compliance and climate-related risks are integrated into our operating cost structure. Also, in early 2018, Congress approved legislation (FUTURE Act) that helps incentivize the development of new CCUS projects, making more anthropogenic carbon dioxide available for geologic sequestration and for use in oil and gas production. This should provide additional opportunities for Occidental in a lower-carbon future.  Occidental received approval for two Monitoring, Reporting and Verification (MRV) Plans from the Environmental Protection Agency (EPA) in 2015 and 2017, which allow Occidental to receive credits from projects developed in accordance with the FUTURE Act. These plans require Occidental to submit annually the volume of CO2 sequestered in the reservoirs through the course of EOR operations.
Other, please specify	Impacted	Occidental's Board and executive management understand that climate issues, like other business concerns, are continuously evolving. Occidental is committed to transparency around our

		climate-risk efforts, planning and reporting. Our progress to date and dialogue with shareholders has been valuable and beneficial to the company's reputation.
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## C2.6

**(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.**

	Relevance	Description
Revenues	Not yet impacted	Establishment of a global or federal carbon pricing mechanism and on CO2 could stimulate CCS project development. This would have implications both in terms of increased demand for our products but also potential new revenues from CO2 storage.
Operating costs	Impacted for some suppliers, facilities, or product lines	Government actions relating to greenhouse gas (GHG) emissions could require Occidental to incur increased operating and maintenance costs. Certain projects undertaken as part of compliance programs (e.g. U.S. EPA GHGRP/Subpart W and the API Environmental Partnership) to realize cost savings, and pilot new technologies and standards in collaboration with industry and regulatory partners.
Capital expenditures / capital allocation	Impacted for some suppliers, facilities, or product lines	Occidental invested approximately \$195 million in 2017 for additional and expanded CO2 in the Permian Basin.
Acquisitions and divestments	Not impacted	
Access to capital	Not impacted	
Assets	Not impacted	
Liabilities	Not impacted	
Other		

## C3. Business Strategy

### C3.1

**(C3.1) Are climate-related issues integrated into your business strategy?**

Yes

## C3.1a

**(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?**

Yes, qualitative and quantitative

## C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b

**(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.**

Yes

## C3.1c

**(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.**

Occidental integrates climate-related issues into our strategic planning and investment decision-making process and performs routine risk assessments to support readiness for emerging challenges and opportunities. Our strategy for business sustainability in a low-carbon economy builds upon our core strengths as an oil and gas company: a deep understanding of the subsurface and the ability to operate older fields at a low cost while maximizing hydrocarbon recovery. Occidental's high-return portfolio combined with long history and expertise in enhanced oil recovery has proven resilient in low oil price environments and can create new business opportunities for Occidental as the value of Carbon Capture, Utilization and Storage (CCUS) capacity increases under low-carbon scenarios.

Our oil and gas capital projects typically return capital deployed in three years or less, minimizing the risk that proved reserves and capital could be stranded in the event of rapid disruptive market or regulatory changes, including those related to climate. Our capital planning process is grounded in a returns focused approach that is intended to maximize the value of our portfolio and execute on our strategic priorities. As part of our investment decision process, we evaluate a wide range of opportunities and consider the associated risks, such as technical subsurface challenges and technical progress, regulatory and environmental developments, geopolitics, macro commodity-price outlooks and localized climate adaptation and mitigation.

We also consider the effects that a lower-carbon economy could have on our business and returns on capital by:

- Assessing the potential impacts of various climate-related energy price/demand scenarios on our existing assets;
- "Stress-testing" all new projects of greater than \$US 5 million for carbon price sensitivity; and,

- Developing a process for greenhouse gas (GHG) emissions intensity estimation.

Understanding the GHG emissions intensity of each field will provide additional information for future capital allocation decisions that might be affected by a price or tax on carbon. This information could also help identify opportunities for additional monitoring or better emissions management.

Our sensitivity modeling approach is informed by policy based carbon price risk assumptions derived primarily from scenarios considered in the International Energy Agency's (IEA) World Energy Outlook. Currently, no carbon tax applies to any of Occidental's oil and gas operations or products. Our capital approval process assumes a \$US 50/metric ton price on carbon for sensitivity modeling. This modeling will be supplemented by a GHG emissions-intensity information initiative. Additionally, as the largest commercial purchaser and injector of CO<sub>2</sub> for EOR in the Permian Basin and a global leader in this technology, Occidental has insight into market-driven CO<sub>2</sub> supply pricing and routinely utilizes this information in our business and strategic planning.

Occidental publishes information on our approach to reserves estimation and valuation, and capital planning and allocation. The process used to estimate oil and gas reserves includes economic feasibility at the prevailing commodity prices; changes in proved reserves, including downward revisions of previous estimates due to changes in economic conditions. Occidental provides an Industry Outlook that identifies factors influencing the price of Occidental's products. Also considered are the actions of governments, such as actual or proposed international, national, regional and state GHG control measures, the IEA published scenarios and the recommendations of quasi-government agencies such as the Financial Stability Board's Task Force on Climate-related Financial Disclosures (FSB TCFD).

Through our world-class position in CO<sub>2</sub> EOR, Occidental is a leader in CCUS technology and its application in the oil and gas industry. Our CO<sub>2</sub> EOR capabilities represent a compelling business opportunity with the potential to reduce global GHG emissions. Oxy Low Carbon Ventures (OLCV) has a dual objective — to enhance profitability and sustainability of our businesses while meeting the challenge of reducing atmospheric GHG concentrations. Between our CO<sub>2</sub> EOR business and OLCV, we will leverage opportunities across the CCUS value chain, focused on:

1. CO<sub>2</sub> Sources : Power generators, ethanol plants, cement plants, other industrial sources
2. CO<sub>2</sub> Capture: Pre-combustion, post-combustion, direct air capture and other processes
3. CO<sub>2</sub> Compression and Transport: Amount of compression, which is required to transport CO<sub>2</sub> via pipeline, varies by source
4. CO<sub>2</sub> Use/Storage: Primary economic use of CO<sub>2</sub> is enhanced oil recovery, with simultaneous storage as well as technology to drive development of other economic utilization of CO<sub>2</sub>

We are pursuing a portfolio of development opportunities over multiple time horizons leveraging our CO<sub>2</sub> EOR leadership to advance CCUS. This portfolio will seek to first capture the most readily available opportunities to demonstrate commerciality of CCUS and to gain a competitive advantage in what we expect will be a rapidly expanding industry, then help lead that industry to achieve global scale.

We will continue to refine our strategic improvement process — identifying business opportunities, enhancing asset quality, organizational capability and innovative technical applications — while remaining focused on sustainability and climate-related risks and opportunities, environmental stewardship and other social responsibility commitments.

### C3.1d

**(C3.1d) Provide details of your organization’s use of climate-related scenario analysis.**

Climate-related scenarios	Details
IEA Sustainable development scenario	<p>To supplement the strategic planning discussions that occur at the senior management and Board levels, Occidental considers various scenarios to assess potential future climate-related impacts on the company’s existing assets.</p> <p>For scenarios, Occidental relies on independent third parties, such as the International Energy Agency (IEA), to develop the narratives and associated assumptions (including demographic, government policy, technological change and energy supply/demand data), and to run the large-scale simulation models that generate equilibrium prices for energy and CO2 emissions. Although Occidental does not have the resources needed to develop such scenarios internally, we believe sound, externally developed scenarios benefit stakeholders seeking to compare companies across industries.</p> <p>As part of our efforts to better understand the potential long-term impacts of a lower-carbon economy, we reviewed the three main scenarios from the IEA’s 2018 World Energy Outlook (WEO) - the Current Policies Scenario, the New Policies Scenarios or 2DS, and the Sustainable Development Scenario. The IEA updates its projected oil and gas prices annually and, for the 2018 scenarios, these price assumptions reflect: (1) higher estimates for recoverable tight oil and natural gas liquids in the United States, (2) a reduction in the cost outlook for a variety of upstream projects and (3) a greater share of shorter-cycle investments on the supply side.</p> <p>Under the Sustainable Development Scenario, carbon prices are similar to those modeled in the 2017 Sustainable Development Scenario, reaching \$140/metric ton in 2040. Although the Sustainable Development Scenario anticipates carbon emission pricing in several countries, for Occidental, this pricing still only applies to our U.S. oil and gas assets. Occidental does not have operations in the other countries where carbon prices were identified in the Sustainable Development Scenario.</p> <p>For our assessment of potential impacts of the Sustainable Development Scenario on our proved reserves, Occidental used a reference case model to</p>

	<p>represent our asset base at year-end 2018. The assessment was based on a representative portfolio of assets that contained a majority of proved reserves from our U.S. and non-U.S. oil and gas locations reported in our 2018 Form 10-K. Planned capital spending and expected operating costs from the approved development plans that support the reserves were embedded in the model. The reference case model used the oil, natural gas liquids (NGL) and natural gas prices calculated in accordance with SEC rules for determining year-end 2018 proved reserves and computing the Standardized Measure of Discounted Future Net Cash Flows by application of a 10 percent discount factor (NPV10 valuation) as reported in Occidental's 2018 Form 10-K. For estimating reserves, SEC rules require the use of the unweighted arithmetic average of the first-day-of-the-month price for each month within the year, unless prices were defined by contractual arrangements. Oil, NGL and natural gas prices used for this purpose were based on posted benchmark prices and adjusted for price differentials including gravity, quality and transportation costs. For 2018, the calculated average West Texas Intermediate (WTI) oil price was \$65.56 and the calculated average Henry Hub gas price was \$3.10. We also used a \$0 price on CO2 emissions for the reference case model, since none of Occidental's oil and gas operations or products are currently subject to a carbon pricing structure.</p>
<p>Other, please specify                  IPIECA Mid-century strategy</p>	<p>IPIECA aims to ensure that the benefits and limitations of scenario analysis tools, and disclosure of their use, are clearly understood. It also describes how it can be useful to investors and other stakeholders to understand how a company has used scenario analysis. Scenario analysis is intended for today's strategy and should not be used to project against future outcomes:</p> <ul style="list-style-type: none"> <li>- The objective is to provide a tool to test current strategies against a range of future possibilities to indicate what decisions can be made today, which might future-proof the company's current strategy against an uncertain future.</li> <li>- Scenario analysis is not meant to provide a single possible projection of the future against which to compare the current portfolio, as this places an unjustified weight on a single unknown outcome.</li> </ul> <p>There are many possible pathways to reach a low-emissions future, most of which share three common elements: improving efficiency and saving energy; reducing emissions from power generation; and deploying alternative low-emission options in end-use sectors. Carbon capture and storage (CCS) is a key technology to support this transition.</p> <p>Governments, business and industry, investors, consumers and civil society will need to collaborate closely to enable the transition to a low-emissions future.</p> <p>Occidental recognizes that other climate scenarios are being developed using a spectrum of price and supply/demand assumptions. We will continue to evaluate new scenarios, and reassess our asset portfolio based on material changes in</p>

	leading market forecasts or carbon pricing regimes or significant changes to our asset mix.
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## **C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e**

### **(C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e) Disclose details of your organization's low-carbon transition plan.**

Scenario planning, which factors intrinsic carbon pricing and energy intensity assumptions, enables Occidental's management team to understand a range of risk around commodity prices, expected returns on capital, and the risk and opportunity associated with various GHG abatement and CO<sub>2</sub> utilization options. This includes the consideration of international accords, treaties, legislation, regulation and government policy initiatives that may affect the raw materials, other inputs and costs to produce our products, and the demand for and the restrictions on the use of our products. The process of risk evaluation also includes potential physical and social impacts relating to severe weather events and disruption of operations due to proximity to flood-prone and water-stressed areas. Other aspects that influence risk factors and assumptions include potential commercial and reputational risks; the actions of governments, such as actual or proposed international, national, regional and state GHG control measures; scenarios developed for the International Energy Agency (IEA) Energy Outlooks and; the recommendations of quasi-government agencies such as the Financial Stability Board's Task Force on Climate-related Financial Disclosures (FSB TCFD). Key elements of Occidental's climate-related risks and opportunities assessment include:

- Considering a range of possible future carbon-constraint scenarios, including the IEA Sustainable Development Scenario (SDS), which articulates an energy pathway consistent with the goal of limiting the global warming to no more than 2° C
- Developing strategic alternatives to maximize shareholder value in a future with uncertain carbon constraints and defined carbon budgets
- Testing strategies under various scenarios
- Developing options for delivering sustainable shareholder value under scenarios with stringent regulation of CO<sub>2</sub> emissions and potentially changing demand for oil and gas

Impacts against Occidental's asset portfolio were assessed by applying the outcomes for the IEA SDS for oil and natural gas prices and CO<sub>2</sub> prices in the regions where we operate. We also performed a more rigorous sensitivity analysis that added a carbon price on our international assets, none of which would have been subject to carbon prices under this Scenario.

The results of the scenario analysis further demonstrate the strength of Occidental's assets and strategy, including in a lower-carbon economy. Occidental has a robust resource base with a focus on short-cycle projects and disciplined cost management. Our CO<sub>2</sub> EOR business, which has a low decline rate and a depreciated asset base, acts as a hedge against longer-cycle

risks. Occidental is also a world leader in the use of CO2 EOR and CCUS. These capabilities provide our company with the opportunity to grow CO2 EOR and sequestration in a lower-carbon economy. Occidental currently incurs a cost to source CO2 for its EOR business. Under a scenario where CO2 emissions carry a price, there would be a potential benefit to Occidental — one that is proportional to the CO2 emissions price — as emitters look to reduce their CO2 emissions costs.

Given the volatile nature of oil and gas prices, our Board and management began implementing a two-part business plan to support an investment premise based on a sustainable dividend payout at a \$40 oil price and production growth with dividend payout at a \$50 oil price. At \$40 WTI, the plan generates sufficient operating cash flow to support the dividend and capital required to sustain production. At \$50 WTI, the plan provides additional capital to grow production 5 – 8 plus percent annually while continuing to fulfill Occidental’s dividend growth goal. Occidental met its operating cash flow and production improvements to achieve our plan before the end of 2018. We believe that this achievement demonstrates our resilience to lower-price scenarios and our ability to succeed in a highly competitive environment. The strategic process used to develop these plans will continue to be refined with climate-related inputs to support our readiness for associated risks and opportunities.

## C4. Targets and performance

### C4.1

**(C4.1) Did you have an emissions target that was active in the reporting year?**

No target

### C4.1c

**(C4.1c) Explain why you do not have emissions target and forecast how your emissions will change over the next five years.**

	Primary reason	Five-year forecast	Please explain
Row 1	We are planning to introduce a target in the next two years	Later in 2019, will set and disclose direct CO2e emissions intensity and methane emissions intensity targets for our oil and gas operations.	<p>Occidental is committed to significantly reducing and offsetting its total carbon impact, including carbon from products we sell. We are exploring multiple options that can contribute meaningfully to our aspiration of carbon neutrality across our oil and gas value chain.</p> <p>Occidental is exploring the development of a metric that reflects its overall impacts on atmospheric GHG concentrations and progress towards achieving global climate goals. As a first step, we will disclose later this year a 2030 direct CO2e emissions intensity goal for our oil and gas</p>

			<p>operations, with interim milestones.</p> <p>In the future, we will establish and disclose a holistic impact metric that considers carbon sequestration of third-party emissions or other efforts to reduce GHG emissions or atmospheric concentrations.</p>
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## C4.2

**(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.**

### Target

Methane reduction target

### KPI – Metric numerator

metric tonne methane

### KPI – Metric denominator (intensity targets only)

barrels of oil equivalent

### Base year

2017

### Start year

2017

### Target year

2025

### KPI in baseline year

0

### KPI in target year

0

### % achieved in reporting year

0

### Target Status

Underway

### Please explain

Occidental is committing to end routine gas flaring by 2030. As a new member of the Oil and Gas Climate Initiative (OGCI), Occidental supports the members' effort to reduce the collective average methane intensity of their aggregated upstream oil and

gas operations to below 0.25 percent by 2025 (from a 2017 baseline of 0.32 percent), with the ambition to achieve 0.20 percent.

**Part of emissions target**

Yes, Occidental is committing to end routine gas flaring by 2030.

**Is this target part of an overarching initiative?**

Other, please specify

OGCI and the API Environmental Partnership

**C-OG4.2a**

**(C-OG4.2a) If you do not have a methane-specific emissions reduction target for your oil and gas activities or do not incorporate methane into your target(s) reported in C4.2 please explain why not and forecast how your methane emissions will change over the next five years.**

In December 2017, Occidental joined the API-sponsored Environmental Partnership. Our participation in the Environmental Partnership programs support our corporate goal to bring natural gas to markets – generating returns for shareholders – not flaring or emitting it into the atmosphere. We are committed to eliminating routine flaring by 2030. Aimed at reducing methane emissions from production operations, our participation encompasses:

- Leak Detection and Repair (LDAR): Following federal/state regulations, Occidental conducts monitoring surveys at field facilities at least semi-annually or quarterly after initial survey. We performed more than 900 leak surveys in 2018.
- Equipment Upgrades: Replace, remove or retrofit high-bleed pneumatic controllers.

**C4.3**

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

**C4.3a**

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	10	725,000
To be implemented*	2	20,000

Implementation commenced*	1	500,000
Implemented*	9	7,865,000
Not to be implemented		

## C4.3b

**(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

### Initiative type

Fugitive emissions reductions

### Description of initiative

Oil/natural gas methane leak capture/prevention

### Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)

285,000

### Scope

Scope 1

### Voluntary/Mandatory

Voluntary

### Annual monetary savings (unit currency – as specified in C0.4)

0

### Investment required (unit currency – as specified in C0.4)

0

### Payback period

1-3 years

### Estimated lifetime of the initiative

>30 years

### Comment

Occidental's ongoing efforts to capture methane emissions – under a variety of regulatory and voluntary initiatives – have helped reduce GHG emissions from our oil and gas operations by approximately 17.2 billion cubic feet since 1990. That's the equivalent of approximately 285,000 metric tons per year of CO<sub>2</sub> equivalents.

Occidental's membership in the OGCI will drive actions to reduce the collective average methane intensity of their aggregated upstream oil and gas operations to below 0.25% by 2025, with the ambition to achieve 0.20%. Reaching the 0.20% target would translate

into reducing collective methane emissions by more than one third — approximately 600,000 tonnes annually — by the end of 2025.

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**Initiative type**

Energy efficiency: Processes

**Description of initiative**

Combined heat and power

**Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)**

500,000

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

0

**Investment required (unit currency – as specified in C0.4)**

0

**Payback period**

4 - 10 years

**Estimated lifetime of the initiative**

>30 years

**Comment**

Occidental's cogeneration– or combined heat and power (CHP) – facilities reduce GHG emissions by 5 million metric tons per year, compared to equivalent power supplied from the electrical grid. Steam produced reduces CO<sub>2</sub> emission by about 500,000 tons annually, compared to steam supplied by typically configured boilers. Improvements to our CHP systems save more than 306,000 MMBtu/year and approximately 18,500 tons of annual CO<sub>2</sub> equivalents reductions.

---

**Initiative type**

Low-carbon energy installation

**Description of initiative**

Carbon Capture & Storage

**Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)**

6,400,000

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

0

**Investment required (unit currency – as specified in C0.4)**

0

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

>30 years

**Comment**

CCUS is a process that captures anthropogenic (man-made) CO<sub>2</sub> emissions from sources such as coal-fired power plants, ethanol plants and cement production. The CO<sub>2</sub> is then used in a manner that prevents it from entering the atmosphere, usually by sequestering (permanently entrapping) the CO<sub>2</sub> deep underground.

Occidental has received EPA approval of two Monitoring, Reporting and Verification (MRV) plans for our Denver Unit and Hobbs fields in the Permian Basin. The MRV plans, which were the first-ever approved by EPA for simultaneous CO<sub>2</sub> EOR and sequestration, provide a credible and transparent framework for assessing the suitability of the reservoir for sequestration and for reporting the amount of CO<sub>2</sub> sequestered throughout the process.

---

**Initiative type**

Energy efficiency: Processes

**Description of initiative**

Heat recovery

**Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)**

300,000

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

0

**Investment required (unit currency – as specified in C0.4)**

0

**Payback period**

4 - 10 years

**Estimated lifetime of the initiative**

>30 years

**Comment**

At the Mukhaizna Field in Oman, heat recovery units have been installed in all gas-fired power turbine generators to produce steam used in enhanced oil recovery. This heat recovery equipment has reduced emissions by 2.7 million metric tons of CO<sub>2</sub>e since 2010.

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**Initiative type**

Low-carbon energy purchase

**Description of initiative**

Other, please specify  
hydrogen fuel

**Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)**

380,000

**Scope**

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

0

**Investment required (unit currency – as specified in C0.4)**

0

**Payback period**

4 - 10 years

**Estimated lifetime of the initiative**

>30 years

**Comment**

A significant co-product of the production of caustic soda is hydrogen gas, some of which is sold to customers and another portion of which is used as a fuel to generate electricity and heat/steam for OxyChem manufacturing facilities. When used as a fuel,

the combustion of hydrogen with oxygen produces no GHG emissions — water is the only combustion product. Over the past 10 years, OxyChem's production and use of hydrogen as a fuel source has resulted in more than 3.8 million metric tons cumulative GHG emissions avoided.

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**Initiative type**

Process emissions reductions

**Description of initiative**

Process water

**Estimated annual CO<sub>2</sub>e savings (metric tonnes CO<sub>2</sub>e)**

500,000

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

20,000,000

**Investment required (unit currency – as specified in C0.4)**

0

**Payback period**

4 - 10 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Occidental Colombia, with its national oil company partner, installed decarbonators that reduces CO<sub>2</sub> emissions to the environment and eliminates the corrosive elements of production water. The decarbonator towers remove H<sub>2</sub>S (hydrogen sulfide) and CO<sub>2</sub> (carbon dioxide) from the production waters. The new technology will reduce the carbon footprint generated by the operations associated with the maintenance of wells, both direct and indirect, is close to 500,000 tons per year. This is because the use of materials decreases, fewer activities are carried out and fewer inputs are acquired for drilling and maintenance. In addition to the environmental benefits, these towers will improve the reliability of the wells, increase their useful life, reduce corrosion and generate savings of up to US \$ 20 million per year.

---

**Initiative type**

Process emissions reductions

**Description of initiative**

New equipment

**Estimated annual CO2e savings (metric tonnes CO2e)**

500,000

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

0

**Investment required (unit currency – as specified in C0.4)**

0

**Payback period**

No payback

**Estimated lifetime of the initiative**

3-5 years

**Comment**

OLCV, together with a joint partner, are proceeding with the engineering and design of a Direct Air Capture (DAC) and sequestration facility located in the Permian Basin. The companies are evaluating a facility designed to capture 500 kilotonnes of CO2 directly from the atmosphere every year that would be used in Occidental's enhanced oil recovery (EOR) operations and subsequently stored underground permanently.

**C4.3c**

**(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Compliance with regulatory requirements/standards	<p>Occidental follows all state and federal regulatory requirements for greenhouse gas (GHG) reporting, such as under the U.S. EPA GHG Reporting Program that requires reporting of GHG data and other relevant sources of air emissions.</p> <p>Occidental has gone further by opting into Subpart RR of the U.S. EPA GHG Reporting Program to report volumes of CO2 geologically sequestered through the course of enhanced oil recovery operations at two field operations.</p> <p>Occidental follows all state, regional and federal requirements in</p>

	the procurement and reporting of renewable energy resources to serve electricity for field operations.
Dedicated budget for other emissions reduction activities	
Financial optimization calculations	Occidental actively investigates opportunities to leverage technologies that have lower emission profiles to support power production for field operations. Investments are evaluated by operating cost methodologies.
Lower return on investment (ROI) specification	
Partnering with governments on technology development	Occidental is actively working with governments to encourage improvement in operational practices and emissions-reducing technologies.

## C4.5

**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?**

Yes

## C4.5a

**(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.**

### Level of aggregation

Company-wide

### Description of product/Group of products

Establishment of Low Carbon Venture business, a new business segment that, among other things, seeks to identify and develop commercial opportunities to extend our competitive advantages in CO2 Enhanced Oil Recovery (EOR) and carbon capture, utilization, and storage (CCUS) and investing in and developing technologies to drive cost efficiency. Occidental is evaluating or implementing a wide range of emission reduction projects, including CCUS, Carbon Capture and Storage (CCS) and Carbon Capture and Utilization (CCU). Occidental is actively evaluating emerging or improving existing technologies around these carbon reduction potentials.

Occidental is actively capturing anthropogenic CO2 at two existing oil and gas production facilities. This captured CO2 is injected for CO2 EOR and sequestration at Occidental's Denver Unit and Hobbs Field facilities. The U.S. EPA has approved Occidental's Monitoring Reporting and Verification (MRV) plans for CO2 EOR with sequestration at both the Denver Unit and Hobbs Field facilities. Occidental anticipates establishing additional MRV plans to provide more verifiable CO2 sequestration capacity

as more anthropogenic CO<sub>2</sub> becomes available.

Occidental recently announced a collaborative industry partnership to evaluate the economic feasibility of a CCUS project that would capture CO<sub>2</sub> at industrial ethanol facilities for use in CO<sub>2</sub> EOR. Occidental is actively engaged in evaluating additional carbon capture and utilization projects that include coal fired power plants, additional ethanol facilities and other industrial emissions sources. Occidental is also considering the viability of CCS opportunities that do not rely upon CO<sub>2</sub> EOR, such as converting industrial CO<sub>2</sub> into a usable product, including hydrocarbons and inert materials for CO<sub>2</sub> streams that are unlikely to be captured for CCUS or CCS.

**Are these low-carbon product(s) or do they enable avoided emissions?**

Low-carbon product and avoided emissions

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Other, please specify

GAAP; U.S. EPA GHG Reporting Program

**% revenue from low carbon product(s) in the reporting year**

0

**Comment**

Establishment of a global or federal carbon pricing mechanism and pricing on CO<sub>2</sub> could stimulate Carbon Capture and Storage project development. This would have implications both in terms of increased demand for our products but also potential new revenues from CO<sub>2</sub> storage.

---

**Level of aggregation**

Product

**Description of product/Group of products**

OxyChem began production of 4CPE, a new raw material used in making next-generation automobile refrigerants with low global warming and zero ozone-depletion potential. The refrigerant is approved by the U.S. EPA and meets European Union regulatory requirements for automobile air conditioning systems. The 4CPE manufacturing process was developed and patented by OxyChem scientists.

**Are these low-carbon product(s) or do they enable avoided emissions?**

Low-carbon product

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Other, please specify

GAAP

**% revenue from low carbon product(s) in the reporting year**

1

**Comment**

Less than 1 % company-wide revenues

---

**Level of aggregation**

Product

**Description of product/Group of products**

The development and production of natural gas as a cleaner fuel for power generation, heating and transportation.

**Are these low-carbon product(s) or do they enable avoided emissions?**

Low-carbon product

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Other, please specify

API Compendium of GHG Emissions Estimate

**% revenue from low carbon product(s) in the reporting year**

10

**Comment**

Less than or equal to 10% company-wide revenues

---

**Level of aggregation**

Group of products

**Description of product/Group of products**

By using CO<sub>2</sub> injection with other EOR technologies, Occidental has been able to recover significantly more of the oil in place in existing reservoirs, thereby increasing the productivity and lengthening the life of existing fields. Essentially all injected CO<sub>2</sub> becomes sequestered in the oil and gas reservoir. Leveraging the lessons learned from CO<sub>2</sub> injection for CO<sub>2</sub> EOR, there is the potential to significantly reduce GHG emissions through underground injection of CO<sub>2</sub>, if it can be done at sufficient scale.

**Are these low-carbon product(s) or do they enable avoided emissions?**

Avoided emissions

**Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Other, please specify

EPA GHG Reporting Program and MRV Plan

**% revenue from low carbon product(s) in the reporting year**

0

### Comment

Occidental's monitoring, reporting, and verification (MRV) plans are used to quantify the volume of CO<sub>2</sub> received, injected, produced, and stored in accordance with 40 CFR 98.440-449 (Subpart RR) with the U.S. EPA.

## C-OG4.6

### **(C-OG4.6) Describe your organization's efforts to reduce methane emissions from your activities.**

Occidental's ongoing efforts to capture methane emissions have helped to reduce GHG emissions from our oil and gas operations. Methane, the major component of natural gas, is a clean-burning fossil fuel and has 40-percent lower greenhouse gas emissions relative to coal. In upstream oil and gas operations, gas streams are flared for safety reasons when gas processing plants have planned shutdowns or during turnarounds, enabling inspections, repairs and maintenance activities that cannot occur during operation to be performed safely. Occidental strives to achieve 100 percent reduction of all routine flaring of natural gas.

In December 2017, Occidental joined more than 20 other oil and gas operators in launching the API-sponsored Environmental Partnership program aimed at reducing methane emissions from production operations. Occidental's participation in the Environmental Partnership encompasses:

- Leak Detection and Repair: Implement monitoring and timely repair of fugitive emissions at selected sites. Occidental has committed to performing more than 900 leak surveys in 2018.
- Equipment Upgrades: Replace, remove or retrofit high-bleed pneumatic controllers. Over the next five years, Occidental expects to replace over 900 of such controllers.

Occidental devotes significant resources to capturing emissions of methane and other organic compounds by retrofitting existing facilities and designing and constructing new facilities. We have adopted consistent practices across its U.S. oil and gas operations for identifying volatile organic compounds (VOCs) and methane leaks. Our leak detection and repair (LDAR) program incorporates audio, visual and olfactory (AVO) inspections, optical gas imaging (OGI) cameras, and EPA "Method 21" procedures to monitor components at field and plant operations for fugitive emissions. Wells, separation equipment, storage tanks, flow lines, dehydration units, piping and other associated field equipment are included, along with our gas compression and gas processing plants.

Cumulatively, Occidental has implemented projects that have reduced estimated methane emissions by more than 17.2 billion cubic feet. Among the technologies that Occidental employs to help reduce methane emissions are:

- Adopting lower emission thresholds to identify and minimize leaks and initiate repairs across a variety of components (e.g., valves, flanges, pump seals). Assuming it is technically feasible and safe, Occidental repairs or replaces every leaking component within 30 days of detection.
- Adopting "green completion" practices to capture gas at the wellhead during well completion and prevent its release to the atmosphere.

- Replacing diesel generators and engines with electric drives, where feasible.
- Transitioning to compressed air systems for pneumatic control and instrumentation, rather than using natural gas.
- Installing Vapor Recovery Units (VRUs) to capture and recover gas from certain equipment, rather than venting to the atmosphere.
- Adopting better control devices (e.g., low-bleed or no-bleed pneumatic valves) to reduce methane emissions.
- Using Infrared (IR) cameras, including optical gas imaging (OGI) and forward-looking infrared (FLIR) cameras to visually identify possible emissions leaks. The IR camera approach is being used to monitor fugitive emissions on equipment and components such as pneumatic valves, plunger lift systems, storage tanks, compressors, glycol dehydrators and similar components, especially where the equipment or components are geographically dispersed or difficult to access.

For drilling activities, Occidental has worked closely with its contractors to improve drilling efficiency, significantly reducing the number of days where rigs and the associated equipment are on site, resulting in energy and emissions savings. For completion and workover activities, Occidental specifies a preference that contractors use low-emitting equipment on the well pad, leading to reduced diesel fuel consumption and GHG emissions.

In the Permian Basin, Occidental is working toward building the necessary infrastructure and permanent production equipment and tanks in advance of well completion activities so that emissions, including methane and other VOCs (“flowback” emissions), are sent to gas handling facilities and sales pipelines from the moment production begins. These “green completion” practices are designed to prevent release of gas directly to the atmosphere. Prior to any regulatory requirement, Occidental’s U.S. oil and gas operations began performing reduced emissions completions for all hydraulically fractured wells.

## COG4.7

**(C-OG4.7) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?**

Yes

### C-OG4.7a

**(C-OG4.7a) Describe the protocol through which methane leak detection and repair or other leak detection methods, are conducted for oil and gas production activities, including predominant frequency of inspections, estimates of assets covered, and methodologies employed.**

Occidental follows all state and federal regulatory requirements for leak detection and repair and we continuously explore options for conducting enhanced surveys under voluntary programs, such as the U.S. EPA Natural Gas STAR Program and the API Environmental Partnership. Equipment exhibiting possible leaks identified by surveys and OGI/FLIR cameras

are further inspected and components are repaired or replaced, as appropriate. Pursuant to federal and/or state regulations, Occidental conducts monitoring surveys at its field facilities at least semi-annually or quarterly, after the initial survey. Surveys at facilities are typically conducted at least four months apart.

We follow the leak detection procedures required by regulation and we engage with other operators to share best practices. We voluntarily monitor sites and facilities that are not covered by regulatory programs to identify and remedy fugitive emissions containing VOCs and methane. For example, in Texas, we conduct AVO walk-through inspection of all components at production pads and compressors at least weekly. Identification of a leaking component at field locations triggers a maintenance request for repair within 30 days (15 days at our large gas-processing facilities), unless the equipment requires a process shutdown to effect the repair. For facilities where we use Method 21 leak detection protocols, Occidental relies on a company that specializes in providing LDAR services. That company employs full-time monitoring experts and is routinely audited by state and federal agencies.

Occidental uses infrared OGI cameras that meet EPA regulatory requirements (such as NSPS OOOOa) and to aid in regular monitoring of emissions. Facilities subject to federal requirements are surveyed using an OGI camera at least semi-annually, but certain facilities are surveyed more frequently based on the potential for fugitive emissions to occur. We have a team of trained employees who perform OGI surveys of field locations. The training in optical gas imaging covers the capabilities of the cameras and the gases that can be identified, camera set up and operation, in-field survey techniques under varying weather conditions, and proper safety practices.

## C-OG4.8

### **(C-OG4.8) If flaring is relevant to your oil and gas production activities, describe your organization's efforts to reduce flaring, including any flaring reduction targets.**

Occidental strives to minimize flaring of natural gas and is committed to the elimination of routine flaring by 2030. Our goal is to bring natural gas to markets, which generates returns for shareholders, rather than flaring or emitting it into the atmosphere. Commensurate with this commitment to eliminate routine flaring by 2030, and consistent with OGCI's similar objective, Occidental has taken concrete action to reduce flaring.

One example is our collaboration with Qatar Petroleum, our partner in Occidental's Qatar operations and owner of the natural gas resource. We have reduced flaring emissions in Qatar by more than 99 percent since 2005. These efforts include capturing a substantial portion of the produced gas for treatment and use by Qatar Petroleum as a feedstock or fuel, reinjecting it for enhanced oil recovery and using it to generate electricity for Occidental's Qatar's operations. Prior to the implementation of gas capture projects, baseline CO<sub>2</sub>e emissions were more than 6 million metric tons per year; they are now less than 0.1 million metric tons per year. Through 2017, a cumulative total of more than 64 million metric tons of CO<sub>2</sub>e emissions have been avoided.

In Oman, gas capture and methane utilization projects have contributed to a significant reduction in gas flared at the Far West and Khamilah fields. From 2013 to 2018, we reduced the amount of gas flared from more than 10 billion cubic feet per year (BCF/yr) to 2.4 BCF/yr, a decrease of more than 75 percent — cumulatively equivalent to almost more than 1.5 million metric tons of CO<sub>2</sub>. In 2018, Occidental commissioned additional new compressors in Far West to increase capacity and reduce flaring to 4 million cubic feet per day.

In the Omani Safah Field, Occidental installed gas compression systems to reduce flaring. With the support of the Oman government, the project was the first in the country to qualify under the United Nations Clean Development Mechanism (CDM) to create tradeable, saleable, certified emissions-reduction credits. Original flare volumes at Safah were approximately 20 BCF/yr; they are now less than 4 BCF/yr. Over the initial CDM project period (2013-2019), cumulative gas reductions of more than 75 BCF are expected (equivalent to 775,000 metric tons of CO<sub>2</sub> per year).

From 2016 to 2018, Occidental reduced gas flaring emissions intensity by approximately 17 percent at its EOR plants in the Permian Basin. Typically, flaring results from non-routine operations, maintenance and weather-related upsets. A significant contribution to this performance improvement is more efficient operations at the Seminole Gas Plant, which was acquired in 2017. Compared to operations in 2016 under the former owner, Occidental has reduced flaring by more than 50 percent through improved plant reliability and uptime, more automation, optimized use of existing infrastructure, and empowered decision-making by operations personnel.

## C5. Emissions methodology

### C5.1

**(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

#### Scope 1

---

**Base year start**

January 1, 2016

**Base year end**

December 31, 2016

**Base year emissions (metric tons CO<sub>2</sub>e)**

10,490,000

**Comment**

#### Scope 2 (location-based)

---

**Base year start**

January 1, 2016

**Base year end**

December 31, 2016

**Base year emissions (metric tons CO<sub>2</sub>e)**

4,770,000

**Comment**

**Scope 2 (market-based)**

---

**Base year start**

**Base year end**

**Base year emissions (metric tons CO<sub>2</sub>e)**

**Comment**

## C5.2

**(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.**

American Petroleum Institute Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry, 2009

US EPA Mandatory Greenhouse Gas Reporting Rule

## C6. Emissions data

### C6.1

**(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO<sub>2</sub>e?**

**Reporting year**

---

**Gross global Scope 1 emissions (metric tons CO<sub>2</sub>e)**

10,370,000

**Start date**

January 1, 2018

**End date**

December 31, 2018

**Comment**

We report estimated Scope 1 emissions according to the methodologies detailed in the API Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry.

## C6.2

**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.**

**Row 1**

---

**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

**Comment**

We report estimated location-based Scope 2 emissions according to the methodologies detailed in the API Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry.

## C6.3

**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO<sub>2</sub>e?**

**Reporting year**

---

**Scope 2, location-based**

4,100,000

**Start date**

January 1, 2018

**End date**

December 31, 2018

**Comment**

We report estimated Scope 2 emissions according to the methodologies detailed in the API Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry

## C6.4

**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?**

Yes

### C6.4a

**(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.**

---

#### Source

The flaring of natural gas in foreign countries where the state-owned oil company owns the gas.

#### Relevance of Scope 1 emissions from this source

Emissions are relevant and calculated, but not disclosed

#### Relevance of location-based Scope 2 emissions from this source

No emissions from this source

#### Relevance of market-based Scope 2 emissions from this source (if applicable)

No emissions from this source

#### Explain why this source is excluded

Occidental does not exercise operational control over certain assets and JVs.

## C6.5

**(C6.5) Account for your organization's Scope 3 emissions, disclosing and explaining any exclusions.**

### Purchased goods and services

---

#### Evaluation status

Not relevant, explanation provided

#### Explanation

The total estimated amount of purchased goods and services are not relevant to our global gross emissions.

### Capital goods

---

#### Evaluation status

Not relevant, explanation provided

### **Explanation**

The total estimated amount of capital goods are not relevant to our global gross emissions.

### **Fuel-and-energy-related activities (not included in Scope 1 or 2)**

---

#### **Evaluation status**

Not relevant, explanation provided

#### **Explanation**

The total estimated emissions from fuel and energy related activities (not disclosed as part of Scope 1 or 2) are not relevant to our global gross emissions.

### **Upstream transportation and distribution**

---

#### **Evaluation status**

Relevant, calculated

#### **Metric tonnes CO<sub>2</sub>e**

0

#### **Emissions calculation methodology**

API Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry

#### **Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

#### **Explanation**

The logistics of transporting personnel, supplies and equipment in remote operating regions can present traffic hazards along transportation corridors and safety risks arising from material management. These logistics also consume significant volumes of transportation-related energy and produce associated environmental emissions. We have been working to develop smart and creative ways to minimize the risks and impacts of these logistics.

In 2018, we commissioned the Aventine logistics and- maintenance hub in the Permian Basin. Located in New Mexico, this 240-acre state-of-the-art facility brings production, transportation and storage facilities for drilling and hydraulic fracturing materials and equipment into one centralized site strategically located to serve large portions of our operations. It enables Occidental to drill and complete wells within the region more efficiently and effectively.

Several features of Aventine demonstrate the environmental, safety and economic benefits of smart logistics planning. The coordinated and uncrowded design of the facility enhances worksite safety and reduces hazards that typically arise from ad hoc wellsite logistics. Aventine is expected to lower road transportation and related

emissions by reducing miles traveled from approximately 20 million to 8 million over the next 5 years. Already, truck mileage has been reduced by 1.5 million miles.

### **Waste generated in operations**

---

#### **Evaluation status**

Not relevant, explanation provided

#### **Explanation**

Total estimated waste volumes are not relevant to our global gross emissions.

### **Business travel**

---

#### **Evaluation status**

Relevant, not yet calculated

#### **Explanation**

Air travel, while not a significant proportion of our global gross emissions, are relevant and have not yet been calculated.

### **Employee commuting**

---

#### **Evaluation status**

Not relevant, explanation provided

#### **Explanation**

Commuting miles are not a significant proportion of our global gross emissions and have not yet been calculated.

### **Upstream leased assets**

---

#### **Evaluation status**

Not relevant, explanation provided

#### **Explanation**

Emissions from upstream leased assets have not yet been estimated or measured.

### **Downstream transportation and distribution**

---

#### **Evaluation status**

Not relevant, explanation provided

#### **Explanation**

Occidental does not have downstream operations.

### **Processing of sold products**

---

#### **Evaluation status**

Relevant, not yet calculated

#### **Explanation**

While we will continue to disclose our Scope 1, Scope 2 and Scope 3 emissions, we are also evaluating metrics to more comprehensively express our overall impact on atmospheric concentrations of CO<sub>2</sub>. We believe commonly accepted GHG reporting frameworks that utilize Scope 1, Scope 2, and Scope 3 to categorize GHG emissions may not fully account for a company's total impact — both positive and negative — on atmospheric concentrations of CO<sub>2</sub>. In particular, the sum of Scope 1 and Scope 2 emissions from most oil and gas producers is relatively small compared to Scope 3 emissions, so focused efforts to reduce Scope 1 and Scope 2 emissions will only modestly benefit the overall climate equation. Likewise, Scope 3 emissions from oil and gas production is more of a measure of consumer demand for oil and gas products than a measure of the impact of producers' operations.

## Use of sold products

---

### Evaluation status

Relevant, calculated

### Metric tonnes CO<sub>2</sub>e

71,000,000

### Emissions calculation methodology

Occidental assessed our Scope 3 emissions associated with the Use of Sold Products from our oil and gas operations. We conducted this assessment solely for the purpose of CDP reporting, as the greenhouse gas (GHG) emissions associated with our end-use products are outside of our control and reporting boundary.

While we estimated and disclosed the emissions related to the use of sold products, we are also evaluating metrics to more comprehensively express our overall impact on atmospheric concentrations of CO<sub>2</sub>. We believe commonly accepted GHG reporting frameworks that utilize Scope 1, Scope 2, and Scope 3 to categorize GHG emissions may not fully account for a company's total impact — both positive and negative — on atmospheric concentrations of CO<sub>2</sub>. In particular, the sum of Scope 1 and Scope 2 emissions from most oil and gas producers is relatively small compared to Scope 3 emissions, so focused efforts to reduce Scope 1 and Scope 2 emissions will only modestly benefit the overall climate equation. Likewise, Scope 3 emissions from oil and gas production is more of a measure of consumer demand for oil and gas products than a measure of the impact of producers' operations.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Explanation

The calculated estimate is limited to the combustion of hydrocarbon products produced by Occidental's Oil and Gas business segment. Occidental expressly disclaims any responsibility for the emissions caused by other parties using products that may have been derived from the hydrocarbons produced by Occidental. Since Occidental does not engage in refining activities, the estimates were calculated using methods described in:

Estimating Petroleum Industry Value Chain (Scope 3) Greenhouse Gas Emissions:  
Overview of Methodologies, IPIECA/API 2016.

### **End of life treatment of sold products**

---

**Evaluation status**

Not evaluated

**Explanation**

Occidental does not have downstream/consumer end product operations; Occidental does not control the use of its products.

### **Downstream leased assets**

---

**Evaluation status**

Not relevant, explanation provided

**Explanation**

Occidental does not have downstream assets or operations.

### **Franchises**

---

**Evaluation status**

Not relevant, explanation provided

**Explanation**

Occidental does not have franchises.

### **Investments**

---

**Evaluation status**

Not evaluated

**Explanation**

As a new member of OGCI, Occidental supports its Climate Investments, a \$1 billion fund established to lower the carbon footprint of the energy and industrial sectors. The GHG emissions impacts attributed to this fund have not yet been evaluated.

### **Other (upstream)**

---

**Evaluation status**

Not evaluated

**Explanation**

The GHG emissions attributed to this category are undefined and have not been evaluated.

### **Other (downstream)**

---

**Evaluation status**

Not evaluated

### Explanation

The GHG emissions attributed to this category are undefined and have not been evaluated.

## C6.7

**(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?**

Yes

## C6.7a

**(C6.7a) Provide the emissions from biologically sequestered carbon relevant to your organization in metric tons CO<sub>2</sub>.**

Row 1

---

**Emissions from biologically sequestered carbon (metric tons CO<sub>2</sub>)**

0

### Comment

Occidental actively promotes habitat preservation and biodiversity. Occidental works with national, regional and local government agencies, university researchers and nonprofit organizations to implement adaptive management practices to minimize habitat disruption and to preserve and restore habitat. Habitat restoration and reforestation can provide additional carbon sequestration capacity. Occidental has not yet calculated the full value of GHG emissions from biologically sequestered carbon sources or bio-energy with carbon capture and storage (BECCS).

## C6.10

**(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO<sub>2</sub>e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

---

**Intensity figure**

0.0008

**Metric numerator (Gross global combined Scope 1 and 2 emissions)**

14,500,000

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

17,824,000,000

**Scope 2 figure used**

Location-based

**% change from previous year**

30

**Direction of change**

Decreased

**Reason for change**

Global emissions per unit of revenue were lower due to the combined effect of lower direct and indirect emissions and higher revenues on commodity prices realized.

---

**Intensity figure**

0.0317

**Metric numerator (Gross global combined Scope 1 and 2 emissions)**

14,500,000

**Metric denominator**

barrel of oil equivalent (BOE)

**Metric denominator: Unit total**

198,925,000

**Scope 2 figure used**

Location-based

**% change from previous year**

9

**Direction of change**

Decreased

**Reason for change**

Global emissions per unit of production (BOE) were lower due to the combined effect of lower direct and indirect emissions and higher oil and gas production volumes.

## C-OG6.12

**(C-OG6.12) Provide the intensity figures for Scope 1 emissions (metric tons CO<sub>2</sub>e) per unit of hydrocarbon category.**

---

**Unit of hydrocarbon category (denominator)**

Thousand barrels of crude oil / condensate

**Metric tons CO<sub>2</sub>e from hydrocarbon category per unit specified**

22.3

**% change from previous year**

11

**Direction of change**

Decreased

**Reason for change**

Scope 1 emissions per unit were lower due to the combined effect of lower direct and indirect emissions and higher oil and gas production volumes.

**Comment**

Scope 1 emissions per unit were lower due to the combined effect of lower direct and indirect emissions and higher oil and gas production volumes.

## C-OG6.13

**(C-OG6.13) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.**

---

**Oil and gas business division**

Upstream

**Estimated total methane emitted expressed as % of natural gas production or throughput at given division**

0.4

**Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division**

0

**Comment**

Methane-only emissions decreased largely due to lower global natural gas production volumes.

## C7. Emissions breakdowns

### C7.1

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

Yes

## C7.1a

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

Greenhouse gas	Scope 1 emissions (metric tons of CO <sub>2</sub> e)	GWP Reference
CO <sub>2</sub>	8,798,000	IPCC Fourth Assessment Report (AR4 - 100 year)
CH <sub>4</sub>	1,475,000	IPCC Fourth Assessment Report (AR4 - 100 year)
N <sub>2</sub> O	87,000	IPCC Fourth Assessment Report (AR4 - 100 year)

## C-OG7.1b

**(C-OG7.1b) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.**

## C7.2

**(C7.2) Break down your total gross global Scope 1 emissions by country/region.**

Country/Region	Scope 1 emissions (metric tons CO <sub>2</sub> e)
North America	7,330,000
South America	164,000
Middle East	2,873,000

## C7.3

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By business division

## C7.3a

**(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

Business division	Scope 1 emissions (metric ton CO <sub>2</sub> e)
oil and gas production	4,430,000
chemicals production	5,930,000

## C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO<sub>2</sub>e.

	Gross Scope 1 emissions, metric tons CO <sub>2</sub> e	Comment
Chemicals production activities	5,930,000	Estimated gross global emissions are adjusted for Occidental's share of ownership.
Oil and gas production activities (upstream)	4,430,000	Estimated gross global emissions are adjusted for Occidental's share of ownership.
Oil and gas production activities (downstream)	0	No downstream assets/production activity.

## C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO <sub>2</sub> e)	Scope 2, market-based (metric tons CO <sub>2</sub> e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
North America	3,972,000	0	0	0
South America	255,000	0	0	0
Middle East	42,000	0	0	0

## C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

## C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based emissions (metric tons CO <sub>2</sub> e)	Scope 2, market-based emissions (metric tons CO <sub>2</sub> e)
-------------------	---	---

oil and gas production	1,880,000	0
chemicals production	2,220,000	0

## C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO<sub>2</sub>e.

	Scope 2, location-based, metric tons CO <sub>2</sub> e	Scope 2, market-based (if applicable), metric tons CO <sub>2</sub> e	Comment
Chemicals production activities	2,200,000	0	Estimated gross global emissions are adjusted for Occidental's share of ownership.
Oil and gas production activities (upstream)	1,880,000	0	Estimated gross global emissions are adjusted for Occidental's share of ownership.
Oil and gas production activities (downstream)	0	0	No downstream assets/production activity.

## C-CH7.8

(C-CH7.8) Disclose the percentage of your organization's Scope 3, Category 1 emissions by purchased chemical feedstock.

Purchased feedstock	Percentage of Scope 3, Category 1 tCO <sub>2</sub> e from purchased feedstock	Explain calculation methodology
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## C-CH7.8a

(C-CH7.8a) Disclose sales of products that are greenhouse gases.

	Sales, metric tons	Comment
Carbon dioxide (CO <sub>2</sub> )	0	Occidental does not disclose sales of products that are greenhouse gases.
Methane (CH <sub>4</sub> )	0	Occidental does not disclose sales of products that are greenhouse gases.

Nitrous oxide (N2O)	0	Occidental does not disclose sales of products that are greenhouse gases.
Hydrofluorocarbons (HFC)	0	Occidental does not disclose sales of products that are greenhouse gases.
Perfluorocarbons (PFC)	0	Occidental does not disclose sales of products that are greenhouse gases.
Sulphur hexafluoride (SF6)	0	Occidental does not disclose sales of products that are greenhouse gases.
Nitrogen trifluoride (NF3)	0	Occidental does not disclose sales of products that are greenhouse gases.

## C7.9

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Decreased

### C7.9a

**(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year.**

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	
Other emissions reduction activities	260,000	Decreased	2	Resulting from energy efficiency and emissions mitigation projects.
Divestment	0	No change	0	
Acquisitions	0	No change	0	
Mergers	0	No change	0	
Change in output	80,000	Increased	1	Resulting from higher oil and gas production volumes.
Change in methodology	0	No change	0	

Change in boundary	0	No change	0	
Change in physical operating conditions	0	No change	0	
Unidentified	0	No change	0	
Other	0	No change	0	

## C7.9b

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Location-based

## C8. Energy

### C8.1

**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 10% but less than or equal to 15%

### C8.2

**(C8.2) Select which energy-related activities your organization has undertaken.**

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

## C8.2a

**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	50,056,588	50,100,000
Consumption of purchased or acquired electricity		1,072,861	7,427,510	8,500,000
Consumption of purchased or acquired steam		0	1,394,068	1,400,000
Consumption of self-generated non-fuel renewable energy		0		0
<b>Total energy consumption</b>		<b>1,100,000</b>	<b>58,900,000</b>	<b>60,000,000</b>

## C-CH8.2a

**(C-CH8.2a) Report your organization's energy consumption totals (excluding feedstocks) for chemical production activities in MWh.**

	Heating value	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0
Consumption of purchased or acquired electricity		0
Consumption of purchased or acquired steam		0
Consumption of self-generated non-fuel renewable energy		0
<b>Total energy consumption</b>		<b>30,500,000</b>

## C8.2b

**(C8.2b) Select the applications of your organization's consumption of fuel.**

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	Yes

Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

## C8.2c

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

---

### Fuels (excluding feedstocks)

Distillate Oil

#### Heating value

HHV (higher heating value)

#### Total fuel MWh consumed by the organization

3,200

#### MWh fuel consumed for self-generation of electricity

0

#### MWh fuel consumed for self-generation of heat

0

#### MWh fuel consumed for self-generation of steam

0

#### MWh fuel consumed for self-cogeneration or self-trigeneration

0

#### Comment

---

### Fuels (excluding feedstocks)

Hydrogen

#### Heating value

HHV (higher heating value)

#### Total fuel MWh consumed by the organization

3,096,000

#### MWh fuel consumed for self-generation of electricity

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

---

**Fuels (excluding feedstocks)**

Liquefied Petroleum Gas (LPG)

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

600

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

---

**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

50,053,000

**MWh fuel consumed for self-generation of electricity**

18,410,000

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-cogeneration or self-trigeneration**

0

**Comment**

## C8.2d

**(C8.2d) List the average emission factors of the fuels reported in C8.2c.**

### Distillate Oil

---

**Emission factor**

22.58

**Unit**

lb CO<sub>2</sub>e per gallon

**Emission factor source**

API Compendium of Greenhouse Gas Emissions Estimation

**Comment**

### Hydrogen

---

**Emission factor**

0

**Unit**

lb CO<sub>2</sub>e per 1000 cubic ft<sup>3</sup>

**Emission factor source**

API Compendium of Greenhouse Gas Emissions Estimation

**Comment**

### Liquefied Petroleum Gas (LPG)

---

**Emission factor**

12.57

**Unit**

lb CO<sub>2</sub>e per gallon

**Emission factor source**

API Compendium of Greenhouse Gas Emissions Estimation

**Comment**

**Natural Gas**

**Emission factor**

117.12

**Unit**

lb CO2e per million Btu

**Emission factor source**

API Compendium of Greenhouse Gas Emissions Estimation

**Comment**

**C8.2e**

**(C8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	9,689,000	3,030,000	0	0
Heat	0	0	0	0
Steam	4,841,000	4,841,000	0	0
Cooling	0	0	0	0

**C-CH8.2e**

**(C-CH8.2e) Provide details on electricity, heat, steam, and cooling your organization has generated and consumed for chemical production activities.**

	Total gross generation (MWh) inside chemicals sector boundary	Generation that is consumed (MWh) inside chemicals sector boundary
Electricity	0	0
Heat	0	0
Steam	0	0
Cooling	0	0

## C8.2f

**(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.**

## C-CH8.3

**(C-CH8.3) Disclose details on your organization’s consumption of feedstocks for chemical production activities.**

### C-CH8.3a

**(C-CH8.3a) State the percentage, by mass, of primary resource from which your chemical feedstocks derive.**

	Percentage of total chemical feedstock (%)
Oil	0
Natural Gas	100
Coal	0
Biomass	0
Waste	0
Fossil fuel (where coal, gas, oil cannot be distinguished)	0
Unknown source or unable to disaggregate	0

## C9. Additional metrics

### C9.1

**(C9.1) Provide any additional climate-related metrics relevant to your business.**

**Description**

Other, please specify

The demonstrable advancement of commercial opportunities for CCUS

**Metric value**

0

**Metric numerator**

**Metric denominator (intensity metric only)**

**% change from previous year**

0

**Direction of change**

**Please explain**

In 2018, the Board-level Compensation Committee added a Sustainability Metric to the Safety/Environmental Objective of the Annual Cash Incentive award, with target performance conditioned on the demonstrable advancement of commercial opportunities for CCUS, which is an important feature of Occidental’s strategy to reduce its greenhouse gas emissions while growing its business.

For 2019, the Compensation Committee made Sustainability a stand-alone key corporate objective of the Annual Cash Incentive award, which increased the weighting of Sustainability from approximately 3% to 10% of the target company performance portion of the Annual Cash Incentive award. The Compensation Committee determined that this increase was appropriate in light of the increasing importance of Sustainability measures to Occidental’s long-term strategy.

**C-OG9.2a**

**(C-OG9.2a) Disclose your net liquid and gas hydrocarbon production (total of subsidiaries and equity-accounted entities).**

	In-year net production	Comment
Crude oil and condensate, million barrels	1,583	Source: 2018 Form 10-K
Natural gas liquids, million barrels	486	Source: 2018 Form 10-K
Oil sands, million barrels (includes bitumen and synthetic crude)	0	Source: 2018 Form 10-K
Natural gas, billion cubic feet	4,095	Source: 2018 Form 10-K

**C-OG9.2b**

**(C-OG9.2b) Explain which listing requirements or other methodologies you use to report reserves data. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this.**

Reserves are presented in accordance with Item 1202(a)(2) to Regulation S-K under the U.S. Securities Exchange Act of 1934, under the heading “Supplemental Oil and Gas Information”. Proved oil, NGLs and gas reserves were estimated using the unweighted arithmetic average of the first-day-of-the-month price for each month within the year, unless prices were defined by contractual arrangements. Oil, NGLs and natural gas prices used for this purpose were based on posted benchmark prices and adjusted for price differentials including gravity, quality and transportation costs. Reserves are stated net of applicable royalties. Estimated reserves include Occidental's economic interests under production-sharing contracts (PSCs) and other similar economic arrangements.

Only proved undeveloped reserves that are reasonably certain to be drilled within five years of booking and are supported by a final investment decision to drill them are included in the development plan. A portion of the proved undeveloped reserves associated with international operations are expected to be developed beyond the five years and are tied to approved long-term development plans.

## C-OG9.2c

**(C-OG9.2c) Disclose your estimated total net reserves and resource base (million boe), including the total associated with subsidiaries and equity-accounted entities.**

	Estimated total net proved + probable reserves (2P) (million BOE)	Estimated total net proved + probable + possible reserves (3P) (million BOE)	Estimated net total resource base (million BOE)	Comment
Row 1	2,752	2,752	2,752	Source: 2018 Form 10-K  Occidental reports only its Net Proved Reserves (1P); it does not report probable and possible reserves and resources.

## C-OG9.2d

**(C-OG9.2d) Provide an indicative percentage split for 2P, 3P reserves, and total resource base by hydrocarbon categories.**

	Net proved + probable reserves (2P) (%)	Net proved + probable + possible reserves (3P) (%)	Net total resource base (%)	Comment
Crude oil / condensate /	75	75	75	Source: 2018 Form 10-K  Occidental reports only its Net

Natural gas liquids				Proved Reserves (1P); it does not report probable and possible reserves and resources.
Natural gas	25	25	25	Source: 2018 Form 10-K  Occidental reports only its Net Proved Reserves (1P); it does not report probable and possible reserves and resources.
Oil sands (includes bitumen and synthetic crude)	0	0	0	Source: 2018 Form 10-K  Occidental reports only its Net Proved Reserves (1P); it does not report probable and possible reserves and resources.

### C-OG9.2e

(C-OG9.2e) Provide an indicative percentage split for production, 1P, 2P, 3P reserves, and total resource base by development types.

### C-CH9.3a

(C-CH9.3a) Provide details on your organization's chemical products.

**Output product**

Other, please specify  
 vinyls (ethylene, PVC, VCM)

**Production (metric tons)**

0

**Capacity (metric tons)**

5,035,000

**Direct emissions intensity (metric tons CO2e per metric ton of product)**

0

**Electricity intensity (MWh per metric ton of product)**

0

**Steam intensity (MWh per metric ton of product)**

0

**Steam/ heat recovered (MWh per metric ton of product)**

0

**Comment**

**Output product**

Other base chemicals

**Production (metric tons)**

0

**Capacity (metric tons)**

8,746,500

**Direct emissions intensity (metric tons CO2e per metric ton of product)**

0

**Electricity intensity (MWh per metric ton of product)**

0

**Steam intensity (MWh per metric ton of product)**

0

**Steam/ heat recovered (MWh per metric ton of product)**

0

**Comment**

## C-OG9.3e

**(C-OG9.3e) Please disclose your chemicals production in the reporting year in thousand metric tons.**

Product	Production, Thousand metric tons	Capacity, Thousand metric tons
Other, please specify vinyls	0	5,035
Other, please specify chlorine, chlorinated products	0	3,994
Other, please specify caustic soda	0	3,500
Other, please specify	0	2,653

Others		
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## C-CH9.6

**(C-CH9.6) Disclose your organization's low-carbon investments for chemical production activities.**

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**Investment start date**

January 1, 2018

**Investment end date**

December 31, 2018

**Investment area**

Products

**Technology area**

Other, please specify

OxyChem's Geismar, Louisiana, plant manufactures 4CPe, a raw material used in making next-generation, climate-friendly refrigerants with low global-warming and zero ozone-depletion potential.

**Investment maturity**

Full/commercial-scale demonstration

**Investment figure**

0

**Low-carbon investment percentage**

0 - 20%

**Please explain**

OxyChem's Geismar, Louisiana, plant manufactures 4CPe, a raw material used in making next-generation, climate-friendly refrigerants with low global-warming and zero ozone-depletion potential. OxyChem developed this product and patented the process globally.

## C-CO9.6/C-EU9.6/C-OG9.6

**(C-CO9.6/C-EU9.6/C-OG9.6) Disclose your investments in low-carbon research and development (R&D), equipment, products, and services.**

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**Investment start date**

June 1, 2018

**Investment end date**

**Investment area**

R&D

**Technology area**

Carbon capture and storage/utilisation

**Investment maturity**

Applied research and development

**Investment figure**

0

**Low-carbon investment percentage**

0-20%

**Please explain**

Oxy Low Carbon Ventures (OLCV) partnered with White Energy, one of the nation's largest ethanol producers, to evaluate the economic feasibility of constructing carbon capture facilities at White Energy's ethanol plants. This project is expected to capture ~700,000 tonnes of CO<sub>2</sub> per year.

---

**Investment start date**

January 1, 2019

**Investment end date**

**Investment area**

Equipment

**Technology area**

Carbon capture and storage/utilisation

**Investment maturity**

Pilot demonstration

**Investment figure**

0

**Low-carbon investment percentage**

0-20%

**Please explain**

OLCV made an equity investment in Carbon Engineering, a Canadian developer of technology that captures CO<sub>2</sub> directly from the atmosphere. The captured CO<sub>2</sub> can supply CO<sub>2</sub> EOR or be converted to fuels for sale. A commercial-scale plant could capture 1 million metric tons of CO<sub>2</sub> per year and synthesize 2,000 to 5,000 barrels of

fuels per day. This technology has the potential to increase Occidental's anthropogenic CO2 supply and aid in offsetting Occidental's overall GHG emissions.

---

**Investment start date**

December 1, 2018

**Investment end date**

**Investment area**

Equipment

**Technology area**

Carbon capture and storage/utilisation

**Investment maturity**

Pilot demonstration

**Investment figure**

0

**Low-carbon investment percentage**

0-20%

**Please explain**

OLCV is an equity investor in NET Power to advance the development of NET Power's low-cost, natural gas electric power system that generates no atmospheric emissions and inherently captures all CO2. This technology has the potential to produce electricity at a lower cost than existing power plants. Additionally, pipeline-quality CO2 for EOR development is produced as a by-product of the process.

---

**Investment start date**

November 1, 2018

**Investment end date**

**Investment area**

Equipment

**Technology area**

Carbon capture and storage/utilisation

**Investment maturity**

Large-scale commercial deployment

**Investment figure**

0

**Low-carbon investment percentage**

0-20%

**Please explain**

Occidental, through its participation with OGCI Climate Investments, is investing in the UK's first full-chain CCUS project, in Teesside. The Clean Gas Project will combine CO<sub>2</sub> captured from new, efficient low carbon power generation, as well as local industrial emitters.

---

**Investment start date**

December 1, 2018

**Investment end date**

**Investment area**

R&D

**Technology area**

Renewable energy

**Investment maturity**

Applied research and development

**Investment figure**

0

**Low-carbon investment percentage**

0-20%

**Please explain**

In Oman, GlassPoint Solar and Occidental have signed a Memorandum of Understanding that could lead to a large solar thermal (steam) plant, exceeding two gigawatt equivalents of solar thermal energy, at Mukhaizna Field in central Oman, where we operate one of the world's largest EOR steam floods. GlassPoint would deploy its proven solar technology to produce up to 100,000 barrels per day of steam from oil field water, which would be purchased by Occidental and used to facilitate production. With preliminary studies complete, engineering work has now commenced to define the project scope and field integration plans. The proposed solar project could save more than 725,000 tons of CO<sub>2</sub> emissions each year.

## C-OG9.7

**(C-OG9.7) Disclose the breakeven price (US\$/BOE) required for cash neutrality during the reporting year, i.e. where cash flow from operations covers CAPEX and dividends paid/ share buybacks.**

40

## C-OG9.8

**(C-OG9.8) Is your organization involved in the sequestration of CO2?**

Yes

### C-OG9.8a

**(C-OG9.8a) Provide, in metric tons CO2, gross masses of CO2 transferred in and out of the reporting organization (as defined by the consolidation basis).**

	CO2 transferred – reporting year (metric tons CO2)
CO2 transferred in	734,200
CO2 transferred out	10,800

### C-OG9.8b

**(C-OG9.8b) Provide gross masses of CO2 injected and stored for the purposes of CCS during the reporting year according to the injection and storage pathway.**

Injection and storage pathway	Injected CO2 (metric tons CO2)	Percentage of injected CO2 intended for long-term (>100 year) storage	Year in which injection began	Cumulative CO2 injected and stored (metric tons CO2)
CO2 used for enhanced oil recovery (EOR) or enhanced gas recovery (EGR)	15,272,000	40	January 7, 2016	35,977,000

### C-OG9.8c

**(C-OG9.8c) Provide clarification on any other relevant information pertaining to your activities related to transfer and sequestration of CO2.**

Occidental worked with the U.S. EPA and other stakeholders to develop procedures to transparently measure, report and verify CO2 sequestration through carbon capture, utilization and storage (CCUS), which were subsequently codified into regulations. This first-of-its-kind Monitoring, Reporting and Verification (MRV) Plan for Occidental's Denver Unit in the Permian Basin was approved by the EPA and represents an important milestone in the development and commercialization of CCUS technology as an approach for long-term management of greenhouse gas emissions. Since then, Occidental has received approval for a second MRV

Plan for Hobbs Field, also in the Permian Basin, in 2017. Together, these plans demonstrate the safe and secure storage of CO2 through EOR.

In the first year of the Denver Unit plan, more than 3.1 million metric tons of CO2 was sequestered. Of this amount, more than 25 percent was captured from government-recognized anthropogenic sources (specifically, waste CO2 captured from Occidental's Century gas plant). It is noteworthy that the total anthropogenic CO2 sequestered in this one project alone represents more than 7 percent of Occidental's 2017 direct GHG emissions globally.

While much of the CO2 for our EOR operations originates from natural sources, Occidental is actively looking for opportunities to capture and use anthropogenic sources of CO2. We have designed and developed facilities that can separate the CO2 from certain of our own production processes, and participate in research and development of other anthropogenic capture opportunities. Occidental also has a dedicated Low Carbon Venture business tasked with identifying business opportunities related to third-party CO2 capture and transportation for use in our operations. Beyond the U.S. domestic Permian Basin, other Occidental-operated projects around the world may be suitable for CO2 EOR. With a reliable CO2 supply, we could have the opportunity to enhance these assets and the associated financial returns.

## C10. Verification

### C10.1

**(C10.1) Indicate the verification/assurance status that applies to your reported emissions.**

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	No emissions data provided
Scope 3	No emissions data provided

### C10.1a

**(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 and/or Scope 2 emissions and attach the relevant statements.**

**Scope**

Scope 1

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

**Page/ section reference**

See <https://www.epa.gov/ghgreporting/ghgrp-petroleum-and-natural-gas-systems>  
Under U.S. EPA's Greenhouse Gas Reporting Program Mandatory Reporting Rules (GHGRP MRR) ensures that data submitted to EPA are accurate, complete, and consistent through a multi-step process.

**Relevant standard**

Other, please specify

Under U.S. EPA's Greenhouse Gas Reporting Program Mandatory Reporting Rules (GHGRP MRR) ensures that data submitted to EPA are accurate, complete, and consistent through a multi-step process.

**Proportion of reported emissions verified (%)**

20

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**Scope**

Scope 1

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

High assurance

**Attach the statement**

 denver\_unit\_mrv\_plan.pdf

**Page/ section reference**

p48, Determination of Sequestration Volumes  
p54, Quality Assurance Program

**Relevant standard**

Other, please specify

The U.S. EPA approved Monitoring, Reporting and Verification (MRV) plan, the first-ever approved by the U.S. EPA, provides a framework for reporting the amount of CO2 sequestered.

**Proportion of reported emissions verified (%)**

100

## C10.2

**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

No, we are waiting for more mature verification standards and/or processes

## C11. Carbon pricing

### C11.1

**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

No, and we do not anticipate being regulated in the next three years

### C11.2

**(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

No

### C11.3

**(C11.3) Does your organization use an internal price on carbon?**

Yes

### C11.3a

**(C11.3a) Provide details of how your organization uses an internal price on carbon.**

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**Objective for implementing an internal carbon price**

- Navigate GHG regulations
- Stakeholder expectations
- Drive low-carbon investment
- Stress test investments
- Identify and seize low-carbon opportunities

**GHG Scope**

- Scope 1
- Scope 2

**Application**

all capital projects over \$5 million

### **Actual price(s) used (Currency /metric ton)**

50

### **Variance of price(s) used**

Under the International Energy Agency's 2018 World Energy Outlook, we tested our proved reserves against the Sustainable Development Scenario. This modeling allows our capital planners and senior management to analyze the long-term risks of exposure to carbon prices when extending the operating life or reserves of existing fields or entering new projects, while simultaneously instilling a culture of carbon-price sensitivity in our capital planning.

For our assessment of potential impacts of the Sustainable Development Scenario on our proved reserves, Occidental used a reference case model to represent our asset base at year-end 2018. The assessment was based on a representative portfolio of assets that contained a majority of proved reserves from our U.S. and non-U.S. oil and gas locations reported in our 2018 Form 10-K. Planned capital spending and expected operating costs from the approved development plans that support the reserves were embedded in the model. The reference case model used the oil, natural gas liquids (NGL) and natural gas prices calculated in accordance with SEC rules for determining year-end 2018 proved reserves and computing the Standardized Measure of Discounted Future Net Cash Flows by application of a 10 percent discount factor (NPV10 valuation) as reported in Occidental's 2018 Form 10-K. For estimating reserves, SEC rules require the use of the unweighted arithmetic average of the first-day-of-the-month price for each month within the year, unless prices were defined by contractual arrangements. Oil, NGL and natural gas prices used for this purpose were based on posted benchmark prices and adjusted for price differentials including gravity, quality and transportation costs.

We have increased our assumed price on CO<sub>2</sub> emissions from \$40 per metric ton to \$50 per metric ton for new projects with a capital commitment of greater than \$5 million. Based on the emissions intensity for Occidental's worldwide oil and gas operations, this translates to a cost of about \$1.80 per BOE.

Additionally, as the largest commercial purchaser and injector of CO<sub>2</sub> for enhanced oil recovery (EOR) in the Permian Basin and a global leader in this technology, Occidental has insight into market-driven CO<sub>2</sub> supply pricing and routinely utilizes this information in our business and strategic planning.

### **Type of internal carbon price**

Implicit price

### **Impact & implication**

Considering product and CO<sub>2</sub> prices under the Sustainable Development Scenario, proved reserves for U.S. assets modeled 1 percent lower, although NPV10 valuation showed no negative impact. For Occidental's non-U.S. oil and gas assets, there is no negative impact to prove reserves or to NPV10 valuation. In aggregate, considering

Occidental's worldwide portfolio of oil and gas assets, there is no negative impact to prove reserves or NPV10 valuation.

The Sustainable Development Scenario did not demonstrate a significant risk of stranded assets. Occidental has a robust resource base with a focus on short-cycle projects and disciplined cost management. Our CO2 EOR business, which has a low decline rate and fully developed infrastructure, acts as a hedge against longer-cycle risks. In conducting the portfolio analysis, we did not include any estimate of the potential benefits that may result from expanded CCUS activities.

We believe our strategy for resilience — utilizing and sequestering CO2 at a price and volume that adjusts relative to potential economic or regulatory carbon constraints or incentives — is flexible enough to be attractive to investors in various carbon-constrained scenarios, while still aligning with the Paris climate accord goals. Nonetheless, we will continue to evaluate new scenarios and reassess our asset portfolio based on material changes in leading market forecasts, carbon pricing regimes or significant changes to our asset mix.

## C12. Engagement

### C12.1

**(C12.1) Do you engage with your value chain on climate-related issues?**

- Yes, our suppliers
- Yes, our customers
- Yes, other partners in the value chain

### C12.1a

**(C12.1a) Provide details of your climate-related supplier engagement strategy.**

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#### Type of engagement

Compliance & onboarding

#### Details of engagement

Included climate change in supplier selection / management mechanism

Code of conduct featuring climate change KPIs

Climate change is integrated into supplier evaluation processes

Other, please specify

Collect climate change and carbon information at least annually from suppliers;  
engagement campaign to educate suppliers about climate change

#### % of suppliers by number

0

**% total procurement spend (direct and indirect)**

0

**% Scope 3 emissions as reported in C6.5**

0

**Rationale for the coverage of your engagement**

Stakeholder engagement, including suppliers and contractors, is both a central activity at Occidental and a catalyst for continuous improvement in our social responsibility policies, practices and reporting. As a participant company in the American Chemistry Council's Responsible Care® initiative, OxyChem applies a management system that regularly measures and tracks performance through established metrics and extends best environmental stewardship, safety and security practices to its business partners and suppliers.

**Impact of engagement, including measures of success**

Through direct engagements with its own suppliers and by engaging through industry associations (e.g., API, IPIECA, the American Chemistry Council and the Vinyl Institute), Occidental (and OxyChem) evaluates and reports on environmental performance, GHG emissions and best management practices with suppliers and other value chain participants. Occidental also utilizes a variety of third-party assessment tools and sustainability "scorecards" to benchmark management practices and operating performance with suppliers.

**Comment**

## C12.1b

**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

---

**Type of engagement**

Education/information sharing

**Details of engagement**

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

**% of customers by number**

0

**% Scope 3 emissions as reported in C6.5**

0

**Please explain the rationale for selecting this group of customers and scope of engagement**

OxyChem is a founding member of the Alliance to End Plastic Waste, which seeks to invest \$1.5 billion over five years to help eliminate plastic waste in the environment, especially in the oceans. The Alliance will develop and bring to scale innovative solutions that will minimize and manage plastic waste and promote solutions for used plastics by helping to enable a circular economy. This global effort consists of nearly 30 companies in the plastics value chain, including chemical and plastic manufacturers, consumer goods companies, retailers, converters and waste management.

### **Impact of engagement, including measures of success**

OxyChem is collaborating with Alliance members to promote infrastructure, education and engagement, innovation, and clean up efforts to reduce plastic waste in the environment. These collective efforts combined with active stakeholder engagement and public awareness campaigns will bring to scale solutions that minimize and manage plastic waste and promote solutions for used plastics by helping to enable a circular economy.

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### **Type of engagement**

Collaboration & innovation

### **Details of engagement**

Run a campaign to encourage innovation to reduce climate change impacts

### **% of customers by number**

0

### **% Scope 3 emissions as reported in C6.5**

0

### **Please explain the rationale for selecting this group of customers and scope of engagement**

OxyChem is committed to advancing the safe and secure management of chemical products and processes, and continually strives to ensure safe production, distribution, use and disposal of its products. As a participant company in the American Chemistry Council's Responsible Care® initiative, OxyChem applies a management system that regularly measures and tracks performance through established metrics and extends best environmental stewardship, safety and security practices to its business partners and suppliers. Specific Responsible Care® activities include: implementation of management systems that must be regularly verified by independent auditors; measurement and tracking of performance through established HES&S metrics; and extending best practices to business partners. OxyChem's Supply Chain Performance Management improves supply chain efficiency by continually monitoring performance. The cornerstone of OxyChem's Supply Chain Performance Management is our "Supply Chain Scorecard," a custom report on supply chain efficiency between our customer and OxyChem. Together with our customers, OxyChem Customer Relations Representatives review data and metrics to identify possible supply chain opportunities.

OxyChem is proud to be a founding member of the Vinyl Sustainability Council (VSC) and initial participant in the industry's +Vantage Vinyl™ program. The program is the U.S. vinyl industry first sustainability initiative focused on efforts to advance the industry's contribution to sustainable development. The +Vantage Vinyl™ program allows members of the VSC to work together to develop and implement best practices and innovation leading to continuous improvement throughout the industry, while promoting these achievements to key stakeholders.

#### **Impact of engagement, including measures of success**

OxyChem has increased its position as an industry leader by achieving Eco Vadis silver certification and ranked in the top 20% of companies in our industry for sustainable supply chain performance.

### **C12.1c**

#### **(C12.1c) Give details of your climate-related engagement strategy with other partners in the value chain.**

Stakeholder engagement is both a central activity at Occidental and a catalyst for continuous improvement in our social responsibility policies, practices and reporting. Occidental has addressed and reported on company environmental performance and shared best management practices with peer companies, suppliers, customers and other value chain constituents for many years. We are committed to building trust with our stakeholders through regular and transparent communication and consistent actions.

To help define the most important issues for Occidental and the oil and gas sector, the Company engages with a range of stakeholders from both industry and non-industry. We monitor external trends, industry leadership, standards bodies and capital market influences to refine our operational priorities and focus on long-term value creation. Engagements in recent years have resulted in changes to Occidental's practices and disclosures regarding environmental matters, including the content of our 2018 and 2019 climate reports; matters related to corporate governance, including the adoption of proxy access; and the executive compensation program, including the addition of a second returns metric in the long-term incentive program beginning in 2018.

Occidental's Board and management understand that climate issues, like other business concerns, are continuously evolving. Occidental is committed to transparency around our climate-risk efforts and strategic planning. Outcomes of this process to integrate climate change considerations into our business strategy help inform our active engagement with institutional stockholders, state and national-level regulators, industry associations, research and technology collaborations, environmental groups and other public stakeholders addressing climate risks.

Occidental works with governments, industry actors and civil society organizations to facilitate the development of viable global policies and regulatory frameworks. Occidental also participates in domestic and international industry initiatives, such as the API Environmental Partnership, IPIECA, the Carbon Capture Coalition and the Oil and Gas Climate Initiative that

focus on GHG mitigation solutions, achieving the UN Sustainable Development Goals and global climate change-related risks and opportunities. As a participant in the American Chemistry Council’s Responsible Care® initiative and the Vinyl Institute’s Vinyl Business and Sustainability Council initiatives, OxyChem applies a management system that regularly measures and tracks performance through established metrics and extends best environmental stewardship, safety and security practices to its business partners and suppliers. Based on these engagements and dialogue, Occidental has addressed and reported on company environmental performance and shared best management practices with peer companies, suppliers, customers and other value chain constituents.

## C12.3

### (C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

- Direct engagement with policy makers
- Trade associations
- Other

## C12.3a

### (C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Mandatory carbon reporting	Neutral	Occidental engages the U.S. EPA and associated state-level agencies on the EPA Greenhouse Gas Reporting Program (GHGRP), both directly and through its trade associations. Occidental monitors changes in applicable regulations, comments on technology, management systems for collecting and reporting data and provides information on testing and data collection to improve the GHGRP requirements and accuracy of the data collected.	Occidental works through its trade associations and independently with the U.S. EPA.
Regulation of methane emissions	Neutral	Occidental is an active and longstanding voluntary participant in the U.S. EPA Natural GasSTAR program, the Environmental Partnership and the Global Methane Initiative. Working collaboratively with the EPA, Occidental has helped to develop the GasSTAR Program guidelines, tested practices and technology and has implemented	Occidental works through its trade associations and independently with the U.S. EPA.

		<p>solutions aimed to reduce fugitive methane emissions. Occidental also engaged with EPA during the development of its recently promulgated methane emission rulemaking by offering technical data and ideas for improving the effectiveness of the rules.</p>	
Adaptation or resilience	Support	<p>Occidental engages the U.S. EPA and Department of Energy, among other agencies, to explain our use of anthropogenic carbon dioxide (CO<sub>2</sub>) for enhanced oil recovery (EOR) operations. Occidental received approval from the U.S. Government for a first-of-its-kind Monitoring, Reporting and Verification (MRV) Plan that quantifies the amount of CO<sub>2</sub> sequestered during CO<sub>2</sub> EOR. The MRV Plan compliments our statutory GHG emissions reporting to the EPA. Occidental works with the Carbon Capture Coalition, (previously, the National Enhanced Oil Recovery Initiative or (NEORI) to support Carbon Capture Utilization and Storage (CCUS) incentive legislation and fiscal policies to spur commercial deployment of technologies to enable the capture of anthropogenic CO<sub>2</sub> and the permanent and safe geologic storing of CO<sub>2</sub> underground.</p>	<p>Advocacy to support legislation to make the existing federal CCUS incentive permanent so greater amounts of anthropogenic CO<sub>2</sub> will be captured and sequestered during CO<sub>2</sub> EOR operations, thereby reducing CO<sub>2</sub> emissions to the atmosphere.</p>
Climate finance	Support	<p>Occidental engages the U.S. EPA and Department of Energy, among other national and international agencies, to explain our use of anthropogenic carbon dioxide (CO<sub>2</sub>) for enhanced oil recovery (EOR) operations. Occidental works with the Global Carbon Capture and Storage Institute to support Carbon Capture Utilization and Storage (CCUS) incentive legislation and fiscal policies to spur commercial deployment of technologies to enable the capture of anthropogenic CO<sub>2</sub> and the permanent</p>	<p>Occidental supports legislation and fiscal policies to spur commercial deployment of technologies to enable the capture of anthropogenic CO<sub>2</sub> and the permanent and safe geologic storing of CO<sub>2</sub> underground.</p>

		and safe geologic storing of CO2 underground.	
Carbon tax	Neutral	Occidental engages the U.S. EPA and Department of Energy, among other agencies, to explain our use of anthropogenic carbon dioxide (CO2) for enhanced oil recovery (EOR) operations.	Any approach to regulating GHG emissions should be holistic. Occidental does not support efforts that regulate some sectors while omitting others.
Other, please specify 45Q tax law	Support	Occidental engages the U.S. EPA and Department of Energy, among other agencies, to explain our use of anthropogenic carbon dioxide (CO2) for enhanced oil recovery (EOR) operations. Occidental works with the Carbon Capture Coalition, (previously, the National Enhanced Oil Recovery Initiative or (NEORI) to support Carbon Capture Utilization and Storage (CCUS) incentive legislation and fiscal policies to spur commercial deployment of technologies to enable the capture of anthropogenic CO2 and the permanent and safe geologic storing of CO2 underground.	Supported legislation to expand and reform the Section 45Q federal tax credit (subsequently passed by U.S. Congress as the FUTURE Act) which extends a federal tax credit for CO2 capture and sequestration and incentivizes the use of anthropogenic CO2 in EOR operations.

### C12.3b

**(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**

Yes

### C12.3c

**(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.**

**Trade association**

American Petroleum Institute (API)

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

API addresses climate change issues affecting the U.S. oil and natural gas industry. API has a working group that oversees API's Climate Challenge Program, including

participation in government initiated voluntary GHG reduction programs, as well as the development of the API Compendium methodology for estimating oil and gas industry greenhouse gas emissions. The powerful combination of continually-improving industry practices, advancing state programs, and federal environmental statutes – all work together to provide an effective structure that allows for the essential development of the nation’s oil and natural gas resources while protecting the environment. The natural gas and oil industry will continue advancing environmental performance through innovative research, technology and operational practices.

**How have you influenced, or are you attempting to influence their position?**

Occidental is an active member and contributor to API, engaging on certain GHG issues and other health, environment and safety standards and industry practices.

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**Trade association**

IPIECA

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association’s position**

IPIECA is the global oil and gas industry association for environmental and social issues. IPIECA develops, shares and promotes good practice and knowledge to help the industry and improve its environmental and social performance. IPIECA acts as a catalyst to bring experts together to work on issues such as greenhouse gas (GHG) emissions, energy efficiency and reducing the impact of fuel emissions. IPIECA is helping the industry be part of the climate change solution by developing industry guidelines on GHG reporting, a series of good practices on energy efficiency and greenhouse gas management, and an ongoing record of convening expert workshops to explore key climate-related issues, informing the industry and stakeholders.

**How have you influenced, or are you attempting to influence their position?**

Occidental is an active member and contributor to IPIECA and its subject matter working groups, engaging on a variety of climate-related topics and sustainability practices, including how the oil and gas industry must be a key part of the climate change solution.

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**Trade association**

Vinyl Institute

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association’s position**

The Institute’s Vinyl Business and Sustainability Council (VBSC) serves as the subject matter leader on sustainability issues and related technical, communications, and advocacy activities pertaining to the vinyl industry in North America. VBSC champions

comprehensive science-based continuous improvement practices to meet the needs of current and future generations. VBSC supports its members' sustainability efforts through educational programs and company or product-specific sustainability assessments; reporting and goals and strategy development.

**How have you influenced, or are you attempting to influence their position?**

OxyChem is a member of the Vinyl Institute and serves on its VBSC supporting strong policies focused on product innovation and stewardship, and water infrastructure.

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**Trade association**

Carbon Capture Coalition

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

Carbon Capture Coalition supports the deployment and adoption of carbon capture technology and to help realize CO<sub>2</sub>-EOR's full potential as an energy security, economic, and environmental strategy.

**How have you influenced, or are you attempting to influence their position?**

With Occidental's active support, the Carbon Capture Coalition achieved its top federal legislative priority with passage of landmark U.S. legislation, known as the FUTURE Act, to extend, reform and expand the U.S. federal Section 45Q tax credit for CO<sub>2</sub> storage.

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**Trade association**

American Chemistry Council (ACC)

**Is your position on climate change consistent with theirs?**

Mixed

**Please explain the trade association's position**

The American Chemistry Council and its members adhere to a set of Sustainability Principles, and its Responsible Care® Program is the foundation behind our industry's commitment to sustainability. ACC advocates for cost-effective laws and regulations that improve overall environmental performance and provide clear direction for American manufacturing and its membership base, including policies that promote the shared goal of a healthy environment while encouraging innovation and high-skilled, high-paying jobs in the business of chemistry.

**How have you influenced, or are you attempting to influence their position?**

As an ACC member company, OxyChem is committed to following the Responsible Care Guiding Principles: Promotion of pollution prevention, minimization of waste and

conservation of energy and other critical resources at every stage of the life cycle of products; Cooperation with governments at all levels and organizations in the development of effective and efficient safety, health, environmental and security laws, regulations and standards.

OxyChem is working with the ACC to focus on emissions reductions and market opportunities under a low carbon economy.

## C12.3e

### **(C12.3e) Provide details of the other engagement activities that you undertake.**

Because legislative and regulatory changes can have substantial impacts on the company and its stakeholders, Occidental believes that it is necessary for the company to help inform the discussion of such issues and to do so in an ethical and transparent manner. To that end, Occidental may, from time to time, make political campaign contributions or engage in lobbying and other political activities. While the expenditures for these areas vary from year to year depending on the political cycle and the legislative or regulatory issues in the forefront, we believe that they are modest for a company of Occidental's size. We always have a process in place to ensure that these activities and expenditures comply with all applicable laws and company policies, including those summarized in Occidental's Code of Business Conduct.

Occidental is a member of and an active participant in many trade and industry groups. While generally not the primary purpose of these organizations, many actively engage in lobbying on industry issues. These organizations represent a broad range of members and interests and Occidental does not always share the views of these organizations and their other members. Occidental annually provides a list of U.S. Trade Associations of which Occidental is a member and to which it paid annual dues in excess of \$50,000. At the direction of the Board of Directors, the Government Affairs Committee reviews, assesses and approves of Occidental's membership in such trade associations.

Occidental's Government Relations group provides the international and domestic government affairs services for Occidental and, in that capacity, is responsible for all federal and state political contacts by Occidental. Government Relation's mission is to provide advice, advocacy, information, policy analysis and support on legislative, regulatory, international and political issues of importance to the corporation in meeting its operational and financial goals. All of the foregoing contributions and expenditures are subject to the same review and approval procedures described above, and all comply with applicable disclosure requirements.

A recent outcome of Occidental's advocacy is our participation in the Carbon Capture Coalition (formerly the National Enhanced Oil Recovery Initiative, or NEORI) to support CCUS incentive legislation and fiscal policies to spur commercial deployment of technologies to enable the capture of anthropogenic CO<sub>2</sub> and the permanent and safe geologic storing of CO<sub>2</sub> underground. In concert with our role in the Coalition, Occidental worked with a bipartisan U.S. legislative coalition that successfully sought enactment of the FUTURE Act, which extends a federal tax credit for CO<sub>2</sub> capture and sequestration and incentivizes the use of anthropogenic CO<sub>2</sub> in EOR operations.

Climate and energy authorities, including the International Energy Agency (IEA) and the UN Intergovernmental Panel on Climate Change, recognize the important role that CCUS must play if atmospheric carbon concentrations are to be limited to levels targeted in international climate accords. Based on research by the IEA, it has been shown that CCUS in the form of EOR with anthropogenic CO<sub>2</sub> can provide a significant reduction in life-cycle per barrel CO<sub>2</sub> emissions compared to oil produced using non-EOR techniques. We are encouraged by the efforts of others, including global competitors, to study and seek to apply this promising technology. We will continue to build on and maintain our leadership position in these technologies while advocating their global potential.

## C12.3f

**(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

Occidental's policies and robust management systems foster and reinforce ethical business practices that are consistently sound, highly principled and transparent. Occidental's written policy on political activities broadly defines what a political contribution is for the purposes of the policy. It covers campaign contributions and other politically related expenses by or on behalf of Occidental, and they are made only with the approval of the Board of Directors, the Government Affairs Committee or their designees. The Government Affairs Committee approves all political contributions and reports directly to the Board of Directors.

## C12.4

**(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

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### Publication

In mainstream reports, incorporating the TCFD recommendations

### Status

Complete

### Attach the document

 Occidental Climate Change Report 2019.pdf

 Occidental\_Climate Report\_2018-new version.pdf

### Page/Section reference

all pages

### Content elements

Governance  
Strategy  
Risks & opportunities  
Emissions figures  
Other metrics

### Comment

Occidental's climate reports highlights our efforts to address climate-related risks and opportunities in our business. The report begins with an introductory letter from our President and CEO, highlighting some of our climate-related leadership and action, including how we are exploring our carbon-neutral aspiration. The reports provide an overview of progress on carbon management, climate-related governance and risk management processes and systems, planning and execution of climate strategies, and metrics and targets for reducing greenhouse gas (GHG) emissions. Occidental's climate reports are organized using the four-element framework recommended by the Task Force on Climate-related Financial Disclosures (TCFD), a framework we support.

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### Publication

In voluntary sustainability report

### Status

Complete

### Attach the document

 Occidental Social Responsibility Brochure-Partner of Choice.pdf

### Page/Section reference

[www.oxy.com/socialresponsibility/overview](http://www.oxy.com/socialresponsibility/overview)

### Content elements

Governance  
Risks & opportunities  
Emissions figures  
Emission targets  
Other metrics

### Comment

To improve transparency and provide relevant information to our stakeholders, we have elected to use our corporate website as the primary medium for Social Responsibility and climate-related reporting. Our corporate website provides updates on performance and information on activities implemented and achievements in 2017 and 2018. Our website includes an Annual Performance Summary Table that highlights our GHG emissions performance and climate and energy-related metrics.

**Publication**

In voluntary communications

**Status**

Complete

**Attach the document**

 Occidental-Fast-Facts\_Oxy-Low-Carbon-Ventures.pdf

**Page/Section reference**

all pages

**Content elements**

Strategy

Other metrics

**Comment**

The Fast Facts publication on Oxy Low Carbon Ventures (OLCV) summarizes how OLCV capitalizes on Occidental's enhanced oil recovery leadership by developing carbon capture, utilization and storage projects that source anthropogenic carbon dioxide and promotes innovative technologies that drive cost efficiencies and economically grows Occidental's business while reducing emissions.

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**Publication**

In other regulatory filings

**Status**

Complete

**Attach the document**

 Occidental-Petroleum\_2018\_Annual\_Report.pdf

**Page/Section reference**

CEO Statement and Introduction, pgs. 4-5

Risk Factors, p18

**Content elements**

Governance

Strategy

Risks & opportunities

Other metrics

**Comment**

Occidental 2018 Annual Report

## C14. Signoff

### C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

### C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Christopher Thomas, Lead Advisor, Social Responsibility	Environment/Sustainability manager

## SC. Supply chain module

### SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

### SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	17,824,000,000

### SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

No

### SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

## SC1.2

**(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).**

## SC1.3

**(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?**

Allocation challenges	Please explain what would help you overcome these challenges
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## SC1.4

**(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?**

Yes

### SC1.4a

**(SC1.4a) Describe how you plan to develop your capabilities.**

While we will continue to disclose our Scope 1, Scope 2 and Scope 3 emissions, we are also evaluating metrics to more comprehensively express our overall impact on atmospheric concentrations of CO<sub>2</sub>. We believe commonly accepted GHG reporting frameworks that utilize Scope 1, Scope 2, and Scope 3 to categorize GHG emissions may not fully account for a company's total impact — both positive and negative — on atmospheric concentrations of CO<sub>2</sub>. In particular, the sum of Scope 1 and Scope 2 emissions from most oil and gas producers is relatively small compared to Scope 3 emissions, so focused efforts to reduce Scope 1 and Scope 2 emissions will only modestly benefit the overall climate equation. Scope 3 emissions are an estimate of the GHG emissions arising from downstream use by customers and other consumer end-users of the hydrocarbons and chemical products that Occidental produces. Scope 3 emissions from oil and gas production is more of a measure of consumer demand for oil and gas products than a measure of the impact of producers' operations.

Importantly, the formula for calculating Scope 1, Scope 2 and Scope 3 emissions does not reflect the positive impacts on atmospheric CO<sub>2</sub> concentrations from the capture of third-party emissions at the source, or from removal of CO<sub>2</sub> from the atmosphere, and subsequent sequestration of those volumes. At this time, we believe GHG reporting frameworks do not fully reflect the overall impacts of tools or strategies necessary to achieving climate goals. For these reasons, Occidental is exploring the development of a metric that reflects its overall impacts on atmospheric GHG concentrations and progress towards achieving global climate goals. As a first step, we will disclose a direct CO<sub>2</sub>e emissions intensity goal for our oil and gas operations, with interim milestones. In the future, we will establish and disclose a holistic impact metric that considers carbon sequestration of third-party emissions or other efforts to reduce GHG emissions or atmospheric concentrations.

## SC2.1

**(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.**

## SC2.2

**(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?**

No

## SC3.1

**(SC3.1) Do you want to enroll in the 2019-2020 CDP Action Exchange initiative?**

No

## SC3.2

**(SC3.2) Is your company a participating supplier in CDP's 2018-2019 Action Exchange initiative?**

No

## SC4.1

**(SC4.1) Are you providing product level data for your organization's goods or services?**

No, I am not providing data

## Submit your response

**In which language are you submitting your response?**

English

**Please confirm how your response should be handled by CDP**

	Public or Non-Public Submission	I am submitting to
I am submitting my response	Public	Investors

**Please state the main reason why you are declining to respond to your Customers**

Prefer to work directly with customer, not through a third party