



METHANE
GUIDING
PRINCIPLES

Methane Guiding Principles Signatory Reporting

SOCAR

2023





COMPANY: **SOCAR**

YEAR OF JOINING METHANE GUIDING PRINCIPLES: **2018**

SENIOR REPRESENTATIVE: **Rafiga Huseynzade**



Principle One: Continually reduce methane emissions

2021/22 completed activity	2023 intended activity
<ul style="list-style-type: none"> • SOCAR has joined the World Bank Zero Routine Flaring Initiative "Zero Routine Flaring by 2030". SOCAR as GGFR (Flaring Methane Reduction Partnership - FMRP) member, prepared and successfully implemented the corporate plans "SOCAR 2010-2015: Associated gas reduction plan" and "SOCAR 2017-2022: Associated gas reduction plan". • In 2022, within the framework of the "SOCAR 2017-2022: Associated gas reduction plan", in Azneft PU associated gas emissions were reduced to "0" in the "upstream" segment. • In the Oil Refinery Plant a system was established to transport the waste gas fractions to another chemical enterprise of SOCAR for the purpose of using them as a raw material for the production of ethylene-propylene and polypropylene. Thus, the use of these wastes as raw materials in the chemical industry helps to reduce emissions and ensure a circular economy. • Within the cooperation between SOCAR and Norwegian Company "Carbon Limits", the Leak Detection and Repair (LDAR) pilot project has been successfully completed and succeeded in reducing methane emissions. All leaks in the oilfields were detected and successfully eliminated. The reduced emission volumes were verified by German company "TÜV Nord". As a result reduced fugitive volumes were certified and the carbon credits were issued by German Emissions Trading Authority "DEHSt". 	<ul style="list-style-type: none"> • In accordance with "SOCAR 2035 corporate strategy" and "SOCAR Low-carbon development strategy", energy transition and decarbonization measures are continued. • Identification and elimination of leak sources by using infrared cameras in oil and gas infrastructure. • In 2022-2026, "Azerigas" PU is planning to construct an emission free gas network system for the liberated regions of Garabagh and Eastern Zangezur. • SOCAR has started the implementation of the 2 GW Offshore Wind and Hydrogen development project. As a result of the project, SOCAR's offshore production sites will be supplied with renewable energy sources and GHG emissions will be reduced. • SOCAR will continue the ecological rehabilitation projects of oil-contaminated lands. • Changing the production system of wells to a closed vacuum system, for the purpose of finalizing to collect the associated gas at JVs (Joint ventures). • Based on SOCAR's "Low Carbon Development Strategy" a functional digital platform through methodical tools for transparent accountability is planned to be built. Aim of this platform is to establish a reliable measurement, reporting and verification ("Measurement Reporting and Verification" - MRV) system.



- The repair and maintenance of tanks, pipe systems and equipment with a risk of corrosion and leakage in the onshore oil and gas infrastructure has been completed.
- Link to sustainability report to provide further details

<https://www.socar.az/en/page/sustainable-development-reports>



Principle Two:

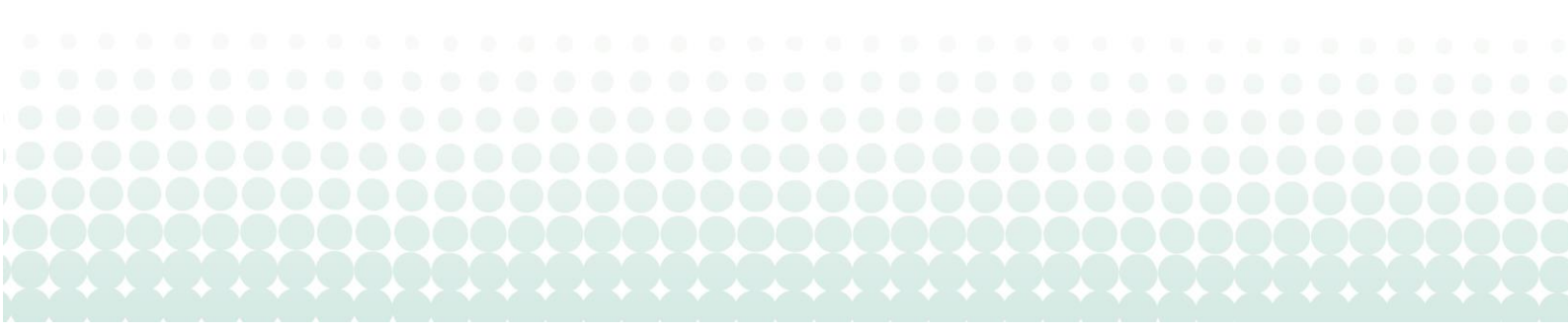
Advance strong performance across the gas supply chain

2021/22 completed activity	2023 ended activity
<ul style="list-style-type: none"> In all segments of the production-distribution chain, SOCAR has strong monitoring activities for the reduction of release of the associated gas into the atmosphere, gas losses and various types of leaks. <p>"Zero Routine Flaring by 2030" and the "Methane Guiding Principles" platforms has a great impulse for this.</p> <ul style="list-style-type: none"> SOCAR's conducts instrumental measurements of methane and other sources of volatile emissions released into the atmosphere during oil and gas operations using an infrared-thermal camera. SOCAR had a "SOCAR METHANE EMISSION INVENTORY" project together with the Norwegian company Carbon Limits. <p>Within the framework of the project, it was considered to establish a tool for the inventory of methane emissions at SOCAR's enterprises. Application of this tool did not start due to some technical issues.</p> <ul style="list-style-type: none"> Meeting with the World Bank regarding methane research Participation in seminars on "Increasing potential in Azerbaijan to meet the requirements of the transparency mechanism of the Paris Agreement". GHG reports - Participation in the seminar for the improvement of biennial reporting Participation in MGP meetings 	<ul style="list-style-type: none"> SOCAR envisaged the development of a corporate methodology for calculating emissions of volatile organic compounds from non-stationary sources. Within the framework of SOCAR Enterprise Architect project, improving the digital MRV platform for the inventory of GHG emissions. SOCAR engaged the consulting company "Boston Consulting Group" and started a carbon footprint assessment project for the entire portfolio. An assessment of the carbon footprint and carbon intensity of the product unit is performed in the annual inventory reports.



Principle Three:
Improve accuracy of methane emissions data

2021/22 completed activity	2023 intended activity
<ul style="list-style-type: none"> SOCAR has approved and started to use corporate methodological tool "Methodology of calculation of greenhouse gases in the process of combustion in stationary sources". <p>The corporate methodology is based on IPCC methodology and recommendations, EMEP/EEA national emission inventory technical guidance documents.</p> <ul style="list-style-type: none"> Measurements are performed using instrumental tools, analytical devices, laboratories, gas chromatographs and other technological solutions for determining and calculating emissions from stationary and non-stationary sources. 	<ul style="list-style-type: none"> SOCAR continues to strengthen the accountability system in accordance with "SOCAR 2035 corporate strategy", "SOCAR Low-carbon development strategy" and SOCAR corporate values. SOCAR has started to evaluate the carbon footprint of the entire portfolio, define environmental ambitions, and prepare a road map for the decarbonization of the core business. SOCAR envisaged the development of a corporate methodology for calculating emissions of volatile organic compounds from non-stationary sources. Tekrar verilib. SOCAR plans to further expand and improve the instrumental, laboratory and methodological base to increase the control of greenhouse gas emissions, pollutants released into the atmosphere, including methane emissions.



Principle Four:

Advocate sound policy and regulations on methane emissions

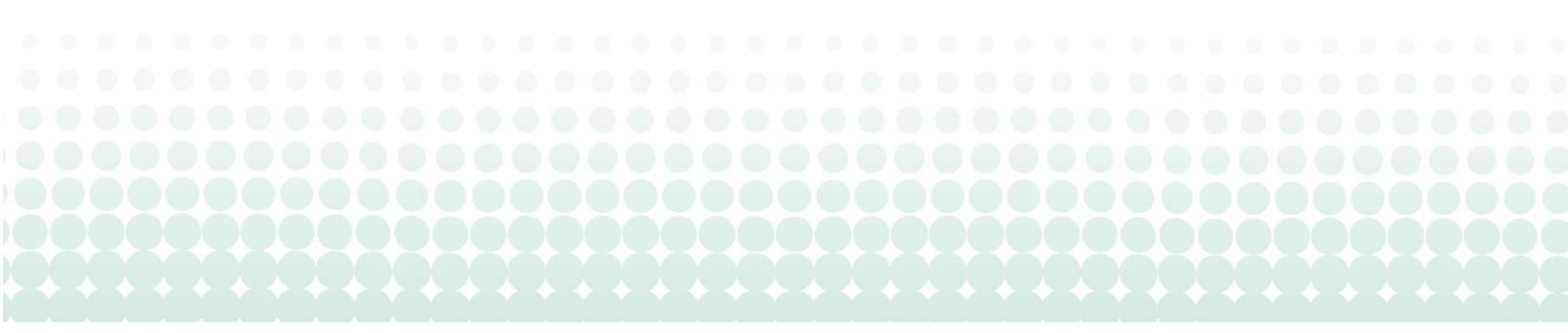
2021/22 completed activity	2023 intended activity
<ul style="list-style-type: none"> • SOCAR is represented in the State Commission on Climate Change of the Republic of Azerbaijan, participates in its meetings and implements state policy in this area. • From 2018 SOCAR is a member of Methane Guiding Principles and provides an official report on current situation with methane reduction activities which are implemented and planned. • SOCAR has established regional cooperation on reducing greenhouse gas emissions within the framework of CEPI - Caspian environment protection initiative. • SOCAR actively participated in the preparation and discussion of the draft law on Greenhouse gases of the Republic of Azerbaijan • SOCAR has established a system of accountability to the government, state control bodies and statistical institutions for the reduction of greenhouse gas emissions. 	<ul style="list-style-type: none"> • SOCAR will continue its efforts to implement the "Global Methane Pledge" and greenhouse gas reduction obligations of the Republic of Azerbaijan. • SOCAR will continue its active participation in the implementation of "National Priority 5 - Clean environment and "Green growth" country" of the "Azerbaijan–2030: National Priorities for socio-economic development" document. • Participation in the preparation of the Low Carbon development strategy for the Republic of Azerbaijan.

Principle Five:
Increase transparency

Historical completed activity	2023 intended activity
<ul style="list-style-type: none"> • SOCAR conducts annual inventory of greenhouse gas emissions and pollutants released into the atmosphere. • SOCAR is a member of the International Association of Oil & Gas Producers (IOGP) since 2018. Member companies are encouraged to submit data on Environmental Performance Indicators for exploration and production activities to the IOGP. <p>The data has been included in SOCAR's Annual Report on Sustainable Development since 2011 and the indicators shown in the report are audited by one of the world's leading independent audit companies "Ernst & Young".</p>	<ul style="list-style-type: none"> • A functional digital platform through methodical tools for transparent accountability is planned to built. Aim of this platform is to establish a reliable measurement, reporting and verification ("Measurement Reporting and Verification" - MRV) system. • It is planned to continue reporting on all international platforms of which SOCAR is a member.



<p>Do you report absolute methane emissions within your sustainability report?</p> <p>If so provide link.</p>	<p>Yes</p> <p>https://www.socar.az/en/page/sustainable-development-reports</p>
<p>Do you report a methane intensity within your sustainability report?</p> <p>If so provide link.</p>	<p>Yes</p> <p>https://www.socar.az/en/page/sustainable-development-reports</p>
<p>What are your organisation's total absolute methane emissions?</p> <p>Provide a figure in tonnes.</p> <p>Provide latest data publicly available.</p>	<p>Based on the accountability system adopted by SOCAR, the CO2 equivalent amount of greenhouse gas emissions is calculated for each year.</p> <p>This indicator is reflected in the SOCAR Sustainable Development Report.</p> <p>According to SOCAR's 2022 inventory results, total greenhouse gas emissions 7,232.27 thousand tons of CO2 equivalent, including methane emissions of 117,630.11 tons.</p>
<p>State your methodology.</p>	<p>SOCAR uses the corporate methodology of "Methodology of calculation of greenhouse gases in the process of combustion in stationary sources".</p> <p>This methodology is based on IPCC methodology and recommendations, EMEP/EEA national emission inventory technical guidance documents.</p>
<p>State your reporting boundary.</p>	<p>SOCAR climate reports are submitted to the relevant state institutions of the Republic of Azerbaijan.</p>
<p>What are your organisation's methane intensity?</p> <p>Provide latest data publicly available.</p>	<p>SOCAR engaged the consulting company and started a carbon footprint assessment project for the entire portfolio.</p>





State your methodology.	SOCAR has "Upstream", "Midstream", "Downstream" segments. The general approach is to calculate the share of each of these segments in the total emission volume and determine the carbon/methane intensity of the product unit for each segment.
State your reporting boundary.	As mentioned above.
Do you have a methane emission target? 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.	SOCAR has defined its long-term climate goals in its low-carbon development strategy. Every year SOCAR determines the annual climate target and key performance indicators. At the end of each year, these targets are being monitored and analyzed. (the climate target is set in CO2 equivalent)

