

# Methane Guiding Principles Signatory Reporting

Occidental

April 2023





**COMPANY: Occidental** 

YEAR OF JOINING METHANE GUIDING PRINCIPLES: December 2017

SENIOR REPRESENTATIVE: Karen Sinard, Vice-President, Environmental and Sustainability



## **Principle One:**

## Continually reduce methane emissions

- Please state what <u>specific activities or projects</u> your company has undertaken to <u>reduce methane</u> <u>emissions</u>. Please refer to the previous year's annual MGP reporting where applicable to refer to intended activity. Link to sustainability report where relevant to provide further detail.
- Describe how the reduction was achieved <u>including description of the asset type, technology type, timeframe</u>. What was the end result?
- Provide data to support your description e.g. the <u>actual amount of emissions reduction achieved, or</u> the reduction in methane intensity.

### 2022 completed activity 2023 intended activity Oxy has implemented the following measures in 2022 Oxy has committed to eliminating or retrofitting all to reduce methane emissions in our operated assets high-bleed pneumatics in 2023. in the U.S. and/or internationally: retrofitting gaspowered pneumatic controllers; capturing vented gas Continued progress on our ZRF goal for international for sale or use in process equipment, such as with operations. casing vapor recovery; additional emission controls such as converting flares to vapor recovery or combustion units; additional compression to move gas from satellites to central processing; tankless designs for new and upgraded facilities; expanding use of solar-powered equipment and connections to the electricity grid; implementing alternatives to flaring of gas during power outages or maintenance at Oxy or third-party processing plants and pipelines, such as injecting gas for temporary storage or pressure maintenance; and deploying enhanced monitoring, automation and surveillance to expedite detection and repair of methane leaks as described further below regarding MGP Principle 3. Oxy is also on-track to end routine flaring in our Permian Basin operations in the fourth quarter of 2022, having already achieved this milestone in our other U.S. operations.



## **Principle Two:**

## Advance strong performance across the gas supply chain

Please include answers to the following questions:

- 1. Did you participate in any methane research or plan to do so?
- 2. Did you conduct any outreach on methane management?
- Describe what action you have taken to engage industry players across the value chain to better
  understand how to achieve robust methane emissions management. Outreach activity could include
  training sessions, participation in webinars, influencing of NOJV partners, or publication of guidance.
  Activity could also include commercial incentives or engagement with investors to drive better
  performance by others.
- Provide details of any outcomes that resulted from your action.

2022 completed activity	2023 intended activity
In 2022, Oxy has advanced methane emissions reduction across our value chain through the following actions, among others:  • expanded our active collaboration on emissions reduction with national oil companies in our international nonoperated joint ventures, including Al Hosn Gas in the UAE, the Dolphin project in Qatar, and Groupement Berkine in Algeria; • encouraged other operators and service companies to join international organizations and commitments, including the MGP, OGMP 2.0 and the OGCI Aiming for Zero Methane Emissions pledge, in multiple forums such as the World Economic Forum, Ipieca, CERA Week, and direct engagement; • engaged with our key U.S. gas processors on opportunities to streamline equipment and operations to eliminate or mitigate emissions sources; • collaborated with key vendors who supply, for example, compressors, emissions control devices, other equipment and drilling and completion services, on emissions reduction projects;	Continued active participation and collaboration in MGP, OGMP 2.0, OGCI, and Veritas.



- sponsored and actively participate in GTI Veritas methane emissions measurement protocol development; and
- continued to progress development of innovative zero-emission power from natural gas through our investment in NET Power LLC.



## **Principle Three:**

## Improve accuracy of methane emissions data

- Describe action taken to improve methane emissions data collection methodologies. This could be
  application of new technology at an operated site(s), investment and participation in R&D initiatives,
  development of monitoring/modelling software, or support to research that improves the accuracy of
  the quantification of methane emissions.
- Where new technology /software has been piloted or adopted, it is helpful to describe how it works, the reasons it was selected, and how it was deployed. Any data that can be shared to demonstrate improvements is useful.
- How these new methods/technolgies has been adopted into your accounting process if at all.

#### 2022 completed activity

## In 2022, Oxy has taken the following actions, among others, to improve the accuracy of our methane emissions data:

After evaluating and piloting multiple technologies in 2021, Oxy's Emissions Technology Team (ETT) has implemented remote sensing to detect potential methane leaks and other emission sources, including: periodic aerial flyovers of all our U.S. onshore operations; periodic satellite surveillance of all our operated assets in Oman; and installation of fixed monitors from multiple vendors at operating sites, including a multi-sensory device invented by an Oxy automation engineer.

Both the overflights and the fixed monitors supplement our Leak Detection and Repair Program and direct our Find It/Fix It crews to areas with potential methane emissions.

Oxy is an investor in OGCI Climate Investments, a \$1 billion fund that provides funding for early-stage technologies to detect and mitigate emissions, and our ETT is working with several of the Climate Investment Fund's investees that are focused on methane detection and emissions reduction to pilot or deploy their technologies in our operations.

Through review of data from GHGSat via the Role of Gas Workstream, Oxy actively participates in and supports the first phase of OGCl's Methane Emissions Monitoring Program launched in 2021 to deploy satellite monitoring of methane emissions

#### 2023 intended activity

Oxy's Emissions Technology Team is working with technology providers and data scientists to evaluate improvements to techniques that estimate and measure methane emissions, which is a core component of Oxy's carbon management program.



from oil and gas operations in Iraq and Kazakhstan with the objective of engagement with respective governments for capacity building and exploring opportunities to support methane emission reduction.

Oxy has implemented a flaring and venting application for Operations to record emissions events, including several monitoring programs to assess methane emissions from wells and facilities. Our Air Quality Team reviews the output of these applications and monitoring programs for reporting and inclusion in our emissions inventory.

Oxy continues to compile an asset registry of emissions-generating equipment, increase the frequency of site-specific gas composition and fuel use measurements across our operations and install automation to enhance our methane emissions data and help our operations to validate and sustain emissions reductions.

As a member of OGMP 2.0 and OGCl's Aiming for Zero Methane Emissions pledge, Oxy is developing an inventory plan to enhance methane emissions estimates and measurements across our operated assets and in support of operators of assets in which we have a non-operating equity interest.



## **Principle Four:**

## Advocate sound policy and regulations on methane emissions

Advocacy consists of active participation in legal consultation processes, external policy statements, and direct engagement with government

 Consider providing details on the region or regulation involved, how you undertook your advocacy, others involved, and the outcome.

## 2022 completed activity

## In 2022, Oxy has continued our support for responsible national and state regulations to further reduce methane and other air emissions. Following on the testimony of our President and CEO in 2021 before the Senate Energy and Natural Resources Committee in support of federal methane regulation, Oxy submitted a comment letter this year expressing our support for the U.S. EPA's proposed framework for regulating methane and VOC emissions from a broader set of new upstream and midstream operations, as well as various existing operations, and offering suggestions for enhancing the efficiency and cost effectiveness of additional regulations. As we did in commenting on state regulations in Colorado and New Mexico in 2021, Oxy is engaging with NGOs so we can comment constructively on the EPA's specific proposed rules. In addition, Oxy engaged with investor groups including Climate Action 100+ regarding the U.S. Securities and Exchange Commission's proposed climate disclosure rulemaking, and submitted a comment letter offering suggestions to make those proposed rules costeffective and efficient to implement.

#### 2023 intended activity

Oxy will continue to support responsible national and state regulations to further reduce methane and other air emissions. Oxy will continue to engage, as warranted, with environmental, business and labor groups, non-governmental organizations (NGOs) and other companies to advocate for climate policies aimed at achieving the goals of the Paris Agreement. Our national efforts including the U.S.-UAE Partnership to Accelerate Transition to Clean Energy (PACE) are also important opportunities to implement policies that enable net zero.



## **Principle Five:**

## Increase transparency

Please include answers to the following question:

- 1. <u>Are you participating in OGMP 2.0</u> or do you intend to do so? If you are participating in OGMP 2.0 you may provide a link to the website.
- Describe what activity you have carried out e.g. providing information in relevant external reports on methane emissions data, methodologies, and progress and challenges in methane emissions management.
- If you have contributed towards the standardisation of comparable external methane reporting describe the activity you have taken.

#### 2022 completed activity 2023 intended activity Oxy has reported our estimated GHG emissions to Oxy will continue participation with the following the CDP since its inception, and has issued an annual organizations, among others, to increase Climate Report for several years that includes our transparency with respect to methane emissions methane emissions and intensity estimates for our from our company and across industry: operated assets in our oil and gas and chemical • OGMP 2.0 sectors. We are also evaluating how best to estimate World Bank Zero Routine Flaring methane emissions with respect to our equity Initiative interests in assets operated by others. Finally, we • OGCI (and its Aiming for Zero Methane have set 14 GHG targets, two of which specifically Emissions Pledge) address methane intensity in our oil and gas and OGCI Climate Investments Fund chemical operations. The Environmental Partnership In addition, Oxy is participating with the following World Economic Forum. organizations, among others, to increase transparency with respect to methane emissions from our company and across industry: • OGMP 2.0 World Bank Zero Routine Flaring Initiative OGCI (and its Aiming for Zero Methane Emissions Pledge) OGCI Climate Investments Fund The Environmental Partnership World Economic Forum.



## **Methane Emissions**

Do you report absolute methane emissions within your sustainability report?  If so provide link.	Yes  https://www.oxy.com/globalassets/documents/publications/oxy-climate-report-2022.pdf
Do you report a methane intensity within your sustainability report?	Yes
What are your organisation's total absolute methane emissions?  Provide a figure in tonnes.	1.915 MT CH4
Provide latest data publicly available.	
State your methodology.	The estimated Oxy GHG emissions described in this report are derived from a combination of measured and estimated data using reasonably available information as of December 31, 2021
State your reporting boundary.	Total Oxy O&G
What are your organisation's methane intensity?  Provide latest data publicly available.	0.26%
State your methodology.	Methane emissions intensity refers to the amount of methane emissions from Oxy's operated oil and gas assets as a percentage of the total gas produced and marketed
State your reporting boundary.	Total Oxy O&G
Do you have a methane emission target?	Oxy O&G - Methane Emissions Intensity <0.25% of produced & marketed gas by 2025
If yes, please state what it is, including the boundaries and methodology.	
If no, are you developing such a target? Please state your intended timeline.	