KazMunayGas National Company JCS

2024 CDP Corporate Questionnaire 2024

Word version

Important: this export excludes unanswered questions
This document is an export of your organization's CDP questionnaire response. It contains all data points for questions that are answered or in progress. There may be questions or data points that you have been requested to provide, which are missing from this document because they are currently unanswered. Please note that it is your responsibility to verify that your questionnaire response is complete prior to submission. CDP will not be liable for any failure to do so.
Terms of disclosure for corporate questionnaire 2024 - CDP

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Contents

C1. Introduction

(1.1) In which language are you submitting your response?

Select from:

☑ English

(1.2) Select the currency used for all financial information disclosed throughout your response.

Select from:

☑ USD

(1.3) Provide an overview and introduction to your organization.

(1.3.2) Organization type

Select from:

☑ Publicly traded organization

(1.3.3) Description of organization

Shareholders of NC KazMunayGas JSC are Samruk-Kazyna Joint Stock Company (67.42%), Ministry of Finance of the Republic of Kazakhstan – (20%), National Bank of the Republic of Kazakhstan (9.58%) and and minority shareholders (3%). JSC National Company KazMunayGas (hereafter - KMG, the Company) is Kazakhstan's leading vertically integrated oil and gas company, operating assets across the entire production cycle from the exploration and production of hydrocarbons to transportation, refining and services. Established in 2002, the Company represents the interests of the Republic of Kazakhstan in the national oil and gas industry. Outside of Kazakhstan, KMG has more than thousand fuel sales points in Romania and Georgia. As a member of the UN Global Compact, KMG recognizes the importance of climate change mitigation actions and intends to contribute to the achievement of SDG 13 "Climate Action". Climate change response and adaptation measures are incorporated in our strategic documents and corporate policies. In 2021, the KMG Development Strategy for a ten-year period was approved. Four strategic goals are built through the prism of sustainable development priorities. One of KMG's strategic goals "Sustainable development and gradual reduction of carbon intensity of production" provides for the improvement of the sustainable development system, which will ensure the integration of ESG principles into the Company's key business processes. In 2021, the Low-Carbon Development Program of JSC NC "KazMunayGas" for the period 2022-2031 (hereinafter - the Program) was developed and approved by the Board of Directors. The Program was developed in accordance with the legislation of the Republic of Kazakhstan, the KMG Charter, the Development Strategy of JSC NC "KazMunayGas" for the period 2022- 2031, the Emissions Management Policy in the group of companies of JSC NC "KazMunayGas", as well as other internal documents of KMG. This Program defines a unified low-carbon development framework as an integrated component of corporate governance and systematizes the Company's activities in the field of carbon footprint reduction. The integration of the low-carbon agenda into the

company's development strategy will not only contribute to the reduction of greenhouse gas emissions, but will also increase the investment attractiveness and competitiveness of the company in the context of the energy transition. The main objective of developing the Program is to identify KMG's climate ambitions, systematize main approaches and measures to reduce its carbon footprint, including, in particular: (i) Analysis of the available capacity and definition of KMG's climate goals. (ii) Identification of key areas of the company's development in the field of decarbonization and measures to achieve the established goals. (iii) Improving the company's capacity and awareness. Since 2020, the Company has been evaluated ESG-rating by the international rating agency "Sustainalytics" (Amsterdam, Netherlands). The key ESG-issues for KMG are carbon emissions from operations and emissions from the use of the Company's products, as well as the relationship with the communities in the regions of operation. KMG intends to continue systematic work to improve the level of ESG-rating and meet the objectives of managing and reducing ESG-risk ratings. Since 2012, the Company has been preparing a Sustainability Report in accordance with international non-financial reporting standards developed by the Global Reporting Initiative (GRI). KMG takes part in the Global Methane Initiative. Reduction of methane emissions is one of the strategic objectives of the Company. JSC NC "KazMunayGas" in 2020 signed a Memorandum on the creation of a joint research platform Caspian Environmental Protection Initiative (CEPI) for international oil companies operating in the Caspian region, in order to protect the environment and combine efforts to prevent emissions of pollutants into environment by developing and implementing joint preventive measures to combat climate change, which threatens the environmental stability factors of the Caspian region. Several global oil and gas companies have joined the initiative, including BP Azerbaijan, Equinor Absheron and Total Absheron. Taking into account the long-term trends in the energy transition, KMG is working towards creating its portfolio of low-carbon projects in order to maintain financial success in a zero- emission world in the future. The Low-Carbon Development Program till 2060 with short-term and medium-term goals is developing currently. As part of the implementation of the company's development strategy, in 2023 year KMG have developed the Water Management Program for 10 years period.
[Fixed row]

(1.4) State the end date of the year for which you are reporting data. For emissions data, indicate whether you will be providing emissions data for past reporting years.

(1.4.1) End date of reporting year

12/30/2023

(1.4.2) Alignment of this reporting period with your financial reporting period

Select from:

☑ Yes

(1.4.3) Indicate if you are providing emissions data for past reporting years

Select from:

☑ Yes

(1.4.4) Number of past reporting years you will be providing Scope 1 emissions data for

Select from:

☑ 3 years

(1.4.5) Number of past reporting years you will be providing Scope 2 emissions data for

Select from:

☑ 3 years

(1.4.6) Number of past reporting years you will be providing Scope 3 emissions data for

Select from:

☑ 3 years

[Fixed row]

(1.4.1) What is your organization's annual revenue for the reporting period?

18236000000

(1.5) Provide details on your reporting boundary.

	Is your reporting boundary for your CDP disclosure the same as that used in your financial statements?
	Select from: ☑ Yes

[Fixed row]

(1.6) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

ISIN code - bond

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ Yes

(1.6.2) Provide your unique identifier

ISIN XS1595713782 (RegS), US48667QAN51 (144A)

ISIN code - equity

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ Yes

(1.6.2) Provide your unique identifier

KZ1C00001122

CUSIP number

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

Ticker symbol

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

SEDOL code

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

LEI number

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

D-U-N-S number

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

Other unique identifier

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ No

ISIN code - bond

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ Yes

(1.6.2) Provide your unique identifier

ISIN XS1595714087 (RegS), US48667QAP00 (144A)

ISIN code - bond

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ Yes

(1.6.2) Provide your unique identifier

ISIN XS1807300105 (RegS), US48667QAQ82 (144A)

ISIN code - bond

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ Yes

(1.6.2) Provide your unique identifier

ISIN XS1807299331 (RegS), US48667QAS49 (144A)

ISIN code - bond

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ Yes

(1.6.2) Provide your unique identifier

ISIN XS2242422397 (RegS), US48126PAA03 (144A)

ISIN code - bond

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ Yes

(1.6.2) Provide your unique identifier

KZ2C00008969

ISIN code - bond

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ Yes

(1.6.2) Provide your unique identifier

KZ2C00009736

ISIN code - bond

(1.6.1) Does your organization use this unique identifier?

Select from:

☑ Yes

(1.6.2) Provide your unique identifier

KZ2C00010429
[Add row]

(1.7) Select the countries/areas in which you operate.

Select all that apply

☑ Georgia

☑ Kazakhstan

☑ Romania

(1.19) In which part of the oil and gas value chain does your organization operate?

Oil and gas value chain

☑ Chemicals

☑ Downstream

☑ Midstream

☑ Upstream

(1.24) Has your organization mapped its value chain?

(1.24.1) Value chain mapped

Select from:

☑ Yes, we have mapped or are currently in the process of mapping our value chain

(1.24.2) Value chain stages covered in mapping

Select all that apply

☑ Upstream value chain

(1.24.3) Highest supplier tier mapped

Select from:

☑ Tier 1 suppliers

(1.24.4) Highest supplier tier known but not mapped

Select from:

☑ Tier 2 suppliers

(1.24.7) Description of mapping process and coverage

KMG's sustainable development principles are reflected in its cooperation with contractors based on legality and transparency, compliance with contract conditions, incorruptibility and intolerance of any instances of corruption, and in selection of contractors based on a combination of the following factors: best price, quality and conditions, and contractor's goodwill. At that, KMG requires the contractors to makes reciprocal commitments to comply with applicable laws, treat employees fairly, not use child labour, ensure safe working conditions, protect the environment and adhere to other principles of ethical conduct. These conditions are included in the conditions of contracts concluded by KMG with its contractors in order to respect labour rights and create favourable working conditions for citizens of the Republic of Kazakhstan, protect children's rights and ensure environmental safety According to KMG, these actions will help reduce the number of cases of misconduct by companies cooperating with KMG. At the same time the procurement process is controlled by a shareholder Samruk-Kazyna JSC.
[Fixed row]

(1.24.1) Have you mapped where in your direct operations or elsewhere in your value chain plastics are produced, commercialized, used, and/or disposed of?

	Plastics mapping	Primary reason for not mapping plastics in your value chain	Explain why your organization has not mapped plastics in your value chain
	Select from: ☑ No, but we plan to within the next two years	*Select from:* ☑ Other, please specify **:**According to preliminary estimates, plastic is used in an insignificant amount	*According to preliminary estimates, plastic is used in an insignificant amount*

[Fixed row]

C2. Identification, assessment, and management of dependencies, impacts, risks, and opportunities

(2.1) How does your organization define short-, medium-, and long-term time horizons in relation to the identification, assessment, and management of your environmental dependencies, impacts, risks, and opportunities?

Short-term

(2.1.1) From (years)

0

(2.1.3) To (years)

1

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Short-term time horizons are determined based on the information in the Cash Budget Form, which includes income and expenses of the company, affecting the possibility of occurrence and prevention of risk. Short-term horizons are determined on the basis of annual and current plans of production activities and development of the company, which determine the position of the Company, promptly responding to global challenges and meeting the requirements of sustainable development.

Medium-term

(2.1.1) From (years)

1

(2.1.3) To (years)

5

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Medium-term planning corresponds to the KMG Group Development Plan and business plans of subsidiaries and affiliates, which are adopted for a 5-year period. In addition, the Nationally Determined Contribution to the global response to climate change (or NDCs) is one of the main documents that is used to build medium term strategic vision.

Long-term

(2.1.1) From (years)

5

(2.1.2) Is your long-term time horizon open ended?

Select from:

☑ No

(2.1.3) To (years)

10

(2.1.4) How this time horizon is linked to strategic and/or financial planning

The long-term horizons are determined on the basis of KMG's development strategy for 2022-2031, which defines the Company's target state, promptly responding to global challenges and meeting the requirements of sustainable development. With long-term energy transition trends in mind, KMG is building its portfolio of low-carbon projects in order to maintain future financial success in a zero- emissions world. As part of long-term planning, KMG's Low-Carbon Development Program for the period 2022-2031 has been developed and approved. Also, long-term horizons are determined in accordance with the goals and principles outlined in the Strategy of the Republic of Kazakhstan to achieve carbon neutrality until 2060. So, the Low-Carbon Development Program till 2060 is developing currently and will be approved till the end of 2024.
[Fixed row]

(2.2) Does your organization have a process for identifying, assessing, and managing environmental dependencies and/or impacts?

	Process in place	Dependencies and/or impacts evaluated in this process
	Select from: ☑ Yes	*Select from:* ☑ Both dependencies and impacts

[Fixed row]

(2.2.1) Does your organization have a process for identifying, assessing, and managing environmental risks and/or opportunities?

	Process in place	Risks and/or opportunities evaluated in this process	Is this process informed by the dependencies and/or impacts process?
	Select from: ☑ Yes	*Select from:* ☑ Both risks and opportunities	*Select from:* ☑ Yes

[Fixed row]

(2.2.2) Provide details of your organization's process for identifying, assessing, and managing environmental dependencies, impacts, risks, and/or opportunities.

Row 1

(2.2.2.1) Environmental issue

Select all that apply

☑ Climate change

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(2.2.2.4) Coverage

Select from:

☑ Partial

(2.2.2.5) Supplier tiers covered

Select all that apply

☑ Tier 1 suppliers

(2.2.2.7) Type of assessment

Select from:

☑ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:

☑ More than once a year

(2.2.2.9) Time horizons covered

Select all that apply

☑ Short-term

☑ Medium-term

☑ Long-term

(2.2.2.10) Integration of risk management process

Select from:

☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

☑ Site-specific

☑ National

(2.2.2.12) Tools and methods used

Enterprise Risk Management

☑ Enterprise Risk Management

☑ ISO 31000 Risk Management Standard

International methodologies and standards

☑ Environmental Impact Assessment

☑ ISO 14001 Environmental Management Standard

(2.2.2.13) Risk types and criteria considered

Acute physical

☑ Cold wave/frost

☑ Drought

☑ Heat waves

☑ Heavy precipitation (rain, hail, snow/ice)

Chronic physical

☑ Water stress

Policy

☑ Carbon pricing mechanisms

☑ Changes to international law and bilateral agreements

☑ Changes to national legislation

(2.2.2.14) Partners and stakeholders considered

Select all that apply

☑ Customers

☑ Employees

☑ Investors

☑ Suppliers

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:

☑ Yes

(2.2.2.16) Further details of process

Climate risk management is a comprehensive, company-wide process aimed at identifying and controlling risks to ensure organizational growth and compliance with regulations. It consists of four main parts: 1. Identification: This phase involves recognizing potential climate-related risks across all KMG Group activities that could hinder the achievement of objectives. Risk Owners and Risk Factor Owners at all management levels are responsible for this identification using a variety of techniques. The procedures and tools for risk identification are detailed in internal risk management documents. 2. Assessment and Analysis: Identified risk factors

are assessed to determine their potential impact on the company's performance indicators. This involves analyzing both production and non-production risks based on their likelihood and potential damage. The company prioritizes quantitative methods for risk assessment and analysis, with methodologies outlined in risk management documents. 3. Risk Management: Risk owners develop controls, including policies and procedures, to manage production and non-production risks effectively. This phase includes establishing a risk management plan that ensures a unified approach across the organization. Business Continuity Plans are created for risks that could disrupt operations, considering factors like natural disasters and supply chain vulnerabilities. The overall risk profile of the company is monitored to ensure it remains within acceptable limits. 4. Monitoring and Reporting: Ongoing monitoring of risk management effectiveness is conducted quarterly, analyzing changes in risk parameters and the implementation of action plans. Responsible divisions collect information from Risk Owners to inform management bodies about risk dynamics as part of risk reporting. In 2023, KMG had a technical analysis supported by the EBRD to identify key climate risk factors under various scenarios and to prepare a disclosure report in line with TCFD recommendations. This effort aims to better manage climate-related risks and establish measurable climate indicators for investment planning and strategic action on climate change.

Row 2

(2.2.2.1) Environmental issue

Select all that apply

☑ Water

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(2.2.2.4) Coverage

Select from:

☑ Partial

(2.2.2.5) Supplier tiers covered

Select all that apply

☑ Tier 1 suppliers

(2.2.2.7) Type of assessment

Select from:

☑ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:

☑ More than once a year

(2.2.2.9) Time horizons covered

Select all that apply

☑ Short-term

☑ Medium-term

☑ Long-term

(2.2.2.10) Integration of risk management process

Select from:

☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

☑ Site-specific

☑ National

(2.2.2.12) Tools and methods used

Commercially/publicly available tools

☑ WRI Aqueduct

International methodologies and standards

☑ Environmental Impact Assessment

☑ ISO 14001 Environmental Management Standard

(2.2.2.13) Risk types and criteria considered

Acute physical

☑ Pollution incident

Chronic physical

☑ Water stress

Policy

☑ Increased pricing of water

☑ Changes to national legislation

☑ Regulation of discharge quality/volumes

☑ Increased difficulty in obtaining operations permits

☑ Changes to international law and bilateral agreements

☑ Increased difficulty in obtaining water withdrawals permit

☑ Mandatory water efficiency, conservation, recycling, or process standards

(2.2.2.14) Partners and stakeholders considered

Select all that apply

☑ Customers

☑ Employees

☑ Investors

☑ Regulators

☑ Suppliers

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:

☑ Yes

(2.2.2.16) Further details of process

KMG considers key stakeholders to ensure sustainable use of water sources and continuous access to all of Water availability. To assess the effectiveness of our water management strategies, we conduct comparative assessments of tools and processes, benchmark against peers and share best practices. We also track actual water usage at each site as well as projects that were completed to reduce consumption. Stakeholders are engaged at local level, as well as regulators, other users, local authorities, employees, suppliers and customers. In accordance with the Corporate Water Standard, the company on an annual basis assesses the realized and new potential risks in terms of the use of water resources. Methods for identifying risk factors include analysis of production / non-production processes, industry and international comparisons, collection and analysis of statistical data, analysis of the existing database of realized risk events, analysis of reporting, individual expert methods (interviewing) and group expert opinions. Monitoring is carried out by the responsible division of KMG through the quarterly collection of information on the dynamics of risks and the implementation of action plans and control procedures for their management.

Row 3

(2.2.2.1) Environmental issue

Select all that apply

☑ Biodiversity

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(2.2.2.3) Value chain stages covered

Select all that apply

☑ Direct operations
☑ Upstream value chain
☑ Downstream value chain

(2.2.2.4) Coverage

Select from:
☑ Partial

(2.2.2.5) Supplier tiers covered

Select all that apply
☑ Tier 1 suppliers

(2.2.2.7) Type of assessment

Select from:
☑ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

Select from:
☑ More than once a year

(2.2.2.9) Time horizons covered

Select all that apply
☑ Short-term
☑ Medium-term
☑ Long-term

(2.2.2.10) Integration of risk management process

Select from:

☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

Select all that apply

☑ Site-specific

☑ National

(2.2.2.12) Tools and methods used

International methodologies and standards

☑ Environmental Impact Assessment

☑ ISO 14001 Environmental Management Standard

(2.2.2.13) Risk types and criteria considered

Chronic physical

☑ Soil degradation

☑ Soil erosion

☑ Water stress

☑ Water quality at a basin/catchment level

(2.2.2.14) Partners and stakeholders considered

Select all that apply

☑ Customers

☑ Employees

☑ Investors

(2.2.2.15) Has this process changed since the previous reporting year?

Select from:

☑ Yes

(2.2.2.16) Further details of process

The company has an environmental policy that provides for risk management in the field of environmental protection, and the adoption of all possible measures to reduce the impact of taking into account the impact on biodiversity and preserving the migration path of animals in the planning and implementation of production activities.
[Add row]

(2.2.7) Are the interconnections between environmental dependencies, impacts, risks and/or opportunities assessed?

(2.2.7.1) Interconnections between environmental dependencies, impacts, risks and/or opportunities assessed

Select from:
☑ Yes

(2.2.7.2) Description of how interconnections are assessed

KMG evaluates the interconnections between environmental dependencies, impacts, risks, and opportunities. This process includes: Identification of environmental dependencies: Determining the resources and ecosystem services that our operations rely on. Assessment of environmental impacts: Analyzing how our activities affect the environment, including greenhouse gas emissions, water usage, and land use. Analysis of risks and opportunities: Evaluating potential business risks associated with climate change and other environmental factors, as well as identifying opportunities to enhance resilience and efficiency. In KMG's Low-carbon development program, Water managment programe and biodiversity conservation, we specifically assess climate-related physical and transition risks, opportunities, and dependencies. Also, these assessments are integrated into our corporate risk management system in accordance with international standards such as the Task Force on Climate-related Financial Disclosures (TCFD) The CEO Water Mandate Driving Harmonization of Water Related Terminology, Recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD) and the ISO 31000 and 14001. These comprehensive evaluations help us better understand and manage our environmental risks and opportunities, and demonstrate our commitment to sustainable development to stakeholders.
[Fixed row]

(2.3) Have you identified priority locations across your value chain?

(2.3.1) Identification of priority locations

Select from:

☑ Yes, we have identified priority locations

(2.3.2) Value chain stages where priority locations have been identified

Select all that apply

☑ Direct operations

(2.3.3) Types of priority locations identified

Sensitive locations

☑ Areas of limited water availability, flooding, and/or poor quality of water

Locations with substantive dependencies, impacts, risks, and/or opportunities

☑ Locations with substantive dependencies, impacts, risks, and/or opportunities relating to water

(2.3.4) Description of process to identify priority locations

According to studies conducted and published by the World Resource Institute (WRI), Kazakhstan is classified as a critical level of water resource exploitation and a very high level of water stress is predicted in the next 15-20 years. The Company also analyses and records the facilities of KMG SDEs located in regions with increased water scarcity according to WRI Aqueduct 1, relating to the basins of the Caspian Sea, the Syrdarya and the Ural Rivers. In regions with high water scarcity, KMG is developing water management actions to use less fresh water, increase recycled water and closely monitor water use. At the same time, we note that the need for water resources in production activities is a prerequisite for technological processes.

(2.3.5) Will you be disclosing a list/spatial map of priority locations?

Select from:

☑ No, we have a list/geospatial map of priority locations, but we will not be disclosing it

[Fixed row]

(2.4) How does your organization define substantive effects on your organization?

Risks

(2.4.1) Type of definition

Select all that apply

☑ Quantitative

(2.4.2) Indicator used to define substantive effect

Select from:

☑ EBITDA

(2.4.3) Change to indicator

Select from:

☑ Absolute increase

(2.4.6) Metrics considered in definition

Select all that apply

☑ Frequency of effect occurring

☑ Time horizon over which the effect occurs

☑ Likelihood of effect occurring

(2.4.7) Application of definition

Risk management in the Company allows to prevent the occurrence of risk events that affect the achievement of strategic and operational goals, and limit their impact when they occur. Risk management is an integral part of the Company's strategic planning and corporate governance process and maintaining financial stability. KMG has integrated the Corporate Risk Management System (CSMS) into the Company's key business and management processes. CSMS is a key component of the corporate governance system aimed at timely identification, assessment and monitoring of all significant risks, as well as taking timely and adequate measures to reduce the level of risks. According to the Risk Identification and Assessment Methodology (KMG-MD-986.3-37), the risk propensity is calculated in quantitative and qualitative terms. When calculating the propensity to risk, a reduction in the total amount of cash flows and an increase in the total amount of cash outflow provided for in the cash budget for the forecast period are taken into account. Quantitative risk assessment is carried out on the basis of a database of realized risk events, accumulated internal and external statistics. The main methods of risk assessment within the framework of this approach: - cost at risk (Value-at risk - VaR) - the maximum reduction in the cost of a financial investment on a certain planning horizon (for example, a month), which will not be exceeded with a high (predetermined) probability (usually 95% - VaR95% or 99% - VaR99%). The value of VaR has a monetary expression; - cash flows at risk (Cash-flowatrisk - CFaR) - the maximum decrease in the amount of cash receipts (or the maximum increase in expenses) caused by the impact of one or more risk factors, which will not be exceeded with a high (predetermined) probability (usually 95% or 99%) on a certain planning horizon. A major (significant) risk of the company is considered to be a risk that scores above the value of 50-75% of the quantitative risk appetite. KMG has an internal audit service (IAS), which evaluates the effectiveness of the risk management process, notifieshe Board of Directors of KMG of significant impacts in the KMG CSMS, and also develops recommendations for improving the risk management

process; evaluates the effectiveness of preventive measures on the risk/risk factor (control procedures) and prepares recommendations for elimination identified deficiencies (if necessary).

Opportunities

(2.4.1) Type of definition

Select all that apply

☑ Quantitative

(2.4.2) Indicator used to define substantive effect

Select from:

☑ Direct operating costs

(2.4.3) Change to indicator

Select from:

☑ Absolute increase

(2.4.5) Absolute increase/ decrease figure

0

(2.4.6) Metrics considered in definition

Select all that apply

☑ Frequency of effect occurring

☑ Time horizon over which the effect occurs

☑ Likelihood of effect occurring

(2.4.7) Application of definition

Risk management in the Company allows to prevent the occurrence of risk events that affect the achievement of strategic and operational goals, and limit their impact when they occur. Risk management is an integral part of the Company's strategic planning and corporate governance process and maintaining financial stability.

KMG has integrated the Corporate Risk Management System (CSMS) into the Company's key business and management processes. CSMS is a key component of the corporate governance system aimed at timely identification, assessment and monitoring of all significant risks, as well as taking timely and adequate measures to reduce the level of risks. According to the Risk Identification and Assessment Methodology (KMG-MD-986.3-37), the risk propensity is calculated in quantitative and qualitative terms. When calculating the propensity to risk, a reduction in the total amount of cash flows and an increase in the total amount of cash outflow provided for in the cash budget for the forecast period are taken into account. Quantitative risk assessment is carried out on the basis of a database of realized risk events, accumulated internal and external statistics. The main methods of risk assessment within the framework of this approach: - cost at risk (Value-at risk - VaR) - the maximum reduction in the cost of a financial investment on a certain planning horizon (for example, a month), which will not be exceeded with a high (predetermined) probability (usually 95% - VaR95% or 99% - VaR99%). The value of VaR has a monetary expression; - cash flows at risk (Cash-flowatrisk - CFaR) - the maximum decrease in the amount of cash receipts (or the maximum increase in expenses) caused by the impact of one or more risk factors, which will not be exceeded with a high (predetermined) probability (usually 95% or 99%) on a certain planning horizon. A major (significant) risk of the company is considered to be a risk that scores above the value of 50-75% of the quantitative risk appetite. KMG has an internal audit service (IAS), which evaluates the effectiveness of the risk management process, notifieshe Board of Directors of KMG of significant impacts in the KMG CSMS, and also develops recommendations for improving the risk management process; evaluates the effectiveness of preventive measures on the risk/risk factor (control procedures) and prepares recommendations for elimination identified deficiencies (if necessary).
[Add row]

(2.5) Does your organization identify and classify potential water pollutants associated with its activities that could have a detrimental impact on water ecosystems or human health?

(2.5.1) Identification and classification of potential water pollutants

Select from:

☑ Yes, we identify and classify our potential water pollutants

(2.5.2) How potential water pollutants are identified and classified

The identification and classification of pollutants during water discharges is carried out on the basis of the approved requirements of the legislation of the Republic of Kazakhstan. The standards for maximum permissible discharges of pollutants with wastewater into surface water bodies, terrain, filtration fields and wastewater storage are calculated for each wastewater outlet. The list of discharge outlets and their characteristics are determined on the basis of an inventory of outlets, which is accompanied by sampling and analytical studies. Along with the maximum permissible discharges, annual values of permissible discharges (limits) are set in tons per year for each discharge outlet and the enterprise as a whole. The list of pollutants is determined by the authorized state body. The KMG Group of Companies operates in accordance with the obtained permission for a certain period, in the absence of changes in technological processes that could affect the volume of wastewater discharged. According to the requirements established in the project and agreed with the state body, KMG enterprises conduct monitoring and, as per the form established by the legislation, the enterprises submit reports to the authorized body on a quarterly basis, which takes into account all sources of impact on water resources (control points), names of pollutants, established standards, the actual result of monitoring, and measures to eliminate violations (if any).

[Fixed row]

(2.5.1) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your activities.

Row 1

(2.5.1.1) Water pollutant category

Select from:

☑ Oil

(2.5.1.2) Description of water pollutant and potential impacts

Hydrocarbons are an integral part of the oil production, transportation and refining process. Oil spills or wastewater discharges release hydrocarbons into the environment and can affect it. The potential impact of hydrocarbons on the aquatic environment will depend on the scale of oil spills or emergencies. Hydrocarbons can affect marine / river habitats (fish, birds, plankton), microflora, algae, etc. Contamination of the coastline, bottom sediments, soil and groundwater is possible. Potential impacts from oil spills or emergencies are described in the draft assessment of impact by enterprises on the environment.

(2.5.1.3) Value chain stage

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(2.5.1.4) Actions and procedures to minimize adverse impacts

Select all that apply

☑ Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience

☑ Industrial and chemical accidents prevention, preparedness, and response

☑ Upgrading of process equipment/methods

(2.5.1.5) Please explain

Continuous oil spill response (OSR) readiness is an absolute priority for us. We impose high requirements to the environmental safety during oil operations: prior to commencement of any type of work, we conduct environmental studies in contract areas and assess our potential social and environmental impact, as well as monitor the impact, monitor emissions and monitor emergency situations - during and after operations. Representatives of the company were included in the Working Group to develop an environmental sensitivity map and make a decision to determine the sensitivity index for oil spill response at sea, inland waters and in the buffer zone of the Republic of Kazakhstan. Also we have an initiative to develop volunteering in emergency oil spill response. For example, KMG Systems & Services LLP a SDE of KMG, held training for volunteers for potential emergency oil spill response (EOSR) at the Bautino Offshore Operations Support Base (OOSB) in Mangystau Region as part of Kaspiige Qamqorlyq (Caring for the Caspian Sea) Volunteer Campaign initiated by the Company. The training course was attended by 18 volunteers, as well as five staff members of the Mangystau Region Department of Emergency Situations (DES).

Row 3

(2.5.1.1) Water pollutant category

Select from:

☑ Other, please specify **:**Chemicals

(2.5.1.2) Description of water pollutant and potential impacts

The content of various chemicals in wastewater, their volumes and the frequency of penetration into surface and ground water bodies depends on the initial composition of natural water components, on the use of acids for cleaning the bottomhole in oil and gas production, on the operating mode and on the quality of wastewater treatment.

(2.5.1.3) Value chain stage

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(2.5.1.4) Actions and procedures to minimize adverse impacts

Select all that apply

☑ Water recycling

☑ Upgrading of process equipment/methods

(2.5.1.5) Please explain

In order to improve the efficiency of water resources use, reduce the volume of fresh water consumption, increase the volume of recycling and reuse of treated wastewater, the following actions are being taken and are planned to be taken on a permanent basis in KMG SDEs: - update, reconstruction of existing units for mechanical, chemical and biological treatment of domestic wastewater, replacement of old treatment equipment with more modern modular units; - design of works to reconstruct evaporation fields; - retrofitting of treatment plants with additional technologies (reverse osmosis), which will subsequently make it possible to use this water to produce steam for industrial needs; - replacement of old drinking water pipelines with new ones to reduce leaks and process losses of fresh drinking water; - reconstruction of mechanical treatment facilities (MTF) within the framework of the TAZALYQ project, which will increase the capacity of MTF by 2 times and achieve the maximum permissible discharge limits for the content of oil products and suspended solids in wastewater sent to the biological treatment unit. - reconstruction of regulatory treated effluent canal and reclamation of Atyrau Refinery evaporation fields; - construction of a wastewater post-treatment unit using reverse osmosis under the TAZALYQ project; - complete reconstruction and update of the system of wastewater treatment facilities of PetroKazakhstan Oil Products LLP, subsequently
[Add row]

C3. Disclosure of risks and opportunities

(3.1) Have you identified any environmental risks which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

Climate change

(3.1.1) Environmental risks identified

Select from:

☑ Yes, both in direct operations and upstream/downstream value chain

Water

(3.1.1) Environmental risks identified

Select from:

☑ Yes, both in direct operations and upstream/downstream value chain

Plastics

(3.1.1) Environmental risks identified

Select from:

☑ No

(3.1.2) Primary reason why your organization does not consider itself to have environmental risks in your direct operations and/or upstream/downstream value chain

Select from:

☑ Other, please specify **:**Information about of plastic risk is not consider to our operation because of our activities.

(3.1.3) Please explain

Information about of plastic risk is not consider to our operation because of our activities.
[Fixed row]

(3.1.1) Provide details of the environmental risks identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk1

(3.1.1.3) Risk types and primary environmental risk driver

Policy

☑ Carbon pricing mechanisms

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Kazakhstan

(3.1.1.9) Organization-specific description of risk

14 KMG subsidiary entities are covered by Kazakhstan Emissions Trading System and 2 subsidiary entities are covered by European Emissions Trading System, therefore the risks of current regulation are included in the KMG Key Risk Map, assessed and identified as political and regulatory factors. As an oil and gas company, thr Company is a subject to the regulatory requirements of the Environmental Code of the Republic of Kazakhstan (RoK) related to climate change, including the Kazakhstan Emissions Trading System, the requirements of the RoK Law "On Energy Efficiency and Energy Conservation Improvement", the RoK Law "On Support for Renewable Energy Development". The Company complies with legislative requirements closely monitors and assesses risks associated with any changes by incorporating them into our enterprise risk management process. Also, we take into account the risks associated with the transition of the global economy to a low-carbon development path and with the measures taken in the countries where the Group operates to tighten regulation of greenhouse gas emissions and assess the necessary financial costs.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased direct costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Very likely

(3.1.1.14) Magnitude

Select from:

☑ High

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

KMG considers transitional climate risks (Policy and Legal, Technology, Market, Reputation). For example, the introduction of carbon pricing mechanisms to reduce greenhouse gas emissions; the transition of the state to the method of allocating allowances only using specific emission factors, as a result of which some enterprises may have a shortage of allowances; reducing energy consumption to reduce emissions; making energy-efficient solutions; strengthening measures to improve water efficiency and promoting more sustainable land use practices.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.23) Anticipated financial effect figure in the long-term – minimum (currency)

1165625635

(3.1.1.24) Anticipated financial effect figure in the long-term – maximum (currency)

1543772199

(3.1.1.25) Explanation of financial effect figure

The minimum costs include the purchase of a carbon credit shortfall, which is calculated from the forecast cost of carbon credits until 2030, and the cost of electricity, taking into account its rise in price due to rising carbon prices. The maximum costs include the payment of penalties for exceeding the amount of credits for GHG emissions until 2030 and the cost of electricity, including its rise due to increasing carbon prices.

(3.1.1.26) Primary response to risk

Pricing and credits

☑ Promotion/purchase of carbon credits

(3.1.1.27) Cost of response to risk

762706896

(3.1.1.28) Explanation of cost calculation

KMG has developed a Low-Carbon Development Program, which includes a direction to improve the energy efficiency of the Company and covers all business areas. The list of measures, which is considered cost-effective according to the results of the MACC-analysis, has the total implementation budget (CAPEX) in the amount of 305.77 million USD. The GHG emission reduction effect is 1.05 mln tCO2. In addition to energy efficiency measures, the Company has developed a portfolio of projects related to the increase of the share of renewable energy. In particular, KMG has set a goal of commissioning Renewable Energy facilities with a total capacity of at least 300 MW. The total investment for implementation of RES projects will be at least 450 million USD. The annual electric power generation by RES will reach 945 million kWh (by 2031). The implementation of projects in this area will make it possible to achieve an additional reduction of CO2 emissions by 0.6 million tonn.

(3.1.1.29) Description of response

KMG, while modeling the costs of the risk of increasing the price of carbon, considers the hard option, as the results of preliminary estimates indicate that at current prices for CO2 (1 per ton), the Republic of Kazakhstan will not be able to achieve Nationally Determined Contributions (NDCs). In this regard, KMG expects a tightening of carbon regulation, which will drive the growth of prices in the carbon market. In turn, the rising cost of carbon regulation will lead to an increase in prices for energy resources. Thus, the total portfolio of available measures (energy efficiency renewables) currently has a small reserve compared to the Company's GHG emission reduction target (reduction of 1.62 mln tCO2 by 2031).

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk1

(3.1.1.3) Risk types and primary environmental risk driver

Acute physical

☑ Pollution incident

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Kazakhstan

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Ural

(3.1.1.9) Organization-specific description of risk

The risk of oil spills during offshore operations was identified as a low probability risk, but disastrous when implemented

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Fines, penalties or enforcement orders

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Very unlikely

(3.1.1.14) Magnitude

Select from:

☑ High

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

As an oil spill can occur due to sudden emergencies, the most acceptable response method is environmental insurance against possible environmental pollution.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ No

(3.1.1.26) Primary response to risk

Policies and plans

☑ Increase insurance coverage

(3.1.1.27) Cost of response to risk

0

(3.1.1.28) Explanation of cost calculation

Since the event has not occurred, the possible financial consequences have not been calculated and will depend on the volume of the spill. At the same time we note KMG pays considerable attention to the measures the company uses to ensure the integrity of pipelines as an important aspect of industrial and environmental safety.

(3.1.1.29) Description of response

Since the event has not occurred, the possible financial consequences have not been calculated and will depend on the volume of the spill. At the same time we note KMG pays considerable attention to the measures the company uses to ensure the integrity of pipelines as an important aspect of industrial and environmental safety.

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk2

(3.1.1.3) Risk types and primary environmental risk driver

Policy

☑ Changes to national legislation

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Kazakhstan

(3.1.1.9) Organization-specific description of risk

In accordance with Article 289 of the Environmental Code of Kazakhstan, GHG from hydrocarbon production are subject to carbon regulation. 14 subsidiaries of KMG fall under the Kazakhstan Emissions Trading Scheme and 2 subsidiaries are covered under the European Emissions Trading Scheme, so the risks of current regulation are included in the Map of key risks of KMG, assessed and identified as political and regulatory factors: - volumes of issued quotas; -withdrawal of issued quotas due to reduction of production capacity carbon pricing/ pricing mechanisms to reduce greenhouse gas emissions; - allocation of quotas on the basis of benchmarking; - reducing energy consumption to reduce emissions; - consideration of Energy Efficiency parameters in decision making. Risks are monitored on a quarterly basis. Subsidiaries monitor greenhouse gas emissions. Subsidiaries are required to submit annual verified greenhouse gas emissions inventory reports to the authorized environmental authority and apply for additional allowances in a timely manner, if necessary. Current regulatory risks are minimized through internal regulations, such as: - Strategy 2022-2031; - Low Carbon Development Program 2022-2031; - Environmental Policy; - Emissions Management Policy. Market Relevant, always included.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased direct costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Virtually certain

(3.1.1.14) Magnitude

Select from:

☑ Medium-high

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

As governments around the world implement stricter regulations to address climate change, oil and gas companies could face increased compliance costs, carbon pricing mechanisms, and requirements to reduce greenhouse gas (GHG) emissions. This could impact the profitability of these companies and their ability to operate in certain jurisdictions; KMGs actively participates in working groups with the Ministry of Ecology and Natural Resources to improve carbon regulation, KazETS, and is developing an internal carbon price mechanism for assessing investment projects.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

11533998

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

11533998

(3.1.1.25) Explanation of financial effect figure

The financial impact includes the amount of penalties, which, in accordance with the Code of Administrative Offences of the Republic of Kazakhstan, is 35.9 per ton of carbon dioxide, which exceeds the assigned quota.

(3.1.1.26) Primary response to risk

Policies and plans

☑ Develop a climate transition plan

(3.1.1.27) Cost of response to risk

376559

(3.1.1.28) Explanation of cost calculation

In order to prevent quota shortages, intra-holding procurement was carried out between two KMG subsidiaries at an exchange quotation price, which is regulated by the Environmental Legislation of the Republic of Kazakhstan. The cost of one quota in 2021 on the exchange was 1.2 USD.

(3.1.1.29) Description of response

To avoid further risks of fines and the need to buy quotas, which will become more expensive as carbon regulation tightens, KMG has developed and approved a Low- Carbon Development Program for the period 2022-2031, which implementation will reduce to 1.6 million tons of CO2 by 2031.

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk3

(3.1.1.3) Risk types and primary environmental risk driver

Policy

☑ Changes to international law and bilateral agreements

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Kazakhstan

(3.1.1.9) Organization-specific description of risk

Currently, only carbon dioxide falls under the regulation of greenhouse gases. At the moment, the issue of including methane in the regulation of greenhouse gas emissions is being discussed. In Kazakhstan, when regulating methane, the most vulnerable sector is the oil and gas sector. In particular, KMG has a sufficient number of fugitive sources which are not currently metered. Methane emissions regulation, in turn, will require tracking all methane leaks and taking measures to eliminate them, which will require additional financial costs and re-equipment of the Company's technological Park.

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased direct costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ About as likely as not

(3.1.1.14) Magnitude

Select from:

☑ Medium

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The anticipated effects depend on the nature of the changes: 1. Regulatory Compliance Costs - Increased Compliance Requirements: Stricter environmental regulations may lead to increased operational costs for compliance, such as investing in cleaner technologies or processes. - Legal Risks: Companies might face higher legal costs if new laws introduce uncertainty or require them to change their operations to avoid penalties or lawsuits. 2. Access to Resources: - Exploration and Extraction Rights: Changes in laws could impact access to oil and gas reserves. If a country tightens regulations on foreign investments or resource extraction, companies could see reduced access to lucrative drilling sites. - Trade Barriers: New trade laws or tariffs could affect the ability to import equipment or export oil and gas, impacting profitability. 3. Market Dynamics: - Price Volatility: Changes in regulations can shift market dynamics, potentially leading to increased price volatility in oil and gas markets. Companies with fixed long-term contracts may be at risk if market prices fall. - Supply and Demand Shifts: Regulations that promote renewable energy sources may decrease demand for oil and gas over time, which could lead to lower revenues for traditional fossil fuel companies. 4. nvestment Climate: -

Attractiveness to Investors: Changes in international laws can influence investor sentiment. Favorable laws (e.g., tax incentives for clean energy initiatives) might attract investment, while unfavorable regulations could deter it. - Cost of Capital: If new regulations increase risk perceptions or operational costs, the cost of capital may rise for oil and gas companies. 5. Reputational Risks: Changes in environmental laws may shift public perception and increase pressure on companies to adhere to environmental, social and governance (ESG) standards, impacting share prices and stakeholder relationships.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ No

(3.1.1.26) Primary response to risk

Policies and plans

☑ Develop a climate transition plan

(3.1.1.27) Cost of response to risk

1420867

(3.1.1.28) Explanation of cost calculation

This sum includes the cost of LDAR equipment and personnel training.

(3.1.1.29) Description of response

To reduce this risk and determine reliable methane leaks, KMG, as part of its Low Carbon Development Program, has set a goal to implement an LDAR system at its upstream assets.

Climate change

(3.1.1.1) Risk identifier

Select from:

☑ Risk4

(3.1.1.3) Risk types and primary environmental risk driver

Technology

☑ Other technology risk, please specify **:**electricity tariff increase

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Kazakhstan

(3.1.1.9) Organization-specific description of risk

Electricity prices in Kazakhstan are among the lowest in the world. Implementation of the best available techniques (BAT) provided for by the new Environmental to the Code of the Republic of Kazakhstan, it will require additional costs for energy-producing organizations, in particular, for large fuel-burning plants. In accordance with the principles. According to the EU BAT, dust cleaning technologies should be provided for such installations, as well as the removal of sulfur oxides (SOx) and nitrogen oxides (NOx) in the flue tracts. The introduction of appropriate measures will entail an additional increase ьin the cost of purchased electricity

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased direct costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Very likely

(3.1.1.14) Magnitude

Select from:

☑ High

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

The adoption of new technologies, such as electric vehicles and renewable energy sources, could disrupt traditional business models of oil and gas companies. These companies might need to adapt by investing in new technologies, which could entail significant costs and uncertainties; KMG is actively developing projects in the field of EV charging infrastructure in Kazakhstan and Romania, low-carbon fuel options (SAF, biodiesel, green hydrogen), and renewable energy sources.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

109688

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

109688

(3.1.1.25) Explanation of financial effect figure

The financial effect includes the sum of the total costs of KMG for the purchase of electricity with an increase in the electricity tariff in the horizon until 2030

(3.1.1.26) Primary response to risk

Diversification

☑ Other diversification, please specify **:**develop a climate transition plan, increase the renewable energy amount

(3.1.1.27) Cost of response to risk

1799892890

(3.1.1.28) Explanation of cost calculation

KMG has developed a Low-carbon Development Program, within the framework of which a number of model analyses were carried out to assess the impact of purchased electricity costs on the company's costs. Based on the presented data of the model analysis, the cost of electricity in the country will inevitably grow, both under the influence of the national carbon regulation, and taking into account the need to cover additional capital and investment costs in the renewal of capacities and the introduction of renewable energy in the country's energy system

(3.1.1.29) Description of response

Considering the fact that in comparison with GDP per capita, the price of electricity in Kazakhstan is the lowest in the region, the prospect of price growth in the future is realistic.

Water

(3.1.1.1) Risk identifier

Select from:

☑ Risk2

(3.1.1.3) Risk types and primary environmental risk driver

Chronic physical

☑ Water stress

(3.1.1.4) Value chain stage where the risk occurs

Select from:

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

Select all that apply

☑ Kazakhstan

(3.1.1.7) River basin where the risk occurs

Select all that apply

☑ Ural

☑ Other, please specify **:**Caspian sea

(3.1.1.9) Organization-specific description of risk

«Water stress» negatively affects the ability to increase capacity of the performance capacity

(3.1.1.11) Primary financial effect of the risk

Select from:

☑ Increased capital expenditures

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

Select from:

☑ Unlikely

(3.1.1.14) Magnitude

Select from:

☑ High

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

KMG analyzes and records the Company's production facilities located in regions with increased water deficit according to the WRI Aqueduct water stress indicator, related to the Caspian Sea, Syr Darya and Ural river basins. In regions with high water deficit, KMG develops water management measures to use less fresh water, increase recycled water and carefully monitor water use. At the same time, we note that the need for water resources in production activities is a necessary condition for technological processes.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

Select from:

☑ No

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Improve maintenance of infrastructure

(3.1.1.27) Cost of response to risk

0

(3.1.1.28) Explanation of cost calculation

Possible financial costs in the event of risk realization have not yet been calculated; they will be calculated in the future.

(3.1.1.29) Description of response

Possible financial costs in the event of risk realization have not yet been calculated; they will be calculated in the future.
[Add row]

(3.1.2) Provide the amount and proportion of your financial metrics from the reporting year that are vulnerable to the substantive effects of environmental risks.

Climate change

(3.1.2.1) Financial metric

Select from:

☑ Other, please specify **:**EBITDA

(3.1.2.2) Amount of financial metric vulnerable to transition risks for this environmental issue (unit currency as selected in 1.2)

232700000

(3.1.2.3) % of total financial metric vulnerable to transition risks for this environmental issue

Select from:

☑ 1-10%

(3.1.2.4) Amount of financial metric vulnerable to physical risks for this environmental issue (unit currency as selected in 1.2)

95500000

(3.1.2.5) % of total financial metric vulnerable to physical risks for this environmental issue

Select from:

☑ 1-10%

(3.1.2.7) Explanation of financial figures

Last year, tKMG made an analyses of key transition and physical risks for the KMG's assets financial impact in different scenarios; NDC, • Below 2ºC, • Delayed transition (assumes global annual emissions do not decrease until 2030), • Net Zero 2050 (an ambitious scenario that limits global warming to 1.5 C through stringent climate policies and innovation). Based on the results of the analysis of key transition and physical risks for the KMG's assets financial impact has different magnitudes in different scenarios. However, it is observed that transition risks may have a more significant impact on the KMG's financial performance. Transition risks may prevail over the financial impact of physical ones. At the same time tightening carbon policies will impose an additional financial burden in terms of transition risks, but reduce the burden of physical risks. Analysis shows that transition risks may have more significant financial impact on KMG' assets across all of the scenarios. Transition risks the most significantly impacting financial performance are carbon pricing and change in oil demand. Generally, more vulnerable to those transition risks assets are exploration and refinery. Significance of the impact varies by jurisdiction. For instance, for assets located in Kazakhstan carbon pricing is less intense due to market and regulation structures then for those located in Romania. On the other had analysis shows that physical risks are more material in Kazakhstan, mainly due to historically more dry and hot climate conditions which are according to analysis will be more sever in the future across all of the scenarios, resulting in financial impact of climate indicators related to the high temperature. Depending on a scenario the potential combined impact of climate-related risks and

opportunities may result into 0% to 2.4% in short-term, 0% to 5.1% in medium-term and 0% to 10.1% in long-term horizons of group EBIDTA margin. The financial indicataros show in table covers scenario NDC.

Water

(3.1.2.1) Financial metric

Select from:

☑ Other, please specify **:**Legislation change

(3.1.2.2) Amount of financial metric vulnerable to transition risks for this environmental issue (unit currency as selected in 1.2)

0

(3.1.2.3) % of total financial metric vulnerable to transition risks for this environmental issue

Select from:

☑ Less than 1%

(3.1.2.4) Amount of financial metric vulnerable to physical risks for this environmental issue (unit currency as selected in 1.2)

0

(3.1.2.5) % of total financial metric vulnerable to physical risks for this environmental issue

Select from:

☑ Less than 1%

(3.1.2.7) Explanation of financial figures

Risks that had a significant impact in 2023 or may have a significant impact on operations in the future have not yet been identified. A draft of a new Water Code of the Republic of Kazakhstan is being developed, which will clarify the requirements for enterprises in terms of increasing water reuse. KMG is actively participating in the consideration of the draft document. If such risks arise, we will evaluate their financial impact on the company.
[Add row]

(3.2) Within each river basin, how many facilities are exposed to substantive effects of water-related risks, and what percentage of your total number of facilities does this represent?

Row 1

(3.2.1) Country/Area & River basin

Kazakhstan

☑ Ural

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☑ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

1

(3.2.4) % of your organization's total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☑ Less than 1%

(3.2.9) % organization's global oil and gas production volume that could be affected by these facilities

Select from:

☑ Less than 1%

(3.2.10) % organization's total global revenue that could be affected

Select from:

☑ Less than 1%

(3.2.11) Please explain

Most of the facilities of KMG's subsidiaries and affiliates are located in the western region of Kazakhstan, where the problem of "water deficit" persists, and there is also a dependence of water sources on adjacent and neighboring countries, which increases the risk of "water stress" for production needs and can significantly affect the company financially or strategically. The Company's activities have the most significant impact on water bodies in the western region of Kazakhstan (the Ural River), which are of special ecological, economic, historical, cultural and recreational value. In order to prevent negative impacts on sensitive ecosystems, regular environmental monitoring is carried out. Atyrau Oil Refinery takes water from the Ural River The "water deficit" of the Ural River is high due to the following factors: - uneven distribution of fresh water; - high variability of runoff; - the water of the Ural River in Kazakhstan is characterized as "moderately" polluted. There is a high demand for clean and fresh water for the needs of the population, industry, fisheries, agriculture. One of KMG's initiatives is to address issues of fresh water conservation, where the Company is implementing projects to reduce discharges and reduce fresh water intake from natural sources. One of the significant projects is the TAZALYQ project at the Atyrau Oil Refinery, aimed at modernizing treatment facilities, building modern treatment facilities and reducing water intake from the Ural River.

Row 2

(3.2.1) Country/Area & River basin

Kazakhstan

☑ Other, please specify **:**Caspian sea

(3.2.2) Value chain stages where facilities at risk have been identified in this river basin

Select all that apply

☑ Direct operations

(3.2.3) Number of facilities within direct operations exposed to water-related risk in this river basin

2

(3.2.4) % of your organization’s total facilities within direct operations exposed to water-related risk in this river basin

Select from:

☑ 26-50%

(3.2.9) % organization’s global oil and gas production volume that could be affected by these facilities

Select from:

☑ 26-50%

(3.2.10) % organization’s total global revenue that could be affected

Select from:

☑ 21-30%

(3.2.11) Please explain

The risk of oil spills during offshore operations in the corporate system of identification and risk assessment is defined as low probability, but disastrous when implemented. KMG's readiness for oil spills is based on the application of internal procedures and policies developed in accordance with the legislation of the Republic of Kazakhstan and sound international practice for the exploitation of oil and gas fields. KMG possesses an extensive reserve of oil spill response equipment, modern technologies and a specialized division. All equipment and specially trained personnel are in a state of constant readiness. To regularly practice planning, tactics and use of equipment in oil spill response, KMG annually develops a comprehensive training and incident command team exercises plan, approved by the Emergency Department of the Emergency Committee of the Ministry of Internal Affairs of the Republic of Kazakhstan. The plan includes conducting regular training and oil spill response exercises, as well as Republican exercises jointly with the Ministry of Emergency of the Republic of Kazakhstan, in order to test readiness at the regional level and increase the efficiency of resource mobilization. In the unlikely event of an oil spill, international resources will be mobilized, while OSR activities will be coordinated by the Republican authority in accordance with the National Prevention and OSR Plan.
[Add row]

(3.3) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

	Water-related regulatory violations	Comment

	Water-related regulatory violations	Comment
	Select from: ☑ No	*In 2023, there are no fines for the KMG group of companies*

[Fixed row]

(3.3.1) Provide the total number and financial value of all water-related fines.

(3.3.1.1) Total number of fines

0

(3.3.1.2) Total value of fines

0

(3.3.1.3) % of total facilities/operations associated

0

(3.3.1.4) Number of fines compared to previous reporting year

Select from:

☑ Much lower

(3.3.1.5) Comment

In 2023, there are no fines for the KMG group of companies
[Fixed row]

(3.3.2) Provide details for all significant fines, enforcement orders and/or other penalties for water-related regulatory violations in the reporting year, and your plans for resolving them.

Row 1

(3.3.2.1) Type of penalty

Select from:

☑ Other penalty type, please specify **:**In 2023, there are no fines for the KMK group of companies

(3.3.2.2) Financial impact

0

(3.3.2.3) Country/Area & River basin

Kazakhstan

☑ Ural

(3.3.2.4) Type of incident

Select from:

☑ Other, please specify **:**In 2023, there are no fines for the KMK group of companies

(3.3.2.5) Description of penalty, incident, regulatory violation, significance, and resolution

In 2023, there are no fines for the KMG group of companies
[Add row]

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

Select from:

☑ Yes

(3.5.1) Select the carbon pricing regulation(s) which impact your operations.

Select all that apply

☑ EU ETS

☑ Kazakhstan ETS

(3.5.2) Provide details of each Emissions Trading Scheme (ETS) your organization is regulated by.

EU ETS

(3.5.2.1) % of Scope 1 emissions covered by the ETS

100

(3.5.2.2) % of Scope 2 emissions covered by the ETS

0

(3.5.2.3) Period start date

12/31/2022

(3.5.2.4) Period end date

12/30/2023

(3.5.2.5) Allowances allocated

779676

(3.5.2.6) Allowances purchased

99175

(3.5.2.7) Verified Scope 1 emissions in metric tons CO2e

877115

(3.5.2.8) Verified Scope 2 emissions in metric tons CO2e

0

(3.5.2.9) Details of ownership

Select from:

☑ Facilities we own and operate

(3.5.2.10) Comment

Information is provided on refineries located in Romania that received 779,676 allowances under the EU ETS scheme, but emitted 877,115 tons of CO2. Therefore. 99,175 additional allowances were purchased.

Kazakhstan ETS

(3.5.2.1) % of Scope 1 emissions covered by the ETS

100

(3.5.2.2) % of Scope 2 emissions covered by the ETS

0

(3.5.2.3) Period start date

12/31/2022

(3.5.2.4) Period end date

12/30/2023

(3.5.2.5) Allowances allocated

7468404

(3.5.2.6) Allowances purchased

135241

(3.5.2.7) Verified Scope 1 emissions in metric tons CO2e

6544836

(3.5.2.8) Verified Scope 2 emissions in metric tons CO2e

0

(3.5.2.9) Details of ownership

Select from:

☑ Facilities we own and operate

(3.5.2.10) Comment

Quotas for plant operators (subsidiaries) are allocated for each plant individually for a period of 1 year for the period of the National Plan. 12 subsidiaries of KMG are included in the quota system. The volume of free quotas for 12 subsidiaries in accordance with the National Quota Allocation Plan amounted to 6,855,394 tons of CO2. In addition, 4 subsidiaries received in 2023 additional quotas from the state on a free-of-charge basis in the amount due to increase of production capacities and launch of new stationary sources. The volume of additional quotas amounted to 613010 tons of CO2. Total free quotas for the whole KMG group of companies - 7,468,404 tons of CO2. Each subsidiary company reports to the state authority on its deficit/surplus. In 2023, 2 subsidiaries are experiencing a deficit of quotas, so they plan to buy 135,241 tons of CO2 quotas until the end of 2024 (this is allowed by environmental legislation).
[Fixed row]

(3.5.4) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

KMG actively monitors the current legislation on carbon regulation, as well as the trends of its tightening. To reduce the risks associated with carbon regulation, KMG's climate strategy is represented by a number of directions: 1. GHG emission reduction by improving the Company's energy efficiency, developing RES and setting its offset policy; 2. GHG management improvement through introducing the Company's own emission monitoring and inventory system, implementation of the

corporate GHG cadastre; 3. Consultations with authorized government bodies and business associations on possible changes to the law and the development of adaptive measures; 4. Studying opportunities to develop new low-carbon products and services to keep the Company competitive.The development and implementation of the corporate system of monitoring and inventory of greenhouse gas emissions will allow to automate the calculations, make their forecasts and take objective measures to reduce, so as not to exceed the issued allowances.As part of the ongoing consultations, KMG expects that in the future the Government of the Republic of Kazakhstan will regulate methane emissions. To be prepared for this challenge, KMG has planned to implement an LDAR system. Based on the pace of tightening of state regulation of greenhouse gases, different scenarios for the company's development are being developed.In addition, given the goal of the Republic of Kazakhstan to achieve carbon neutrality, as well as the desire of world markets to purchase products with a low carbon footprint, KMG is engaged in research on the application of CCUS in Kazakhstan. A center of competence for hydrogen energy has also been formed. The possibility of biofuel production for transport is being studied.Apart from the implementation of the Action Plan of the Low-Carbon Development Program, KazMunaiGas is also elaborating other aspects of the internal carbon policy, in particular the use of internal carbon pricing mechanisms.in 2022, modeling of the carbon footprint of projects, as well as related financial aspects, including estimated costs and revenues from participation in Kazakhstan ETS and potential revenues from the implementation of offset projects, became an obligatory part of a comprehensive feasibility study of new capital projects. To evaluate the financial aspects of projects, a shadow carbon price is used, which is calculated and predicted in accordance with the price of quotas within the framework of Kazakhstan ETS. This assessment allows us to support the long-term formation of a portfolio of assets that contributes to achieving the goal of reducing the company's carbon footprint, as well as to assess the costs and sustainability of projects to external carbon regulation.Besides to the mandatory use of a shadow price when evaluating projects, in 2022 KazMunaiGas approved an Internal Carbon Pricing Program that describes conceptual approaches to the implementation of internal carbon payments and the creation of the company's Carbon Fund. These measures are being considered to further encourage subsidiaries and dependent organizations to reduce greenhouse gas emissions, as well as to form an additional source of financing for low-carbon projects. Since there is no such experience in Kazakhstan, in 2023 a detailed development of a mechanism for the introduction of internal carbon collection and the creation of a Carbon Fund is expected, taking into account compliance with current tax legislation, internal regulations of the company and the procedure for interaction with other stakeholders for enterprises that are covered by the Internal Carbon Pricing Program.

(3.6) Have you identified any environmental opportunities which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

	Environmental opportunities identified
Climate change	*Select from:* ☑ Yes, we have identified opportunities, and some/all are being realized
Water	*Select from:* ☑ Yes, we have identified opportunities, and some/all are being realized

[Fixed row]

(3.6.1) Provide details of the environmental opportunities identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp1

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Resource efficiency

☑ Increased efficiency of production and/or distribution processes

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Kazakhstan

(3.6.1.8) Organization specific description

KMG has its own heat and electricity generation assets and buys these types of resources from third parties. Improvement of energy efficiency will allow the Company to reduce energy dependence on third parties and save financial resources. By improving operational efficiency, KMG plans to reduce its own consumption of fuel resources (gas, fuel oil), which can be sold to third parties.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Reduced indirect (operating) costs

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Very likely (90–100%)

(3.6.1.12) Magnitude

Select from:

☑ High

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

By improving energy efficiency, a company can reduce its energy consumption, leading to lower utility bills and operating costs. More efficient equipment and processes often require less maintenance and can result in longer lifespans, cutting down on repair and replacement costs. As operational costs decrease while revenue remains stable or increases, profit margins will likely improve, positively impacting the company's overall financial position. Companies that adopt energy-efficient practices may become more competitive due to lower costs, allowing them to price competitively while maintaining profitability, which can enhance market positioning. As operational costs decrease, free cash flow can increase, providing more funds for investments, dividends, or debt repayment.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.21) Anticipated financial effect figure in the long-term - minimum (currency)

838057050

(3.6.1.22) Anticipated financial effect figure in the long-term – maximum (currency)

838057050

(3.6.1.23) Explanation of financial effect figures

Additional costs for the purchase of electricity from third parties, associated with tariffs that are increasing due to the tightening of carbon regulation, as well as the modernization and commissioning of new power assets.

(3.6.1.24) Cost to realize opportunity

308594560

(3.6.1.25) Explanation of cost calculation

Improving the Company's energy efficiency is a minimum plan, with a more significant rise in the cost of energy resources, the MACC-analysis demonstrates that KMG is able to increase the number of energy efficiency measures.

(3.6.1.26) Strategy to realize opportunity

The possibility of improving operational efficiency, based on the recommendations of energy audits, proposals from the energy services of KMG subsidiaries and affiliates was assessed. A MACC analysis was carried out, which ranked the measures in terms of payback, taking into account the price of carbon. The implementation of the planned set of measures will reduce the energy intensity of the Company by 10%.

Water

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp1

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Reputational capital

☑ Strengthened social license to operate

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Kazakhstan

(3.6.1.6) River basin where the opportunity occurs

Select all that apply

☑ Other, please specify **:**Caspian sea

(3.6.1.8) Organization specific description

KMG implements social projects aimed at solving water supply issues in the regions where it operates, such as "Reconstruction of the Astrakhan-Mangyshlak Water Main" and "Construction of Seawater Desalination Plant in Kenderli". In December 2023, the implementation of the first stage of the project "Reconstruction and Expansion of the Astrakhan-Mangyshlak Water Main" was completed. The project is aimed at increasing the capacity of the Astrakhan-Mangyshlak Water Main and renewing worn-out equipment to supply water to the population, agricultural producers, industrial and oil and gas producers of Atyrau and Mangistau regions. The Astrakhan Mangyshlak Water Main is the only centralised source of water supply for consumers in Kurmangazy, Isatai and Zhylyoi Districts of Atyrau Region, as well as for Zhanaozen, Beineu, Mangistau, Karakiya and Tulparagan Districts of Mangistau Region. Every year, the population's water consumption grows by 4-5%. The construction of a 50,000 m3 /day Seawater Desalination Plant in Kenderli has also started. This project will solve the problem of drinking water shortage for the residents of Zhanaozen and will also have a multiplier effect on the development of tourism, entrepreneurship and agriculture. Construction is planned to be completed by the end of 2024, and the plant is expected to reach its design capacity in spring 2025. Earlier, at the Karazhanbas field of Karazhanbasmunay JSC in Mangistau region, a formation water desalination plant was l

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Returns on investment in low-emission technology

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Very likely (90–100%)

(3.6.1.12) Magnitude

Select from:

☑ Unknown

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Reliable water supply can lead to increased efficiency in extraction and refining processes. This can boost production levels, thereby generating higher revenues

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ No

(3.6.1.24) Cost to realize opportunity

235507078

(3.6.1.25) Explanation of cost calculation

The amount includes the costs of implementing the Astrakhan-Mangylshak project. The calculations of the financial costs of the opportunity of other projects will be carried out later, after the potential for project implementation is determined.

(3.6.1.26) Strategy to realize opportunity

Social projects are still at the implementation stage, the financial cost will be specified based on the results of the project.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp2

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Products and services

☑ Other products and services opportunity, please specify **:**Development and/or expansion of low emission goods and services

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Kazakhstan

(3.6.1.8) Organization specific description

KMG plans to implement RES projects both for its own needs and for the sale of green energy to third parties. At the same time, producing gas at its own fields, KMG is able to independently carry out the construction of gas plants to compensate for the time of lower energy production from RES. This significantly increases the Company's competitiveness in comparison with Renewable Energy facilities, which have to seek balancing capacity in the general market or install batteries.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased revenues resulting from increased demand for products and services

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Very likely (90–100%)

(3.6.1.12) Magnitude

Select from:

☑ Medium

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Engaging in RES projects can diversify revenue streams beyond traditional oil and gas operations, potentially providing a new income source. Companies that diversify into renewables may strengthen their market positioning and appeal to socially conscious investors. Transitioning to or integrating RES projects may require substantial upfront capital investment, potentially impacting short-term cash flow negatively. Governments often support RES projects through incentives, which can improve cash flow by reducing net costs or providing additional revenue.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.21) Anticipated financial effect figure in the long-term - minimum (currency)

237825264

(3.6.1.22) Anticipated financial effect figure in the long-term – maximum (currency)

237825264

(3.6.1.23) Explanation of financial effect figures

It takes into account revenues from the sale of green energy and carbon offsets.

(3.6.1.24) Cost to realize opportunity

454112335

(3.6.1.25) Explanation of cost calculation

The estimate is based on the assumption that construction of one MW of RES costs 1,500,000. KMG plans to build at least 300 MW of RES.

(3.6.1.26) Strategy to realize opportunity

KMG plans to implement RES projects both for its own needs and for the sale of green energy to third parties. At the same time, producing gas at its own fields, KMG is able to independently carry out the construction of gas plants to compensate for the time of lower energy production from RES. This significantly increases the Company's competitiveness in comparison with Renewable Energy facilities, which have to seek balancing capacity in the general market or install batteries.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp3

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Products and services

☑ Ability to diversify business activities

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Kazakhstan

(3.6.1.8) Organization specific description

KMG has experience in producing gray hydrogen, which is used in the production of petroleum products. In order to reduce greenhouse gas emissions, KMG is studying the possibility of producing blue hydrogen (since KMG has gas resources) or green hydrogen (since the construction of renewable energy sources is planned). In addition, KMG is considering the possibility of selling carbon-neutral hydrogen to metallurgical companies in Kazakhstan

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Other, please specify **:**Revenue increase through the sale of carbon credits and carbon offsets

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Medium-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Very likely (90–100%)

(3.6.1.12) Magnitude

Select from:

☑ Medium

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

As companies expand into grey hydrogen production, they may create new revenue streams beyond traditional oil and gas, potentially stabilizing income in the face of fluctuating fossil fuel prices.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ Yes

(3.6.1.19) Anticipated financial effect figure in the medium-term - minimum (currency)

959648

(3.6.1.20) Anticipated financial effect figure in the medium-term - maximum (currency)

57068949

(3.6.1.23) Explanation of financial effect figures

n the minimal impact, the estimation is based on the amount surplus and the price of credits that KMG can sell. In the maximum estimate we also take into account the possibility of selling carbon credits from the construction of Renewable Energy facilities.

(3.6.1.24) Cost to realize opportunity

397765

(3.6.1.25) Explanation of cost calculation

The costs include only the costs of validation and verification of offset projects, as KMG receives credits on a free basis, and RES projects will be built under the policy of diversification of the business and increasing the energy security of the Company.

(3.6.1.26) Strategy to realize opportunity

KMG made a a breakdown into minimal and maximal effect, as KMG being a national company of Kazakhstan must obtain approval from the Government of the Republic of Kazakhstan for the types of activities it plans to carry out.

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp5

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Products and services

☑ Development of new products or services through R&D and innovation

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Downstream value chain

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Kazakhstan

(3.6.1.8) Organization specific description

KMG has experience in the production of gray hydrogen, which is being used in the production of petroleum products. In order to reduce greenhouse gas emissions, KMG is studying the possibility of production of blue hydrogen (as KMG has gas resources) or green hydrogen (as RES construction are planned). In addition, KMG is considering selling carbon-neutral hydrogen to metallurgical companies in Kazakhstan.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Other, please specify **:**Opportunity to generate additional revenue through the sale of new low-carbon products

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Likely (66–100%)

(3.6.1.12) Magnitude

Select from:

☑ Unknown

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

If oil and gas companies invest in green hydrogen production, they can diversify their energy portfolios. This diversification may help mitigate risks associated with fluctuating oil prices and regulatory changes aimed at reducing carbon emissions. It can also provide new revenue streams as demand for cleaner energy solutions increases. On the other hand Transitioning to green hydrogen production typically requires significant capital investment in new technologies, infrastructure, and production facilities. While this can strain short-term financials, successful investment can lead to long-term growth and profitability. Companies will need to carefully manage their capital expenditures to avoid over-leverage.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ No

(3.6.1.24) Cost to realize opportunity

0

(3.6.1.25) Explanation of cost calculation

Detailed calculations of the financial costs of the opportunity will be carried out later, after the potential for project implementation is determined.

(3.6.1.26) Strategy to realize opportunity

KMG has formed a Competence Center in the field of Hydrogen energy on the basis of KM Engineering LLP, attracting its own scientists and scientists from universities and research centers engaged in the production of hydrogen with zero or low carbon dioxide emissions. Further, this group will have to assess the potential of using blue/green hydrogen on the assets of KMG and other Kazakhstani companies, assess the necessary production costs and possible revenues from the sale of such types of hydrogen

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp6

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Products and services

☑ Development of new products or services through R&D and innovation

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Upstream value chain

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Kazakhstan

(3.6.1.8) Organization specific description

KMG started studying the use of CCUS technology to carbon capture and storage. KMG sees an opportunity to use carbon injection to increase the oil recovery factor of old fields. In addition, KMG believes that carbon injection and storage can be performed in exhausted wells, either from its own or from third parties.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Other, please specify **:**Reduction of carbon costs and revenue growth by increasing the oil recovery factor

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Very likely (90–100%)

(3.6.1.12) Magnitude

Select from:

☑ Medium-high

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Companies adopting CCUS may enhance their reputation among consumers, investors, and stakeholders, potentially leading to increased market share and customer loyalty. A strong commitment to CCUS could attract environmentally conscious investors and access to green financing, which can improve the financial position. Companies could find revenue streams in utilizing captured CO2 for enhanced oil recovery (EOR) or in the production of commercially viable products (e.g., chemicals, fuels, or building materials). Companies that capture and store carbon could generate carbon credits, allowing them to participate in carbon trading markets for additional revenue.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ No

(3.6.1.24) Cost to realize opportunity

0

(3.6.1.25) Explanation of cost calculation

Detailed calculations of the financial costs of the opportunity will be carried out later, after the potential for project implementation is determined.

(3.6.1.26) Strategy to realize opportunity

KMG, together with KMG Engineering and with the support of Chevron Corporation, is working on the implementation of a pilot project for the capture, storage and use of CO2 (CCUS). At the present KMG completed the research and the technical and economic analysis aimed at assessing the technical potential and economic feasibility of the pilot project. In particularly: - the Company carried out the screening of concentrated sources of CO2 emissions in Atyrau and Mangystau regions; - search for available reservoirs (traps) located within a radius of up to 100 km from concentrated sources and corresponding to the requirements of CO2 disposal has been performed;

Climate change

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp7

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Products and services

☑ Other products and services opportunity, please specify **:**Development and/or expansion of low emission goods and services

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Kazakhstan

(3.6.1.8) Organization specific description

Implementation of the forest climate project - the first offset project based on natural solutions to minimize the carbon footprint and increase the ESG rating of the Company.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased revenues resulting from increased demand for products and services

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Short-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Virtually certain (99–100%)

(3.6.1.12) Magnitude

Select from:

☑ Medium-high

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Participating in forest climate projects, like carbon offsetting through reforestation or afforestation, may help these companies meet regulatory requirements, potentially avoiding fines and improving their standing with regulatory bodies. Investing in forest climate projects can allow to generate carbon credits. These credits can be sold in carbon markets, providing an additional revenue stream. The financial gain from these credits can enhance the company's overall financial position. Engaging in sustainability initiatives can improve the public perception. This can lead to increased customer loyalty, attract socially conscious investors, and generally enhance brand value. Improved reputation can translate into better performance in the stock market and more favorable business opportunities.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ No

(3.6.1.24) Cost to realize opportunity

179424

(3.6.1.25) Explanation of cost calculation

Detailed calculations of financial costs for the implementation of this opportunity will be carried out later, after the project implementation potential is determined.

(3.6.1.26) Strategy to realize opportunity

As part of its ESG policy, KMG plans to implement a project to increase the forest cover of Kazakhstan. To do this, in 2023, it is planned to carry out survey work on the selection of land plots, tree crops and develop a working draft.

Water

(3.6.1.1) Opportunity identifier

Select from:

☑ Opp2

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Resource efficiency

☑ Use of new technologies

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Downstream value chain

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Kazakhstan

(3.6.1.6) River basin where the opportunity occurs

Select all that apply

☑ Ural

(3.6.1.8) Organization specific description

One of KMG's initiatives is to address issues of fresh water conservation, where the Company is implementing projects to reduce discharges and reduce fresh water intake from natural sources. One of the significant projects is the TAZALYQ project at the Atyrau Oil Refinery, aimed at modernizing mechanical treatment facilities and constructing modern treatment facilities.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Increased value of fixed assets

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

Select all that apply

☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

Select from:

☑ Very likely (90–100%)

(3.6.1.12) Magnitude

Select from:

☑ High

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Improving wastewater quality and reducing tax costs.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

Select from:

☑ No

(3.6.1.24) Cost to realize opportunity

16586382

(3.6.1.25) Explanation of cost calculation

The amount includes the costs of implementing the project TAZALYQ: reconstruction of mechanical treatment facilities (MTF) within the framework of the TAZALYQ project, which will increase the capacity of MTF by 2 times and achieve the maximum permissible discharge limits for the content of oil products and suspended solids in wastewater sent to the biological treatment unit and reconstruction of regulatory treated effluent canal and reclamation of Atyrau Refinery evaporation fields.

(3.6.1.26) Strategy to realize opportunity

According to the Environmental Policy, KMG has committed to ensuring continuous improvement of water management processes, implementing water conservation and recycling projects, assessing and managing risks associated with water shortages. One of the activities of which is the implementation of the TAZALYQ project. [Add row]

(3.6.2) Provide the amount and proportion of your financial metrics in the reporting year that are aligned with the substantive effects of environmental opportunities.

Climate change

(3.6.2.1) Financial metric

Select from:

☑ CAPEX

(3.6.2.2) Amount of financial metric aligned with opportunities for this environmental issue (unit currency as selected in 1.2)

1432230000

(3.6.2.3) % of total financial metric aligned with opportunities for this environmental issue

Select from:

☑ 1-10%

(3.6.2.4) Explanation of financial figures

At the moment, the Company has a number of projects on the implementation of which it is working both jointly and under partnership agreements. KMG selected 8 projects to assess their possible mitigation of transition and climate risks in different scenarios. Tightening climate policy in the country will stimulate a more active launch of investment projects and implementation of the decarbonization strategy.

Water

(3.6.2.1) Financial metric

Select from:

☑ CAPEX

(3.6.2.2) Amount of financial metric aligned with opportunities for this environmental issue (unit currency as selected in 1.2)

254702749

(3.6.2.3) % of total financial metric aligned with opportunities for this environmental issue

Select from:

☑ 1-10%

(3.6.2.4) Explanation of financial figures

The figure represents the ratio of total capital expenditures for the implementation of water resources management projects in 2023 to the total revenue of the enterprise.
[Add row]

C4. Governance

(4.1) Does your organization have a board of directors or an equivalent governing body?

(4.1.1) Board of directors or equivalent governing body

Select from:

☑ Yes

(4.1.2) Frequency with which the board or equivalent meets

Select from:

☑ Quarterly

(4.1.3) Types of directors your board or equivalent is comprised of

Select all that apply

☑ Independent non-executive directors or equivalent

(4.1.4) Board diversity and inclusion policy

Select from:

☑ Yes, and it is publicly available

(4.1.5) Briefly describe what the policy covers

Regulation on the Board of Directors of Joint-Stock Company "National Company "KazMunayGas" item 3.1.9. The diversity in experience, personal characteristics and gender shall be ensured in the composition of the BoD.

(4.1.6) Attach the policy (optional)

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[Fixed row]

(4.1.1) Is there board-level oversight of environmental issues within your organization?

	Board-level oversight of this environmental issue
Climate change	*Select from:* ☑ Yes
Water	*Select from:* ☑ Yes
Biodiversity	*Select from:* ☑ Yes

[Fixed row]

(4.1.2) Identify the positions (do not include any names) of the individuals or committees on the board with accountability for environmental issues and provide details of the board's oversight of environmental issues.

Climate change

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

☑ Chief Executive Officer (CEO)

☑ Chief Risk Officer (CRO)

☑ Other C-Suite Officer

☑ Board-level committee

☑ Other, please specify **:**Deputy Chairman of the Management Board

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:

☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply

☑ Board Terms of Reference

☑ Individual role descriptions

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

☑ Scheduled agenda item in every board meeting (standing agenda item)

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

☑ Reviewing and guiding annual budgets

☑ Overseeing and guiding scenario analysis

☑ Overseeing the setting of corporate targets

☑ Monitoring progress towards corporate targets

☑ Approving corporate policies and/or commitments

☑ Monitoring the implementation of the business strategy

☑ Overseeing reporting, audit, and verification processes

☑ Monitoring the implementation of a climate transition plan

☑ Overseeing and guiding the development of a business strategy

☑ Overseeing and guiding acquisitions, mergers, and divestitures

☑ Monitoring supplier compliance with organizational requirements

☑ Monitoring compliance with corporate policies and/or commitments

☑ Overseeing and guiding the development of a climate transition plan

☑ Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities

☑ Overseeing and guiding public policy engagement

☑ Overseeing and guiding public policy engagement

☑ Reviewing and guiding innovation/R&D priorities

☑ Approving and/or overseeing employee incentives

☑ Overseeing and guiding major capital expenditures

(4.1.2.7) Please explain

In accordance with the Corporate Governance Code (approved by Government Decree of the Republic of Kazakhstan dated November 5, 2012 No. 1403) The Board of Directors,within their competence, ensures the formation of an appropriate system in the field of sustainable development and its implementation, and officials and all employees at all levels contribute to low-carbon development. The Board of Directors approves the climate change policy and strategy, energy and climate change goals, climate risks. The Chairman of the Management Board is the highest executive level of the company for making strategic decisions and determining areas of activity in relation to climate change. In particular, his responsibilities in this regard are as follows: - proposes a Low-Carbon Development Program and climate change goals and monitor their implementation. - supervises the implementation of the Low-Carbon Development Program and regularly analyzes the dynamics of GHG emissions and compliance with climate change mitigation goals. In order to systematize the main approaches and measures in the field of carbon footprint reduction, the Company has developed a Low-carbon Development Program for the period 2022-2031 (hereinafter - Program). The company aims to reduce direct and indirect CO2 emissions by 15% from the level of 2019 by 2031. Deputy Chairman of the Management Board of KMG, responsible for sustainable development issues, including low-carbon development issues. Deputy Chairman coordinates approaches to achieving goals and KPIs for initiatives in the field of sustainable development, low carbon developmemt and controls the implementation of corporate standards in the field of sustainable development, controls the preparation of a report on sustainable development and the achievement of the SDGs. At the same time, there is the Committee on Safety, Labor Protection, Environment and Sustainable Development of the Board of Directors of JSC NC "KazMunayGas".The Committee considered next direction: the ESG rating of KMG; the implementation of the sustainable development system in KMG and its subsidaries, the approval of the Report on the Sustainable Development of JSC NC "KazMunayGas", the approval of the Policy in the field of Sustainable Development; KMG's contribution to achieving the Sustainable Development Goals, the implementation of the Low-carbon Development Program for the period 2022-2031 and etc.

Water

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

☑ Chief Executive Officer (CEO)

☑ Chief Risk Officer (CRO)

☑ Other C-Suite Officer

☑ Board-level committee

☑ Other, please specify **:**Deputy Chairman of the Management Board

(4.1.2.2) Positions’ accountability for this environmental issue is outlined in policies applicable to the board

Select from:

☑ Yes

(4.1.2.3) Policies which outline the positions’ accountability for this environmental issue

Select all that apply

☑ Board Terms of Reference

☑ Individual role descriptions

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

☑ Scheduled agenda item in every board meeting (standing agenda item)

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

☑ Reviewing and guiding annual budgets

☑ Overseeing and guiding scenario analysis

☑ Overseeing the setting of corporate targets

☑ Monitoring progress towards corporate targets

☑ Approving corporate policies and/or commitments

☑ Monitoring the implementation of the business strategy

☑ Overseeing reporting, audit, and verification processes

☑ Monitoring the implementation of a climate transition plan

☑ Overseeing and guiding the development of a business strategy

☑ Overseeing and guiding acquisitions, mergers, and divestitures

☑ Monitoring supplier compliance with organizational requirements

☑ Monitoring compliance with corporate policies and/or commitments

☑ Overseeing and guiding the development of a climate transition plan

☑ Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities

☑ Overseeing and guiding public policy engagement

☑ Overseeing and guiding public policy engagement

☑ Reviewing and guiding innovation/R&D priorities

☑ Approving and/or overseeing employee incentives

☑ Overseeing and guiding major capital expenditures

(4.1.2.7) Please explain

The Board of Directors recognizes the high priority of environmental protection and the life and health of the Company's employees and contractors at all of its production facilities, the development of human resources and commitment to generally recognized global goals in the field of sustainable development, and therefore defines sustainable development and progressive reduction of carbon intensity of production as one of the main strategic goals of KMG and the agenda of the global investment community. KMG Group's HSE Policy is based on top management's commitment to HSE issues and is aimed at involving each employee in the

development of a safety culture. As part of the review of KMG's HSE information, which is considered at each in-person meeting of the Board of Directors, the instructions were given to promptly inform the Board of Directors' members of any HSE incidents in KMG Group companies, regardless of the reporting period. Environment and Sustainability Committee of KMG's Board of Directors regularly reviews and discusses reports on implementation of the sustainability system in KMG and its business units and incorporation of sustainability principles into key business processes. On July 1, 2019, within the framework of the HSE Forum for KMG General Directors, the Chairman of the Management Board signed a personal Statement of Commitment to the rational management of water resources (8 water principles of KMG). This initiative was supported by the chief executives of subsidiaries and affiliates of KMG, signing similar statements of commitment on behalf of their companies. The signed statements of commitment are posted on the official websites of the KMG group of companies. Also, with the adoption of the Corporate Water Standard on December 20, 2018, the Chairman of the KMG Management Board took responsibility for providing the necessary resources (financial, material and human) to fulfill the provisions of the Standard. In order to improve the efficiency of use and protection of water resources, as well as to determine measures and targets to reduce water intake, increase water reuse and reduce the volume of pollutant discharges, the KazMunayGas NC JSC group of companies has developed a Water Resources Management Program for the period up to 2033.

Biodiversity

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

Select all that apply

☑ Chief Executive Officer (CEO)

☑ Chief Risk Officer (CRO)

☑ Other C-Suite Officer

☑ Board-level committee

☑ Other, please specify **:**Deputy Chairman of the Management Board

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

Select from:

☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

Select all that apply

☑ Board Terms of Reference

☑ Individual role descriptions

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

Select from:

☑ Scheduled agenda item in every board meeting (standing agenda item)

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

Select all that apply

☑ Overseeing and guiding scenario analysis

(4.1.2.7) Please explain

The Board of Directors recognizes the high priority of environmental protection and the life and health of the Company's employees and contractors at all of its production facilities, the development of human resources and commitment to generally recognized global goals in the field of sustainable development, and therefore defines sustainable development and progressive reduction of carbon intensity of production as one of the main strategic goals of KMG and the agenda of the global investment community. Environment and Sustainability Committee of KMG's Board of Directors regularly reviews and discusses reports on implementation of the sustainability system in KMG and its business units and incorporation of sustainability principles into key business processes. The company has an environmental policy that provides for environmental risk management and the adoption of all possible measures to reduce the impact of taking into account the impact on biodiversity and preserving the migration route of animals when planning and implementing production activities. In 2025, it is planned to develop a Biodiversity Conservation Program.
[Fixed row]

(4.2) Does your organization's board have competency on environmental issues?

Climate change

(4.2.1) Board-level competency on this environmental issue

Select from:

☑ Yes

(4.2.2) Mechanisms to maintain an environmentally competent board

Select all that apply

☑ Consulting regularly with an internal, permanent, subject-expert working group

☑ Engaging regularly with external stakeholders and experts on environmental issues

☑ Regular training for directors on environmental issues, industry best practice, and standards (e.g., TCFD, SBTi)

☑ Having at least one board member with expertise on this environmental issue

(4.2.3) Environmental expertise of the board member

Experience

☑ Experience in an academic role focused on environmental issues

☑ Experience in the environmental department of a government (national or local)

Water

(4.2.1) Board-level competency on this environmental issue

Select from:

☑ Yes

(4.2.2) Mechanisms to maintain an environmentally competent board

Select all that apply

☑ Consulting regularly with an internal, permanent, subject-expert working group

☑ Engaging regularly with external stakeholders and experts on environmental issues

☑ Integrating knowledge of environmental issues into board nominating process

☑ Regular training for directors on environmental issues, industry best practice, and standards (e.g., TCFD, SBTi)

[Fixed row]

(4.3) Is there management-level responsibility for environmental issues within your organization?

	Management-level responsibility for this environmental issue

	Management-level responsibility for this environmental issue
Climate change	*Select from:* ☑ Yes
Water	*Select from:* ☑ Yes
Biodiversity	*Select from:* ☑ Yes

[Fixed row]

(4.3.1) Provide the highest senior management-level positions or committees with responsibility for environmental issues (do not include the names of individuals).

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Executive Officer (CEO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Policies, commitments, and targets

☑ Setting corporate environmental policies and/or commitments

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Developing a business strategy which considers environmental issues

☑ Developing a climate transition plan

☑ Implementing a climate transition plan

☑ Managing annual budgets related to environmental issues

☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Quarterly

(4.3.1.6) Please explain

The Chairman of the Management Board is the highest executive level of the company for making strategic decisions and determining areas of activity in relation to climate change. In particular, its responsibilities in this regard are as follows: - propose a Low-carbon Development Program and climate change goals and monitor their implementation; - supervises the implementation of the Low-Carbon Development Program and periodically analyzes the dynamics of GHG emissions and compliance with climate change mitigation goals (GHG emissions reduction and carbon intensity index).

Water

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Executive Officer (CEO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing supplier compliance with environmental requirements

Policies, commitments, and targets

☑ Measuring progress towards environmental science-based targets

Strategy and financial planning

☑ Implementing the business strategy related to environmental issues

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Quarterly

(4.3.1.6) Please explain

The Chairman of the Management Board is the highest executive level of the company for making strategic decisions and determining areas of activity in relation to water resourse. In particular, the Chairman of the Management Board is responsible for: - facilitating the implementation of all principles specified in the Water Resources Management Program; - providing the necessary resources (financial, material and human) to implement the provisions of the Program.

Biodiversity

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Executive Officer (CEO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ As important matters arise

(4.3.1.6) Please explain

The Chairman of the Management Board is the highest executive level of the company for making strategic decisions and determining areas of activity in relation to Biodiversity resourse. In 2025, it is planned to develop a Biodiversity Conservation Program.

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Financial Officer (CFO)

(4.3.1.2) Environmental responsibilities of this position

Strategy and financial planning

☑ Developing a climate transition plan

☑ Managing annual budgets related to environmental issues

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Annually

(4.3.1.6) Please explain

Chief Financial Officer is responsible for solving a complex of issues of the economic component of sustainable development, including issues of low carbon development.

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Other C-Suite Officer, please specify **:**Deputy Chairman of the Management Board for Strategy, Investment and Business Development

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing public policy engagement related to environmental issues

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Measuring progress towards environmental corporate targets

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Developing a climate transition plan

☑ Implementing a climate transition plan

☑ Conducting environmental scenario analysis

☑ Implementing the business strategy related to environmental issues

☑ Developing a business strategy which considers environmental issues

☑ Managing acquisitions, mergers, and divestitures related to environmental issues

☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

(4.3.1.4) Reporting line

Select from:

☑ Other, please specify **:**Reports directly to the Chairman of the Management Board

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ More frequently than quarterly

(4.3.1.6) Please explain

Deputy Chairman of the Management Board for Strategy, Investment and Business Development coordinates the development, implementation and monitoring of the implementation of the Low-carbon Development Program, energy efficiency and resource conservation in the KMG Group, In addition, the PP Deputy for Strategy, Investment and Business Development coordinates the issues of reducing the Company's carbon footprint and implementing low-carbon projects and initiatives.

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Other C-Suite Officer, please specify **:**Deputy Chairman of the Management Board for Upstream Sector

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing public policy engagement related to environmental issues

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Measuring progress towards environmental corporate targets

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Conducting environmental scenario analysis

☑ Developing a climate transition plan

☑ Implementing a climate transition plan

☑ Managing acquisitions, mergers, and divestitures related to environmental issues

☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

(4.3.1.4) Reporting line

Select from:

☑ Other, please specify **:**Reports directly to the Chairman of the Management Board

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ More frequently than quarterly

(4.3.1.6) Please explain

The Deputy Chairman of the Management Board for Upstream sector coordinates the implementation of the Low-carbon Development Program, energy efficiency and resource conservation in the KMG Group within the framework of supervised business processes.

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Other C-Suite Officer, please specify **:**Deputy Chairman of the Management Board for Midstream Sector

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing public policy engagement related to environmental issues

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Measuring progress towards environmental corporate targets

☑ Setting corporate environmental policies and/or commitments

Strategy and financial planning

☑ Conducting environmental scenario analysis

☑ Developing a climate transition plan

☑ Implementing a climate transition plan

☑ Managing acquisitions, mergers, and divestitures related to environmental issues

☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

(4.3.1.4) Reporting line

Select from:

☑ Other, please specify **:**Reports directly to the Chairman of the Management Board

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ More frequently than quarterly

(4.3.1.6) Please explain

The Deputy Chairman of the Management Board for Midstream sector coordinates the implementation of the Low-carbon Development Program, energy efficiency and resource conservation in the KMG Group within the framework of supervised business processes.

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Other C-Suite Officer, please specify **:**Deputy Chairman of the Management Board for Downstream Sector

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing public policy engagement related to environmental issues

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Measuring progress towards environmental corporate targets

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Conducting environmental scenario analysis

☑ Developing a climate transition plan

☑ Implementing a climate transition plan

☑ Managing acquisitions, mergers, and divestitures related to environmental issues

(4.3.1.4) Reporting line

Select from:

☑ Other, please specify **:**Reports directly to the Chairman of the Management Board

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ More frequently than quarterly

(4.3.1.6) Please explain

The Deputy Chairman of the Management Board for Downstream sector coordinates the implementation of the Low-carbon Development Program, energy efficiency and resource conservation in the KMG Group within the framework of supervised business processes.

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Other C-Suite Officer, please specify **:**Deputy Chairman of the Management Board for the Gas Projects and low-carbon development area

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing public policy engagement related to environmental issues

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Measuring progress towards environmental corporate targets

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Developing a climate transition plan

☑ Implementing a climate transition plan

☑ Conducting environmental scenario analysis

☑ Implementing the business strategy related to environmental issues

☑ Managing acquisitions, mergers, and divestitures related to environmental issues

☑ Managing priorities related to innovation/low-environmental impact products or services (including R&D)

(4.3.1.4) Reporting line

Select from:

☑ Other, please specify **:**Reports directly to the Chairman of the Management Board

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ More frequently than quarterly

(4.3.1.6) Please explain

Deputy Chairman of the Management Board for the Gas Projects and low-carbon development area coordinates the development, implementation and monitoring of the implementation of the Low-carbon Development Program, energy efficiency and resource conservation in the KMG Group, In addition, the PP Deputy for the Gas Projects and low-carbon development area coordinates the issues of reducing the Company's carbon footprint and implementing low-carbon projects and initiatives.

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Committee

☑ Other committee, please specify **:**Health, Safety, Environment and Sustainable Development Committee

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

Engagement

☑ Managing public policy engagement related to environmental issues

☑ Managing value chain engagement related to environmental issues

Policies, commitments, and targets

☑ Measuring progress towards environmental corporate targets

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Developing a climate transition plan

☑ Implementing the business strategy related to environmental issues

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Annually

(4.3.1.6) Please explain

KMG's Board of Directors gives high priority to sustainability issues. During the reporting year, the Health, Safety, Environment, and Sustainability Committee held five meetings where more than 30 items related to these issues were discussed. It is worth noting separately that the Board of Directors' annual special meeting on sustainable development was held for in-depth analysis of the Company's ESG aspects. This meeting covered key aspects of the ESG Plan, implementation of TCFD recommendations, and analysis of the current status and progress of our Low-Carbon Initiatives. In accordance with the Regulations on the Committee on Safety, Labor Protection, Environment and Sustainable Development of the Board of Directors of JSC NC "KazMunayGas" (approved by the decision of the Board of Directors dated 12.12.2018, Procedure No. 19/2018,), the Committee reviews and organizes issues of sustainable development, prepares recommendations for the approval of the policy in the field of sustainable development, the annual Report on the sustainable development of KMG, action plans and other internal documents in the field of sustainable development, the approval of which falls within the competence of the Board of Directors, the introduction of social, economic and environmental components of sustainable development, formation of a management system in the field of sustainable development, definition of goals and efficiency in the field of sustainable development, control over the implementation of sustainable development in KMG, integration of sustainable development into key processes of KMG.

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Committee

☑ Risk committee

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Assessing future trends in environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

(4.3.1.4) Reporting line

Select from:

☑ Other, please specify **:**reports to the Board Management

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Quarterly

(4.3.1.6) Please explain

According to the Regulations on the Risk Committee of JSC NC "KazMunayGas", the Committee carries out: - development of processes designed to identify, assess, monitor and control the risks of the KMG Group of Companies; - coordination of the risk management process for the KMG Group of companies; - preparation of recommendations and proposals for the organization and maintenance of an effective Corporate risk management system and Internal Control Service.

Water

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Financial Officer (CFO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

(4.3.1.4) Reporting line

Select from:

☑ Other, please specify **:**reports to the Board Management

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Annually

(4.3.1.6) Please explain

The Deputy Chairman of the Management Board for Economics and Finance is responsible for resolving a set of issues related to the economic component of KMG's sustainable development. The above persons are accountable to the Chairman of the Management Board of KMG. The accountability of those responsible for resolving economic, environmental and social issues is regulated in detail by internal regulations, internal control procedures and the continuity of the Company. So, on a regular basis, in accordance with development plans, issues are submitted for consideration by the Management Board, which in turn is accountable to the BoD.

Biodiversity

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Financial Officer (CFO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

(4.3.1.4) Reporting line

Select from:

☑ Other, please specify **:**not required

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Not reported to the board

(4.3.1.6) Please explain

In 2025, it is planned to develop a Biodiversity Conservation Program. Responsibilities will be defined after the Biodiversity Conservation Programs have been developed.

Water

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Sustainability Officer (CSO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Annually

(4.3.1.6) Please explain

Deputy Chairman of the Management Board for Strategy, Investments and Business Development: Issues related to the creation and implementation of a sustainability management system to ensure compliance with sustainability principles, as well as integration of sustainability into the Company's key processes, development strategy and decision-making processes.

Biodiversity

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Sustainability Officer (CSO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

(4.3.1.4) Reporting line

Select from:

☑ Other, please specify **:**not required

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Not reported to the board

(4.3.1.6) Please explain

In 2025, it is planned to develop a Biodiversity Conservation Program. Responsibilities will be defined after the Biodiversity Conservation Programs have been developed.

Water

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Other C-Suite Officer, please specify **:**Board of Directors

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Annually

(4.3.1.6) Please explain

The Board of Directors (BoD) and the Management Board, within their competencies, ensure the formation of an appropriate system in the field of sustainable development and its implementation, while officials and all employees at all levels contribute to sustainable development, including water management.

Biodiversity

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Other C-Suite Officer, please specify **:**Board of Directors

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

(4.3.1.4) Reporting line

Select from:

☑ Other, please specify **:**not required

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Not reported to the board

(4.3.1.6) Please explain

In 2025, it is planned to develop a Biodiversity Conservation Program. Responsibilities will be defined after the Biodiversity Conservation Programs have been developed.

Water

(4.3.1.1) Position of individual or committee with responsibility

Committee

☑ Environmental, Social, Governance committee

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Annually

(4.3.1.6) Please explain

In 2023, the Committee was mainly focused on health, safety and environment, strategic management of the ESG (Environmental – Social – Governance) aspects, and implementation of a sustainable development system. The key issues on the Committee's agenda in 2023 are as follows: " Health, safety and environment reports " Status of implementation of KMG's 2022–2031 Low-Carbon Development Programme " KMG's ESG (Environmental – Social – Governance) rating " Approval of the Action Plan to Improve KMG's ESG Rating " Status report on the implementation of the sustainable development system at KMG and its business units and incorporation of sustainable development principles into key business processes " KMG's contribution to the sustainable development goals " Results of the work on the Project Development of KMG's Action Plan to Improve Corporate Governance for Climate Transition and Disclosures in accordance with TCFD recommendations Moreover, the Committee reviewed and approved the 2022 Sustainability Report of KMG in 2023.

Water

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Other C-Suite Officer, please specify **:**Environmental, health, and safety director

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ More frequently than quarterly

(4.3.1.6) Please explain

The HSE service is responsible for: - the implementation and observance in the Company of the principles of rational management of water resources (8 "water principles"), for the collection of information on the use of water resources by the Company (except for information provided by other structural divisions), for the development of the Plan for the rational management of water resources, its implementation and analysis of the Company's activities in the field of water resources management. - carrying out inspections of facilities for compliance with the requirements of the legislation of the Republic of Kazakhstan and the Corporate Standard for water resources management, KMG's internal regulatory documents; - interaction with the authorized body, with other state regulatory bodies on water resources management, as well as with the responsible structural unit of KMG: - development and approval of the Water Resources Management Program

Water

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Other C-Suite Officer, please specify **:**Facilities manager

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

☑ Managing environmental dependencies, impacts, risks, and opportunities

(4.3.1.4) Reporting line

Select from:

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

Select from:

☑ Quarterly

(4.3.1.6) Please explain

Chief executive officer of subsidiaries and affiliates is responsible for: - assistance in the implementation of all the principles specified in this Standard; - provision of the necessary resources (financial, material and human) to fulfill the provisions of the Standard. Heads of the production structural divisions of the Companies are responsible for: - regular inventory of water intake and water disposal metering devices, as well as for the completeness, reliability and timeliness of information on production structural divisions, collected / updated in accordance with the requirements of the Corporate Water Management Standard. Also, the Heads of subsidiaries, whose total annual water intake is more than 1 million cubic meters of water and companies that have their own treatment facilities and / or wastewater receivers, are responsible for developing Plans for the rational management of water resources for a 5-year period. The structural production units of the Company are responsible for: - for obtaining the necessary permits for special water use when withdrawing and / or using groundwater with withdrawal limits from fifty cubic meters per day and during intake and / or use of surface water applying stationary, mobile and / or floating structures for mechanical and gravity water intake from surface and sea waters; - for interaction with the HSE Service in terms of providing information in accordance with the requirements of the Corporate Standard for Water Resources Management.
[Add row]

(4.5) Do you provide monetary incentives for the management of environmental issues, including the attainment of targets?

	Provision of monetary incentives related to this environmental issue	% of total C-suite and board-level monetary incentives linked to the management of this environmental issue	Please explain
Climate change	*Select from:* ☑ Yes	*6.69*	*In 2023, the company awarded bonuses to the members of the Management Board for their performance in relation to the low-carbon development program.*
Water	*Select from:* ☑ No, but we plan to introduce them in the next two years	*0*	*After the approval of the long-term water resources management program, it is planned to establish the efficiency of the program implementation.*

[Fixed row]

(4.5.1) Provide further details on the monetary incentives provided for the management of environmental issues (do not include the names of individuals).

Climate change

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

☑ Director on board

(4.5.1.2) Incentives

Select all that apply

☑ Bonus - % of salary

(4.5.1.3) Performance metrics

Targets

☑ Progress towards environmental targets

☑ Achievement of environmental targets

Strategy and financial planning

☑ Achievement of climate transition plan

☑ Increased investment in environmental R&D and innovation

☑ Increased proportion of revenue from low environmental impact products or services

Emission reduction

☑ Implementation of an emissions reduction initiative

☑ Reduction in emissions intensity

☑ Increased share of renewable energy in total energy consumption

☑ Reduction in absolute emissions

Resource use and efficiency

☑ Energy efficiency improvement

☑ Reduction in total energy consumption

Engagement

☑ Implementation of employee awareness campaign or training program on environmental issues

☑ Other engagement-related metrics, please specify **:**Implementation of employee awareness campaign or training program on climate- related issues

(4.5.1.4) Incentive plan the incentives are linked to

Select from:

☑ Both Short-Term and Long-Term Incentive Plan, or equivalent

(4.5.1.5) Further details of incentives

In order to enhance motivation for implementing corporate and functional efficiency at KMG, the Deputy Chairmen of the Management Board have a Key Performance Indicator (KPI) on climate issues for which they are provided with a monetary incentive.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

The efficiency of the heads of structural divisions includes efficiency in terms of sustainable development, namely, reducing the carbon footprint. In 2023, the company awarded bonuses to the members of the Management Board for their performance in relation to the low-carbon development program.
[Add row]

(4.6) Does your organization have an environmental policy that addresses environmental issues?

	Does your organization have any environmental policies?
	Select from: ☑ Yes

[Fixed row]

(4.6.1) Provide details of your environmental policies.

Row 1

(4.6.1.1) Environmental issues covered

Select all that apply

☑ Climate change

(4.6.1.2) Level of coverage

Select from:

☑ Organization-wide

(4.6.1.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(4.6.1.4) Explain the coverage

Environmental Policy

(4.6.1.5) Environmental policy content

Environmental commitments

☑ Commitment to comply with regulations and mandatory standards

☑ Commitment to take environmental action beyond regulatory compliance

☑ Commitment to stakeholder engagement and capacity building on environmental issues

Climate-specific commitments

☑ Commitment to zero flaring

Additional references/Descriptions

☑ Description of environmental requirements for procurement

(4.6.1.6) Indicate whether your environmental policy is in line with global environmental treaties or policy goals

Select all that apply

☑ Yes, in line with the Paris Agreement

☑ Yes, in line with another global environmental treaty or policy goal, please specify **:**UN Sustanable Development Goals 13 Climate Action

(4.6.1.7) Public availability

Select from:

☑ Publicly available

(4.6.1.8) Attach the policy

KazMunayGas Environmental Policy.pdf

Row 2

(4.6.1.1) Environmental issues covered

Select all that apply

☑ Climate change

(4.6.1.2) Level of coverage

Select from:

☑ Organization-wide

(4.6.1.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(4.6.1.4) Explain the coverage

Low-Carbon Development Programme

(4.6.1.5) Environmental policy content

Climate-specific commitments

☑ Commitment to zero flaring

☑ Other climate-related commitment, please specify **:**15% reduction

Additional references/Descriptions

☑ Description of impacts on natural resources and ecosystems

☑ Description of environmental requirements for procurement

(4.6.1.6) Indicate whether your environmental policy is in line with global environmental treaties or policy goals

Select all that apply

☑ Yes, in line with the Paris Agreement

☑ Yes, in line with another global environmental treaty or policy goal, please specify **:**UN Sustanable Development Goals 13 Climate Action

(4.6.1.7) Public availability

Select from:

☑ Publicly available

(4.6.1.8) Attach the policy

ПНУР_ENG_.pdf

Row 3

(4.6.1.1) Environmental issues covered

Select all that apply

☑ Water

(4.6.1.2) Level of coverage

Select from:

☑ Organization-wide

(4.6.1.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(4.6.1.4) Explain the coverage

The corporate standard for water resources management in the KMG group of companies is part of the KMG Group HSE Management System. The standard defines corporate principles for water resources management, regulates the activities of KMG Group, employees and contractors of KMG, as well as design organizations whose activities are related to the withdrawal and / or consumption of water resources, relocation, changes in their quality, aimed at minimizing the negative impact on the environment and ensuring environmental sustainability. The main objectives of the Standard are: - determination of key principles of water resources management, intended for mandatory use throughout the KMG Group; - ensuring continuous improvement in water management; - ensuring a unified process of water resources management in the Companies, as opposed to the established practice of uncoordinated management of water use by different divisions for various needs of the company (drinking, industrial, household and other needs); - ensuring the involvement of stakeholders in the process of water resources management in the Company.

(4.6.1.5) Environmental policy content

Water-specific commitments

☑ Commitment to reduce water consumption volumes
☑ Commitment to reduce water withdrawal volumes
☑ Commitment to control/reduce/eliminate water pollution
☑ Commitment to safely managed WASH in local communities
☑ Commitment to the conservation of freshwater ecosystems
☑ Commitment to water stewardship and/or collective action

(4.6.1.6) Indicate whether your environmental policy is in line with global environmental treaties or policy goals

Select all that apply

☑ Yes, in line with Sustainable Development Goal 6 on Clean Water and Sanitation

(4.6.1.7) Public availability

Select from:

☑ Publicly available

(4.6.1.8) Attach the policy

Приложение 28_Экологическая политика к политика №KMG-VND-4109.1-13 от 09.09.2021 _Экологическа_(146792)_.pdf

Row 4

(4.6.1.1) Environmental issues covered

Select all that apply

☑ Water

(4.6.1.2) Level of coverage

Select from:

☑ Organization-wide

(4.6.1.3) Value chain stages covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(4.6.1.4) Explain the coverage

Water resources management in KMG is based on the following 8 "water" principles: 1) recognition of the highest value of water for human life and health, for society and industrial activities, as well as the importance of a careful and rational attitude to the country's water resources. 2) compliance with the requirements of the legislation of the Republic of Kazakhstan, as well as compliance with international standards and best practices. 3) taking into account the issues of fresh water conservation and the efficiency of its use in making managerial decisions and in operations control. 4) assessment and accounting of the initial sources of water intake, regardless of whether water is taken directly or purchased through intermediaries. 5) the maximum cancellation of using potable water for production purposes. 6) 100% instrument metering of water intake and water discharge; 7) the maximum reduction of fresh water intake due to the introduction of water circulation and water-saving technologies, reduction of discharge volumes, by improving the quality of water treatment for maximum possible reuse. 8) Building capacity for sustainable water management through participation in industry associations and international water resource initiatives.

(4.6.1.5) Environmental policy content

Water-specific commitments

☑ Commitment to control/reduce/eliminate water pollution

☑ Commitment to reduce water consumption volumes

☑ Commitment to reduce water withdrawal volumes

☑ Commitment to safely managed WASH in local communities

☑ Commitment to the conservation of freshwater ecosystems

(4.6.1.6) Indicate whether your environmental policy is in line with global environmental treaties or policy goals

Select all that apply

☑ Yes, in line with Sustainable Development Goal 6 on Clean Water and Sanitation

(4.6.1.7) Public availability

Select from:

☑ Publicly available

(4.6.1.8) Attach the policy

8 водных принципов.docx
[Add row]

(4.10) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

(4.10.1) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

Select from:

☑ Yes

(4.10.2) Collaborative framework or initiative

Select all that apply

☑ UN Global Compact

☑ Other, please specify **:Global Methane Initiative, OGDC, OGMP, The World Bank Initiative "Zero Routine Flaring by 2030" International Association of Oil and Gas Producers (IOGP)**

☑ The Climate Pledge

☑ Science-Based Targets Initiative (SBTi)

☑ Global Reporting Initiative (GRI) Community Member

☑ Task Force on Climate-related Financial Disclosures (TCFD)

(4.10.3) Describe your organization's role within each framework or initiative

1) GRI - Since 2012, the Company has been preparing a Sustainability Report in accordance with international non-financial reporting standards developed by the Global Reporting Initiative (GRI). 2) SBTi - KMG employs the Science Based Targets initiative (SBTi) approach in the goal-setting process to ensure alignment with the latest climate science and the objectives of the Paris Agreement. Through SBTi, we are committed to reducing our greenhouse gas emissions in accordance with what is necessary to limit global warming to well below 2C above pre-industrial levels, and ideally to 1.5C. 3) TCFD - With the support of the European Bank for Reconstruction and Development, within the framework of the memorandum of cooperation signed in June 2022, a project was launched in 2023 to introduce climate

reporting in accordance with the recommendations of the TCFD. It is planned that the work will focus on stress testing of the Company's supply chains in various scenarios of climate change, determining the appropriate priorities for action in the field of climate change, including the assessment of financial materiality, the definition of appropriate evidence-based indicators and goals that lead to improved results of corporate actions in the field of climate change. 4) The Climate Pledge - In December 2023, on the margins of the Conference of Parties on Climate Change (COP28), Kazakhstan joined the Global Methane Initiative (The Global Methane Pledge). 5) UN Global Compact - A demonstration of our commitment to the principles of sustainable development is membership in the UN Global Compact, as well as the annual publication of the Sustainable Development Report on the UN State Duma website as a Message on the progress made by KMG in promoting the Principles of the Global Compact and the 17 Global Sustainable Development Goals Global Methane Initiative 6) GMI - Since 2017, KMG has been a member of the Global Methane Initiative project network. KMG supports the Global Methane Initiative (GMI) and regularly discloses information about its environmental activities to all interested parties to the parties within the framework of the Sustainable Development Report. 7) OGDC - As part of its participation in the Conference of Parties (COP-28), KMG became one of 52 oil and gas companies to join the Oil and Gas Decarbonisation Charter, a global industry initiative aimed at achieving high performance and accelerating climate action in the sector. The key goals of the Initiative are to achieve carbon neutrality by 2050, reduce routine gas flaring by 2030 and achieve near-zero methane emissions. 8) OGMP - Understanding the importance of reducing methane emissions into the atmosphere, KazMunayGas became the first Kazakh national company in 2023 to join the OGMP 2.0 Partnership organised by UNEP and IMEO on the margins of the COP28 Climate Change Conference. Thus, KazMunayGas signed a Memorandum of Understanding with UNEP as part of the COP28 conference. The Oil and Gas Methane Partnership 2.0 (OGMP 2.0) is the United Nations Environment Programme's flagship programme for reporting and reducing methane emissions from the oil and gas industry. OGMP 2 0 is the only comprehensive measurement-based reporting system for the oil and gas industry that improves the accuracy and transparency of methane emissions reporting. This is key to prioritising actions to reduce methane emissions in the industry. 9) The World Bank Initiative "Zero Routine Flaring by 2030" - The initiative brings together governments, oil companies and development organisations who agree to cooperate to stop the practice of routine flaring of associated petroleum gas (APG) by 2030 at the latest. KMG supported this initiative in 2015 and has set itself the goal of increasing the beneficial use of crude gas (APG) and reducing routine gas flaring to zero. 10) Since 2018, KMG has been a full member of the International Association of Oil and Gas Producers (IOGP). Over the years of its membership in IOGP, KMG has learnt and used international best IOGP recommendations and practices, which has helped to improve KMG's HSE performance and overall management system, as well as increased KMG's capabilities and rating at the international level. Starting from 2022, KMG has adopted the Life-Saving Rules, which replace the Gold Rules previously in force for the Group. IOGP has analysed two thousand fatal accidents in about one hundred IOGP member companies from 1991 to the present. As a result of the analyses, the association identified the most frequently recurring safety violations. To prevent these violations, 9 Life-Saving Rules have been developed. These rules inform workers of actions they can take to protect themselves and their coworkers from fatalities.
[Fixed row]

(4.11) In the reporting year, did your organization engage in activities that could directly or indirectly influence policy, law, or regulation that may (positively or negatively) impact the environment?

(4.11.1) External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the environment

Select all that apply

☑ Yes, we engaged indirectly through, and/or provided financial or in-kind support to a trade association or other intermediary organization or individual whose activities could influence policy, law, or regulation

(4.11.2) Indicate whether your organization has a public commitment or position statement to conduct your engagement activities in line with global environmental treaties or policy goals

Select from:

☑ Yes, we have a public commitment or position statement in line with global environmental treaties or policy goals

(4.11.3) Global environmental treaties or policy goals in line with public commitment or position statement

Select all that apply

☑ Paris Agreement

☑ Another global environmental treaty or policy goal, please specify **:**Global Methane Pledge

(4.11.5) Indicate whether your organization is registered on a transparency register

Select from:

☑ No

(4.11.8) Describe the process your organization has in place to ensure that your external engagement activities are consistent with your environmental commitments and/or transition plan

KMG has established a robust process to ensure that our external engagement activities align with our environmental commitments and transition plan. This process is designed to manage engagement activities across various business divisions and geographies, ensuring a unified approach consistent with our environmental strategy. In our sustainability framework, we have implemented a comprehensive stakeholder engagement system. This system ensures continuous and effective interaction with all stakeholders. Additionally, we have adopted the CPDD process. We conduct regular stakeholder mapping to identify and prioritize key stakeholders, including local communities, regulatory bodies, NGOs, and industry partners.
[Fixed row]

(4.11.2) Provide details of your indirect engagement on policy, law, or regulation that may (positively or negatively) impact the environment through trade associations or other intermediary organizations or individuals in the reporting year.

Row 1

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via a trade association

(4.11.2.4) Trade association

Global

☑ International Association of Oil and Gas Producers (IOGP)

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☑ Climate change

(4.11.2.6) Indicate whether your organization's position is consistent with the organization or individual you engage with

Select from:

☑ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☑ No, we did not attempt to influence their position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

IOGP actively supports the enhancement of the industry's performance on minimising methane emissions from upstream oil and gas production, including flaring and venting. Since May 2018, IOGP has been a Supporting Organisation to the Methane Guiding Principles. Their Environmental Performance Indicators Report, which

presents methane emissions per region, contributes to the improvement of accuracy and transparency. KMG use provided information for comparison with benchmarks on GHG emissions reductions. Over the years of membership in IOGP, KMG has studied and used international best practices and best practices of IOGP, which helped to improve the performance and overall management system of KMG in the field of Fire safety, occupational safety and the environment, as well as increased the capabilities and rating of KMG at the international level.

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

24105

(4.11.2.10) Describe the aim of this funding and how it could influence policy, law or regulation that may impact the environment

We aim to study best energy transition practices among oil & gas companies to use in our strategy.

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.2.12) Global environmental treaties or policy goals aligned with your organization's engagement on policy, law or regulation

Select all that apply

☑ Paris Agreement

☑ Another global environmental treaty or policy goal, please specify **:**Global Methane Pledge

Row 2

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via a trade association

(4.11.2.4) Trade association

Asia and Pacific

☑ Other trade association in Asia and Pacific, please specify **:**The National Chamber of Entrepreneurs of the Republic of Kazakhstan "Atameken"

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☑ Climate change

(4.11.2.6) Indicate whether your organization's position is consistent with the organization or individual you engage with

Select from:

☑ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☑ No, we did not attempt to influence their position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

Membership in the National Chamber of Entrepreneurs of the Republic of Kazakhstan "Atameken" in accordance with the Law of the Republic of Kazakhstan "On the National Chamber of Entrepreneurs of the Republic of Kazakhstan" is mandatory for all Kazakh business entities. At the same time, the National Chamber of Entrepreneurs of the Republic of Kazakhstan "Atameken" is bound to represent the position of its members, including KMG.

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

7000

(4.11.2.10) Describe the aim of this funding and how it could influence policy, law or regulation that may impact the environment

Membership fees are mandatory in accordance with the Law of the Republic of Kazakhstan "On the National Chamber of Entrepreneurs of the Republic of Kazakhstan"

(4.11.2.11) Indicate if you have evaluated whether your organization’s engagement is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.2.12) Global environmental treaties or policy goals aligned with your organization’s engagement on policy, law or regulation

Select all that apply

☑ Paris Agreement

☑ Another global environmental treaty or policy goal, please specify **:**Global Methane Pledge

Row 3

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via a trade association

(4.11.2.4) Trade association

Asia and Pacific

☑ Other trade association in Asia and Pacific, please specify **:**ASSOCIATION OF LEGAL ENTITIES “KAZAKHSTAN ASSOCIATION OF OIL-GAS AND ENERGY SECTOR ORGANIZATIONS “KAZENERGY”

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☑ Climate change

(4.11.2.6) Indicate whether your organization's position is consistent with the organization or individual you engage with

Select from:

☑ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☑ No, we did not attempt to influence their position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

KAZENERGY Association unites more than 80 major oil & gas and energy sector companies of Kazakhstan. Closely interacting with state bodies, business representatives and public structures, it promotes sustainable development of the oil & gas and energy complexes of the Republic of Kazakhstan.

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

35000

(4.11.2.10) Describe the aim of this funding and how it could influence policy, law or regulation that may impact the environment

Keeping KMG informed of legislative changes in progress and representing KMG's position in the dialogue with state bodies

(4.11.2.11) Indicate if you have evaluated whether your organization’s engagement is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.2.12) Global environmental treaties or policy goals aligned with your organization’s engagement on policy, law or regulation

Select all that apply

☑ Paris Agreement

☑ Another global environmental treaty or policy goal, please specify **:**Global Methane Pledge

Row 4

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via a trade association

(4.11.2.4) Trade association

Asia and Pacific

☑ Other trade association in Asia and Pacific, please specify **:**Association of Legal Entities «RES Association «Qazaq Green»

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☑ Climate change

(4.11.2.6) Indicate whether your organization’s position is consistent with the organization or individual you engage with

Select from:

☑ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☑ No, we did not attempt to influence their position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

Association is a non-profit organisation, promoting renewable energy in Kazakhstan and uniting investors, developers, equipment manufacturers, international financial institutions and universities. The Qazaq Green Association provides KMG qualified support on the implementation of RES projects, promotion our interests, obtaining up- todate information on Kazakhstan RES legal framework, making proposals to government bodies in order to update current regulation, as well as obtaining information and analytical support. Association is accredited by the Ministry of Energy of the Republic of Kazakhstan, the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan, National Chamber of Entrepreneurs of the Republic of Kazakhstan 'Atameken' and considered as one of the key expert centers for renewable energy development in Kazakhstan for both government agencies and the business community.

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

7700

(4.11.2.10) Describe the aim of this funding and how it could influence policy, law or regulation that may impact the environment

Association is a non-profit organisation, promoting renewable energy in Kazakhstan and uniting investors, developers, equipment manufacturers, international financial institutions and universities. The Qazaq Green Association provides KMG qualified support on the implementation of RES projects, promotion our interests, obtaining up- todate information on Kazakhstan RES legal framework, making proposals to government bodies in order to update current regulation, as well as obtaining information and analytical support. Association is accredited by the Ministry of Energy of the Republic of Kazakhstan, the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan, National Chamber of Entrepreneurs of the Republic of Kazakhstan 'Atameken' and considered as one of the key expert centers for renewable energy development in Kazakhstan for both government agencies and the business community.

(4.11.2.11) Indicate if you have evaluated whether your organization’s engagement is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.2.12) Global environmental treaties or policy goals aligned with your organization’s engagement on policy, law or regulation

Select all that apply

☑ Paris Agreement

☑ Another global environmental treaty or policy goal, please specify **:**Global Methane Pledge

Row 5

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via a trade association

(4.11.2.4) Trade association

Asia and Pacific

☑ Other trade association in Asia and Pacific, please specify **:**Kazakhstan Association of Regional Environmental Initiatives "Ecojer"

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☑ Climate change

(4.11.2.6) Indicate whether your organization’s position is consistent with the organization or individual you engage with

Select from:

☑ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual's position in the reporting year

Select from:

☑ No, we did not attempt to influence their position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

KMG Group of Companies joined to the Kazakhstan Association of Regional Environmental Initiatives "Ecojer" in 2021. The purpose of the Association is to consolidate the business community and civil society to protect common interests in the field of environmental protection. The Association strives to achieve a balance between the directions of state policy, the interests of the public and the needs of economic development.

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

10968

(4.11.2.10) Describe the aim of this funding and how it could influence policy, law or regulation that may impact the environment

Keeping KMG informed of legislative changes in progress of environmental protection activities – taking into account a balanced approach between the directions of state policy, the interested public and the need to develop economic potential.

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:

☑ Yes, we have evaluated, and it is aligned

(4.11.2.12) Global environmental treaties or policy goals aligned with your organization’s engagement on policy, law or regulation

Select all that apply

☑ Paris Agreement

☑ Another global environmental treaty or policy goal, please specify **:**Global Methane Pledge

Row 6

(4.11.2.1) Type of indirect engagement

Select from:

☑ Indirect engagement via a trade association

(4.11.2.4) Trade association

Global

☑ Other global trade association, please specify

(4.11.2.5) Environmental issues relevant to the policies, laws, or regulations on which the organization or individual has taken a position

Select all that apply

☑ Water

(4.11.2.6) Indicate whether your organization’s position is consistent with the organization or individual you engage with

Select from:

☑ Consistent

(4.11.2.7) Indicate whether your organization attempted to influence the organization or individual’s position in the reporting year

Select from:

☑ No, we did not attempt to influence their position

(4.11.2.8) Describe how your organization's position is consistent with or differs from the organization or individual's position, and any actions taken to influence their position

We do not work through trade associations, but cooperate as members with associations such as Kazakhstan Association of Oil, Gas and Energy Sector Organisations "KAZENERGY". The chairmanship in the Coordination Council of KAZENERGY for ecology, social responsibility and transparency is an opportunity for KMG to promote sustainable development in the oil and gas sector of Kazakhstan. KMG and Kazakhstan Association of Oil, Gas and Energy Sector Organisations "KAZENERGY" have entered into a Memorandum of Cooperation. The Memorandum provides for joint activities in such key legal areas as improvement of the RoK legislation; development of joint programmes and projects aimed at raising legal culture; cooperation in holding round tables, workshops, conferences on topical issues in the legal field, etc. KMG and the National Chamber of Entrepreneurs of the RoK "Atameken" entered into an agreement on cooperation in legal matters. The agreement provides for interaction of the parties in such important legal areas as improvement of legislation, development of joint programmes and projects aimed at raising legal culture, expanding the role of arbitration in resolution of commercial disputes, etc

(4.11.2.9) Funding figure your organization provided to this organization or individual in the reporting year (currency)

0

(4.11.2.11) Indicate if you have evaluated whether your organization's engagement is aligned with global environmental treaties or policy goals

Select from:

☑ No, we have not evaluated

[Add row]

(4.12) Have you published information about your organization's response to environmental issues for this reporting year in places other than your CDP response?

Select from:

☑ Yes

(4.12.1) Provide details on the information published about your organization's response to environmental issues for this reporting year in places other than your CDP response. Please attach the publication.

Row 1

(4.12.1.1) Publication

Select from:

☑ In voluntary sustainability reports

(4.12.1.3) Environmental issues covered in publication

Select all that apply

☑ Climate change

☑ Water

☑ Biodiversity

(4.12.1.4) Status of the publication

Select from:

☑ Complete

(4.12.1.5) Content elements

Select all that apply

☑ Strategy

☑ Governance

☑ Emission targets

☑ Emissions figures

☑ Risks & Opportunities

☑ Water pollution indicators

☑ Content of environmental policies

☑ Value chain engagement

☑ Dependencies & Impacts

☑ Biodiversity indicators

☑ Public policy engagement

☑ Water accounting figures

(4.12.1.6) Page/section reference

KMG Sustainable Development Report for 2023: pp. 22-23 Production Value Chain pp. 63-72 ESG Risks management pp.128-145 - Low-Carbon development in the Company pp.92-116 - Environmental protection

(4.12.1.7) Attach the relevant publication

KMG_2023_EN.pdf

(4.12.1.8) Comment

Since 2012, the Company has been preparing a Sustainability Report in accordance with international non-financial reporting standards developed by the Global Reporting Initiative (GRI).

Row 2

(4.12.1.1) Publication

Select from:

☑ Other, please specify **:**Low-Carbon Development Program of JSC NC KazMunayGas for 2022-2031

(4.12.1.3) Environmental issues covered in publication

Select all that apply

☑ Climate change

(4.12.1.4) Status of the publication

Select from:

☑ Complete

(4.12.1.5) Content elements

Select all that apply

☑ Governance

☑ Risks & Opportunities
☑ Strategy
☑ Emissions figures
☑ Emission targets

(4.12.1.6) Page/section reference

pp. 5-6, 33-36 Governance pp.13-26 low-carbon scenario modelling pp. 27-32 Strategy pp. 7-12 GHG emission inventory

(4.12.1.7) Attach the relevant publication

ПНУР_ENG_.pdf

(4.12.1.8) Comment

In order to ensure a systematic approach to the climate change strategy, KMG has developed and approved the Low Carbon Development Program until 2031, which defines a unified decarbonization framework for the Company as an integral component of corporate governance. The main objective of the Program is to define KMG's climate ambitions, systematize the main approaches and measures to reduce the carbon footprint, including, in particular: (i) Analysis of the existing potential and determination of KMG's climate goals. (ii) Determination of key areas for the development of the company's decarbonization and measures to achieve the set goals. (iii) Capacity development and awareness raising. In order to determine specific measures to achieve the targets in 2022, an Action Plan for the implementation of the Program was developed and approved. Low-carbon development issues are included in the Development Strategy of JSC NC KazMunayGas for 2022–2031 (Strategic Goal 4 "Sustainable Development and Gradual Reduction of Carbon Intensity of Production"), and are also reflected in the KPIs of the Management Board members and subsidiaries and affiliates covered by the Program.

Row 3

(4.12.1.1) Publication

Select from:
☑ In mainstream reports, in line with environmental disclosure standards or frameworks

(4.12.1.2) Standard or framework the report is in line with

Select all that apply
☑ IFRS

(4.12.1.3) Environmental issues covered in publication

Select all that apply

☑ Climate change

(4.12.1.4) Status of the publication

Select from:

☑ Complete

(4.12.1.5) Content elements

Select all that apply

☑ Strategy

☑ Governance

☑ Emission targets

☑ Emissions figures

☑ Dependencies & Impacts

☑ Content of environmental policies

(4.12.1.6) Page/section reference

p. 139 - KMG's principles of sustainability management p. 140 Comprehensive approach to ensuring KMG's sustainable development p. 144 ESG risk rating p. 147 Commitment to UN Global Compact principles and 17 Sustainable Development Goals p.166 Sustainable development KPIs of KMG's management p. 167 Low-Carbon Development Programme p. 210 - TCFD-aligned disclosure

(4.12.1.7) Attach the relevant publication

KMG_AR23_ENG (2).pdf

(4.12.1.8) Comment

The Report of JSC National Company KazMunayGas for 2023 includes the performance results of the parent company and its subsidiaries and associates, referred to as JSC NC KazMunayGas (KMG, the Company, KMG Group), which are compiled using the principles of the KMG consolidated financial statements prepared under International Financial Reporting Standards (IFRS).

Row 4

(4.12.1.1) Publication

Select from:

☑ Other, please specify **:**KMG data for IOSG is a part of IOGP report

(4.12.1.3) Environmental issues covered in publication

Select all that apply

☑ Water

(4.12.1.4) Status of the publication

Select from:

☑ Complete

(4.12.1.5) Content elements

Select all that apply

☑ Content of environmental policies

☑ Governance

☑ Water accounting figures

☑ Water pollution indicators

(4.12.1.6) Page/section reference

KMG data for IOSG is a part of IOGP report: IOGP Report 2023e, the main report

(4.12.1.7) Attach the relevant publication

2023e IOGP.pdf

(4.12.1.8) Comment

Since 2018, KMG has been a full member of the International Association of Oil and Gas Producers (IOGP). KMG is a member of the IOGP association and annually posts water resource indicators on the IOGP platform for its producing subsidiaries and affiliates. Collection, compilation and presentation of environmental information on oil and gas exploration and production are reflected in the annual IOGP environmental performance report, which consists of seven categories: - Gaseous emissions - Energy consumption - Flaring - Formation water - Non-aqueous drilling muds retained in sludge discharged into the sea - Spills - Fresh water taken from the environment
[Add row]

C5. Business strategy

(5.1) Does your organization use scenario analysis to identify environmental outcomes?

Climate change

(5.1.1) Use of scenario analysis

Select from:

☑ Yes

(5.1.2) Frequency of analysis

Select from:

☑ Every three years or less frequently

Water

(5.1.1) Use of scenario analysis

Select from:

☑ Yes

(5.1.2) Frequency of analysis

Select from:

☑ Every three years or less frequently

[Fixed row]

(5.1.1) Provide details of the scenarios used in your organization’s scenario analysis.

Climate change

(5.1.1.1) Scenario used

Climate transition scenarios

☑ Bespoke climate transition scenario

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Policy

☑ Market

☑ Liability

☑ Reputation

☑ Technology

☑ Acute physical

☑ Chronic physical

(5.1.1.6) Temperature alignment of scenario

Select from:

☑ 1.5°C or lower

(5.1.1.7) Reference year

2019

(5.1.1.8) Timeframes covered

Select all that apply

☑ Other, please specify **:**2031

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts

☑ Climate change (one of five drivers of nature change)

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

Policies in the jurisdictions covered by the scenario: Potential changes in legislation could alter the regulatory landscape, impacting the stringency and enforcement of policies. Macroeconomic trends: Economic downturns or global financial crises could reduce available funding for low-carbon initiatives. National- or regional-level variables: Increased frequency and severity of extreme weather events could disrupt operations and supply chains. Limited availability of natural resources in certain regions may affect production capacities. Developments in technology: Technological breakthroughs may not occur as expected, delaying the transition to low-carbon solutions. High initial costs and long development timelines for new technologies. Energy usage and mix: Fluctuations in energy prices and availability of renewable energy sources. Existing infrastructure may not support the rapid integration of renewable energy. Driving forces in scenario: The actual intensity of climate change impacts may vary, affecting the urgency and scale of responses. Uncertainties and constraints: Future geopolitical developments could influence global cooperation on climate action. Limited financial and human resources may hinder the implementation of comprehensive low-carbon strategies.

(5.1.1.11) Rationale for choice of scenario

Three scenarios were considered in the model - the baseline, the green development scenario and the low-carbon development scenario. The green scenario assumes a reduction in GHG emissions while maintaining the current operating structure of assets through energy efficiency measures, electrification, and the use of renewable energy. In the low-carbon development scenario, in addition to the above measures, projects are added to actively introduce technologies for hydrogen production, carbon capture and storage, and active offset policy (development of climate projects). However, given the current situation in the country's readiness for new technologies, low carbon prices, certain gaps in the permit and legislative framework, poor infrastructure development, etc., these areas will require large investments, but they will not produce a significant effect in terms of reducing the carbon footprint by 2031. Considering the above, the most promising scenario until 2031 is the green development scenario with a focus on energy efficiency and renewable energy measures. At the same time, promising areas should be tested in a pilot mode to build competencies and own potential for subsequent scaling in case of favorable conditions. Within the framework of the Program, these measures are allocated in a separate block "Additional decarbonization measures" Based on the results of the analysis, as well as considering KMG's country policy and development forecasts, the achievable goal for the Company under the green development scenario is to reduce carbon dioxide emissions by 15% by 2031 from the level of emissions in 2019, or 1.6 million tons of CO2. The largest costs are associated with the growth of payments for purchased electricity and with the tightening of carbon regulation. The difference in costs between the baseline and green scenarios will create support for investments in energy efficiency and decarbonization.

Water

(5.1.1.1) Scenario used

Water scenarios

☑ WRI Aqueduct

(5.1.1.3) Approach to scenario

Select from:

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

Select from:

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

Select all that apply

☑ Policy

☑ Liability

☑ Reputation

☑ Technology

☑ Acute physical

☑ Chronic physical

(5.1.1.7) Reference year

2022

(5.1.1.8) Timeframes covered

Select all that apply

☑ Other, please specify **:**2033

(5.1.1.9) Driving forces in scenario

Finance and insurance

☑ Cost of capital

Regulators, legal and policy regimes

☑ Global regulation

☑ Level of action (from local to global)

☑ Global targets

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

Policies in the jurisdictions covered by the scenarios. The development scenarios are defined in the draft Water Resources Management Program. Information will be disclosed in more detail after the Program is approved in 2024.

(5.1.1.11) Rationale for choice of scenario

The analysis of water management unfolds across three distinctive scenarios: Baseline Scenario: This scenario outlines the structure of overall water resource indicators based on the configuration of the baseline year, factoring in ongoing activities. Green Development Scenario: This envisions the execution of measures with ample ambition, aligning with the company's objectives for sustainable water management. Intensive Reduction Scenario: This involves the implementation of additional measures geared towards a substantial reduction in water consumption and discharge. These measures necessitate considerable financial investments. [Add row]

(5.1.2) Provide details of the outcomes of your organization’s scenario analysis.

Climate change

(5.1.2.1) Business processes influenced by your analysis of the reported scenarios

Select all that apply

☑ Risk and opportunities identification, assessment and management

☑ Strategy and financial planning

☑ Target setting and transition planning

(5.1.2.2) Coverage of analysis

Select from:

☑ Organization-wide

(5.1.2.3) Summarize the outcomes of the scenario analysis and any implications for other environmental issues

As a result, the analysis, as in other cases, provides two options for modeling the growth of electricity prices in the country: - soft scenario (assuming moderate growth in carbon unit prices and moderate amounts of capital investment); - tight scenario, respectively (assuming a hard carbon unit price growth scenario) and more significant capital expenditures. Assessment of the financial impact of regulatory options, the formation of the company's carbon budget to support decarbonization initiatives: The most feasible direction of decarbonization for KMG until 2030 is operational improvements, as this direction is the most common and understandable among companies in the industry and allows the use of known tools to optimize equipment and management within the existing operating structures. Based on the model analysis, the cost of electricity in the country will inevitably grow, both under the influence of national carbon regulation, and given the need to cover additional capital and investment costs in capacity renewal and implementation of RES in the energy system of the country. Reported carbon regulation risks, projected deficit of the carbon allowances, rising of the electricity prices, and an increase in the number of emergency power outages associated with outdated infrastructure of the national electricity grid and power generating facilities, KMG decided to increase its portfolio of renewable energy projects to reduce its carbon footprint as well as improve its energy security. In the medium term, the company will supply green energy both for its own needs and to the unified energy system of the country.

Water

(5.1.2.1) Business processes influenced by your analysis of the reported scenarios

Select all that apply

☑ Risk and opportunities identification, assessment and management

☑ Strategy and financial planning

☑ Target setting and transition planning

(5.1.2.2) Coverage of analysis

Select from:

☑ Organization-wide

(5.1.2.3) Summarize the outcomes of the scenario analysis and any implications for other environmental issues

The choice of which development path KMG will take will be determined after the approval of the Water Resources Management Program by the end of 2024 [Fixed row]

(5.2) Does your organization’s strategy include a climate transition plan?

(5.2.1) Transition plan

Select from:

☑ Yes, we have a climate transition plan which aligns with a 1.5°C world

(5.2.3) Publicly available climate transition plan

Select from:

☑ Yes

(5.2.4) Plan explicitly commits to cease all spending on, and revenue generation from, activities that contribute to fossil fuel expansion

Select from:

☑ No, and we do not plan to add an explicit commitment within the next two years

(5.2.6) Explain why your organization does not explicitly commit to cease all spending on and revenue generation from activities that contribute to fossil fuel expansion

As an oil extraction company, we adhere to the principles of sustainable development and consider social aspects in our activities. However, at this time, we believe that divesting from carbon-intensive products is premature, as it may negatively impact the economic stability and social support of our employees and communities. KMG has adopted aTransition Strategy that emphasizes a gradual reduction of fossil fuel investments rather than a sudden cessation. This method allows for a more stable and manageable shift toward sustainable practices, ensuring that the transition is both economically feasible and socially responsible. Given that fossil fuel activities currently represent a substantial source of revenue, an abrupt withdrawal could lead to financial instability and potential job losses, which the organization aims to avoid. Additionally, KMG recognizes its position within a broader supply chain where fossil fuels remain integral to operations. Moving away from these activities could disrupt established relationships with suppliers and customers who still depend on fossil fuels. Instead, KMG has opted to invest in innovation and cleaner technologies within the sector, believing that meaningful contributions to the energy transition can occur from within the industry.

(5.2.7) Mechanism by which feedback is collected from shareholders on your climate transition plan

Select from:

☑ We have a different feedback mechanism in place

(5.2.8) Description of feedback mechanism

Shareholders of JSC NC KazMunayGas are JSC Sovereign Welfare Fund Samruk- Kazyna - 87.42%, Republican State Institution National Bank of Kazakhstan - 9.58%, and 3% - in free float on the KASE and AIX exchanges. In accordance with the Agreement on transfer of shares of KazMunayGas into trust management from 12 October 2015 505 NB / 529-i, concluded between Samruk- Kazyna and the National Bank of the Republic of Kazakhstan, the Fund is the holder of all the voting shares of KMG. KazMunayGas, at the hearing of the Fund's portfolio companies, provides the majority shareholder with a semi-annual and annual performance report and receives feedback. In 2022 in particular, on the performance report for 2021, information was provided on KMG's Low-Carbon Development Programme. In the first half year 2022 performance report, information was provided on the developed Action Plan for the implementation of the Low Carbon Development Programme. According to the Corporate Standard on Strategic and Business Planning in Samruk- Kazyna Group of Companies, the strategic development planning of its portfolio companies, including KMG, should be consistent with the achievement of common strategic goals of the Fund and its portfolio companies. In addition, 3 representatives of the majority shareholder are members of the KMG Board of Directors, which directly approved the KMG Low-Carbon Development Programme for the period 2022-2031.

(5.2.9) Frequency of feedback collection

Select from:

☑ More frequently than annually

(5.2.10) Description of key assumptions and dependencies on which the transition plan relies

Policies in the jurisdictions covered by the scenario: Potential changes in legislation could alter the regulatory landscape, impacting the stringency and enforcement of policies. Macroeconomic trends: Economic downturns or global financial crises could reduce available funding for low-carbon initiatives. National- or regional-level variables: Increased frequency and severity of extreme weather events could disrupt operations and supply chains. Limited availability of natural resources in certain regions may affect production capacities. Developments in technology: Technological breakthroughs may not occur as expected, delaying the transition to low-carbon solutions. High initial costs and long development timelines for new technologies. Energy usage and mix: Fluctuations in energy prices and availability of renewable energy sources. Existing infrastructure may not support the rapid integration of renewable energy. Driving forces in scenario: The actual intensity of climate change impacts may vary, affecting the urgency and scale of responses. Uncertainties and constraints: Future geopolitical developments could influence global cooperation on climate action. Limited financial and human resources may hinder the implementation of comprehensive low-carbon strategies.

(5.2.11) Description of progress against transition plan disclosed in current or previous reporting period

I. Energy efficiency and energy conservation In 2023, 52 activities from Low-Carbon Development Programme, the estimated annual savings of fuel and energy resources of which amounted to 22,289 tonnes (716.6 thousand tonnes GJ, 0.6% of total energy consumption by the end of 2023), which is equivalent to a reduction in emissions by 45,054 tonnes of CO2. II. Renewable energy development In 2023, 10 thousand "green" certificates were purchased to confirm electricity consumption from renewable energy sources. A feasibility study was conducted to construct 2 renewable energy facilities with a total capacity of 1.2 GW. III. Additional decarbonization projects Implementation of CCUS technologies. The sources of CO2 emissions have been investigated and regions for carbon storage have been chosen. The storage volumes and the possibilities of using CO_2 have been determined. Research on the production potential of SAF. Together with Air Astana, a feasibility study on the environmentally friendly aviation fuel market has been launched, with results expected in the first half of 2024. Production of "blue"

hydrogen. A technical and economic calculation is being performed to evaluate the potential for hydrogen production and injection in the fields. Greenhouse gas management. Scope 3 emission category inventory work has been completed, which includes developing a methodology for collecting data. The implicit carbon price has been accounted for using a mechanism that has been approved. Implementation of methane management. KMG has become a part of OGMP 2.0 to manage and decrease methane emissions. Disclosure of TCFD reporting. The process of reporting implementation has been finished, climate risks have been identified, and an action plan for climate management has been created.

(5.2.12) Attach any relevant documents which detail your climate transition plan (optional)

ПНУР_ENG_.pdf

(5.2.13) Other environmental issues that your climate transition plan considers

Select all that apply

☑ No other environmental issue considered

[Fixed row]

(5.3) Have environmental risks and opportunities affected your strategy and/or financial planning?

(5.3.1) Environmental risks and/or opportunities have affected your strategy and/or financial planning

Select from:

☑ Yes, both strategy and financial planning

(5.3.2) Business areas where environmental risks and/or opportunities have affected your strategy

Select all that apply

☑ Products and services

☑ Upstream/downstream value chain

☑ Investment in R&D

☑ Operations

[Fixed row]

(5.3.1) Describe where and how environmental risks and opportunities have affected your strategy.

Products and services

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

KMG understands its role towards the fulfilment of the country's obligations under the Paris agreement given its role as one of the key national companies and contributors to the development of climate legislation in Kazakhstan. In connection with climate risks, tighter carbon regulation and increased demand for low-carbon products, in 2021 the Company's strategy until 2031 was renewed, where one of the 4 main strategic goals of the company was set as "Sustainable development and continuous reduction of carbon intensity of production". In order to achieve this goal, a Low-Carbon Development Program for 2022-2031 approved. Reported carbon regulation risks, projected deficit of the carbon allowances, rising of the electricity prices, and an increase in the number of emergency power outages associated with outdated infrastructure of the national electricity grid and power generating facilities, KMG decided to increase its portfolio of renewable energy projects to reduce its carbon footprint as well as improve its energy security. In the medium term, the company will supply green energy both for its own needs and to the unified energy system of the country. KMG has started developing a feasibility study and studying the wind potential in 2 regions, where it is planned to build wind farms with a total capacity of 1.12 GW.

Upstream/downstream value chain

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

KMG's Low-Carbon Development Program noted the need to improve procurement procedures in order to work more closely with suppliers to identify and further manage greenhouse gas emissions. Given that the rules of procurement procedures are developed by the parent company (Samruk-Kazyna JSC) and apply to all of its subsidiaries, the improvement of procurement rules will take several years.

Investment in R&D

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

☑ Water

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

In 2021, KMG began work on the development and implementation of a pilot project to capture, store carbon dioxide (CCUS) and determine the potential of CO2 injection to increase the oil recovery of depleted oil reservoirs, which will allow in the long term until 2031: 1. Reduce the level of greenhouse gas emissions at KMG's industrial facility by capturing and injecting them into depleted oil reservoirs or aquifers. 2. To test the technology (working out the results for the formation of the legislative and permitting framework of the Republic of Kazakhstan to implement projects for carbon dioxide capture, storage (CCUS) and their subsequent scaling). At the present KMG has completed the research and the technical and economic analysis aimed at assessing the technical potential and economic feasibility of the pilot project. KMG carried out the screening of concentrated sources of CO2 emissions in Atyrau and Mangystau regions. Search for available reservoirs (traps)

located within a radius of up to 100 km from concentrated sources and corresponding to the requirements of CO2 disposal has been performed; Hydrogen Energy In 2022 the Department for Alternative Energy was established on the basis of KMG Engineering LLP, which will be a research hub / center of search for green fuels (including hydrogen and chemical compounds from hydrogen), whose development will significantly expand the scientific and production potential of both the company and the country, will contribute to increased technological growth and accelerate the formation of market foundations of hydrogen economy and become an investment in training of domestic staff. The work on the country market research and analysis of the development potential of low-carbon hydrogen energy in Kazakhstan has been completed. Within the framework of this work, as a case-stage and in- depth case study, an assessment of the potential of blue hydrogen production at the Pavlodar Petrochemical Plant was carried out, which includes a proposal to modernize the hydrogen production plant. Renewable energy KMG works with our partners (Total Eren and Eni) to build large-scale renewables projects. We plan to construct wind farms with a total capacity of 1.12 GW in Zhambyl and Mangystau regions. Therefore, KMG is currently conducting a feasibility study of wind potential in these areas. The company also considers and implements water management projects that allow water to be reused and free up fresh water consumption for the needs of local residents such as the construction of a desalination plant in Karazhanbasmunai. Reconstruction of mechanical treatment facilities has improved the quality of wastewater treatment. Analysis is underway for other projects for future implementation, such as the project for additional wastewater treatment at the oil refinery.

Operations

(5.3.1.1) Effect type

Select all that apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

Select all that apply

☑ Climate change

☑ Water

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

As an oil and gas company, we are subject to the regulatory requirements of the Environmental Code of the Republic of Kazakhstan (RoK) related to climate change, including the Kazakhstan Emissions Trading System. 14 KMG subsidiary entities are covered by Kazakhstan ETS and 2 subsidiary entities are covered by EU ETS. In addition, investors and the parent company are demanding the implementation of ESG principles in operations. This trend is on the rise and could result in increased operational costs for our company. Thus, taking into account the adopted Low-Carbon Development Program, KMG considers it advisable to focus its future activities on issues of improving operational efficiency and energy saving, as well as on the development of renewable energy projects portfolio. We aim to implement the Company's Energy Efficiency and Carbon Footprint Reduction Policy in order to achieve the climate goals in an orderly manner. The policy shall

become a mandatory document for all employees of KMG and its subsidiaries and affiliates. We plan to achieve at least 10% reduction of energy and carbon intensity, and develop at least 300 MW of renewable power by 2031. As part of this strategy, we launched a prefeasibility study jointly with Eni for 120 MW hybrid power plant in Mangystau region around our key upstream assets and jointly with Total Eren for 1000 MW wind power plant in Zhambyl region. In order to integrate climate-related risks into our strategy, we aim to develop TCFD aligned governance and risk management processes. Also, in 2022, the Internal Carbon Pricing Program was approved. The main purpose of the Program is to assess and minimize the financial risks of the Company from the tightening of carbon regulation, as well as the redistribution of part of the investments from carbon—intensive projects to low-carbon ones. The program provides for the accounting of carbon costs implemented in the system of modelling and evaluation of investment projects. Currently, a draft of the new Water Code of the Republic of Kazakhstan is being developed, which will clarify the requirements for the use of water resources. In addition, the Republic of Kazakhstan has developed reference books on the best available techniques with established specific standards for the quality of wastewater discharge, which may require additional investments in improving treatment facilities for those enterprises that are switching to a comprehensive environmental permit from 2025.
[Add row]

(5.3.2) Describe where and how environmental risks and opportunities have affected your financial planning.

Row 1

(5.3.2.1) Financial planning elements that have been affected

Select all that apply

☑ Assets
☑ Revenues
☑ Direct costs
☑ Indirect costs
☑ Capital expenditures
☑ Acquisitions and divestments

(5.3.2.2) Effect type

Select all that apply

☑ Risks
☑ Opportunities

(5.3.2.3) Environmental issues relevant to the risks and/or opportunities that have affected these financial planning elements

Select all that apply

☑ Climate change

☑ Water

(5.3.2.4) Describe how environmental risks and/or opportunities have affected these financial planning elements

1. Acquisitions and divestments. Climate risks and opportunities have a significant impact on a company's financial planning. Change in the market structure - the development of renewable energy sources, transformation of the energy mix, increase of electric transport - leads to a decrease in oil demand in the energy sector for the long term. However, there is a growing demand for natural gas as an alternative reserve fuel in the electric power industry, as well as a raw material for polymers. Increasing gas production and sales by expanding APG processing capacities and building gas chemical complexes will allow us to increase revenue in the long term. 2. Revenues. Revenues from the realization of KMG's energy transition opportunities will still be calculated. However, the development of renewable energy, offset policy and energy efficiency will provide a monetary financial effect in the amount of 160.19 million USD per year. 3. Direct costs. To estimate the direct costs, KMG conducted modeling of the impact of carbon regulation. In the Business as Usual scenario, direct cost growth for KMG will increase by 1,155.07 million per year. In this regard, the implementation of the Low Carbon Development Program will reduce direct costs by 200 million compared to the Business as Usual scenario and generate additional income in the amount of 160.19 million USD per year. 4. Capital Expenditures. The total capital cost of KMG's Low Carbon Development Programme was estimated at US755.8 million in 2021. In 2022, KMG has developed a Low Carbon Development Programme Action Plan, in which the costs have been calculated in more detail and amount to US931.2 million. Additionally, in 2022, KMG developed and approved an Internal Carbon Pricing Program. The main objectives of the Program are the redistribution of investments in low-carbon projects, as well as in projects to reduce greenhouse gas emissions and modernize enterprises. 5. Assets. As part of the energy transition strategy, KMG plans to develop renewable energy sources both through the construction of its own assets and through M&A transactions with existing projects. 6. In 2024, programs will be developed to improve the environmental efficiency of oil refineries in order to bring wastewater quality standards up to the standards of the best available techniques, which may entail additional financial investments to improve the treatment technologies of enterprises.

[Add row]

(5.4) In your organization’s financial accounting, do you identify spending/revenue that is aligned with your organization’s climate transition?

	Identification of spending/revenue that is aligned with your organization’s climate transition
	Select from: ☑ No, but we plan to in the next two years

[Fixed row]

(5.5) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

(5.5.1) Investment in low-carbon R&D

Select from:

☑ Yes

(5.5.2) Comment

Hydrogen energy KMG established the Department for Alternative Energy (former- Hydrogen Energy Competence Center) in 2022 (on the basis of KMG Engineering LLP). Currently, the Advisory consulting company, with the participation of the KMG Hydrogen Energy Competence Center, has completed work on a country market research and analysis of the development potential of low- carbon hydrogen energy in Kazakhstan. As part of the work on the development of hydrogen energy, is working in 3 areas: 1. Conducting a feasibility study on the production of "blue" hydrogen and its derivatives; 2. Analysis of the production of "green" hydrogen; 3. Conducting laboratory research on the manufacture of alloys for the storage and transportation of hydrogen. Renewables KMG has started developing a feasibility study and studying the wind potential in the Zhambyl region, in which, together with Total Eren S.A., it is planned to build a 1000 MW wind farm with an energy storage system. KMG is carrying out similar work on the construction of a 120 MW hybrid plant (sun wind) in the Mangystau region together with Eni. SAF In September 2023, together with Air Astana and with the support of the European Bank for Reconstruction and Development, work began on a feasibility study of the market for sustainable aviation fuel (SAF) and the prospects for production in the Republic of Kazakhstan. The next stages of the study will include a more detailed study of the selected SAF Production technologies to determine the feasibility of SAF production for KMG, as well as a study of the regulatory and legal framework of the Republic of Kazakhstan for SAF production. The results of the feasibility study will be presented in the first half of 2024. Methane In order to reduce and mitigate methane emissions, the Company signed a Memorandum of Cooperation with Tetra Tech ES, Inc. implementing the USAID-funded Central Asia Energy Project (PCA). KMG signed an agreement with Baker Hughes Services Kazakhstan LLP in December 2023 to cooperate on the implementation of low-carbon projects, including the implementation of projects to monitor and repair methane leaks and reduce routine flaring.
[Fixed row]

(5.5.7) Provide details of your organization's investments in low-carbon R&D for your sector activities over the last three years.

Row 1

(5.5.7.1) Technology area

Select from:

☑ Carbon capture, utilization, and storage (CCUS)

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

22

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

393310

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

The possibility of implementing a pilot project on CCS (carbon capture, use and storage) is being studied. Screening of CO2 emissions in Atyrau and Mangystau regions has been completed, the "main groups" of CO2 emission sources with a volume of about 400 thousand tons have been identified, and an assessment of the ground infrastructure has also been carried out. Due to the high capital costs, we have started exploring an alternative concept, where a pilot plant with a capacity of 20-25 tons of CO2 per day is being considered.

Row 2

(5.5.7.1) Technology area

Select from:

☑ Hydrogen

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

21

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

668122

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

In 2022, the Department of Alternative Energy was established on the basis of KMG Engineering LLP, which will become a research hub/center for the search for environmentally friendly fuels (including hydrogen and chemical compounds from hydrogen), the development of which will significantly expand the scientific and production potential of both the company and the country, contribute to accelerating technological growth and to form the market foundations of the hydrogen economy and become an investment in the training of domestic personnel. As part of the work on the development of hydrogen energy, work is underway in 3 areas: 1. Conducting a feasibility study on the production of "blue" hydrogen and its derivatives; 2. Analysis of the production of "green" hydrogen; 3. Conducting laboratory research on the manufacture of alloys for the storage and transportation of hydrogen. Today, DNUR, together with KMGI, is carrying out a technical and economic calculation to determine the production possibilities of "blue" hydrogen, low-carbon ammonia and methanol to determine and assess the resource potential for low-carbon hydrogen production. The work on modeling technological processes has been completed. An economic assessment and a survey of vendors are being conducted. An Atlas of surface water resources has been developed to assess the potential for the production of "green" hydrogen. To evaluate potential projects for the production of "green" hydrogen, an analytical calculator has been developed to determine the reduced price of "green" hydrogen. As part of the laboratory work, samples of iron and titanium alloys for hydrogen storage were obtained. Work is underway to analyze their effectiveness.

Row 3

(5.5.7.1) Technology area

Select from:

☑ Energy efficiency in transport

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Applied research and development

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

0

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

CNG filling station construction project in the western region of Kazakhstan is ultimately aimed at the promotion of natural gas use as an alternative transportation fuel. With the expansion of CNG filling station network we expect more customers to convert their vehicles to use more affordable and eco-friendly CNG instead of conventional fuels such as gasoline or diesel. Eco-fuel is widely sold in our filling stations in Europe. In 2023, the following quantities of biofuel were sold through gas stations in Romania: 35,199,838 liters bioethanol (0 tons of CO2); 126,469,775 liters of biodiesel (0 tons of CO2). Moreover, we have introduced the EV charging station one of the filling stations in Romania where free charging service is available to all customers who own electric or hybrid vehicles.

Row 4

(5.5.7.1) Technology area

Select from:

☑ Other, please specify **:**Methane detection and reduction

(5.5.7.2) Stage of development in the reporting year

Select from:

☑ Basic academic/theoretical research

(5.5.7.3) Average % of total R&D investment over the last 3 years

0

(5.5.7.4) R&D investment figure in the reporting year (unit currency as selected in 1.2) (optional)

0

(5.5.7.5) Average % of total R&D investment planned over the next 5 years

0

(5.5.7.6) Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

KMG collaborates with Carbon Limits, USAID, and UNDP to research best methods for mitigating methane leakage. Pilot projects on the detection and direct measurement of methane leaks at production facilities of KMG subsidiaries are implemented within the program on reduction of methane emissions. KMG expects substantial financial savings in case of full commercialisation of those projects in our production facilities. Understanding the importance of reducing methane emissions into the atmosphere, KazMunayGas became the first Kazakh national company in 2023 to join the OGMP 2.0 Partnership organised by UNEP and IMEO on the margins of the COP28 Climate Change Conference. Thus, KazMunayGas signed a Memorandum of Understanding with UNEP as part of the COP28 conference. The Oil and Gas Methane Partnership 2.0 (OGMP 2.0) is the United Nations Environment Programme's flagship programme for reporting and reducing methane emissions from the oil and gas industry. OGMP 2.0 is the only comprehensive measurement-based reporting system for the oil and gas industry that improves the accuracy and transparency of methane emissions reporting. This is key to prioritising actions to reduce methane emissions in the industry.
[Add row]

(5.6) Break down, by fossil fuel expansion activity, your organization's CAPEX in the reporting year and CAPEX planned over the next 5 years.

Exploration of new oil fields

(5.6.1) CAPEX in the reporting year for this expansion activity (unit currency as selected in 1.2)

95000000

(5.6.2) CAPEX in the reporting year for this expansion activity as % of total CAPEX in the reporting year

6

(5.6.3) CAPEX planned over the next 5 years for this expansion activity as % of total CAPEX planned over the next 5 years

3

(5.6.4) Explain your CAPEX calculations, including any assumptions

The figure for exploration new fields is indicated for both oil and gas fields. Separate accounting is not conducted.

Exploration of new natural gas fields

(5.6.1) CAPEX in the reporting year for this expansion activity (unit currency as selected in 1.2)

0

(5.6.2) CAPEX in the reporting year for this expansion activity as % of total CAPEX in the reporting year

0

(5.6.3) CAPEX planned over the next 5 years for this expansion activity as % of total CAPEX planned over the next 5 years

0

(5.6.4) Explain your CAPEX calculations, including any assumptions

The figure for exploration new gas fields is included in the row above ("exploration of new oil fields"). Separate accounting is not conducted.

Expansion of existing oil fields

(5.6.1) CAPEX in the reporting year for this expansion activity (unit currency as selected in 1.2)

31500000

(5.6.2) CAPEX in the reporting year for this expansion activity as % of total CAPEX in the reporting year

2

(5.6.3) CAPEX planned over the next 5 years for this expansion activity as % of total CAPEX planned over the next 5 years

2

(5.6.4) Explain your CAPEX calculations, including any assumptions

The figure for both oil and gas fields. Separate accounting is not conducted.

Expansion of existing natural gas fields

(5.6.1) CAPEX in the reporting year for this expansion activity (unit currency as selected in 1.2)

0

(5.6.2) CAPEX in the reporting year for this expansion activity as % of total CAPEX in the reporting year

0

(5.6.3) CAPEX planned over the next 5 years for this expansion activity as % of total CAPEX planned over the next 5 years

0

(5.6.4) Explain your CAPEX calculations, including any assumptions

The figure for expansion of existing natural gas fields is included in the row above ("expansion of existing oil fields"). Separate accounting is not conducted.
[Fixed row]

(5.8) 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.

50

(5.9) What is the trend in your organization’s water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

(5.9.1) Water-related CAPEX (+/- % change)

-4205

(5.9.2) Anticipated forward trend for CAPEX (+/- % change)

46

(5.9.3) Water-related OPEX (+/- % change)

12560

(5.9.4) Anticipated forward trend for OPEX (+/- % change)

-38

(5.9.5) Please explain

The amount of capital expenditures in 2023 has been increased due to the TAZALYQ project. Work continues on the project "Modernization of wastewater treatment plants (MOE). After the reconstruction of the MOE, part of the purified water will be reused for the needs of the plant – to reduce the intake of fresh water for production purposes from the Ural River. The TAZALYQ project will have a significant impact on the environment by bringing the quality of wastewater treatment to standard indicators and stopping the release of harmful vapors into the atmosphere from open reservoirs of treatment facilities and the environmental impact of evaporation fields. The negative impact of production on groundwater, flora, fauna and atmospheric air of Atyrau city will be excluded. Work has also been carried out to replace two units of the diesel motor pump for the Petromidia fire extinguishing pumping station and fire-fighting water pipes have been replaced. In addition, work has been carried out

[Fixed row]

(5.10) Does your organization use an internal price on environmental externalities?

	Use of internal pricing of environmental externalities	Environmental externality priced
	Select from: ☑ Yes	*Select all that apply* ☑ Carbon ☑ Water

[Fixed row]

(5.10.1) Provide details of your organization's internal price on carbon.

Row 1

(5.10.1.1) Type of pricing scheme

Select from:

☑ Shadow price

(5.10.1.2) Objectives for implementing internal price

Select all that apply

☑ Drive energy efficiency

☑ Drive low-carbon investment

☑ Navigate regulations

☑ Setting and/or achieving of climate-related policies and targets

☑ Stress test investments

(5.10.1.3) Factors considered when determining the price

Select all that apply

☑ Alignment with the price of allowances under an Emissions Trading Scheme

(5.10.1.4) Calculation methodology and assumptions made in determining the price

Scenarios of changes in the shadow price level are based on KMG's forecasts for further changes in quotas prices in Kazakhstan ETS. The reduction of free quotas issued under the National Plan the total carbon budget of Kazakhstan, the inflation and exchange rate are taken into account.

(5.10.1.5) Scopes covered

Select all that apply

☑ Scope 1

(5.10.1.6) Pricing approach used – spatial variance

Select from:

☑ Uniform

(5.10.1.8) Pricing approach used – temporal variance

Select from:

☑ Evolutionary

(5.10.1.9) Indicate how you expect the price to change over time

As part of the current National Quota Allocation Plan for 2022-2025, an annual reduction in the volume of free quotas is provided for by 1.5%. KMG assumes that in order to achieve of Kazakhstan's NDC goals by 2030, within the framework of coming National Plan from 2026 the reduction will exceed 6% annually. It means covering 75% of companies' emissions with quotas by 2030. Annual inflation is estimated at 6-10%. The expected prices for carbon quotas will be: 3.16 by 2026, 10.53 by 2030, 19 by 2040, 43.2 by 2050. Due to the fact that further plans to reduce the volume of free quotas after 2025 have not been approved these indicators are dynamic and subject to revision as the data is updated.

(5.10.1.10) Minimum actual price used (currency per metric ton CO2e)

1.05

(5.10.1.11) Maximum actual price used (currency per metric ton CO2e)

1.05

(5.10.1.12) Business decision-making processes the internal price is applied to

Select all that apply

☑ Capital expenditure

(5.10.1.13) Internal price is mandatory within business decision-making processes

Select from:

☑ Yes, for all decision-making processes

(5.10.1.14) % total emissions in the reporting year in selected scopes this internal price covers

75

(5.10.1.15) Pricing approach is monitored and evaluated to achieve objectives

Select from:

☑ Yes

(5.10.1.16) Details of how the pricing approach is monitored and evaluated to achieve your objectives

The use of a shadow price when evaluating capital investments in new projects and acquisitions helps the company to form a more stable portfolio of assets to external carbon regulation, as well as to invest in assets that will meet KazMunayGas' goal of reducing greenhouse gas emissions by 15% by 2031. For instance, in 2022, the possibility of transfer to trust management (operational control) was considered KazMunayGas of the gas turbine power plant "Karabatan". During the review of the project within the framework of a comprehensive technical and economic assessment, one of the mandatory conditions of which is now the assessment of the carbon footprint of the project and financial aspects related to carbon regulation, it was revealed that the company's costs for compliance with carbon regulation will amount to more than 44 billion tenge (95.65 million US dollars). As a result, the company abandoned the project. The reverse example, when taking into account the shadow carbon price allowed to increase the profitability of low-carbon projects was the evaluation of the project for the construction of the Mirny wind power plant with a capacity of 1 GW and a hybrid power plant (solar wind gas) in the Mangystau region with a capacity of 120 MW. Both projects, in addition to the profit from generating clean electricity, will also generate income from the sale of offset units, as well as ensure the consumption of KMG's nearby subsidiaries with clean energy, which will reduce Scope 2 emissions in the company as a whole.
[Add row]

(5.10.2) Provide details of your organization’s internal price on water.

Row 1

(5.10.2.1) Type of pricing scheme

Select from:

☑ Other, please specify **:**Tariff taking into account natural monopolies.

(5.10.2.2) Objectives for implementing internal price

Select all that apply

☑ Drive water-related investment

(5.10.2.3) Factors beyond current market price are considered in the price

Select from:

☑ Yes

(5.10.2.4) Factors considered when determining the price

Select all that apply

☑ Alignment to international standards

☑ Costs of transporting water

(5.10.2.5) Calculation methodology and assumptions made in determining the price

By the order of the Department of the Committee for Regulation of Natural Monopolies of the Ministry of National Economy of the Republic of Kazakhstan for Atyrau Region (hereinafter referred to as DKREM) dated August 28, 2023 No. 56-OD, amendments were made to the order of DKREM dated August 19, 2022 No. 74-OD "On approval of tariffs and tariff estimate of Magistralny Vodovod Limited Liability Partnership for the regulated service of water supply through main pipelines for 2022-2027" with entry into force on September 1, 2023: - population, budgetary and non-profit organizations, as well as other enterprises providing utilities to the population, budgetary and non-profit organizations - 18.04 tenge / m³; - agricultural producer - 64.98 tenge / m³; - industrial enterprises and other commercial organizations - 626.66 tenge/m³; - oil and gas producing enterprises - 1,870.55 tenge/m³. Taking this into account, the average tariff increased from 455.87 to 626.66 tenge/m³ or by 170.79 tenge/m³, which is 37%. At the same time, the tariff for the population, budgetary and non-profit organizations, as well as other enterprises providing public services to the population, budgetary and non-profit organizations, agricultural producers, the tariff remains at the same level without changes.

(5.10.2.6) Stages of the value chain covered

Select all that apply

☑ Direct operations

☑ Upstream value chain

(5.10.2.7) Pricing approach used – spatial variance

Select from:

☑ Differentiated

(5.10.2.8) Indicate how and why the price is differentiated

Population, budgetary and non-profit organizations, as well as other enterprises providing utilities to the population, budgetary and non-profit organizations - 18.04 tenge / m³; - agricultural producer - 64.98 tenge / m³; - industrial enterprises and other commercial organizations - 626.66 tenge/m³; - oil and gas producing enterprises - 1,870.55 tenge/m³.

(5.10.2.9) Pricing approach used – temporal variance

Select from:

☑ Static

(5.10.2.11) Minimum actual price used (currency per cubic meter)

18.04

(5.10.2.12) Maximum actual price used (currency per cubic meter)

626.66

(5.10.2.13) Business decision-making processes the internal water price is applied to

Select all that apply

☑ Capital expenditure

☑ Operations

(5.10.2.14) Internal price is mandatory within business decision-making processes

Select from:

☑ Yes, for some decision-making processes, please specify **:**The Committee for Regulation of Natural Monopolies of the Ministry of National Economy of the Republic of Kazakhstan sets tariffs, we as KMG can influence the setting of prices for industrial enterprises and other commercial organizations through coo

(5.10.2.15) Pricing approach is monitored and evaluated to achieve objectives

Select from:

☑ Yes

(5.10.2.16) Details of how the pricing approach is monitored and evaluated to achieve your objectives

The tariff is monitored by the supervisory authority in the sphere of natural monopolies.
[Add row]

(5.11) Do you engage with your value chain on environmental issues?

	Engaging with this stakeholder on environmental issues	Environmental issues covered
Suppliers	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water
Customers	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water
Investors and shareholders	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change

	Engaging with this stakeholder on environmental issues	Environmental issues covered
		☑ Water
Other value chain stakeholders	*Select from:* ☑ Yes	*Select all that apply* ☑ Climate change ☑ Water

[Fixed row]

(5.11.1) Does your organization assess and classify suppliers according to their dependencies and/or impacts on the environment?

	Assessment of supplier dependencies and/or impacts on the environment
Climate change	*Select from:* ☑ No, we do not currently assess the dependencies and/or impacts of our suppliers, but we plan to do so within the next two years
Water	*Select from:* ☑ No, we do not currently assess the dependencies and/or impacts of our suppliers, but we plan to do so within the next two years

[Fixed row]

(5.11.2) Does your organization prioritize which suppliers to engage with on environmental issues?

Climate change

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:

☑ No, we do not prioritize which suppliers to engage with on this environmental issue

(5.11.2.3) Primary reason for no supplier prioritization on this environmental issue

Select from:

☑ Other, please specify **:**KMG - is a national company, the procurement rules established by the state shareholder.

(5.11.2.4) Please explain

In the Low-Carbon Development Program, KMG has identified the necessity of implementing sustainable procurement to reduce emissions in Scope 3. In this regard, it is planned to explore the suppliers' activities.

Water

(5.11.2.1) Supplier engagement prioritization on this environmental issue

Select from:

☑ No, we do not prioritize which suppliers to engage with on this environmental issue

(5.11.2.3) Primary reason for no supplier prioritization on this environmental issue

Select from:

☑ Other, please specify **:**KMG - is a national company, the procurement rules established by the state shareholder.

(5.11.2.4) Please explain

The Water Management Programme project includes a supply chain audit to be conducted over the next few years to subsequently calculate the water footprint in the supply chain and determine additional requirements for suppliers.
[Fixed row]

(5.11.5) Do your suppliers have to meet environmental requirements as part of your organization's purchasing process?

	Suppliers have to meet specific environmental requirements related to this environmental issue as part of the purchasing process	Policy in place for addressing supplier non-compliance	Comment
Climate change	*Select from:* ☑ No, but we plan to introduce environmental requirements related to this environmental issue within the next two years	*Select from:* ☑ Yes, we have a policy in place for addressing non-compliance	*There is a comprehensive non-compliance policy that cover all environmental regulations in KMG including GHG and climate change issues.*
Water	*Select from:* ☑ No, but we plan to introduce environmental requirements related to this environmental issue within the next two years	*Select from:* ☑ Yes, we have a policy in place for addressing non-compliance	*There is a comprehensive non-compliance policy that cover all environmental regulations in KMG*

[Fixed row]

(5.11.7) Provide further details of your organization's supplier engagement on environmental issues.

Climate change

(5.11.7.2) Action driven by supplier engagement

Select from:

☑ No other supplier engagement

Water

(5.11.7.2) Action driven by supplier engagement

Select from:

☑ No other supplier engagement

[Add row]

(5.11.9) Provide details of any environmental engagement activity with other stakeholders in the value chain.

Climate change

(5.11.9.1) Type of stakeholder

Select from:

☑ Other value chain stakeholder, please specify **:**suppliers

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Share information on environmental initiatives, progress and achievements

Innovation and collaboration

☑ Collaborate with stakeholders on innovations to reduce environmental impacts in products and services

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ None

(5.11.9.4) % stakeholder-associated scope 3 emissions

Select from:

☑ None

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

In the Low-Carbon Development Program, KMG has identified the necessity of implementing sustainable procurement to reduce emissions in Scope 3. In this regard, it is planned to explore the suppliers' activities.

(5.11.9.6) Effect of engagement and measures of success

In the Low-Carbon Development Program, KMG has identified the necessity of implementing sustainable procurement to reduce emissions in Scope 3. In this regard, it is planned to explore the suppliers' activities.

Water

(5.11.9.1) Type of stakeholder

Select from:

☑ Investors and shareholders

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Share information on environmental initiatives, progress and achievements

(5.11.9.3) % of stakeholder type engaged

Select from:

☑ 1-25%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

Data on water footprint and water resource management are openly published in the company's reports and are taken into account when assigning a KMG ESG rating.

(5.11.9.6) Effect of engagement and measures of success

Availability of information on quantitative and qualitative indicators affects the KMG rating, which helps investors evaluate the management in the company.
[Add row]

C6. Environmental Performance - Consolidation Approach

(6.1) Provide details on your chosen consolidation approach for the calculation of environmental performance data.

Climate change

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

We have adopted the same consolidation approach as used in our financial accounting. This approach facilitates integration and consistency between our financial and environmental data, enhancing the reliability and transparency of our reporting. Also we use the Science Based Targets initiative (SBTi) approach. This ensures that our targets are aligned with the latest climate science and the goals of the Paris Agreement. By using SBTi, we commit to reducing our greenhouse gas emissions in line with what is necessary to limit global warming to well below 2C above pre-industrial levels, and ideally to 1.5C.

Water

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

We have adopted the same consolidation approach as used in our financial accounting. This approach facilitates integration and consistency between our financial and environmental data, enhancing the reliability and transparency of our reporting.

Plastics

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

We have adopted the same consolidation approach as used in our financial accounting. This approach facilitates integration and consistency between our financial and environmental data, enhancing the reliability and transparency of our reporting.

Biodiversity

(6.1.1) Consolidation approach used

Select from:

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

We have adopted the same consolidation approach as used in our financial accounting. This approach facilitates integration and consistency between our financial and environmental data, enhancing the reliability and transparency of our reporting.
[Fixed row]

C7. Environmental performance - Climate Change

(7.1) Is this your first year of reporting emissions data to CDP?

Select from:

☑ No

(7.1.1) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

(7.1.1.1) Has there been a structural change?

Select all that apply

☑ Yes, an acquisition

☑ Yes, a divestment

☑ Yes, other structural change, please specify :liquidation

(7.1.1.2) Name of organization(s) acquired, divested from, or merged with

1) Acquired companies: Dunga Operating GmbH, Polymer Production LLP 2) Liquidated companies: "Stepnoy Leopard, LTD" JV" LLP, Snow Leopard Resources Ltd, KMGEP UK Limited 3) Incorporated companies: Kalamkas-Khazar Operating LLP, Karaton Operating Ltd. Private Company 4) Sale of interest in companies: Kalamkas-Khazar Operating LLP - 50%, Silleno LLP - 40%

(7.1.1.3) Details of structural change(s), including completion dates

1) re-registration was carried out in connection with the acquisition of KMG 100% of shares in Total E & P Dunga GmbH (on December 4, 2023, Total E & P Dunga GmbH was renamed Dunga Operating GmbH) - 20.11.2023, re-registration of Polymer Production LLP was carried out in connection with the acquisition of KMG of 100% stake in Polymer Production LLP - 19.12.2023 2) the company "Stepnoy Leopard, LTD" JV" LLP was liquidated - 25.07.2023, the company Snow Leopard Resources Ltd was liquidated - 24.10.2023, the company KMGEP UK Limited was liquidated - 06.12.2023; 3) state registration of Kalamkas-Khazar Operating LLP was carried out - 07.02.2023, state registration was carried out in connection with the incorporation of the company Karaton Operating Ltd. Private Company - 08.09.2023; 4) state re-registration of Silleno LLP was carried out - 28.03.2023, state re-registration of Kalamkas-Khazar Operating LLP was carried out - 11.09.2023 [Fixed row]

(7.1.2) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
	Select all that apply ☑ Yes, a change in methodology	*the methodolody for Scope 3 was expanded.*

[Fixed row]

(7.1.3) Have your organization’s base year emissions and past years’ emissions been recalculated as a result of any changes or errors reported in 7.1.1 and/or 7.1.2?

(7.1.3.1) Base year recalculation

Select from:

☑ Yes

(7.1.3.2) Scope(s) recalculated

Select all that apply

☑ Scope 1

☑ Scope 2, location-based

☑ Scope 2, market-based

☑ Scope 3

(7.1.3.3) Base year emissions recalculation policy, including significance threshold

The base year for the company was assumed to be 2019 and was recalculated due to changes in the methodology for calculating Scope 1 emissions, and excluded Kazmunaiteniz LLP from the base year. And also the methodology for Scope 3 was expanded.

(7.1.3.4) Past years' recalculation

Select from:

☑ Yes

[Fixed row]

(7.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Select all that apply

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

☑ European Union Emission Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for installations

☑ IPCC Guidelines for National Greenhouse Gas Inventories, 2006

☑ The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

☑ Other, please specify **:**The National guidelines for the calculation of GHG emissions were used to assess direct emission amounts for our facilities located in Kazakhstan - 4 methodologies. GHG Protocol Scope 2 Guidance and CDP Technical Note: Accounting of Scope 2 emissions

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

(7.3.1) Scope 2, location-based

Select from:

☑ We are reporting a Scope 2, location-based figure

(7.3.2) Scope 2, market-based

Select from:

☑ We are reporting a Scope 2, market-based figure

(7.3.3) Comment

Location-based Scope 2 emissions for our assets located in Kazakhstan and Georgia are calculated using available national energy production emissions factors. Market-based Scope 2 emissions for our assets in Romania are calculated using RE-DISS residual mix factors.
[Fixed row]

(7.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

Select from:

☑ No

(7.5) Provide your base year and base year emissions.

Scope 1

(7.5.1) Base year end

12/31/2019

(7.5.2) Base year emissions (metric tons CO2e)

8899528.5

(7.5.3) Methodological details

Base year emissions were recalculated due to changes in the methodology for calculating Scope 1 emissions and the exclusion of KazMunaiTeniz LLP.

Scope 2 (location-based)

(7.5.1) Base year end

12/31/2019

(7.5.2) Base year emissions (metric tons CO2e)

3303442.1

(7.5.3) Methodological details

Base year emissions were recalculated due to the exclusion of KazMunaiTeniz LLP

Scope 2 (market-based)

(7.5.1) Base year end

12/31/2019

(7.5.2) Base year emissions (metric tons CO2e)

3358555

(7.5.3) Methodological details

Base year emissions were recalculated due to the exclusion of KazMunaiTeniz LLP

Scope 3 category 1: Purchased goods and services

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year

Scope 3 category 2: Capital goods

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year

Scope 3 category 4: Upstream transportation and distribution

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year

Scope 3 category 5: Waste generated in operations

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year

Scope 3 category 6: Business travel

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year

Scope 3 category 7: Employee commuting

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year

Scope 3 category 8: Upstream leased assets

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year

Scope 3 category 9: Downstream transportation and distribution

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year

Scope 3 category 10: Processing of sold products

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year

Scope 3 category 11: Use of sold products

(7.5.1) Base year end

12/31/2019

(7.5.2) Base year emissions (metric tons CO2e)

71314661.3

(7.5.3) Methodological details

Base year emissions were recalculated due to the exclusion of KazMunaiTeniz LLP

Scope 3 category 12: End of life treatment of sold products

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year

Scope 3 category 13: Downstream leased assets

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year

Scope 3 category 14: Franchises

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year

Scope 3 category 15: Investments

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year

Scope 3: Other (upstream)

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year

Scope 3: Other (downstream)

(7.5.1) Base year end

12/30/2019

(7.5.2) Base year emissions (metric tons CO2e)

0

(7.5.3) Methodological details

not calculated in the base year
[Fixed row]

(7.6) What were your organization’s gross global Scope 1 emissions in metric tons CO2e?

	Gross global Scope 1 emissions (metric tons CO2e)	End date	Methodological details
Reporting year	*8479969*	*Date input [must be between [10/01/2015 - 10/01/2023]*	*emissions were calculated using the national methodology*
Past year 1	*8076436*	*12/30/2022*	*emissions were calculated using the national methodology*
Past year 2	*10611090*	*12/30/2021*	*emissions were calculated using the national methodology*
Past year 3	*10070174*	*12/30/2020*	*emissions were calculated using the national methodology*

[Fixed row]

(7.7) What were your organization’s gross global Scope 2 emissions in metric tons CO2e?

Reporting year

(7.7.1) Gross global Scope 2, location-based emissions (metric tons CO2e)

3457871

(7.7.2) Gross global Scope 2, market-based emissions (metric tons CO2e) (if applicable)

3374698

(7.7.4) Methodological details

Location-based Scope 2 emissions for our assets located in Kazakhstan and Georgia are calculated using available national energy production emissions factors. Market-based Scope 2 emissions for our assets in Romania are calculated using residual mix factors.

Past year 1

(7.7.1) Gross global Scope 2, location-based emissions (metric tons CO2e)

3278950

(7.7.2) Gross global Scope 2, market-based emissions (metric tons CO2e) (if applicable)

3217033

(7.7.3) End date

12/30/2022

(7.7.4) Methodological details

Location-based Scope 2 emissions for our assets located in Kazakhstan and Georgia are calculated using available national energy production emissions factors. Market-based Scope 2 emissions for our assets in Romania are calculated using residual mix factors.

Past year 2

(7.7.1) Gross global Scope 2, location-based emissions (metric tons CO2e)

3339396

(7.7.2) Gross global Scope 2, market-based emissions (metric tons CO2e) (if applicable)

3313408

(7.7.3) End date

12/30/2021

(7.7.4) Methodological details

Location-based Scope 2 emissions for our assets located in Kazakhstan and Georgia are calculated using available national energy production emissions factors. Market-based Scope 2 emissions for our assets in Romania are calculated using residual mix factors.

Past year 3

(7.7.1) Gross global Scope 2, location-based emissions (metric tons CO2e)

3446750

(7.7.2) Gross global Scope 2, market-based emissions (metric tons CO2e) (if applicable)

3506985

(7.7.3) End date

12/30/2020

(7.7.4) Methodological details

Location-based Scope 2 emissions for our assets located in Kazakhstan and Georgia are calculated using available national energy production emissions factors. Market-based Scope 2 emissions for our assets in Romania are calculated using residual mix factors.
[Fixed row]

(7.8) Account for your organization’s gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

(7.8.1) Evaluation status

Select from:
☑ Relevant, not yet calculated

(7.8.5) Please explain

A very significant range of purchased goods and services for which it is not possible to accurately calculate indirect emissions, as there are no established emission calculation rates from different categories of goods (services) in the framework of national programs.

Capital goods

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

No data from manufacturers and no nationally established rates for calculating emissions from different categories of goods (services).

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

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

273934

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Other, please specify **:**emissions are calculated in accordance with the GHG Protocol

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

(7.8.5) Please explain

emissions are calculated using data on which our subsidiaries maintain records, not directly obtained from suppliers. Therefore, we have entered zero in column 4. emissions of this category were calculated in this reporting year for all our subsidiaries.

Upstream transportation and distribution

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

While GHG emissions from mobile sources are excluded under the regulatory requirements of the Kazakh and EU emissions trading systems, KMG suppliers also do not calculate GHG emissions from transportation

Waste generated in operations

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

All waste is transferred to contractors for further disposal or destruction. Contractors do not provide information on further actions. therefore, it is not possible to estimate emissions in this category in this reporting year.

Business travel

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

2020

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Other, please specify **:**emissions are calculated in accordance with the GHG Protocol

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

(7.8.5) Please explain

emissions are calculated using data on which our subsidiaries maintain records, not directly obtained from suppliers. Therefore, we have entered zero in column 4. emissions were calculated in this reporting year for all business travel by employees of our subsidiaries.

Employee commuting

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

354655

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Other, please specify **:**emissions are calculated in accordance with the GHG Protocol

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

(7.8.5) Please explain

emissions are calculated using data on which our subsidiaries maintain records, not directly obtained from suppliers. Therefore, we have entered zero in column 4. Emissions from employee commuting (to work, at work sites, home) were calculated in this reporting year for all our subsidiaries.

Upstream leased assets

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

The company does not lease or rent facilities/assets, so emissions are not calculated

Downstream transportation and distribution

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

361501

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Other, please specify **:**emissions are calculated in accordance with the GHG Protocol

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

(7.8.5) Please explain

emissions are calculated using data on which our subsidiaries maintain records, not directly obtained from suppliers. Therefore, we have entered zero in column 4. Emissions have been calculated along the routes where our products are delivered and transported

Processing of sold products

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

Company assumes that emissions associated with the processing of goods sold fall under the "use of goods sold" section of our primary Scope 3 emissions because the use of hydrocarbons involves processing. Emissions from goods processed by subsidiaries and affiliates of KMG are accounted in Scope 1.

Use of sold products

(7.8.1) Evaluation status

Select from:

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

54751253

(7.8.3) Emissions calculation methodology

Select all that apply

☑ Other, please specify **:**emissions are calculated in accordance with the GHG Protocol

(7.8.4) Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

(7.8.5) Please explain

emissions are calculated using data on which our subsidiaries maintain records, not directly obtained from suppliers. Therefore, we have entered zero in column 4. The company calculates emissions in this category annually. There is a decrease in CO2 emissions emissions compared to the previous year due to a decrease in the use of sold products, as well as a change in the approach to calculating emissions for some subsidiaries. This approach eliminates double counting of emissions. Scope 3 emissions estimates do not include production data from refineries in Kazakhstan due to the nature of our business model in Kazakhstan.

End of life treatment of sold products

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

No data is available on the disposal of products purchased from KMG by third-party customers. We have independently evaluated end-of-life emissions from our polymer products. These emissions are less than 4% of our Scope 3 gross emissions.

Downstream leased assets

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

The company does not lease or rent facilities/assets, so emissions are not calculated

Franchises

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

KMG assumes that emissions from the retail petrol station chain operated by franchisees are irrelevant compared to our Scope 3 emissions associated with "use of goods sold."

Investments

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

In terms of greenhouse gas emissions from those JVs in which the share of KMG investments is more than 50%, KMG reported 100% emissions in scope 1, 2, 3. We assume that the emissions associated with our investments have no operational significance less than than 50% compared to our main area 3 emissions associated with “use of goods sold”.

Other (upstream)

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

the company does not calculate emissions in other categories than those listed above in this section.

Other (downstream)

(7.8.1) Evaluation status

Select from:

☑ Not relevant, explanation provided

(7.8.5) Please explain

the company does not calculate emissions in other categories than those listed above in this section.
[Fixed row]

(7.8.1) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

(7.8.1.1) End date

12/30/2022

(7.8.1.2) Scope 3: Purchased goods and services (metric tons CO2e)

0

(7.8.1.3) Scope 3: Capital goods (metric tons CO2e)

0

(7.8.1.4) Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

0

(7.8.1.5) Scope 3: Upstream transportation and distribution (metric tons CO2e)

0

(7.8.1.6) Scope 3: Waste generated in operations (metric tons CO2e)

0

(7.8.1.7) Scope 3: Business travel (metric tons CO2e)

0

(7.8.1.8) Scope 3: Employee commuting (metric tons CO2e)

0

(7.8.1.9) Scope 3: Upstream leased assets (metric tons CO2e)

0

(7.8.1.10) Scope 3: Downstream transportation and distribution (metric tons CO2e)

0

(7.8.1.11) Scope 3: Processing of sold products (metric tons CO2e)

0

(7.8.1.12) Scope 3: Use of sold products (metric tons CO2e)

61759971

(7.8.1.13) Scope 3: End of life treatment of sold products (metric tons CO2e)

0

(7.8.1.14) Scope 3: Downstream leased assets (metric tons CO2e)

0

(7.8.1.15) Scope 3: Franchises (metric tons CO2e)

0

(7.8.1.16) Scope 3: Investments (metric tons CO2e)

0

(7.8.1.17) Scope 3: Other (upstream) (metric tons CO2e)

0

(7.8.1.18) Scope 3: Other (downstream) (metric tons CO2e)

0

(7.8.1.19) Comment

in scope 3 for 2022, only emissions in the category “use of sold products” were calculated

Past year 2

(7.8.1.1) End date

12/30/2021

(7.8.1.2) Scope 3: Purchased goods and services (metric tons CO2e)

0

(7.8.1.3) Scope 3: Capital goods (metric tons CO2e)

0

(7.8.1.4) Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

0

(7.8.1.5) Scope 3: Upstream transportation and distribution (metric tons CO2e)

0

(7.8.1.6) Scope 3: Waste generated in operations (metric tons CO2e)

0

(7.8.1.7) Scope 3: Business travel (metric tons CO2e)

0

(7.8.1.8) Scope 3: Employee commuting (metric tons CO2e)

0

(7.8.1.9) Scope 3: Upstream leased assets (metric tons CO2e)

0

(7.8.1.10) Scope 3: Downstream transportation and distribution (metric tons CO2e)

0

(7.8.1.11) Scope 3: Processing of sold products (metric tons CO2e)

0

(7.8.1.12) Scope 3: Use of sold products (metric tons CO2e)

61713184

(7.8.1.13) Scope 3: End of life treatment of sold products (metric tons CO2e)

0

(7.8.1.14) Scope 3: Downstream leased assets (metric tons CO2e)

0

(7.8.1.15) Scope 3: Franchises (metric tons CO2e)

0

(7.8.1.16) Scope 3: Investments (metric tons CO2e)

0

(7.8.1.17) Scope 3: Other (upstream) (metric tons CO2e)

0

(7.8.1.18) Scope 3: Other (downstream) (metric tons CO2e)

0

(7.8.1.19) Comment

in scope 3 for 2021, only emissions in the category “use of sold products” were calculated

Past year 3

(7.8.1.1) End date

12/30/2020

(7.8.1.2) Scope 3: Purchased goods and services (metric tons CO2e)

0

(7.8.1.3) Scope 3: Capital goods (metric tons CO2e)

0

(7.8.1.4) Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

0

(7.8.1.5) Scope 3: Upstream transportation and distribution (metric tons CO2e)

0

(7.8.1.6) Scope 3: Waste generated in operations (metric tons CO2e)

0

(7.8.1.7) Scope 3: Business travel (metric tons CO2e)

0

(7.8.1.8) Scope 3: Employee commuting (metric tons CO2e)

0

(7.8.1.9) Scope 3: Upstream leased assets (metric tons CO2e)

0

(7.8.1.10) Scope 3: Downstream transportation and distribution (metric tons CO2e)

0

(7.8.1.11) Scope 3: Processing of sold products (metric tons CO2e)

0

(7.8.1.12) Scope 3: Use of sold products (metric tons CO2e)

61943540

(7.8.1.13) Scope 3: End of life treatment of sold products (metric tons CO2e)

0

(7.8.1.14) Scope 3: Downstream leased assets (metric tons CO2e)

0

(7.8.1.15) Scope 3: Franchises (metric tons CO2e)

0

(7.8.1.16) Scope 3: Investments (metric tons CO2e)

0

(7.8.1.17) Scope 3: Other (upstream) (metric tons CO2e)

0

(7.8.1.18) Scope 3: Other (downstream) (metric tons CO2e)

0

(7.8.1.19) Comment

in scope 3 for 2020, only emissions in the category “use of sold products” were calculated
[Fixed row]

(7.9) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	*Select from:* ☑ Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	*Select from:* ☑ Third-party verification or assurance process in place
Scope 3	*Select from:* ☑ Third-party verification or assurance process in place

[Fixed row]

(7.9.1) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Row 1

(7.9.1.1) Verification or assurance cycle in place

Select from:

☑ Annual process

(7.9.1.2) Status in the current reporting year

Select from:

☑ Complete

(7.9.1.3) Type of verification or assurance

Select from:

☑ Limited assurance

(7.9.1.4) Attach the statement

Veridfication stat KMG eng 2023 reporting year заявление о верификации (английская версия).pdf

(7.9.1.5) Page/section reference

Verification statement 031/24/IR, 2024, september 16, page 6-7

(7.9.1.6) Relevant standard

Select from:

☑ ISO14064-3

(7.9.1.7) Proportion of reported emissions verified (%)

100
[Add row]

(7.9.2) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Row 1

(7.9.2.1) Scope 2 approach

Select from:
☑ Scope 2 market-based

(7.9.2.2) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.2.3) Status in the current reporting year

Select from:
☑ Complete

(7.9.2.4) Type of verification or assurance

Select from:
☑ Limited assurance

(7.9.2.5) Attach the statement

Veridfication stat KMG eng 2023 reporting year заявление о верификации (английская версия).pdf

(7.9.2.6) Page/ section reference

Verification statement 031/24/IR, 2024, september 16, page 7

(7.9.2.7) Relevant standard

Select from:

☑ ISO14064-3

(7.9.2.8) Proportion of reported emissions verified (%)

100

Row 2

(7.9.2.1) Scope 2 approach

Select from:

☑ Scope 2 location-based

(7.9.2.2) Verification or assurance cycle in place

Select from:

☑ Annual process

(7.9.2.3) Status in the current reporting year

Select from:

☑ Complete

(7.9.2.4) Type of verification or assurance

Select from:

☑ Limited assurance

(7.9.2.5) Attach the statement

Veridfication stat KMG eng 2023 reporting year заявление о верификации (английская версия).pdf

(7.9.2.6) Page/ section reference

Verification statement 031/24/IR, 2024, september 16, page 7

(7.9.2.7) Relevant standard

Select from:
☑ ISO14064-3

(7.9.2.8) Proportion of reported emissions verified (%)

100
[Add row]

(7.9.3) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Row 1

(7.9.3.1) Scope 3 category

Select all that apply
☑ Scope 3: Use of sold products

(7.9.3.2) Verification or assurance cycle in place

Select from:
☑ Annual process

(7.9.3.3) Status in the current reporting year

Select from:
☑ Complete

(7.9.3.4) Type of verification or assurance

Select from:
☑ Limited assurance

(7.9.3.5) Attach the statement

Veridfication stat KMG eng 2023 reporting year заявление о верификации (английская версия).pdf

(7.9.3.6) Page/section reference

Verification statement 031/24/IR, 2024, september 16, page 7

(7.9.3.7) Relevant standard

Select from:
☑ ISO14064-3

(7.9.3.8) Proportion of reported emissions verified (%)

98
[Add row]

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

Select from:
☑ Increased

(7.10.1) 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 renewable energy consumption

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

-

Other emissions reduction activities

(7.10.1.1) Change in emissions (metric tons CO2e)

45100

(7.10.1.2) Direction of change in emissions

Select from:

☑ Decreased

(7.10.1.3) Emissions value (percentage)

0.5

(7.10.1.4) Please explain calculation

Due to the implementation of energy efficiency measures, direct emissions decreased by 45.1 thousand tons of CO2

Divestment

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

-

Acquisitions

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:
☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

-

Mergers

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

-

Change in output

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

-

Change in methodology

(7.10.1.1) Change in emissions (metric tons CO2e)

582454

(7.10.1.2) Direction of change in emissions

Select from:

☑ Increased

(7.10.1.3) Emissions value (percentage)

5

(7.10.1.4) Please explain calculation

emissions of Scope 1 increased in equivalent by 403,533 tCO2e due to a change in the methodology for calculating methane emissions (methane emission factors were taken from the IPCC for developed countries on average). Scope 2 emissions increased by 178,921 tCO2e due to a change in the methodology for calculating Scope 2. From July 2023, our subsidiaries purchase energy from a single energy supplier in Kazakhstan, which changed the emissions factors for calculating Scope 2 emissions. Total emissions increased by 582,454 tCO2e. (scope 2 is based on the geographical method).

Change in boundary

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

-

Change in physical operating conditions

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

-

Unidentified

(7.10.1.1) Change in emissions (metric tons CO2e)

0

(7.10.1.2) Direction of change in emissions

Select from:

☑ No change

(7.10.1.3) Emissions value (percentage)

0

(7.10.1.4) Please explain calculation

-

Other

(7.10.1.1) Change in emissions (metric tons CO2e)

7409

(7.10.1.2) Direction of change in emissions

Select from:

☑ Decreased

(7.10.1.3) Emissions value (percentage)

0.07

(7.10.1.4) Please explain calculation

In order to reduce indirect greenhouse gas emissions (Scope 2), JSC NC KazMunayGas acquired I-REC (International Renewable Energy Certificates) and extinguished them for 10.0 million kWh, which corresponds to the expected electricity consumption by KMG Corporate Center in 2023. Voluntary I-REC certificates confirm information on the fact of electricity generation from a renewable energy source (RES).
[Fixed row]

(7.10.2) Are your emissions performance calculations in 7.10 and 7.10.1 based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Select from:

☑ Location-based

(7.12) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

Select from:

☑ No

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

Select from:

☑ Yes

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

Row 1

(7.15.1.1) Greenhouse gas

Select from:

☑ CO2

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

1

(7.15.1.3) GWP Reference

Select from:

☑ IPCC Fifth Assessment Report (AR5 – 100 year)

Row 2

(7.15.1.1) Greenhouse gas

Select from:

☑ CH4

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

28

(7.15.1.3) GWP Reference

Select from:

☑ IPCC Fifth Assessment Report (AR5 – 100 year)

Row 3

(7.15.1.1) Greenhouse gas

Select from:

☑ N2O

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

265

(7.15.1.3) GWP Reference

Select from:

☑ IPCC Fifth Assessment Report (AR5 – 100 year)

[Add row]

(7.15.4) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.

Row 1

(7.15.4.1) Emissions category

Select from:

☑ Combustion (excluding flaring)

(7.15.4.2) Value chain

Select all that apply

☑ Upstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

2237988

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

50

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

2249442

(7.15.4.7) Comment

emissions decreased in the combustion category by 111 thousand tons of CO2e due to a decrease in production volumes at two KMG subsidiaries

Row 2

(7.15.4.1) Emissions category

Select from:

☑ Flaring

(7.15.4.2) Value chain

Select all that apply

☑ Upstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

78987

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

79050

(7.15.4.7) Comment

emissions decreased in the flare category by 43 thousand tons of CO2e due to a decrease in production volumes at two KMG subsidiaries

Row 3

(7.15.4.1) Emissions category

Select from:

☑ Fugitives

(7.15.4.2) Value chain

Select all that apply

☑ Upstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

2614

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

35834

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

1005955

(7.15.4.7) Comment

emissions increased by 3.7 times (or by 734 thousand tons of CO2e) due to changes in the methodology for calculating methane emissions (methane emission factors were taken from the IPCC for developed countries on average).

Row 4

(7.15.4.1) Emissions category

Select from:

☑ Process (feedstock) emissions

(7.15.4.2) Value chain

Select all that apply

☑ Upstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

13347

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

13367

(7.15.4.7) Comment

emissions decreased in the process emissions category by 15 thousand tons of CO2e due to lower production volumes at two KMG subsidiaries

Row 5

(7.15.4.1) Emissions category

Select from:

☑ Other (please specify) **:**other

(7.15.4.2) Value chain

Select all that apply

☑ Upstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

94

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

96

(7.15.4.7) Comment

emissions decreased in the other category by 11 thousand tons of CO2e due to lower production volumes at two KMG subsidiaries

Row 6

(7.15.4.1) Emissions category

Select from:

☑ Combustion (excluding flaring)

(7.15.4.2) Value chain

Select all that apply

☑ Midstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

102877

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

102982

(7.15.4.7) Comment

emissions increased by 26 thousand tons of CO2e due to increased oil transportation volume

Row 7

(7.15.4.1) Emissions category

Select from:

☑ Fugitives

(7.15.4.2) Value chain

Select all that apply

☑ Midstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

5

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

58

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

1629

(7.15.4.7) Comment

emissions increased by 1,6 thousand tons of CO2e due to increased oil transportation volume

Row 8

(7.15.4.1) Emissions category

Select from:

☑ Flaring

(7.15.4.2) Value chain

Select all that apply

☑ Midstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

0

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

0

(7.15.4.7) Comment

there are no emissions in this category

Row 9

(7.15.4.1) Emissions category

Select from:

☑ Process (feedstock) emissions

(7.15.4.2) Value chain

Select all that apply

☑ Midstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

0

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

0

(7.15.4.7) Comment

there are no emissions in this category

Row 10

(7.15.4.1) Emissions category

Select from:

☑ Venting

(7.15.4.2) Value chain

Select all that apply

☑ Midstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

0

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

0

(7.15.4.7) Comment

there are no emissions in this category

Row 11

(7.15.4.1) Emissions category

Select from:

☑ Other (please specify) **:**other

(7.15.4.2) Value chain

Select all that apply

☑ Midstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

0

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

0

(7.15.4.7) Comment

there are no emissions in this category

Row 12

(7.15.4.1) Emissions category

Select from:

☑ Venting

(7.15.4.2) Value chain

Select all that apply

☑ Upstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

0

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

0

(7.15.4.7) Comment

there are no emissions in this category

Row 13

(7.15.4.1) Emissions category

Select from:

☑ Combustion (excluding flaring)

(7.15.4.2) Value chain

Select all that apply

☑ Downstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

3892904

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

30

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

3899909

(7.15.4.7) Comment

emissions decreased by 113 thousand tons of CO2e in the combustion category due to a decrease in oil refining volume

Row 14

(7.15.4.1) Emissions category

Select from:

☑ Flaring

(7.15.4.2) Value chain

Select all that apply

☑ Downstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

60086

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

60090

(7.15.4.7) Comment

emissions increased by 22 thousand tons of CO2e in the flare emissions category due to an increase in gas flaring due to technological needs

Row 15

(7.15.4.1) Emissions category

Select from:

☑ Venting

(7.15.4.2) Value chain

Select all that apply

☑ Downstream

(7.15.4.3) Product

Select from:
☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

0

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

0

(7.15.4.7) Comment

there are no emissions in this category

Row 16

(7.15.4.1) Emissions category

Select from:
☑ Fugitives

(7.15.4.2) Value chain

Select all that apply
☑ Downstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

25

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

455

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

12760

(7.15.4.7) Comment

emissions decreased by 142 thousand tons of CO2e in the fugitive emissions category due to lower oil refining volumes

Row 17

(7.15.4.1) Emissions category

Select from:

☑ Process (feedstock) emissions

(7.15.4.2) Value chain

Select all that apply

☑ Downstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

1053234

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

5

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

1054689

(7.15.4.7) Comment

emissions increased by 31 thousand tons of CO2e in the process emissions category due to an increase in the volume of coke rolling at one of the refineries

Row 18

(7.15.4.1) Emissions category

Select from:

☑ Other (please specify) **:**other

(7.15.4.2) Value chain

Select all that apply

☑ Downstream

(7.15.4.3) Product

Select from:

☑ Unable to disaggregate

(7.15.4.4) Gross Scope 1 CO2 emissions (metric tons CO2)

0

(7.15.4.5) Gross Scope 1 methane emissions (metric tons CH4)

0

(7.15.4.6) Total gross Scope 1 emissions (metric tons CO2e)

0

(7.15.4.7) Comment

there are no emissions in this category
[Add row]

(7.16) Break down your total gross global Scope 1 and 2 emissions by country/area.

	Scope 1 emissions (metric tons CO2e)	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Georgia	*20314*	*1241*	*1241*
Kazakhstan	*7582540*	*3147852*	*3147852*
Romania	*877115*	*308778*	*225605*

[Fixed row]

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

Select all that apply
☑ By activity

(7.17.3) Break down your total gross global Scope 1 emissions by business activity.

	Activity	Scope 1 emissions (metric tons CO2e)
Row 1	*Oil and gas refining activities (downstream)*	*5027447*
Row 2	*Oil and gas exploration and production activities (upstream)*	*3347910*
Row 3	*Oil and gas transportation activities (midstream)*	*104612*

[Add row]

(7.19) Break down your organization’s total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

Oil and gas production activities (upstream)

(7.19.1) Gross Scope 1 emissions, metric tons CO2e

3347910

(7.19.2) Net Scope 1 emissions , metric tons CO2e

0

(7.19.3) Comment

emissions increased by 551kt of CO2e due to an increase in methane emissions (due to a change in the national methodology for calculating methane emissions in the fugitive emissions category. Average coefficients for developed countries were adopted, which are significantly higher than those adopted in the previous year). Column 3 is not relevant for our company, so we specified zero.

Oil and gas production activities (midstream)

(7.19.1) Gross Scope 1 emissions, metric tons CO2e

104612

(7.19.2) Net Scope 1 emissions , metric tons CO2e

0

(7.19.3) Comment

emissions increased by 28 thousand tons of CO2e due to increased oil transportation volume. Column 3 is not relevant for our company, so we specified zero.

Oil and gas production activities (downstream)

(7.19.1) Gross Scope 1 emissions, metric tons CO2e

5027447

(7.19.2) Net Scope 1 emissions , metric tons CO2e

0

(7.19.3) Comment

emissions decreased by 176 thousand tons of CO2e due to a decrease in oil refining volume. Column 3 is not relevant for our company, so we specified zero.
[Fixed row]

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

Select all that apply
☑ By activity

(7.20.3) Break down your total gross global Scope 2 emissions by business activity.

	Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Row 1	*Oil and gas refining activities (downstream)*	*1846251*	*1763078*
Row 2	*Oil and gas exploration and production activities (upstream)*	*1371982*	*1371982*
Row 3	*Oil and gas transportation activities (midstream)*	*239638*	*239638*

[Add row]

(7.21) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Oil and gas production activities (upstream)	*1371982*	*1371982*	*emissions in Kazakhstan increased due to a change in the methodology for calculating Scope 2 emissions (emission factor increased).*
Oil and gas production activities (midstream)	*239638*	*239637*	*emissions in Kazakhstan increased due to a change in the methodology for calculating Scope 2 emissions (emission factor increased).*
Oil and gas production activities (downstream)	*1846251*	*1763078*	*emissions in Kazakhstan increased due to a change in the methodology for calculating Scope 2 emissions (emission factor increased).*

[Fixed row]

(7.22) Break down your gross Scope 1 and Scope 2 emissions between your consolidated accounting group and other entities included in your response.

Consolidated accounting group

(7.22.1) Scope 1 emissions (metric tons CO2e)

8479969

(7.22.2) Scope 2, location-based emissions (metric tons CO2e)

3457871

(7.22.3) Scope 2, market-based emissions (metric tons CO2e)

3374698

(7.22.4) Please explain

In this section, emissions are presented for the group of companies of NC KazMunayGas JSC, including the corporate center and subsidiaries. Subsidiaries include only operated assets with 50% or more ownership. This approach is applied to all emissions reported in this questionnaire.

All other entities

(7.22.1) Scope 1 emissions (metric tons CO2e)

0

(7.22.2) Scope 2, location-based emissions (metric tons CO2e)

0

(7.22.3) Scope 2, market-based emissions (metric tons CO2e)

0

(7.22.4) Please explain

emissions of all non-operated assets of NC KazMunayGas JSC group of companies with ownership interest below 50% are not included in this questionnaire.

[Fixed row]

(7.23) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Select from:
☑ Yes

(7.23.1) Break down your gross Scope 1 and Scope 2 emissions by subsidiary.

Row 1

(7.23.1.1) Subsidiary name

Pavlodar Refinery

(7.23.1.2) Primary activity

Select from:
☑ Oil & gas refining

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply
☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

936872

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

789849

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

789849

(7.23.1.15) Comment

a refinery

Row 2

(7.23.1.1) Subsidiary name

Kazakhoil Aktobe

(7.23.1.2) Primary activity

Select from:

☑ Oil & gas extraction

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

177123

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

64488

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

64488

(7.23.1.15) Comment

A company engaged in the extraction of hydrocarbon

Row 3

(7.23.1.1) Subsidiary name

Atyrau Refinery

(7.23.1.2) Primary activity

Select from:
☑ Oil & gas refining

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply
☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

1593487

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

465809

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

465809

(7.23.1.15) Comment

a refinery

Row 4

(7.23.1.1) Subsidiary name

Kazakh Gas Processing Plant

(7.23.1.2) Primary activity

Select from:

☑ Oil & gas refining

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

135137

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

159630

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

159630

(7.23.1.15) Comment

Gas Processing plant

Row 5

(7.23.1.1) Subsidiary name

Ozenmunaigas

(7.23.1.2) Primary activity

Select from:

☑ Oil & gas extraction

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

800641

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

515190

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

515190

(7.23.1.15) Comment

A company engaged in the extraction of hydrocarbon

Row 6

(7.23.1.1) Subsidiary name

Petromidia Refinery

(7.23.1.2) Primary activity

Select from:

☑ Oil & gas refining

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

835562

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

304578

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

223362

(7.23.1.15) Comment

oil refinery in Romania

Row 7

(7.23.1.1) Subsidiary name

Vega Refinery

(7.23.1.2) Primary activity

Select from:

☑ Oil & gas refining

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

41553

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

4200

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

2243

(7.23.1.15) Comment

oil refinery in Romania

Row 8

(7.23.1.1) Subsidiary name

Ozenmunai services

(7.23.1.2) Primary activity

Select from:

☑ Other professional services

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

0

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

918

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

918

(7.23.1.15) Comment

The company providing service services

Row 9

(7.23.1.1) Subsidiary name

KazTransOil

(7.23.1.2) Primary activity

Select from:
☑ Oil & gas pipelines & storage

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply
☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

84298

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

238397

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

238397

(7.23.1.15) Comment

Oil transportation company

Row 10

(7.23.1.1) Subsidiary name

Caspi bitum

(7.23.1.2) Primary activity

Select from:

☑ Oil & gas refining

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

44290

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

17416

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

17416

(7.23.1.15) Comment

Bitumen Production Plant

Row 11

(7.23.1.1) Subsidiary name

Oil Constraction Company

(7.23.1.2) Primary activity

Select from:

☑ Other professional services

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

0.0

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

1700

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

1700

(7.23.1.15) Comment

The company providing service

Row 12

(7.23.1.1) Subsidiary name

Karazhanbasmunai

(7.23.1.2) Primary activity

Select from:

☑ Oil & gas extraction

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

1023231

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

179040

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

179040

(7.23.1.15) Comment

A company engaged in the extraction of hydrocarbon

Row 14

(7.23.1.1) Subsidiary name

Batumi Oil Terminal

(7.23.1.2) Primary activity

Select from:

☑ Oil & gas pipelines & storage

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

20314

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

1241

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

1241

(7.23.1.15) Comment

A company that provides services for transshipment, transportation, forwarding, purchase and sale of oil, petroleum products and gas, as well as products of their processing.

Row 15

(7.23.1.1) Subsidiary name

PetroKazakhstan Oil Products

(7.23.1.2) Primary activity

Select from:

☑ Oil & gas refining

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

1440546

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

264399

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

264399

(7.23.1.15) Comment

a refinery

Row 16

(7.23.1.1) Subsidiary name

Embamunaigas

(7.23.1.2) Primary activity

Select from:

☑ Oil & gas extraction

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

221639

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

113865

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

113865

(7.23.1.15) Comment

A company engaged in the extraction of hydrocarbon

Row 17

(7.23.1.1) Subsidiary name

JV Kazgermunai

(7.23.1.2) Primary activity

Select from:

☑ Oil & gas extraction

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

26062

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

132186

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

132186

(7.23.1.15) Comment

A company engaged in the extraction of hydrocarbon

Row 18

(7.23.1.1) Subsidiary name

KazmunayGaz corporate center

(7.23.1.2) Primary activity

Select from:

☑ Asset managers

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

0

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

3222

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

3222

(7.23.1.15) Comment

Corporate Center of JSC NC KazMunayGas. A business center located in Astana.

Row 19

(7.23.1.1) Subsidiary name

Mangistaumunaigaz

(7.23.1.2) Primary activity

Select from:

☑ Oil & gas extraction

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply

☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

1024891

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

201160

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

201160

(7.23.1.15) Comment

A company engaged in the extraction of hydrocarbon

Row 20

(7.23.1.1) Subsidiary name

Kazakhturkmunay

(7.23.1.2) Primary activity

Select from:
☑ Oil & gas extraction

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply
☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

71323

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

490

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

490

(7.23.1.15) Comment

A company engaged in the extraction of hydrocarbon

Row 21

(7.23.1.1) Subsidiary name

Oil Services Company

(7.23.1.2) Primary activity

Select from:
☑ Other professional services

(7.23.1.3) Select the unique identifier you are able to provide for this subsidiary

Select all that apply
☑ No unique identifier

(7.23.1.12) Scope 1 emissions (metric tons CO2e)

0.0

(7.23.1.13) Scope 2, location-based emissions (metric tons CO2e)

92

(7.23.1.14) Scope 2, market-based emissions (metric tons CO2e)

92

(7.23.1.15) Comment

The company providing service
[Add row]

(7.24) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.

Row 1

(7.24.1) Oil and gas business division

Select all that apply

☑ Upstream

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

1.38

(7.24.3) Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division

0.17

(7.24.4) Indicate whether your methane emissions figure is based on observational data

Select from:

☑ Estimated or modelled data only

(7.24.5) Details of methodology

The indicator increased 3 times compared to the previous year due to changes in the methodology of methane emissions calculations (the values of the methane emission factor increased upwards and, as a consequence, methane emissions in the Upstream sector increased).

Row 2

(7.24.1) Oil and gas business division

Select all that apply

☑ Downstream

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

0.06

(7.24.3) Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division

0

(7.24.4) Indicate whether your methane emissions figure is based on observational data

Select from:

☑ Estimated or modelled data only

(7.24.5) Details of methodology

indicator decreased significantly due to a change in the methodology for calculating methane emissions. The new methodology requires an average for developed countries (IPCC). Since previously there was no uniform approach, companies could apply both a low and a high indicator, so our gas processing plant applied a higher indicator last year, so this year methane emissions decreased

Row 3

(7.24.1) Oil and gas business division

Select all that apply

☑ Midstream

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

0

(7.24.3) Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division

0

(7.24.4) Indicate whether your methane emissions figure is based on observational data

Select from:

☑ Estimated or modelled data only

(7.24.5) Details of methodology

gas transportation is absent due to the withdrawal of gas transportation assets from the company's structure in 2021. Methane emissions to oil transportation as a percentage are not presentable (less than 0).
[Add row]

(7.29) What percentage of your total operational spend in the reporting year was on energy?

Select from:

☑ More than 0% but less than or equal to 5%

(7.30) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	*Select from:* ☑ Yes
Consumption of purchased or acquired electricity	*Select from:* ☑ Yes
Consumption of purchased or acquired heat	*Select from:* ☑ Yes

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of purchased or acquired steam	*Select from:* ☑ Yes
Consumption of purchased or acquired cooling	*Select from:* ☑ No
Generation of electricity, heat, steam, or cooling	*Select from:* ☑ Yes

[Fixed row]

(7.30.1) Report your organization’s energy consumption totals (excluding feedstocks) in MWh.

Consumption of fuel (excluding feedstock)

(7.30.1.1) Heating value

Select from:

☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

0

(7.30.1.3) MWh from non-renewable sources

30115704.9

(7.30.1.4) Total (renewable and non-renewable) MWh

30115704.9

Consumption of purchased or acquired electricity

(7.30.1.1) Heating value

Select from:

☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

186904.3

(7.30.1.3) MWh from non-renewable sources

3837756.8

(7.30.1.4) Total (renewable and non-renewable) MWh

4024661.1

Consumption of purchased or acquired heat

(7.30.1.1) Heating value

Select from:

☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

0

(7.30.1.3) MWh from non-renewable sources

27668

(7.30.1.4) Total (renewable and non-renewable) MWh

27668

Consumption of purchased or acquired steam

(7.30.1.1) Heating value

Select from:

☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

0

(7.30.1.3) MWh from non-renewable sources

1630100.6

(7.30.1.4) Total (renewable and non-renewable) MWh

1630100.6

Consumption of self-generated non-fuel renewable energy

(7.30.1.1) Heating value

Select from:

☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

100.9

(7.30.1.4) Total (renewable and non-renewable) MWh

100.9

Total energy consumption

(7.30.1.1) Heating value

Select from:

☑ LHV (lower heating value)

(7.30.1.2) MWh from renewable sources

187005.2

(7.30.1.3) MWh from non-renewable sources

35611230.3

(7.30.1.4) Total (renewable and non-renewable) MWh

35798235.6
[Fixed row]

(7.30.6) 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	*Select from:* ☑ Yes
Consumption of fuel for the generation of heat	*Select from:* ☑ Yes
Consumption of fuel for the generation of steam	*Select from:*

	Indicate whether your organization undertakes this fuel application
	☑ Yes
Consumption of fuel for the generation of cooling	*Select from:* ☑ No
Consumption of fuel for co-generation or tri-generation	*Select from:* ☑ Yes

[Fixed row]

(7.30.7) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

(7.30.7.1) Heating value

Select from:

☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

KMG does not consume sustainable biomass

Other biomass

(7.30.7.1) Heating value

Select from:

☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

KMG does not consume biomass

Other renewable fuels (e.g. renewable hydrogen)

(7.30.7.1) Heating value

Select from:

☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

KMG does not consume

Coal

(7.30.7.1) Heating value

Select from:
☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.3) MWh fuel consumed for self-generation of electricity

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

KMG does not consume coal

Oil

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

6375

(7.30.7.3) MWh fuel consumed for self-generation of electricity

1811

(7.30.7.4) MWh fuel consumed for self-generation of heat

4222

(7.30.7.5) MWh fuel consumed for self-generation of steam

343

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

compare to 2022 data the indicators have been decreased

Gas

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

28562346

(7.30.7.3) MWh fuel consumed for self-generation of electricity

8112707

(7.30.7.4) MWh fuel consumed for self-generation of heat

18914879

(7.30.7.5) MWh fuel consumed for self-generation of steam

1534759

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

compare to 2022 data the indicators have been decreased

Other non-renewable fuels (e.g. non-renewable hydrogen)

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

1546984

(7.30.7.3) MWh fuel consumed for self-generation of electricity

355891

(7.30.7.4) MWh fuel consumed for self-generation of heat

1022335

(7.30.7.5) MWh fuel consumed for self-generation of steam

168757

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

ompare to 2022 data the indicators have been increased

Total fuel

(7.30.7.1) Heating value

Select from:
☑ LHV

(7.30.7.2) Total fuel MWh consumed by the organization

30115705

(7.30.7.3) MWh fuel consumed for self-generation of electricity

8470410

(7.30.7.4) MWh fuel consumed for self-generation of heat

19941436

(7.30.7.5) MWh fuel consumed for self-generation of steam

1703859

(7.30.7.6) MWh fuel consumed for self-generation of cooling

0

(7.30.7.7) MWh fuel consumed for self- cogeneration or self-trigeneration

0

(7.30.7.8) Comment

compare to 2022 data the indicators have been decreased
[Fixed row]

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

Electricity

(7.30.9.1) Total Gross generation (MWh)

739845

(7.30.9.2) Generation that is consumed by the organization (MWh)

739845

(7.30.9.3) Gross generation from renewable sources (MWh)

101

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

101

Heat

(7.30.9.1) Total Gross generation (MWh)

73269

(7.30.9.2) Generation that is consumed by the organization (MWh)

73269

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0

Steam

(7.30.9.1) Total Gross generation (MWh)

4564775

(7.30.9.2) Generation that is consumed by the organization (MWh)

4564775

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0

Cooling

(7.30.9.1) Total Gross generation (MWh)

0

(7.30.9.2) Generation that is consumed by the organization (MWh)

0

(7.30.9.3) Gross generation from renewable sources (MWh)

0

(7.30.9.4) Generation from renewable sources that is consumed by the organization (MWh)

0
[Fixed row]

(7.30.14) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in 7.7.

Row 1

(7.30.14.1) Country/area

Select from:
☑ Romania

(7.30.14.2) Sourcing method

Select from:
☑ Other, please specify **:**network mix of renewable energy sources

(7.30.14.3) Energy carrier

Select from:
☑ Electricity

(7.30.14.4) Low-carbon technology type

Select from:
☑ Low-carbon energy mix, please specify **:**Solar, wind, Hydroelectrycity

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

176296

(7.30.14.6) Tracking instrument used

Select from:

☑ Contract

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:

☑ Romania

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:

☑ No

(7.30.14.10) Comment

According to the European residual balance data, 41.28% of the energy consumed by our Romanian assets was classified as renewable with the following breakdown: solar - 3.17%, wind - 10.2%, hydroelectric - 12.03%.

Row 2

(7.30.14.1) Country/area

Select from:

☑ Georgia

(7.30.14.2) Sourcing method

Select from:

☑ Other, please specify **:**Acquisition or production of low-carbon thermal, electrical or low-emission electrical energy

(7.30.14.3) Energy carrier

Select from:

☑ Electricity

(7.30.14.4) Low-carbon technology type

Select from:

☑ Hydropower (capacity unknown)

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

6866

(7.30.14.6) Tracking instrument used

Select from:

☑ Contract

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:

☑ Georgia

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:

☑ No

(7.30.14.10) Comment

According to the IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation (2011), energy factors for river systems are in the range (20-95%) depending on geographical and climatic conditions, technology and productivity

Row 3

(7.30.14.1) Country/area

Select from:

☑ Kazakhstan

(7.30.14.2) Sourcing method

Select from:

☑ Other, please specify **:**Acquisition or production of low-carbon thermal, electrical or low-emission electrical energy

(7.30.14.3) Energy carrier

Select from:

☑ Electricity

(7.30.14.4) Low-carbon technology type

Select from:

☑ Solar

(7.30.14.5) Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

3741

(7.30.14.6) Tracking instrument used

Select from:

☑ Contract

(7.30.14.7) Country/area of origin (generation) of the low-carbon energy or energy attribute

Select from:

☑ Kazakhstan

(7.30.14.8) Are you able to report the commissioning or re-powering year of the energy generation facility?

Select from:

☑ No

(7.30.14.10) Comment

Solar energy from a renewable energy supplier. The RES consumption coefficient is taken as 100%, since this indicator is given only for RES
[Add row]

(7.30.16) Provide a breakdown by country/area of your electricity/heat/steam/cooling consumption in the reporting year.

Georgia

(7.30.16.1) Consumption of purchased electricity (MWh)

8803

(7.30.16.2) Consumption of self-generated electricity (MWh)

0

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

0

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

8803.00

Kazakhstan

(7.30.16.1) Consumption of purchased electricity (MWh)

3588783

(7.30.16.2) Consumption of self-generated electricity (MWh)

739946

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

1067772

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

4638044

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

10034545.00

Romania

(7.30.16.1) Consumption of purchased electricity (MWh)

427075

(7.30.16.2) Consumption of self-generated electricity (MWh)

0

(7.30.16.4) Consumption of purchased heat, steam, and cooling (MWh)

589997

(7.30.16.5) Consumption of self-generated heat, steam, and cooling (MWh)

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

1017072.00

[Fixed row]

(7.38) 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	*137*	*The crude oil production volumes covered 9 upstream assets under KMG operational control*
Natural gas liquids, million barrels	*6*	*The natural gas liquids production volumes covered 9 upstream assets under KMG operational control*
Oil sands, million barrels (includes bitumen and synthetic crude)	*6*	*bitumen data*
Natural gas, billion cubic feet	*4.7*	*The natural gas production volumes covered 9 upstream assets under KMG operational control*

[Fixed row]

(7.38.1) 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/areas, please explain this.

According to the reserves audit report prepared by the international independent consulting firm DeGolyer and MacNaughton in accordance with the PRMS international standard, KMG's proved plus probable hydrocarbon reserves (2P) were 707 mln toe (5,478 mln boe) as at 31 December 2022. 2P reserves increased by 9% year-on-year. The increase is mainly attributable to comprehensive initiatives in hydrocarbon reserves management, including recalculations of the reserves of the UVS of the Kalamkas fields, etc., an increase in the share of the Kashagan field from 8.44% to 16.88% (on September 15, 2022, 50% of the share of KMG Kashagan BV was repurchased from Samruk-Kazyna JSC, as well as by improving macroeconomic parameters (increase in oil prices).

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

(7.38.2.1) Estimated total net proved + probable reserves (2P) (million BOE)

5680

(7.38.2.2) Estimated total net proved + probable + possible reserves (3P) (million BOE)

6502

(7.38.2.3) Estimated net total resource base (million BOE)

9803

(7.38.2.4) Comment

According to the reserves audit report prepared by the international independent firm DeGolyer and MacNaughton in line with the PRMS international standard, KMG's proved and probable hydrocarbon reserves (2P) were 733 mln toe (5,680 mln boe) as of 31 December 2023. 2P reserves increased by 3.7% year-on-year. The increase was due to our efforts to ramp up well interventions, drilling of wells and changes in development plans aimed at replenishing production at operating assets.
[Fixed row]

(7.38.3) Provide an indicative percentage split for 2P, 3P reserves, and total resource base by hydrocarbon categories.

Crude oil/ condensate/ natural gas liquids

(7.38.3.1) Net proved + probable reserves (2P) (%)

80

(7.38.3.2) Net proved + probable + possible reserves (3P) (%)

81

(7.38.3.3) Net total resource base (%)

74

(7.38.3.4) Comment

compared with the data of 2022, there is a slight increase in indicators

Natural gas

(7.38.3.1) Net proved + probable reserves (2P) (%)

4

(7.38.3.2) Net proved + probable + possible reserves (3P) (%)

4

(7.38.3.3) Net total resource base (%)

3

(7.38.3.4) Comment

compared with the data of 2022, there is a slight increase in indicators

Oil sands (includes bitumen and synthetic crude)

(7.38.3.1) Net proved + probable reserves (2P) (%)

0

(7.38.3.2) Net proved + probable + possible reserves (3P) (%)

16

(7.38.3.3) Net total resource base (%)

23

(7.38.3.4) Comment

compared with the data of 2022, there is a slight increase in indicators
[Fixed row]

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

Row 1

(7.38.4.1) Development type

Select from:
☑ Onshore

(7.38.4.2) In-year net production (%)

87

(7.38.4.3) Net proved reserves (1P) (%)

73

(7.38.4.4) Net proved + probable reserves (2P) (%)

68

(7.38.4.5) Net proved + probable + possible reserves (3P) (%)

71

(7.38.4.6) Net total resource base (%)

79

(7.38.4.7) Comment

compared with the data of 2022, there is a slight decres in indicators

Row 2

(7.38.4.1) Development type

Select from:

☑ Shallow-water

(7.38.4.2) In-year net production (%)

13

(7.38.4.3) Net proved reserves (1P) (%)

27

(7.38.4.4) Net proved + probable reserves (2P) (%)

32

(7.38.4.5) Net proved + probable + possible reserves (3P) (%)

28

(7.38.4.6) Net total resource base (%)

21

(7.38.4.7) Comment

compared with the data of 2022, there is a slight increase in indicators. this indicator takes into account the Kashagan B.V. fields.
[Add row]

(7.43) Disclose your total refinery throughput capacity in the reporting year in thousand barrels per day.

	Total refinery throughput capacity (Thousand barrels per day)
Capacity	*457.8*

[Fixed row]

(7.43.1) Disclose feedstocks processed in the reporting year in million barrels per year.

Oil

(7.43.1.1) Throughput (Million barrels)

167.1

(7.43.1.2) Comment

the indicator includes the volume of refined oil at Kazakhstan and Romania refineries (for 2 refineries of the Republic of Kazakhstan the share of ownership is assumed to be 100%)

Other feedstocks

(7.43.1.1) Throughput (Million barrels)

0

(7.43.1.2) Comment

volume of gas processed at the gas processing plant amounted to 836.2 thousand tons of gas

Total

(7.43.1.1) Throughput (Million barrels)

167.1

(7.43.1.2) Comment

the indicator includes the volume of refined oil at Kazakhstan and Romania refineries (for 2 refineries of the Republic of Kazakhstan the share of ownership is assumed to be 100%)
[Fixed row]

(7.43.2) Are you able to break down your refinery products and net production?

Select from:
☑ Yes

(7.43.3) Disclose your refinery products and net production in the reporting year in million barrels per year.

Row 1

(7.43.3.1) Product produced

Select from:
☑ Liquified petroleum gas

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

7.5

Row 2

(7.43.3.1) Product produced

Select from:

☑ Gasolines

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

38.6

Row 3

(7.43.3.1) Product produced

Select from:

☑ Kerosenes

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

4.7

Row 4

(7.43.3.1) Product produced

Select from:

☑ Fuel oils

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

16.31

Row 6

(7.43.3.1) Product produced

Select from:

☑ Petroleum coke

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

2.81

Row 8

(7.43.3.1) Product produced

Select from:

☑ Diesel fuels

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

37.12

Row 9

(7.43.3.1) Product produced

Select from:

☑ Other, please specify **:**sales gas

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

3878

Row 10

(7.43.3.1) Product produced

Select from:

☑ Other, please specify **:**Paraxylene

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

0.19

Row 11

(7.43.3.1) Product produced

Select from:

☑ Other, please specify **:**benzyne

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

0.17

Row 12

(7.43.3.1) Product produced

Select from:

☑ Other, please specify **:**heating oil

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

0.18

Row 13

(7.43.3.1) Product produced

Select from:

☑ Other, please specify **:**vacuum gasoil

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

1.31

Row 14

(7.43.3.1) Product produced

Select from:

☑ Other, please specify **:**technical sulfur

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

0.51

Row 15

(7.43.3.1) Product produced

Select from:

☑ Other, please specify **:**Bitumen

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

4.73

Row 16

(7.43.3.1) Product produced

Select from:

☑ Other, please specify **:**pentane-hexane fraction

(7.43.3.2) Refinery net production (Million barrels) *not including products used/consumed on site

0.38
[Add row]

(7.43.4) Please disclose your petrochemicals production in the reporting year in thousand metric tons.

	Product	Production, Thousand metric tons	Capacity, Thousand metric tons
Row 1	*Select from:* ☑ Other, please specify **:**polypropylen	*264*	*560*
Row 2	*Select from:* ☑ Other, please specify **:**benzyne	*23.2*	*133*
Row 3	*Select from:* ☑ Other, please specify **:**propylen	*300*	*80*
Row 4	*Select from:* ☑ Other, please specify **:**LDPE	*18*	*60*

[Add row]

(7.45) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Row 1

(7.45.1) Intensity figure

0.00085

(7.45.2) Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

11937841

(7.45.3) Metric denominator

Select from:

☑ unit total revenue

(7.45.4) Metric denominator: Unit total

14000229617

(7.45.5) Scope 2 figure used

Select from:

☑ Location-based

(7.45.6) % change from previous year

2

(7.45.7) Direction of change

Select from:

☑ Increased

(7.45.8) Reasons for change

Select all that apply

☑ Change in methodology

(7.45.9) Please explain

the intensity indicator increased by 2% in the reporting year as Scope 12 emissions in equivalent tons of CO2 increased due to changes in the methodology for calculating methane emissions in Scope 1 and in the methodology for calculating Scope 2 emissions. Revenues have also increased. Therefore, the intensity indicator as a whole has increased.
[Add row]

(7.48) Provide the intensity figures for Scope 1 emissions (metric tons CO2e) per unit of hydrocarbon category.

Row 1

(7.48.1) Unit of hydrocarbon category (denominator)

Select from:

☑ Other, please specify **:**Thousand tonnes of hydrocarbon crude production

(7.48.2) Metric tons CO2e from hydrocarbon category per unit specified

114

(7.48.3) % change from previous year

0

(7.48.4) Direction of change

Select from:

☑ No change

(7.48.5) Reason for change

The emission intensity remained at the previous year's level of 114 tons of CO2 per thousand tons of HC produced in 2023.

(7.48.6) Comment

The reported value corresponds to the emission rate data we provide to IOGP. Thus, the emission rate is estimated based on data provided by only seven upstream companies (in the upper segment)

Row 2

(7.48.1) Unit of hydrocarbon category (denominator)

Select from:

☑ Other, please specify **:**The reported value corresponds to the emission rate data we provide to IOGP. Thus, the emission rate is estimated based on data provided by only seven upstream companies (in the upper segment)

(7.48.2) Metric tons CO2e from hydrocarbon category per unit specified

136

(7.48.3) % change from previous year

2

(7.48.4) Direction of change

Select from:

☑ Increased

(7.48.5) Reason for change

Emission intensity increased from 133 tons of CO2e per thousand tons of HC produced in 2022 to 136 tons of CO2e per thousand tons of HC produced in 2023. The increase is due to a change in the methodology for calculating methane emissions

(7.48.6) Comment

The reported value corresponds to the emission rate data we provide to IOGP. Thus, the emission rate is estimated based on data provided by only seven upstream companies (in the upper segment)

Row 3

(7.48.1) Unit of hydrocarbon category (denominator)

Select from:

☑ Other, please specify

(7.48.2) Metric tons CO2e from hydrocarbon category per unit specified

237

(7.48.3) % change from previous year

1

(7.48.4) Direction of change

Select from:

☑ Increased

(7.48.5) Reason for change

Emission intensity increased slightly (by 0.5 percent) to 237 tons of CO2 per thousand tons of processed HC. (in 2022 the intensity was 236 tons of CO2 per thousand tons of processed HC). The increase is due to insignificant increase in emissions from 3 refineries and insignificant decrease in the volume of processed hydrocarbons.

(7.48.6) Comment

The reported value corresponds to the emission rate data, which we calculate by analogy using IOGP approaches. Therefore, the emission rate is estimated based on data provided by only our three refineries in Kazakhstan.

Row 4

(7.48.1) Unit of hydrocarbon category (denominator)

Select from:

☑ Other, please specify

(7.48.2) Metric tons CO2e from hydrocarbon category per unit specified

34

(7.48.3) % change from previous year

6

(7.48.4) Direction of change

Select from:

☑ Increased

(7.48.5) Reason for change

Emissions intensity increased from 32 tons of CO2e per thousand barrels of actual throughput of our refineries in 2022 to 34 tons of CO2e per thousand barrels in 2023. The increase is attributable to a slight increase in emissions from 3 refineries, and a slight decrease in HC processing volume

(7.48.6) Comment

Main strategic directions of development energy saving and energy efficiency of the Group KMG companies — modernization of technological equipment, introduction of energy-saving technologies, optimization of generation and consumption of thermal energy, as well as the development of own sources of generation. [Add row]

(7.52) Provide any additional climate-related metrics relevant to your business.

Row 1

(7.52.1) Description

Select from:

☑ Waste

(7.52.2) Metric value

436

(7.52.3) Metric numerator

thousand tons

(7.52.4) Metric denominator (intensity metric only)

The ratio of waste generated to revenue 30, 4

(7.52.5) % change from previous year

4

(7.52.6) Direction of change

Select from:

☑ Increased

(7.52.7) Please explain

For KMG group, the total mass of waste handled in 2023 amounted to 436 thousand tons, of which 383 thousand tons were classified as “hazardous”, and 53 thousand tons were classified as “non-hazardous”. There was a slight increase in non-hazardous waste. 95% of the newly formed waste were utilized and recycled. 1 145 thousand tons of historical waste were utilized, sites of their disposal sites were recultivated.
[Add row]

(7.53) Did you have an emissions target that was active in the reporting year?

Select all that apply

☑ Absolute target

☑ Intensity target

(7.53.1) Provide details of your absolute emissions targets and progress made against those targets.

Row 1

(7.53.1.1) Target reference number

Select from:

☑ Abs 1

(7.53.1.2) Is this a science-based target?

Select from:

☑ No, and we do not anticipate setting one in the next two years

(7.53.1.5) Date target was set

11/03/2021

(7.53.1.6) Target coverage

Select from:

☑ Product level

(7.53.1.7) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)

(7.53.1.8) Scopes

Select all that apply

☑ Scope 1

☑ Scope 2

(7.53.1.9) Scope 2 accounting method

Select from:

☑ Location-based

(7.53.1.11) End date of base year

12/30/2019

(7.53.1.12) Base year Scope 1 emissions covered by target (metric tons CO2e)

7424062

(7.53.1.13) Base year Scope 2 emissions covered by target (metric tons CO2e)

3304832

(7.53.1.31) Base year total Scope 3 emissions covered by target (metric tons CO2e)

0.000

(7.53.1.32) Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

10728894.000

(7.53.1.33) Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

(7.53.1.34) Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

(7.53.1.53) Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

(7.53.1.54) End date of target

12/30/2031

(7.53.1.55) Targeted reduction from base year (%)

15

(7.53.1.56) Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e)

9119559.900

(7.53.1.57) Scope 1 emissions in reporting year covered by target (metric tons CO2e)

7442161

(7.53.1.58) Scope 2 emissions in reporting year covered by target (metric tons CO2e)

3457871

(7.53.1.77) Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

10900032.000

(7.53.1.78) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.1.79) % of target achieved relative to base year

-10.63

(7.53.1.80) Target status in reporting year

Select from:

☑ Underway

(7.53.1.82) Explain target coverage and identify any exclusions

According to the Low-Carbon Development Program, the emission reduction targets only account for tons of CO2.

(7.53.1.83) Target objective

Reduction of absolute emissions of Scope 12 by 15% from the 2019 base year. Emissions in tons of CO2 are taken as emissions coverage

(7.53.1.84) Plan for achieving target, and progress made to the end of the reporting year

In 2023, 60 measures were implemented across subsidiaries, which resulted in savings of 22.3 thousand tons of fuel equivalent to a reduction in emissions of 45.1 thousand tons. CO2. The Energy Policy and Regulations on management in the field of energy saving and energy efficiency in the group of companies of NC KazMunayGas JSC were approved. Targeted energy audit of process furnaces and boiler equipment of oil producing companies was conducted. In order to reduce indirect greenhouse gas emissions, KMG acquired I-REC (International Renewable Energy Certificate) and extinguished them for 10.0 million kWh, which corresponds to the expected electricity consumption by KMG's corporate center in 2023. Within the framework of implementation of the Low Carbon Development Program for 2024, 76 measures are planned, estimated savings of fuel and energy resources - 45.7 thousand tons of fuel equivalent, planned reduction of 98.9 thousand tons of CO2 emissions. Also according to the LCDP, work is underway on additional decarbonization projects, such as the implementation of a pilot project

on carbon dioxide capture and storage (CCUS), studying the prospects for the production of sustainable aviation fuel (SAF) in Kazakhstan, the development of clean fuels, which include the production of blue and green hydrogen, the possibility of hydrogen transportation is being studied, forest-climate project, the introduction of a leak detection and repair system (LDAR), disclosure of information on the development of clean fuels in Kazakhstan.

(7.53.1.85) Target derived using a sectoral decarbonization approach

Select from:

☑ No

[Add row]

(7.53.2) Provide details of your emissions intensity targets and progress made against those targets.

Row 1

(7.53.2.1) Target reference number

Select from:

☑ Int 3

(7.53.2.2) Is this a science-based target?

Select from:

☑ No, and we do not anticipate setting one in the next two years

(7.53.2.5) Date target was set

11/03/2021

(7.53.2.6) Target coverage

Select from:

☑ Business activity

(7.53.2.7) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)

(7.53.2.8) Scopes

Select all that apply

☑ Scope 1

☑ Scope 2

(7.53.2.9) Scope 2 accounting method

Select from:

☑ Location-based

(7.53.2.11) Intensity metric

Select from:

☑ Other, please specify **:**metric tons of CO2-e per thousand tons of crude oil

(7.53.2.12) End date of base year

12/30/2019

(7.53.2.13) Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

38.5

(7.53.2.14) Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

15.9

(7.53.2.33) Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

54.4000000000

(7.53.2.34) % of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

0.5

(7.53.2.35) % of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

0.4

(7.53.2.54) % of total base year emissions in all selected Scopes covered by this intensity figure

0.5

(7.53.2.55) End date of target

12/30/2031

(7.53.2.56) Targeted reduction from base year (%)

10

(7.53.2.57) Intensity figure at end date of target for all selected Scopes (metric tons CO2e per unit of activity)

48.9600000000

(7.53.2.58) % change anticipated in absolute Scope 1+2 emissions

-15

(7.53.2.60) Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

50.9

(7.53.2.61) Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

20.4

(7.53.2.80) Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

71.3000000000

(7.53.2.81) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.2.82) % of target achieved relative to base year

-310.66

(7.53.2.83) Target status in reporting year

Select from:

☑ Underway

(7.53.2.85) Explain target coverage and identify any exclusions

The target of carbon intensity reduction by 10% by 2031 has been set for bitumen production facility in Kazakhstan, which are under our operational control.. According to the Low-Carbon Development Program, the emission reduction targets only account for tons of CO2.

(7.53.2.86) Target objective

The target of carbon intensity reduction by 10% by 2031 has been set for bitumen production facility in Kazakhstan, which are under our operational control..

(7.53.2.87) Plan for achieving target, and progress made to the end of the reporting year

In the reporting year, the volume of oil refining did not change compared to the 2019 level. (according to which the target was set). but due to changes in the national methodology for calculating GHG emissions, emissions increased (Scope 2 emissions in 2023 reporting year are calculated using a different methodology due to changes in the system of electricity procurement from a single supplier in Kazakhstan.)

(7.53.2.88) Target derived using a sectoral decarbonization approach

Select from:

☑ Yes

Row 2

(7.53.2.1) Target reference number

Select from:

☑ Int 2

(7.53.2.2) Is this a science-based target?

Select from:

☑ No, and we do not anticipate setting one in the next two years

(7.53.2.5) Date target was set

11/03/2021

(7.53.2.6) Target coverage

Select from:

☑ Business activity

(7.53.2.7) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)

(7.53.2.8) Scopes

Select all that apply

☑ Scope 1

☑ Scope 2

(7.53.2.9) Scope 2 accounting method

Select from:

☑ Location-based

(7.53.2.11) Intensity metric

Select from:

☑ Other, please specify **:**metric tons of CO2-e per thousand tons of crude oil

(7.53.2.12) End date of base year

12/30/2019

(7.53.2.13) Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

229.9

(7.53.2.14) Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

100.4

(7.53.2.33) Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

330.3000000000

(7.53.2.34) % of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

50.0

(7.53.2.35) % of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

49.0

(7.53.2.54) % of total base year emissions in all selected Scopes covered by this intensity figure

50.0

(7.53.2.55) End date of target

12/30/2031

(7.53.2.56) Targeted reduction from base year (%)

10

(7.53.2.57) Intensity figure at end date of target for all selected Scopes (metric tons CO2e per unit of activity)

297.2700000000

(7.53.2.58) % change anticipated in absolute Scope 1+2 emissions

-15

(7.53.2.60) Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

237.17

(7.53.2.61) Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

91.07

(7.53.2.80) Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

328.2400000000

(7.53.2.81) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.2.82) % of target achieved relative to base year

6.24

(7.53.2.83) Target status in reporting year

Select from:

☑ Underway

(7.53.2.85) Explain target coverage and identify any exclusions

The target of carbon intensity reduction by 10% by 2031 has been set for 3 large refineries in Kazakhstan, which are under our operational control. According to the Low-Carbon Development Program, the emission reduction targets only account for tons of CO2.

(7.53.2.86) Target objective

The target of carbon intensity reduction by 10% by 2031 has been set for 3 large refineries in Kazakhstan. According to the Low-Carbon Development Program, the emission reduction targets only account for tons of CO2.

(7.53.2.87) Plan for achieving target, and progress made to the end of the reporting year

In the reporting year, the volume of oil refining increased compared to the level of 2019 (in accordance with which the target was set). Greenhouse gas emissions increased accordingly Although the methodology for calculating emissions has changed in Kazakhstan, including for scope 2, this did not lead to an increase in the intensity indicator for oil refineries, because the growth in production and growth in greenhouse gas emissions is commensurate.

(7.53.2.88) Target derived using a sectoral decarbonization approach

Select from:

☑ Yes

Row 3

(7.53.2.1) Target reference number

Select from:

☑ Int 1

(7.53.2.2) Is this a science-based target?

Select from:

☑ No, and we do not anticipate setting one in the next two years

(7.53.2.5) Date target was set

11/03/2021

(7.53.2.6) Target coverage

Select from:

☑ Business activity

(7.53.2.7) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)

(7.53.2.8) Scopes

Select all that apply

☑ Scope 1

☑ Scope 2

(7.53.2.9) Scope 2 accounting method

Select from:

☑ Location-based

(7.53.2.11) Intensity metric

Select from:

☑ Other, please specify **:**Metric tons of CO2-e per thousand tons of produced hydrocarbons

(7.53.2.12) End date of base year

12/30/2019

(7.53.2.13) Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

93.0

(7.53.2.14) Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

54.6

(7.53.2.33) Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

147.6000000000

(7.53.2.34) % of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

30.0

(7.53.2.35) % of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

37.0

(7.53.2.54) % of total base year emissions in all selected Scopes covered by this intensity figure

32.0

(7.53.2.55) End date of target

12/30/2031

(7.53.2.56) Targeted reduction from base year (%)

10

(7.53.2.57) Intensity figure at end date of target for all selected Scopes (metric tons CO2e per unit of activity)

132.8400000000

(7.53.2.58) % change anticipated in absolute Scope 1+2 emissions

-15

(7.53.2.60) Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

113.6

(7.53.2.61) Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

58.7

(7.53.2.80) Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

172.3000000000

(7.53.2.81) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.2.82) % of target achieved relative to base year

-167.34

(7.53.2.83) Target status in reporting year

Select from:

☑ Underway

(7.53.2.85) Explain target coverage and identify any exclusions

The target of carbon intensity reduction by 10% by 2031 has been set for upstream facilities in Kazakhstan, which are under our operational control. According to the LowCarbon Development Program, the emission reduction targets only account for tons of CO2.

(7.53.2.86) Target objective

The target of carbon intensity reduction by 10% by 2031 has been set for upstream facilities in Kazakhstan, which are under our operational control.

(7.53.2.87) Plan for achieving target, and progress made to the end of the reporting year

In the reporting year, the volume of hydrocarbon production decreased compared to the level of 2019 (in accordance with which the target was set). At the same time, greenhouse gas emissions increased due to the full utilization of own generation sources, as well as due to changes in the methodology of the target. own generation

sources, as well as due to changes in the methodology for calculating greenhouse gas emissions. Scope 2 emissions in the 2023 reporting year are calculated using a different methodology due to changes in the system of electricity procurement from a single supplier in Kazakhstan.

(7.53.2.88) Target derived using a sectoral decarbonization approach

Select from:

☑ Yes

Row 5

(7.53.2.1) Target reference number

Select from:

☑ Int 4

(7.53.2.2) Is this a science-based target?

Select from:

☑ No, and we do not anticipate setting one in the next two years

(7.53.2.5) Date target was set

11/03/2021

(7.53.2.6) Target coverage

Select from:

☑ Business activity

(7.53.2.7) Greenhouse gases covered by target

Select all that apply

☑ Carbon dioxide (CO2)

(7.53.2.8) Scopes

Select all that apply

☑ Scope 1

☑ Scope 2

(7.53.2.9) Scope 2 accounting method

Select from:

☑ Location-based

(7.53.2.11) Intensity metric

Select from:

☑ Other, please specify **:**metric tons of CO2-e per thousand tons of crude oil

(7.53.2.12) End date of base year

12/30/2019

(7.53.2.13) Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

3.76

(7.53.2.14) Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

5.51

(7.53.2.33) Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

9.2700000000

(7.53.2.34) % of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

4.0

(7.53.2.35) % of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

8.0

(7.53.2.54) % of total base year emissions in all selected Scopes covered by this intensity figure

5.0

(7.53.2.55) End date of target

12/30/2031

(7.53.2.56) Targeted reduction from base year (%)

10

(7.53.2.57) Intensity figure at end date of target for all selected Scopes (metric tons CO2e per unit of activity)

8.3430000000

(7.53.2.58) % change anticipated in absolute Scope 1+2 emissions

-15

(7.53.2.60) Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

4.11

(7.53.2.61) Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

5.4

(7.53.2.80) Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

9.5100000000

(7.53.2.81) Land-related emissions covered by target

Select from:

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.2.82) % of target achieved relative to base year

-25.89

(7.53.2.83) Target status in reporting year

Select from:

☑ Underway

(7.53.2.85) Explain target coverage and identify any exclusions

The target of carbon intensity reduction by 10% by 2031 has been set for midstream facilities in Kazakhstan. According to the Low-Carbon Development Program, the emission reduction targets only account for tons of CO2.

(7.53.2.86) Target objective

The target of carbon intensity reduction by 10% by 2031 has been set for midstream facilities in Kazakhstan. According to the Low-Carbon Development Program, the emission reduction targets only account for tons of CO2.

(7.53.2.87) Plan for achieving target, and progress made to the end of the reporting year

In the reporting year, the volume of transported oil did not change compared to the level of 2019. (according to which the target was set). But due to changes in the national methodology for calculating GHG emissions, emissions increased (Scope 2 emissions in 2023 reporting year are calculated using a different methodology due to changes in the system of electricity procurement from a single supplier in Kazakhstan.)

(7.53.2.88) Target derived using a sectoral decarbonization approach

Select from:

☑ Yes

[Add row]

(7.54) Did you have any other climate-related targets that were active in the reporting year?

Select all that apply

☑ Targets to increase or maintain low-carbon energy consumption or production

☑ Other climate-related targets

(7.54.1) Provide details of your targets to increase or maintain low-carbon energy consumption or production.

Row 1

(7.54.1.1) Target reference number

Select from:

☑ Low 1

(7.54.1.2) Date target was set

11/03/2021

(7.54.1.3) Target coverage

Select from:

☑ Country/area/region

(7.54.1.4) Target type: energy carrier

Select from:

☑ Electricity

(7.54.1.5) Target type: activity

Select from:

☑ Consumption

(7.54.1.6) Target type: energy source

Select from:

☑ Renewable energy source(s) only

(7.54.1.7) End date of base year

12/30/2019

(7.54.1.8) Consumption or production of selected energy carrier in base year (MWh)

211

(7.54.1.9) % share of low-carbon or renewable energy in base year

0.01

(7.54.1.10) End date of target

12/30/2031

(7.54.1.11) % share of low-carbon or renewable energy at end date of target

15

(7.54.1.12) % share of low-carbon or renewable energy in reporting year

0.11

(7.54.1.13) % of target achieved relative to base year

0.67

(7.54.1.14) Target status in reporting year

Select from:

☑ Underway

(7.54.1.16) Is this target part of an emissions target?

Yes, the construction of at least 300 MW of renewable energy will allow KMG to get credit for 0.6 million tons of CO2 emissions, which will ensure that by 2031 the target of a 15% reduction in carbon dioxide emissions from 2019 levels will be met. KMG is currently collaborating with our partners to construct two RES objects with a total capacity of 1,247 GW.W

(7.54.1.17) Is this target part of an overarching initiative?

Select all that apply

☑ No, it's not part of an overarching initiative

(7.54.1.19) Explain target coverage and identify any exclusions

This target takes into account the consumption of energy from renewable sources by our assets in Kazakhstan, which are under our operational control.

(7.54.1.20) Target objective

This target considers the consumption of energy from renewable sources by our assets in Kazakhstan, which are under our operational control.

(7.54.1.21) Plan for achieving target, and progress made to the end of the reporting year

The Low-Carbon Development program was developed in 2021 for the 2022-2031 period; therefore, targets for 2021 have not been set. Starting from 2022, it is planned to track progress towards the goals defined by 2031. At the same time, the share of Renewable Energy consumption increased to 0.28% in the reporting year.KMG has developed a portfolio of projects related to the increase of the share of renewable energy. In particular, KMG has set a goal of commissioning Renewable Energy facilities with a total capacity of at least 300 MW. Preliminarily, the balance of RES portfolio is expected to look as follows: the share of Wind Power Plants - 80%, Solar Power Plants - 20%. The total investment for implementation of RES projects will be at least 450 million USD. The annual electric power generation by RES will reach 945 million kWh (by 2031). The implementation of projects in this area will make it possible to achieve an additional reduction of CO2 emissions by 0.6 million tons.
[Add row]

(7.54.2) Provide details of any other climate-related targets, including methane reduction targets.

Row 1

(7.54.2.1) Target reference number

Select from:

☑ Oth 1

(7.54.2.2) Date target was set

11/03/2021

(7.54.2.3) Target coverage

Select from:

☑ Business activity

(7.54.2.4) Target type: absolute or intensity

Select from:

☑ Intensity

(7.54.2.5) Target type: category & Metric (target numerator if reporting an intensity target)

Energy consumption or efficiency

☑ Other energy consumption or efficiency, please specify **:**MJ

(7.54.2.6) Target denominator (intensity targets only)

Select from:

☑ toe

(7.54.2.7) End date of base year

12/30/2019

(7.54.2.8) Figure or percentage in base year

2281.3

(7.54.2.9) End date of target

12/30/2031

(7.54.2.10) Figure or percentage at end of date of target

2053.2

(7.54.2.11) Figure or percentage in reporting year

2681.6

(7.54.2.12) % of target achieved relative to base year

-175.4932047348

(7.54.2.13) Target status in reporting year

Select from:

☑ Underway

(7.54.2.15) Is this target part of an emissions target?

No

(7.54.2.16) Is this target part of an overarching initiative?

Select all that apply

☑ No, it's not part of an overarching initiative

(7.54.2.18) Please explain target coverage and identify any exclusions

The target of energy intensity reduction by 10% by 2031 has been set for upstream sector facilities in Kazakhstan, which are under our operational control.

(7.54.2.19) Target objective

The target of energy intensity reduction by 10% by 2031

(7.54.2.20) Plan for achieving target, and progress made to the end of the reporting year

The Low-Carbon Development Program (LCDP) was developed in 2021 for the 2022-2031 period; therefore, the energy intensity reduction goals for 2021 have not been set. Starting from 2022, it is planned to track progress towards the goals defined by 2031. The energy intensity target will be achieved through the improvement of energy efficiency and energy management system of the Company as well as using potential of renewable energy.

Row 2

(7.54.2.1) Target reference number

Select from:

☑ Oth 2

(7.54.2.2) Date target was set

11/03/2021

(7.54.2.3) Target coverage

Select from:

☑ Business activity

(7.54.2.4) Target type: absolute or intensity

Select from:

☑ Intensity

(7.54.2.5) Target type: category & Metric (target numerator if reporting an intensity target)

Resource consumption or efficiency

☑ Other resource consumption or efficiency, please specify **:**MJ

(7.54.2.6) Target denominator (intensity targets only)

Select from:

☑ toe

(7.54.2.7) End date of base year

12/30/2019

(7.54.2.8) Figure or percentage in base year

3732.4

(7.54.2.9) End date of target

12/30/2031

(7.54.2.10) Figure or percentage at end of date of target

3359.2

(7.54.2.11) Figure or percentage in reporting year

3626

(7.54.2.12) % of target achieved relative to base year

28.5101822079

(7.54.2.13) Target status in reporting year

Select from:

☑ Underway

(7.54.2.15) Is this target part of an emissions target?

no

(7.54.2.16) Is this target part of an overarching initiative?

Select all that apply

☑ No, it’s not part of an overarching initiative

(7.54.2.18) Please explain target coverage and identify any exclusions

The target of energy intensity reduction by 10% by 2031 has been set for 3 large refineries in Kazakhstan.

(7.54.2.19) Target objective

The target of energy intensity reduction by 10% by 2031

(7.54.2.20) Plan for achieving target, and progress made to the end of the reporting year

The Low-Carbon Development Program (LCDP) was developed in 2021 for the 2022-2031 period; therefore, the energy intensity reduction goals for 2021 have not been set. Starting from 2022, it is planned to track progress towards the goals defined by 2031. The energy intensity target will be achieved through the improvement of energy efficiency and energy management system of the Company as well as using potential of renewable energy

Row 3

(7.54.2.1) Target reference number

Select from:
☑ Oth 3

(7.54.2.2) Date target was set

11/03/2021

(7.54.2.3) Target coverage

Select from:
☑ Business activity

(7.54.2.4) Target type: absolute or intensity

Select from:
☑ Intensity

(7.54.2.5) Target type: category & Metric (target numerator if reporting an intensity target)

Energy consumption or efficiency

☑ Other energy consumption or efficiency, please specify **:**MJ

(7.54.2.6) Target denominator (intensity targets only)

Select from:

☑ toe

(7.54.2.7) End date of base year

12/30/2019

(7.54.2.8) Figure or percentage in base year

650.1

(7.54.2.9) End date of target

12/30/2031

(7.54.2.10) Figure or percentage at end of date of target

585.1

(7.54.2.11) Figure or percentage in reporting year

1025.3

(7.54.2.12) % of target achieved relative to base year

-577.2307692308

(7.54.2.13) Target status in reporting year

Select from:

☑ Underway

(7.54.2.15) Is this target part of an emissions target?

no

(7.54.2.16) Is this target part of an overarching initiative?

Select all that apply

☑ No, it's not part of an overarching initiative

(7.54.2.18) Please explain target coverage and identify any exclusions

The target of energy intensity reduction by 10% by 2031 has been set for bitumen production facility in Kazakstan.

(7.54.2.19) Target objective

The target of energy intensity reduction by 10% by 2031

(7.54.2.20) Plan for achieving target, and progress made to the end of the reporting year

The Low-Carbon Development Program (LCDP) was developed in 2021 for the 2022-2031 period; therefore, the energy intensity reduction goals for 2021 have not been set. Starting from 2022, it is planned to track progress towards the goals defined by 2031. The energy intensity target will be achieved through the improvement of energy efficiency and energy management system of the Company as well as using potential of renewable energy.

Row 4

(7.54.2.1) Target reference number

Select from:

☑ Oth 4

(7.54.2.2) Date target was set

11/03/2021

(7.54.2.3) Target coverage

Select from:

☑ Business activity

(7.54.2.4) Target type: absolute or intensity

Select from:

☑ Intensity

(7.54.2.5) Target type: category & Metric (target numerator if reporting an intensity target)

Energy consumption or efficiency

☑ Other energy consumption or efficiency, please specify **:**cubic meters of gas

(7.54.2.6) Target denominator (intensity targets only)

Select from:

☑ toe

(7.54.2.7) End date of base year

12/30/2019

(7.54.2.8) Figure or percentage in base year

3296.5

(7.54.2.9) End date of target

12/30/2031

(7.54.2.10) Figure or percentage at end of date of target

2966.7

(7.54.2.11) Figure or percentage in reporting year

3913

(7.54.2.12) % of target achieved relative to base year

-186.9314736204

(7.54.2.13) Target status in reporting year

Select from:

☑ Underway

(7.54.2.15) Is this target part of an emissions target?

NO

(7.54.2.16) Is this target part of an overarching initiative?

Select all that apply

☑ No, it's not part of an overarching initiative

(7.54.2.18) Please explain target coverage and identify any exclusions

The target of energy intensity reduction by 10% by 2031 has been set for gas processing plant in Kazakhstan.

(7.54.2.19) Target objective

The target of energy intensity reduction by 10% by 2031

(7.54.2.20) Plan for achieving target, and progress made to the end of the reporting year

The Low-Carbon Development Program (LCDP) was developed in 2021 for the 2022-2031 period; therefore, the energy intensity reduction goals for 2021 have not been set. Starting from 2022, it is planned to track progress towards the goals defined by 2031. The energy intensity target will be achieved through the improvement of energy efficiency and energy management system of the Company as well as using potential of renewable energy.

Row 5

(7.54.2.1) Target reference number

Select from:

☑ Oth 5

(7.54.2.2) Date target was set

11/03/2021

(7.54.2.3) Target coverage

Select from:

☑ Business activity

(7.54.2.4) Target type: absolute or intensity

Select from:

☑ Intensity

(7.54.2.5) Target type: category & Metric (target numerator if reporting an intensity target)

Energy consumption or efficiency

☑ Other energy consumption or efficiency, please specify **:**MJ

(7.54.2.6) Target denominator (intensity targets only)

Select from:

☑ toe

(7.54.2.7) End date of base year

12/30/2019

(7.54.2.8) Figure or percentage in base year

120.9

(7.54.2.9) End date of target

12/30/2031

(7.54.2.10) Figure or percentage at end of date of target

108.9

(7.54.2.11) Figure or percentage in reporting year

127.2

(7.54.2.12) % of target achieved relative to base year

-52.5000000000

(7.54.2.13) Target status in reporting year

Select from:

☑ Underway

(7.54.2.15) Is this target part of an emissions target?

No

(7.54.2.16) Is this target part of an overarching initiative?

Select all that apply

☑ No, it’s not part of an overarching initiative

(7.54.2.18) Please explain target coverage and identify any exclusions

The target of energy intensity reduction by 10% by 2031 has been set for midstream assets in Kazakhstan.

(7.54.2.19) Target objective

The target of energy intensity reduction by 10% by 2031

(7.54.2.20) Plan for achieving target, and progress made to the end of the reporting year

The Low-Carbon Development Program (LCDP) was developed in 2021 for the 2022-2031 period; therefore, the energy intensity reduction goals for 2021 have not been set. Starting from 2022, it is planned to track progress towards the goals defined by 2031. The energy intensity target will be achieved through the improvement of energy efficiency and energy management system of the Company as well as using potential of renewable energy.
[Add row]

(7.54.4) Indicate which targets reported in 7.53.1/2 incorporate methane emissions, or if you do not have a methane-specific emissions reduction target for your oil and gas activities, please explain why not and forecast how your methane emissions will change over the next five years.

The absence of methane targets in 2023 is due to the fact that methane is not subject to carbon regulation in Kazakhstan and current carbon prices do not provide an incentive to scale up voluntary reductions. However, under the Low Carbon Development Program, KMG aims to achieve zero planned gas flaring by 2031, which will lead to a reduction in methane from flaring. In addition, in 2023, at COP29 in November, KMG joined the OGMP 2.0 methane reporting partnership. In order to achieve the gold standard of OGMP 2.0 reporting, in the near future KMG plans to implement LDAR system at its subsidiaries, which will allow to identify methane leaks and develop emission reduction measures. In the new Low Carbon Development Program, which was revised in 2024, KMG has set targets to reduce methane emissions by 60% by 2030 and 98% by 2060.

(7.55) 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.

Select from:
☑ Yes

(7.55.1) 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	*3*	*`Numeric input*
To be implemented	*0*	*0*
Implementation commenced	*0*	*0*
Implemented	*60*	*45100*
Not to be implemented	*0*	*`Numeric input*

[Fixed row]

(7.55.2) Provide details on the initiatives implemented in the reporting year in the table below.

Row 1

(7.55.2.1) Initiative category & Initiative type

Low-carbon energy generation

☑ Other, please specify **:**Solar and Wind

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

939730

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply

☑ Scope 1

(7.55.2.4) Voluntary/Mandatory

Select from:

☑ Voluntary

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

0

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

0

(7.55.2.7) Payback period

Select from:

☑ 11-15 years

(7.55.2.8) Estimated lifetime of the initiative

Select from:

☑ >30 years

(7.55.2.9) Comment

As part of the Low-carbon Development Program, KMG has planned the construction of RES facilities with a total capacity of at least 300 MW. KMG has started developing a feasibility study and studying the wind potential in the Zhambyl region, in which, together with Total Eren S.A., it is planned to build a 1000 MW wind farm with an energy storage system. KMG is carrying out similar work on the construction of a 120 MW hybrid plant (sun wind) in the Mangystau region together with Eni.

Row 2

(7.55.2.1) Initiative category & Initiative type

Energy efficiency in production processes

☑ Process optimization

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

45100

(7.55.2.3) Scope(s) or Scope 3 category(ies) where emissions savings occur

Select all that apply

☑ Scope 1

☑ Scope 2 (location-based)

(7.55.2.4) Voluntary/Mandatory

Select from:

☑ Mandatory

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

7368421

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

7368421

(7.55.2.7) Payback period

Select from:

☑ 4-10 years

(7.55.2.8) Estimated lifetime of the initiative

Select from:

☑ 11-15 years

(7.55.2.9) Comment

In 2023, 60 energy saving and energy efficiency measures were implemented in accordance with the Action Plan in subsidiaries, aimed at modernization of technological equipment modernization of technological equipment, introduction of energy-saving technologies, optimization of heat production and consumption. The measures made it possible to save 22.3 thousand tons of reference fuel, which is equivalent to a reduction in emissions of 45.1 thousand tons. CO2. The total cost of implementing energy saving and energy efficiency measures amounted to 3.5 billion tenge (7 368 421 USD)
[Add row]

(7.55.3) What methods do you use to drive investment in emissions reduction activities?

Row 1

(7.55.3.1) Method

Select from:

☑ Compliance with regulatory requirements/standards

(7.55.3.2) Comment

KMG's investment policy is focused on improving the Company's efficiency in all areas of its core activities by investing in effective, profitable and competitive strategic projects with a significant potential to generate free cash flow, considering the strategic objectives of the Company. The Company's tasks in support of its investment policy are: 1) Formation of an optimal and cost-effective investment portfolio of the Company focused on the achievement of the Company's Strategic Goals by ranking and balancing investment projects. 2) Increasing the level of maturity in project management by applying the Stage Gate Process and increasing control over the proper implementation of projects on time, budget, with the specified level of quality and obtaining direct financial benefits and declared results. 3) As a part of the low-carbon strategy, KMG considers any investment projects through the lens of their potential impact on reduction of the carbon footprint. New projects are evaluated by the level of profitability index for the owner (PI) (except for projects at the stage of exploration, projects implemented by order of the President or the Government of the Republic of Kazakhstan and socially important projects).

Row 2

(7.55.3.1) Method

Select from:

☑ Employee engagement

(7.55.3.2) Comment

KMG pays great attention to professional development of employees in the field of sustainable development and conducts training courses for employees of the corporate center and subsidiaries and affiliates. In 2022 with the expert support of Chevron New Energies employees, a 3-day workshop on "Carbon capture and storage Technology"was conducted for employees of KMG subsidiaries. In November 2022, a 2-day seminar "Energy Transfer and Greenhouse Gas emissions Management at the enterprise" was organized for 45 employees of subsidiaries and the corporate center who are involved in the processes of energy efficiency management and greenhouse gas emissions control

Row 3

(7.55.3.1) Method

Select from:

☑ Partnering with governments on technology development

(7.55.3.2) Comment

In 2022, the Ministry of Energy of the Republic of Kazakhstan, Samruk-Kazyna JSC, KazMunayGas JSC NC and Total Eren S.A signed an Agreement on principles for the construction of a 1 GW wind farm (WPP) in Zhambyl region.The agreement was signed following the results of the work within the framework of the previously signed Memorandum of Understanding between the parties from 2021.

Row 4

(7.55.3.1) Method

Select from:

☑ Dedicated budget for energy efficiency

(7.55.3.2) Comment

In 2022, in accordance with the Rules for Determining the Tariff to support of renewable energy sources, our subsidiaries and affiliates purchased electric power in the amount of 11,845 thousand kW for their own needs, produced from renewable energy sources from the Financial Settlement Center for Renewable Energy LLP. Electricity generation by solar panels of subsidiaries and affiliated companies for street lighting of territories in 2022 amounted to 75 thousand kWh.

Row 5

(7.55.3.1) Method

Select from:

☑ Financial optimization calculations

(7.55.3.2) Comment

Cost-benefit analysis of greenhouse gas emission and/or energy efficiency projects is one of the methods we use to stimulate investment in emission reduction activities. This mechanism is particularly relevant for our shareholders and the Management Board, who are responsible for making decisions on cost optimization and allocation of funds. We scrutinize the economic benefits of energy efficiency projects by evaluating the payback period and return on investment. Decisions on organizational, technological or technical measures are therefore taken not only on the basis of environmental and energy performance assessments, but also with consideration of the financial benefit/loss.
[Add row]

(7.57) Describe your organization’s efforts to reduce methane emissions from your activities.

In December 2023, on the margins of the COP28 Conference of the Parties to Climate Change, Kazakhstan joined the Global Methane Pledge. Participants joining the Initiative commit to take voluntary actions to contribute to the collective efforts to reduce global methane emissions by methane emissions by at least 30% below 2020 levels by 2030. This is a global, not a national, reduction target. In 2023, KMG has undertaken the following work to implement methane management. As part of the UN Climate Change Conference (COP28) in December 2023, KMG signed a Memorandum of Understanding with UNEP and joined the OGMP 2.0 Partnership (The Oil & Gas Methane Partnership) organized by UNEP and IMEO. Thus, KMG became the first Kazakhstani national company to join the OGMP 2.0 initiative. to join the OGMP 2.0 initiative. In order to reduce and mitigate the consequences of methane emissions, the Company signed a Memorandum of Cooperation with Tetra Tech ES, Inc. implementing the Central Asia Energy Project at the SOR28, funded by USAID (PCA). USAID will provide assistance in assessing and reducing methane emissions, improve environmental sustainability, and promote responsible business practices, which is in line with the Government of Kazakhstan's national goals to achieve carbon neutrality by 2060 as part of the national climate plan. In December 2023, the Company signed an agreement with Baker Hughes Services Kazakhstan LLP to cooperate on the implementation of low-carbon projects, including the implementation of projects to monitor and eliminate methane leaks and reduce routine flaring. In addition to the above, the Company, within the framework of the signed memorandum of on cooperation and mutual understanding with Carbon Limits (with the support of UNEP) in September 2023, the Company held a seminar for KMG Group specialists on methane emissions management, including quantitative assessment of methane emissions, gas utilization and identification of the main sources of leaks, as well as methods of their elimination. In addition, field LDAR measurements were carried out at KMG facilities in Q1-2 of 2024.

(7.61) 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?

Select from:

☑ Yes

(7.61.1) 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.

Since 2014, KazMunayGas has been actively cooperating with Carbon Limits to detect and measure methane leaks at the production facilities of its subsidiaries and affiliates. In 2015-2016, with the participation of Carbon Limits specialists, 3 studies were conducted to detect and measure methane leaks at 4 hydraulic fracturing stations in Atyrau, Aktobe and South Kazakhstan regions. These studies allowed for the detection and quantification of methane leaks from various emission sources, the prevention of which could result in potential financial savings.Unfortunately, KMG does not have a unified protocol for detection and remediation of methane leaks. However, given KMG's goals to implement LDAR in our upstream sector, such a protocol will be developed in 2024. The Company joined OGMP 2.0. in 2023 and has already submitted its first methane emissions report in 2024. In Q1 2024, KMG, together with Carbon Limits, conducted an LDAR demonstration at two KMG facilities (at subsidiaries). In Q2 2024, in collaboration with Tetra Tech Inc (USAID), field measurements with the LDAR program were conducted at two KMG facilities.

(7.62) If flaring is relevant to your oil and gas production activities, describe your organization’s efforts to reduce flaring, including any flaring reduction targets.

World Bank Initiative “Complete cessation of regular flaring of APG by 2030” KMG supported this initiative in 2015. It unites governments, oil companies and development organisations that are ready to cooperate to stop the practice of regular associated petroleum gas (APG) flaring by 2030. Our goal is to increase the beneficial use and disposal level of APG, to minimise flaring. We submit annual progress reports to the World Bank.Management of greenhouse gas emissions and reduction of gas flaring are among the priority tasks for KMG Group of companies. According to the approved Environmental Policy, the Company strives to achieve zero routine gas flaring and reduce emissions into the atmosphere from flares. One of our most important tasks in reducing greenhouse gas emissions is to increase the beneficial use and utilization of raw gas and to minimize flaring. Thanks to the implemented measures of the programs for the development and processing of raw gas, the use of gas for our own needs to generate heat and electricity has increased.The result of purposeful actions on KMG Group of companies for the period of 2017-2021 was the reduction of APG flaring by 83%. This allowed us to reduce emissions of pollutants and greenhouse gases generated during the combustion and spreading of raw gas. Raw gas utilisation in 2023 was 98.9%. Raw gas flaring decreased by 89.4% compared to 2017. The gas flaring rate is at 1.4 tonnes per 1,000 tonnes of HCs produced (2.1 in 2021 and 1.5 in 2022), 7% below the 2022 figure and 84% below the IOGP industry averageAccourding to our Low-Carbon Development Programme approved on November 2021, KMG aims to achieve zero routing flaring by 2031.

(7.74) Do you classify any of your existing goods and/or services as low-carbon products?

Select from:

☑ Yes

(7.74.1) Provide details of your products and/or services that you classify as low-carbon products.

Row 1

(7.74.1.1) Level of aggregation

Select from:

☑ Product or service

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☑ Other, please specify **:**ISCC

(7.74.1.3) Type of product(s) or service(s)

Biofuels

☑ Bioethanol

(7.74.1.4) Description of product(s) or service(s)

Our Romanian refinery produces Low-carbon products, which are supplied to European markets: Euro plus 10 ppm biobenzene and Euro 5 diesel blended with biodiesel. We believe that our commitment to the production and distribution of fuels blended with biocomponents is a good start for the production of low-carbon fuels. This will minimize negative environmental and human health impacts from the use of our products. In 2018, we were very proud to receive international ISCC (International Sustainability and Carbon Certificate) certification for our biocomponent fuel. In 2023, the following quantities were sold through gas stations: 35,199,838 liters bioethanol

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☑ Yes

(7.74.1.6) Methodology used to calculate avoided emissions

Select from:

☑ Other, please specify **:**GHG Protocol

(7.74.1.7) Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Select from:

☑ Use stage

(7.74.1.8) Functional unit used

1 liter gasoline vs. 1 liter bioethanol

(7.74.1.9) Reference product/service or baseline scenario used

gasoline

(7.74.1.10) Life cycle stage(s) covered for the reference product/service or baseline scenario

Select from:

☑ Use stage

(7.74.1.11) Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

0.00213

(7.74.1.12) Explain your calculation of avoided emissions, including any assumptions

Our company evaluates indirect greenhouse gas (GHG) emissions under Scope 3 in accordance with the Greenhouse Gas Protocol (GHG Protocol). Within Category 11, "Use of Sold Products," we can assess the avoided GHG emissions resulting from the use of biofuels by utilizing the emission factors specified in the technical documentation for the biofuels.

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0

Row 2

(7.74.1.1) Level of aggregation

Select from:

☑ Product or service

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

Select from:

☑ Other, please specify **:**ISCC

(7.74.1.3) Type of product(s) or service(s)

Biofuels

☑ Other, please specify **:**Biodiesel

(7.74.1.4) Description of product(s) or service(s)

Our Romanian refinery produces Low-carbon products, which are supplied to European markets: Euro plus 10 ppm biobenzene and Euro 5 diesel blended with biodiesel. We believe that our commitment to the production and distribution of fuels blended with biocomponents is a good start for the production of low-carbon fuels. This will minimize negative environmental and human health impacts from the use of our products. In 2018, we were very proud to receive international ISCC (International Sustainability and Carbon Certificate) certification for our biocomponent fuel. In 2023, the following quantities were sold through gas stations: 126,469,775 liters of biodiesel

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Select from:

☑ Yes

(7.74.1.6) Methodology used to calculate avoided emissions

Select from:

☑ Other, please specify **:**GHG Protocol

(7.74.1.7) Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Select from:

☑ Use stage

(7.74.1.8) Functional unit used

1 liter diesel vs. 1 liter biodiesel

(7.74.1.9) Reference product/service or baseline scenario used

diesel

(7.74.1.10) Life cycle stage(s) covered for the reference product/service or baseline scenario

Select from:

☑ Use stage

(7.74.1.11) Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

0.00188

(7.74.1.12) Explain your calculation of avoided emissions, including any assumptions

Our company evaluates indirect greenhouse gas (GHG) emissions under Scope 3 in accordance with the Greenhouse Gas Protocol (GHG Protocol). Within Category 11, "Use of Sold Products," we can assess the avoided GHG emissions resulting from the use of biofuels by utilizing the emission factors specified in the technical documentation for the biofuels.

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0

[Add row]

(7.79) Has your organization canceled any project-based carbon credits within the reporting year?

Select from:

☑ Yes

(7.79.1) Provide details of the project-based carbon credits canceled by your organization in the reporting year.

Row 1

(7.79.1.1) Project type

Select from:

☑ Mixed renewables

(7.79.1.2) Type of mitigation activity

Select from:

☑ Emissions reduction

(7.79.1.3) Project description

10,000 I-REC green certificates were purchased in December 2023 to confirm electricity consumption from RES generation sources.

(7.79.1.4) Credits canceled by your organization from this project in the reporting year (metric tons CO2e)

6210

(7.79.1.5) Purpose of cancelation

Select from:

☑ Other, please specify **:**Green certification

(7.79.1.6) Are you able to report the vintage of the credits at cancelation?

Select from:

☑ Yes

(7.79.1.7) Vintage of credits at cancelation

2023

(7.79.1.8) Were these credits issued to or purchased by your organization?

Select from:

☑ Purchased

(7.79.1.9) Carbon-crediting program by which the credits were issued

Select from:

☑ Other private carbon crediting program, please specify **:**I-REC

(7.79.1.10) Method the program uses to assess additionality for this project

Select all that apply

☑ Not assessed

(7.79.1.11) Approaches by which the selected program requires this project to address reversal risk

Select all that apply

☑ No requirements

(7.79.1.12) Potential sources of leakage the selected program requires this project to have assessed

Select all that apply

☑ Not assessed

(7.79.1.13) Provide details of other issues the selected program requires projects to address

-

(7.79.1.14) Please explain

In order to reduce indirect greenhouse gas (GHG) emissions, KMG purchased I-REC (International Renewable Energy Certificates) and extinguished them for 10.0 mln kWh, which corresponds to the expected electricity consumption by KMG Corporate Centre in 2023. Voluntary I-REC Certificates confirm the information on the fact of electricity generation from a renewable energy source (RES). The Certificate is linked to 1 MWh of net electricity, geographical location of the power plant and time interval of electricity generation. KMG acquired certificates issued in 2023 from solar and hydro power plants located in Almaty and Turkestan regions. They are issued based on an international standard developed by The Internationa I-REC Foundation and are recognised by international organisations such as GHGP, CDP, RE100, ISO, etc. I-REC Certificates are traded worldwide and issued in 51 countries.
[Add row]

C9. Environmental performance - Water security

(9.1) Are there any exclusions from your disclosure of water-related data?

Select from:

☑ No

(9.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

Water withdrawals – total volumes

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

Water withdrawals are regularly monitored with flow meters.

(9.2.4) Please explain

According to the legislation of the Republic of Kazakhstan, for the withdrawal of water from natural water sources, the Company has permits regulating the volume of the total volume of withdrawn water in accordance with the purposes, conditions and time of water intake. Monitoring and control of the volume of water consumed is carried out within the framework of the requirements of the legislation of the Republic of Kazakhstan. Water consumption is measured continuously at each water intake facility. The activities of the KMG Group of Companies regarding the use of water resources are consolidated in the corporate center. Quantitative data of KMG subsidiaries and affiliates on water intake is provided quarterly to KMG for consolidation and analysis through the corporate management information system.

Water withdrawals – volumes by source

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

Water withdrawals- volumes by source are monitored by flow meters

(9.2.4) Please explain

The company monitors water intakes from various sources, such as underground sources (wells, aquifers), surface sources (sea, rivers, lakes, reservoirs and canals) and urban water supply systems. It is important to note that water consumption is recorded without distinction between primary and secondary consumers.

Produced water associated with your oil & gas sector activities - total volumes

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

Produced water is monitored by flow meters.

(9.2.4) Please explain

The oil production process generates large volumes of so-called associated reservoir water – an oil-water emulsion is brought to the surface, which is subsequently separated into waterand oil by gravity. Water settled in this way is fed for reinjection into the reservoir.

Water withdrawals quality

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

Quality of water withdrawals is measured for certain parameters by standard analytical methods.

(9.2.4) Please explain

In accordance with the requirements of legislation regulating the protection of water resources, as well as in order to protect the rights and interests of water users in the affected area of the withdrawn water, KMG carries out accounting, monitoring and reporting on the quality of water intake. A unified classification of water quality is provided for enterprises in the Republic of Kazakhstan, including the following categories: • Ballast water, bilge water • Drinking water • Process water • Sewage water • Underground drinking water • Underground process water • Collector-drainage water • Sea water • Water from rice systems • Mine water • Transit water

Water discharges – total volumes

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

Water discharges are regularly monitored with flow meters.

(9.2.4) Please explain

In accordance with the legislation of the Republic of Kazakhstan, the KMG group of companies, which discharges water, keeps records and monitors the discharged water in accordance with the obtained permits: permission to influence (discharge of pollutants) and permission for special water use (discharge). All industrial and domestic wastewater passes through mechanical, biological and chemical treatment. The quality of domestic wastewater, the quality of water in observation and background wells of filtration fields is carried out with the involvement of an accredited laboratory on the basis of the approved Program of Industrial Environmental Control (PIEC) and a plan for monitoring emissions into water resources.

Water discharges – volumes by destination

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

Total volume of water discharges is continuously monitored with flow meters. Transfer to specialized companies continuously monitored with flow meters.

(9.2.4) Please explain

In accordance with the legal requirements, the design documentation of companies considers the entire list of facilities to which sewage water is discharged. The companies keep track of and monitor sewage water volumes. Information on water discharge is consolidated in the corporate center of KMG on a quarterly basis, analysis and accounting are carried out. All information on the volumes of water discharged is disclosed in the corporate reports of KMG. The main receiver (and end point) of sewage water from KMG enterprises are various specialized receivers: storage ponds, evaporation fields. These facilities are technical structures designed for natural water treatment and prevention of environmental pollution. Enterprises that do not have their own storage facilities transfer wastesewage water to specialized companies for treatment and disposal.

Water discharges – volumes by treatment method

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

Monitored with flow meters

(9.2.4) Please explain

Careful attitude to water bodies and water facilities and prevention of harm to them is the fundamental principle in relation to water bodies for KMG enterprises. To bring the water parameters up to the safe standards established by law, three main methods of treatment are used: biological, physicochemical and mechanical, in accordance with which accounting and reporting on the parameters and volumes of discharged water is kept. At refineries, wastewater is treated separately in parallel mechanically and physicochemically in sand traps, oil traps, radial sedimentation tanks and flotators. The treated industrial effluents after the flotators are fed to biological treatment

Water discharge quality – by standard effluent parameters

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Quarterly

(9.2.3) Method of measurement

The quality of water discharges is carried out with the involvement of an accredited laboratory on the basis of the approved Program of Industrial Environmental Control (PIEC). All effluent parameters are analyzed with standard methods.

(9.2.4) Please explain

The quality of wastewater is analyzed in accordance with the established standards on a regular basis. Production control over compliance with the maximum permissible discharge (MPD) standards is carried out by an accredited laboratory. During production control, the following are subject to verification: compliance with the requirements of legislative, regulatory documents and other accepted requirements in the company; fulfilment of instructions, orders, directions and acts of inspections of production control for environmental protection; accounting of the volumes of water taken, used water and effluents and their compliance with the established limits; composition and the property of wastewater and its compliance with the established discharge standards (MPD): suspended solids, ammonium nitrogen, nitrates, nitrites, complete BOD, COD, sulfates, chlorides, oil products, phenols, phosphates,surfactants, petroleum products, iron.

Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Quarterly

(9.2.3) Method of measurement

The quality of water discharges is carried out with the involvement of an accredited laboratory on the basis of the approved Program of Industrial Environmental Control (PIEC). Nitrates, phosphates are analyzed with standard methods

(9.2.4) Please explain

In the KMG Group of Companies, the content of nitrates and phosphates in wastewater is 1% of the total volume of pollutants that are discharged into evaporation fields and storage facilities. Regular analyses are carried out in accordance with established standards. Production control over compliance with the maximum permissible emissions is carried out by an accredited laboratory. Pesticides are not used in the company's activities, and their presence is absent.

Water discharge quality – temperature

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

Temperature of water discharges is measured using a thermometer

(9.2.4) Please explain

The requirement to control the temperature of the discharged water is fixed at the legislative level. The environmental legislation of the Republic of Kazakhstan prohibits the discharge of water the temperature of which exceeds 30 degrees Celsius to ensure the safe functioning of aquatic flora and fauna within the affected area of wastewater discharge.

Water consumption – total volume

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

Water consumption is regularly monitored with flow meters.

(9.2.4) Please explain

The KMG Group of Companies keeps records of the volumes of water consumption at its production facilities used for process, auxiliary and household and drinking needs. Quantitative data of KMG subsidiaries and affiliates on water withdrawal is submitted to the corporate center for data consolidation and analysis on a quarterly basis through the corporate data management information system. The enterprises installed flow meters (industrial meters) for water metering.

Water recycled/reused

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

Water recycled is regularly monitored with flow meters.

(9.2.4) Please explain

To reduce the negative impact on water resources, KMG strives to increase the share of purified water in its technological and other processes. The re-treated water is used for vehicle washing, dust suppression and restocking in fire extinguishing systems. However, a significant part of the treated wastewater is mainly processed at oil refineries to provide recycled water supply systems. Currently, the percentage of water reuse at KMG plants is 27%. To improve the efficiency of water resources management and conservation, as well as to set measures and targets for 2023, the KMG Group has developed a long-term water resources management program aimed at reducing water intake and increasing the volume of recycled water supply.

The provision of fully-functioning, safely managed WASH services to all workers

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

Laboratory tests are regularly carried out to determine the quality of drinking water. Periodic medical examinations of employees are carried out

(9.2.4) Please explain

KMG understands the importance of each employee and takes measures to improve working conditions. A key aspect of this work is to provide employees with clean drinking water, as well as compliance with standards of sanitation and hygiene in the workplace.
[Fixed row]

(9.2.2) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, how do they compare to the previous reporting year, and how are they forecasted to change?

Total withdrawals

(9.2.2.1) Volume (megaliters/year)

230856.84

(9.2.2.2) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.2.4) Five-year forecast

Select from:

☑ Lower

(9.2.2.5) Primary reason for forecast

Select from:

☑ Investment in water-smart technology/process

(9.2.2.6) Please explain

The overall level of water intake by KMG enterprises remains at the 2022 level. The volume also includes produced (136,959.782) water. In order to improve the efficiency of water resources use, reduce the volume of fresh water consumption, increase the volume of recycling and reuse of treated wastewater, the following actions are being taken and are planned to be taken on a permanent basis in KMG SDEs: - update, reconstruction of existing units for mechanical, chemical and biological treatment of domestic wastewater, replacement of old treatment equipment with more modern modular units; - design of works to reconstruct evaporation f ields; - retrofitting of treatment plants with additional technologies (reverse osmosis), which will subsequently make it possible to use this water to produce steam for industrial needs; - replacement of old drinking water pipelines with new ones to reduce leaks and process losses of fresh drinking water; - reconstruction of mechanical treatment facilities (MTF) within the framework of the TAZALYQ project, which will increase the capacity of MTF by 2 times and achieve the maximum permissible discharge limits for the content of oil products and suspended solids in wastewater sent to the biological treatment unit - reconstruction of regulatory treated effluent canal and reclamation of Atyrau Refinery evaporation fields; - construction of a wastewater post-treatment unit using reverse osmosis under the TAZALYQ project; - complete reconstruction and update of the system of wastewater treatment facilities of PetroKazakhstan Oil Products LLP, subsequently the efficiency of industrial wastewater treatment for oil products and suspended solids was improved from 76 to 98%, which reduced the environmental load by reducing air emissions.

Total discharges

(9.2.2.1) Volume (megaliters/year)

20259.85

(9.2.2.2) Comparison with previous reporting year

Select from:

☑ Lower

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.2.4) Five-year forecast

Select from:

☑ Lower

(9.2.2.5) Primary reason for forecast

Select from:

☑ Investment in water-smart technology/process

(9.2.2.6) Please explain

Wastewater levels in 2023 decreased compared to 2022. Also, the decrease is associated with an increase in circulating water at the plants of the KMG group of companies. In one of KMG Group downstream activity we plant to costruct the installation of additional waste water treatment in order to decrease the volume of fresh water withdrawal and respectively water discharge

Total consumption

(9.2.2.1) Volume (megaliters/year)

230856.84

(9.2.2.2) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.2.3) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.2.4) Five-year forecast

Select from:

☑ Lower

(9.2.2.5) Primary reason for forecast

Select from:

☑ Investment in water-smart technology/process

(9.2.2.6) Please explain

In comparison with 2022, the amount of water consumed remains at the level. Re-treated water is used for vehicle washing, dust suppression and replenishment of fire-fighting systems. At the same time, a significant amount of treated waste sewage water is reused, mainly at refineries. The volume includes are the produced water injected into the reservoir in order to enhance oil recovery. In order to decrease the volume of freshwater withdrawal in KMG Group downstream activity we plan to construct the installation of additional wastewater treatment; the seawater desalination plant was constructed in upstream which will release the volume of Volga water for the development of the region in the amount of at least 6.2 million m3/year.
[Fixed row]

(9.2.3) In your oil & gas sector operations, what are the total volumes of water withdrawn, discharged, and consumed (by business division), how do they compare to the previous reporting year, and how are they forecasted to change?

Total withdrawals – upstream

(9.2.3.1) Volume (megaliters/year)

37744.36

(9.2.3.2) Comparison with previous reporting year

Select from:

☑ Lower

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify **:**(there is a decrease in the injection of associated formation water

(9.2.3.4) Five-year forecast

Select from:

☑ Lower

(9.2.3.5) Primary reason for forecast

Select from:

☑ Increase/decrease in business activity

(9.2.3.6) Please explain

Lower level, insignificant decrease by 12%. The upstream water withdrawals volume to be the same in five year forecast but at the same time the fresh water withdrawal to be decreased a lot through construction of desalination plant.

Total discharges – upstream

(9.2.3.1) Volume (megaliters/year)

480.04

(9.2.3.2) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.3.4) Five-year forecast

Select from:

☑ About the same

(9.2.3.5) Primary reason for forecast

Select from:

☑ Increase/decrease in business activity

(9.2.3.6) Please explain

Compared to 2022, the volume of water discharge remains at the same level

Total consumption – upstream

(9.2.3.1) Volume (megaliters/year)

37744.36

(9.2.3.2) Comparison with previous reporting year

Select from:

☑ Lower

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify **:**(there is a decrease in the injection of associated formation water

(9.2.3.4) Five-year forecast

Select from:

☑ Lower

(9.2.3.5) Primary reason for forecast

Select from:

☑ Increase/decrease in business activity

(9.2.3.6) Please explain

Lower level, insignificant decrease by 12%. The upstream water withdrawals volume to be the same in five year forecast but at the same time the fresh water withdrawal to be decreased a lot through construction of desalination plant

Total withdrawals – midstream

(9.2.3.1) Volume (megaliters/year)

28968.27

(9.2.3.2) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify **:**About the same

(9.2.3.4) Five-year forecast

Select from:

☑ About the same

(9.2.3.5) Primary reason for forecast

Select from:

☑ Investment in water-smart technology/process

(9.2.3.6) Please explain

About the same level. The implementation of the first stage of the project "Reconstruction and expansion of the Astrakhan – Mangyshlak main water pipeline" has been completed in the KMG Group of companies. The project is aimed at increasing the capacity of the Astrakhan main water pipeline – Mangyshlak" and the renovation of worn-out equipment to provide water to the population, agricultural producers, industrial and oil and gas producing enterprises of Atyrau and Mangystau regions. The Astrakhan – Mangyshlak main water pipeline is the only centralized source of water supply for consumers Kurmangazinsky, Isataysky and Zhylyoysky districts of Atyrau region, as well as for the city of Zhanaozen, Beineu, Mangistau, Karakiyan and Tupkaragan districts of Mangistau region. Water consumption by the population is growing by 4-5% annually.

Total discharges – midstream

(9.2.3.1) Volume (megaliters/year)

545.09

(9.2.3.2) Comparison with previous reporting year

Select from:

☑ Lower

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☑ Change in accounting methodology

(9.2.3.4) Five-year forecast

Select from:

☑ Lower

(9.2.3.5) Primary reason for forecast

Select from:

☑ Change in accounting methodology

(9.2.3.6) Please explain

The methodology for the midstream direction has been revised

Total consumption – midstream

(9.2.3.1) Volume (megaliters/year)

28968.27

(9.2.3.2) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify **:**About the same

(9.2.3.4) Five-year forecast

Select from:

☑ About the same

(9.2.3.5) Primary reason for forecast

Select from:

☑ Investment in water-smart technology/process

(9.2.3.6) Please explain

About the same level. The implementation of the first stage of the project "Reconstruction and expansion of the Astrakhan – Mangyshlak main water pipeline" has been completed in the KMG Group of companies. The project is aimed at increasing the capacity of the Astrakhan main water pipeline – Mangyshlak" and the renovation of worn-out equipment to provide water to the population, agricultural producers, industrial and oil and gas producing enterprises of Atyrau and Mangystau regions. The Astrakhan – Mangyshlak main water pipeline is the only centralized source of water supply for consumers Kurmangazinsky, Isataysky and Zhylyoysky districts of Atyrau region, as well as for the city of Zhanaozen, Beineu, Mangistau, Karakiyan and Tupkaragan districts of Mangistau region. Water consumption by the population is growing by 4-5% annually.

Total withdrawals – downstream

(9.2.3.1) Volume (megaliters/year)

27184.43

(9.2.3.2) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify **:**About the same

(9.2.3.4) Five-year forecast

Select from:

☑ About the same

(9.2.3.5) Primary reason for forecast

Select from:

☑ Investment in water-smart technology/process

(9.2.3.6) Please explain

About the same level. In order to reduce the volume of freshwater abstraction and within the framework of the KMG Group's processing activities, the following measures are being implemented and are planned to be implemented: - modernization, reconstruction existing installations for mechanical, chemical and biological treatment of domestic wastewater, replacement of old cleaning equipment with more modern modular installations; - design of works on the reconstruction of evaporation fields; - retrofitting of treatment plants with additional technologies (reverse osmosis), which will subsequently allow use this water to produce steam for technological needs; - replacing old drinking water pipelines with new ones to reduce leaks and technological losses of fresh drinking water; - reconstruction of mechanical treatment facilities (MOS) within the framework of the project TAZALYQ, which will increase the productivity of the MOS by 2 times with the achievement of the standards of maximum permissible discharges for the content of petroleum products and suspended solids in the effluents sent further to the block biological purification; - reconstruction of the channel of normatively treated wastewater and reclamation of fields ANPZ evaporation; - construction of a wastewater treatment plant using reverse osmosis within the framework of the TAZALYQ project; - complete reconstruction and modernization of the sewage treatment plant system Subsequently, the efficiency of industrial wastewater treatment for petroleum products and suspended solids was improved from 76 to 98%, which reduced the environmental burden due to reducing emissions to the environment

Total discharges – downstream

(9.2.3.1) Volume (megaliters/year)

19234.72

(9.2.3.2) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify **:**About the same

(9.2.3.4) Five-year forecast

Select from:

☑ About the same

(9.2.3.5) Primary reason for forecast

Select from:

☑ Investment in water-smart technology/process

(9.2.3.6) Please explain

The wastewater level volume in 2022 is about the same. In one of KMG Group downstream activity we plant to costruct theinstallation of additional waste water treatment in order to decrease the volume of fresh water withdrawal and respectively water discharge.

Total consumption – downstream

(9.2.3.1) Volume (megaliters/year)

27184.43

(9.2.3.2) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify **:**About the same

(9.2.3.4) Five-year forecast

Select from:

☑ About the same

(9.2.3.5) Primary reason for forecast

Select from:

☑ Investment in water-smart technology/process

(9.2.3.6) Please explain

About the same level. In order to reduce the volume of freshwater abstraction and within the framework of the KMG Group's processing activities, the following measures are being implemented and are planned to be implemented: - modernization, reconstruction existing installations for mechanical, chemical and biological treatment of domestic wastewater, replacement of old cleaning equipment with more modern modular installations; - design of works on the reconstruction of evaporation fields; - retrofitting of treatment plants with additional technologies (reverse osmosis), which will subsequently allow use this water to produce steam for technological needs; - replacing old drinking water pipelines with new ones to reduce leaks and technological losses of fresh drinking water; - reconstruction of mechanical treatment facilities (MOS) within the framework of the project TAZALYQ, which will increase the productivity of the MOS by 2 times with the achievement of the standards of maximum permissible discharges for the content of petroleum products and suspended solids in the effluents sent further to the block biological purification; - reconstruction of the channel of normatively treated wastewater and reclamation of fields ANPZ evaporation; - construction of a wastewater treatment plant using reverse osmosis within the framework of the TAZALYQ project; - complete reconstruction and modernization of the sewage treatment plant system Subsequently, the efficiency of industrial wastewater treatment for petroleum products and suspended solids was improved from 76 to 98%, which reduced the environmental burden due to reducing emissions to the environment

Total withdrawals – chemicals

(9.2.3.1) Volume (megaliters/year)

0

(9.2.3.2) Comparison with previous reporting year

Select from:

☑ Much Lower

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify **:**This question does not related to the KMG Group of companies.

(9.2.3.4) Five-year forecast

Select from:

☑ Much lower

(9.2.3.5) Primary reason for forecast

Select from:

☑ Other, please specify **:**This question does not related to the KMG Group of companies.

(9.2.3.6) Please explain

This question does not related to the KMG Group of companies.

Total discharges – chemicals

(9.2.3.1) Volume (megaliters/year)

0

(9.2.3.2) Comparison with previous reporting year

Select from:
☑ Much Lower

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:
☑ Other, please specify **:**This question does not related to the KMG Group of companies.

(9.2.3.4) Five-year forecast

Select from:
☑ Much lower

(9.2.3.5) Primary reason for forecast

Select from:
☑ Other, please specify **:**This question does not related to the KMG Group of companies.

(9.2.3.6) Please explain

This question does not related to the KMG Group of companies.

Total consumption – chemicals

(9.2.3.1) Volume (megaliters/year)

0

(9.2.3.2) Comparison with previous reporting year

Select from:

☑ Much Lower

(9.2.3.3) Primary reason for comparison with previous reporting year

Select from:

☑ Other, please specify **:**This question does not related to the KMG Group of companies.

(9.2.3.4) Five-year forecast

Select from:

☑ Much lower

(9.2.3.5) Primary reason for forecast

Select from:

☑ Other, please specify **:**This question does not related to the KMG Group of companies.

(9.2.3.6) Please explain

This question does not related to the KMG Group of companies.
[Fixed row]

(9.2.4) Indicate whether water is withdrawn from areas with water stress, provide the volume, how it compares with the previous reporting year, and how it is forecasted to change.

(9.2.4.1) Withdrawals are from areas with water stress

Select from:

☑ Yes

(9.2.4.2) Volume withdrawn from areas with water stress (megaliters)

27317.69

(9.2.4.3) Comparison with previous reporting year

Select from:

☑ Lower

(9.2.4.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.4.5) Five-year forecast

Select from:

☑ Lower

(9.2.4.6) Primary reason for forecast

Select from:

☑ Investment in water-smart technology/process

(9.2.4.7) % of total withdrawals that are withdrawn from areas with water stress

11.83

(9.2.4.8) Identification tool

Select all that apply

☑ WRI Aqueduct

(9.2.4.9) Please explain

According to studies conducted and published by the World Resource Institute (WRI), Kazakhstan is classified as a critical level of water resource exploitation and a very high level of water stress is predicted in the next 15-20 years. The Company also analyses and records the facilities of KMG SDEs located in regions with increased water scarcity according to WRI Aqueduct1, relating to the basins of the Caspian Sea, the Syrdarya and the Ural Rivers. The total water withdrawal of these facilities was 27,32 mln m3. In regions with high water scarcity, KMG is developing water management actions to use less fresh water, increase recycled water and closely monitor water use. KMG implements social projects aimed at solving water supply issues in the regions where it operates, such as "Reconstruction of the Astrakhan-Mangyshlak Water Main" and "Construction of Seawater Desalination Plant in Kenderli". In December 2023, the implementation of the first stage of the project "Reconstruction and Expansion of the Astrakhan-Mangyshlak Water Main" was completed. The project is aimed at increasing the capacity of the Astrakhan-Mangyshlak Water Main and renewing worn-out equipment to supply water to the population, agricultural producers, industrial and oil and gas producers of Atyrau and Mangistau regions. The AstrakhanMangyshlak Water Main is the only centralised source of water supply for consumers in Kurmangazy, Isatai and Zhylyoi Districts of Atyrau Region, as well as for Zhanaozen, Beineu, Mangistau, Karakiya and Tulparagan Districts of Mangistau Region. Every year, the population's water consumption grows by 4-5%. The construction of a 50,000 m3/day Seawater Desalination Plant in Kenderli has also started. This project will solve the problem of drinking water shortage for the residents of Zhanaozen and will also have a multiplier effect on the development of tourism, entrepreneurship and agriculture. Construction is planned to be completed by the end of 2024, and the plant is expected to reach its design capacity in spring 2025.At the same time, we note that the need for water resources in production activities is a prerequisite for technological processes.
[Fixed row]

(9.2.7) Provide total water withdrawal data by source.

Fresh surface water, including rainwater, water from wetlands, rivers, and lakes

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

39633.84

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.7.5) Please explain

There is a stable level of water intake from surface fresh sources with a slight increase in the level of fresh surface water intake by 2%. Continues of upgrading and construction of desalination plants, which make it possible to release the volumes of freshwater used for process purposes at our enterprises.

Brackish surface water/Seawater

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

13803.96

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ Lower

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.7.5) Please explain

There is a decrease in the level of seawater intake by 24%. The main reason for the decrease in seawater intake is that the use of underground water intake wells of Albsenomanian water for production needs in Ozenmunaigas

Groundwater – renewable

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

4653.73

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.7.5) Please explain

The level of water intake from underground renewable sources at the level of 2022

Groundwater – non-renewable

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

19307.46

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.7.5) Please explain

The level of water intake from non-underground renewable sources at the level of 2022

Produced/Entrained water

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

136959.78

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.7.5) Please explain

The water intake level of associated reservoir waters is at the level of 2022.

Third party sources

(9.2.7.1) Relevance

Select from:

☑ Relevant

(9.2.7.2) Volume (megaliters/year)

16498.08

(9.2.7.3) Comparison with previous reporting year

Select from:

☑ Lower

(9.2.7.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.7.5) Please explain

Third-party sources a slight decrease of 9 %
[Fixed row]

(9.2.8) Provide total water discharge data by destination.

Fresh surface water

(9.2.8.1) Relevance

Select from:

☑ Not relevant

(9.2.8.5) Please explain

Not applicable

Brackish surface water/seawater

(9.2.8.1) Relevance

Select from:

☑ Relevant

(9.2.8.2) Volume (megaliters/year)

9031.11

(9.2.8.3) Comparison with previous reporting year

Select from:

☑ About the same

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.8.5) Please explain

There is a slight decrease in the volume of discharges into sea waters and amounts to 0.6%.

Groundwater

(9.2.8.1) Relevance

Select from:

☑ Not relevant

(9.2.8.5) Please explain

Not applicable

Third-party destinations

(9.2.8.1) Relevance

Select from:

☑ Relevant

(9.2.8.2) Volume (megaliters/year)

772.12

(9.2.8.3) Comparison with previous reporting year

Select from:

☑ Lower

(9.2.8.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.8.5) Please explain

There is a slight decrease in the volume of water transferred to third parties.
[Fixed row]

(9.2.9) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

Tertiary treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Not relevant

(9.2.9.6) Please explain

Not applicable

Secondary treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Relevant

(9.2.9.2) Volume (megaliters/year)

10456.61

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☑ Lower

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☑ 100%

(9.2.9.6) Please explain

Wastewater treatment plants treat the following high-priority pollutants: suspended solids, COD, BOD, petroleum products, chlorides, sulphates, iron, nitrites, nitrates, ammonia nitrogen, synthetic surfactants, etc. Pollutant discharge standards are calculated according to the Methodology for Determining Environmental Emission Standards approved by Order No. 63 of the Minister of Ecology and Natural Resources of the Republic of Kazakhstan dated 10 March 2021. After wastewater treatment in wastewater treatment plants, the effluent treated to standard quality is discharged to specialized receivers: storage ponds, evaporation fields and filtration fields. There is no discharge to surface water bodies or terrain.

Primary treatment only

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Not relevant

(9.2.9.6) Please explain

Not applicable

Discharge to the natural environment without treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Not relevant

(9.2.9.6) Please explain

Not applicable

Discharge to a third party without treatment

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Relevant

(9.2.9.2) Volume (megaliters/year)

772.12

(9.2.9.3) Comparison of treated volume with previous reporting year

Select from:

☑ Lower

(9.2.9.4) Primary reason for comparison with previous reporting year

Select from:

☑ Increase/decrease in business activity

(9.2.9.5) % of your sites/facilities/operations this volume applies to

Select from:

☑ 11-20

(9.2.9.6) Please explain

Enterprises that do not have their own storage facilities transfer wastewater for treatment and discharge to specialized companies, in accordance with concluded agreements

Other

(9.2.9.1) Relevance of treatment level to discharge

Select from:

☑ Not relevant

(9.2.9.6) Please explain

Not applicable
[Fixed row]

(9.2.10) Provide details of your organization’s emissions of nitrates, phosphates, pesticides, and other priority substances to water in the reporting year.

(9.2.10.1) Emissions to water in the reporting year (metric tons)

156.5

(9.2.10.2) Categories of substances included

Select all that apply

☑ Nitrates

☑ Phosphates

(9.2.10.4) Please explain

In the KMG Group of companies, in wastewater nitrates and phosphates account for 3% of the total amount of pollutants discharged to evaporation fields and storage facilities. There are regularly analyzed in accordance with established standards. Production control over compliance with the norms of maximum permissible discharges is carried out by an accredited laboratory. The company does not use pesticides in its activities. There are no pesticides
[Fixed row]

(9.3) In your direct operations and upstream value chain, what is the number of facilities where you have identified substantive water-related dependencies, impacts, risks, and opportunities?

Direct operations

(9.3.1) Identification of facilities in the value chain stage

Select from:

☑ Yes, we have assessed this value chain stage and identified facilities with water-related dependencies, impacts, risks, and opportunities

(9.3.2) Total number of facilities identified

3

(9.3.3) % of facilities in direct operations that this represents

Select from:

☑ 1-25

(9.3.4) Please explain

KMG carries out production activities in the entire territory of the Republic of Kazakhstan, as well as in Romania and Georgia.

Upstream value chain

(9.3.1) Identification of facilities in the value chain stage

Select from:

☑ Yes, we have assessed this value chain stage and identified facilities with water-related dependencies, impacts, risks, and opportunities

(9.3.2) Total number of facilities identified

3

(9.3.4) Please explain

Facilities subject to water risks that could potentially have a significant financial or strategic impact on our business are located in western Kazakhstan, where there is a risk of water supply deficit.
[Fixed row]

(9.3.1) For each facility referenced in 9.3, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Row 1

(9.3.1.1) Facility reference number

Select from:

☑ Facility 1

(9.3.1.2) Facility name (optional)

Atyrau Oil Refinery LLP

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Kazakhstan

☑ Ural

(9.3.1.8) Latitude

47.077986

(9.3.1.9) Longitude

51.921627

(9.3.1.10) Located in area with water stress

Select from:

☑ No

(9.3.1.12) Oil & gas sector business division

Select all that apply

☑ Downstream

(9.3.1.13) Total water withdrawals at this facility (megaliters)

7272.41

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ About the same

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

7108.3

(9.3.1.16) Withdrawals from brackish surface water/seawater

0

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

164.11

(9.3.1.21) Total water discharges at this facility (megaliters)

5955.21

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ About the same

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

7272.41

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ About the same

(9.3.1.29) Please explain

Water intake and wastewater discharge are at the level of last year. Fresh river water is used to supply circulating water supply systems, industrial needs and fire protection needs of the plant. For economical and rational use of water resources, a recycling water supply system is used at the plant's facilities. Industrial wastewater generated during oil refining is mechanically treated, after which it enters biological wastewater

Row 2

(9.3.1.1) Facility reference number

Select from:

☑ Facility 2

(9.3.1.2) Facility name (optional)

Mangistaumunaigas JSC

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts
☑ Risks
☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:
☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan
☑ Other, please specify **:**Caspian Sea (east coast)

(9.3.1.8) Latitude

43.639865

(9.3.1.9) Longitude

51.165596

(9.3.1.10) Located in area with water stress

Select from:
☑ Yes

(9.3.1.12) Oil & gas sector business division

Select all that apply
☑ Upstream

(9.3.1.13) Total water withdrawals at this facility (megaliters)

15866.15

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Lower

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

7.9

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

14656

(9.3.1.19) Withdrawals from produced/entrained water

49524

(9.3.1.20) Withdrawals from third party sources

1202.26

(9.3.1.21) Total water discharges at this facility (megaliters)

41.65

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ About the same

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

15866.15

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Lower

(9.3.1.29) Please explain

There is a slight decrease in the level of consumption and intake of water and wastewater disposal. Effluents from industrial buildings and technological structures, formed as a result of production activities, as well as produced water, flushing, melt and rain surface runoff from the territory of the industrial site are discharged into the industrial sewerage network. Discharge and accumulation of industrial wastewater is carried out in special buffer tanks or inventory pallets, followed by removal of wastewater to the formation water treatment plant. All production sewage water is reused in the reservoir pressure maintenance system. According to the results of 2023, the total volume of associated formation water extracted was 49524 megaliters, of which 49524 megalitres was injected into formation to maintain the associated formation pressure. Household waste water generated in the process of household activities, are cleaned at complete biological treatment facilities. The

complex of treatment facilities is located at a distance of about 10.0 km from the water edge of the Caspian Sea and was transferred for a long-term lease to a contracting company

Row 3

(9.3.1.1) Facility reference number

Select from:

☑ Facility 3

(9.3.1.2) Facility name (optional)

Ozenmunaigas JSC

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify **:**Caspian Sea (east coast)

(9.3.1.8) Latitude

43.340371

(9.3.1.9) Longitude

52.857114

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.12) Oil & gas sector business division

Select all that apply

☑ Upstream

(9.3.1.13) Total water withdrawals at this facility (megaliters)

14771.08

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Lower

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

12366.28

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

2180.13

(9.3.1.19) Withdrawals from produced/entrained water

42653

(9.3.1.20) Withdrawals from third party sources

224.67

(9.3.1.21) Total water discharges at this facility (megaliters)

17.48

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Higher

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

14771.08

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Lower

(9.3.1.29) Please explain

The entire volume of household sewage water is transferred to third-party organizations. At the same time, the volume of associated formation water extracted for 2023 is 42653 megalitres, 100% of which is injected into formation to maintain the associated formation pressure.

Row 4

(9.3.1.1) Facility reference number

Select from:

☑ Facility 1

(9.3.1.2) Facility name (optional)

Kazmortransflot LLP

(9.3.1.3) Value chain stage

Select from:

☑ Direct operations

(9.3.1.4) Dependencies, impacts, risks, and/or opportunities identified at this facility

Select all that apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(9.3.1.5) Withdrawals or discharges in the reporting year

Select from:

☑ Yes, withdrawals and discharges

(9.3.1.7) Country/Area & River basin

Afghanistan

☑ Other, please specify **:**Caspian Sea (east coast)

(9.3.1.8) Latitude

43.66039

(9.3.1.9) Longitude

51.14259

(9.3.1.10) Located in area with water stress

Select from:

☑ Yes

(9.3.1.12) Oil & gas sector business division

Select all that apply

☑ Midstream

(9.3.1.13) Total water withdrawals at this facility (megaliters)

912.31

(9.3.1.14) Comparison of total withdrawals with previous reporting year

Select from:

☑ Lower

(9.3.1.15) Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

(9.3.1.16) Withdrawals from brackish surface water/seawater

906.06

(9.3.1.17) Withdrawals from groundwater - renewable

0

(9.3.1.18) Withdrawals from groundwater - non-renewable

0

(9.3.1.19) Withdrawals from produced/entrained water

0

(9.3.1.20) Withdrawals from third party sources

6.26

(9.3.1.21) Total water discharges at this facility (megaliters)

30.3

(9.3.1.22) Comparison of total discharges with previous reporting year

Select from:

☑ Higher

(9.3.1.23) Discharges to fresh surface water

0

(9.3.1.24) Discharges to brackish surface water/seawater

0

(9.3.1.25) Discharges to groundwater

0

(9.3.1.26) Discharges to third party destinations

0

(9.3.1.27) Total water consumption at this facility (megaliters)

912.31

(9.3.1.28) Comparison of total consumption with previous reporting year

Select from:

☑ Lower

(9.3.1.29) Please explain

The entire volume of household sewage water is transferred to third-party organizations.
[Add row]

(9.3.2) For the facilities in your direct operations referenced in 9.3.1, what proportion of water accounting data has been third party verified?

Water withdrawals – total volumes

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

ESG non-financial reporting standards. GRI standards. KMG developed the Sustainability Report for 2023 using the standard of non-financial reporting GRI standard which was verified by trhird party. The information regarding water management was verified within the verifition of Sustanability report.

Water withdrawals – volume by source

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

ESG non-financial reporting standards. GRI standards. KMG developed the Sustainability Report for 2023 using the standard of non-financial reporting GRI standard which was verified by trhird party. The information regarding water management was verified within the verifition of Sustanability report. https://www.kmg.kz/upload/iblock/69d/xf3nnrr9pbbjmmf3ckzlysknxq80hagx/KMG_EN_2022.pdf, p.88-91

Water withdrawals – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

ESG non-financial reporting standards. GRI standards. KMG developed the Sustainability Report for 2023 using the standard of non-financial reporting GRI standard which was verified by trhird party. The information regarding water management was verified within the verifition of Sustanability report. https://www.kmg.kz/upload/iblock/69d/xf3nnrr9pbbjmmf3ckzlysknxq80hagx/KMG_EN_2022.pdf, p.88-91

Water discharges – total volumes

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

ESG non-financial reporting standards. GRI standards. KMG developed the Sustainability Report for 2023 using the standard of non-financial reporting GRI standard which was verified by trhird party. The information regarding water management was verified within the verifition of Sustanability report. https://www.kmg.kz/upload/iblock/69d/xf3nnrr9pbbjmmf3ckzlysknxq80hagx/KMG_EN_2022.pdf, p.88-91

Water discharges – volume by destination

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

ESG non-financial reporting standards. GRI standards. KMG developed the Sustainability Report for 2023 using the standard of non-financial reporting GRI standard which was verified by trhird party. The information regarding water management was verified within the verifition of Sustanability report. https://www.kmg.kz/upload/iblock/69d/xf3nnrr9pbbjmmf3ckzlysknxq80hagx/KMG_EN_2022.pdf, p.88-91

Water discharges – volume by final treatment level

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

ESG non-financial reporting standards. GRI standards. KMG developed the Sustainability Report for 2023 using the standard of non-financial reporting GRI standard which was verified by trhird party. The information regarding water management was verified within the verifition of Sustanability report. https://www.kmg.kz/upload/iblock/69d/xf3nnrr9pbbjmmf3ckzlysknxq80hagx/KMG_EN_2022.pdf, p.88-91

Water discharges – quality by standard water quality parameters

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

ESG non-financial reporting standards. GRI standards. KMG developed the Sustainability Report for 2023 using the standard of non-financial reporting GRI standard which was verified by trhird party. The information regarding water management was verified within the verifition of Sustanability report. https://www.kmg.kz/upload/iblock/69d/xf3nnrr9pbbjmmf3ckzlysknxq80hagx/KMG_EN_2022.pdf, p.88-91

Water consumption – total volume

(9.3.2.1) % verified

Select from:

☑ 76-100

(9.3.2.2) Verification standard used

ESG non-financial reporting standards. GRI standards. KMG developed the Sustainability Report for 2023 using the standard of non-financial reporting GRI standard which was verified by trhird party. The information regarding water management was verified within the verifition of Sustanability report. https://www.kmg.kz/upload/iblock/69d/xf3nnrr9pbbjmmf3ckzlysknxq80hagx/KMG_EN_2022.pdf, p.88-91
[Fixed row]

(9.5) Provide a figure for your organization’s total water withdrawal efficiency.

(9.5.1) Revenue (currency)

13248677

(9.5.2) Total water withdrawal efficiency

57.39

(9.5.3) Anticipated forward trend

The total withdrawal volume also includes produced water in amount 136 959.78 m3. The overall efficiency of water intake is at the level of last year.
[Fixed row]

(9.11) Do you calculate water intensity for your activities associated with the oil & gas sector?

Select from:
☑ Yes

(9.11.1) Provide water intensity information associated with your activities in the oil & gas sector.

Row 1

(9.11.1.1) Business division

Select all that apply
☑ Upstream

(9.11.1.2) Water intensity value (m3/denominator)

306.24

(9.11.1.3) Numerator: water aspect

Select from:

☑ Total water withdrawals

(9.11.1.4) Denominator

Select from:

☑ Other, please specify **:**tons of hydrocarbon produced

(9.11.1.5) Comparison with previous reporting year

Select from:

☑ Much lower

(9.11.1.6) Please explain

There is a decrease in the specific consumption of fresh water in 2023 compared to 2022 by 16% due to the desalination plant costruction.
[Add row]

(9.13) Do any of your products contain substances classified as hazardous by a regulatory authority?

	Products contain hazardous substances	Comment
	Select from: ☑ No	*Do not contain*

[Fixed row]

(9.14) Do you classify any of your current products and/or services as low water impact?

	Products and/or services classified as low water impact	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
	Select from: ☑ No, and we do not plan to address this within the next two years	*Select from:* ☑ Important but not an immediate business priority	*The company have developed a water management program for 10 years, that will address the impact of our products on water.*

[Fixed row]

(9.15) Do you have any water-related targets?

Select from:

☑ No, but we plan to within the next two years

(9.15.1) Indicate whether you have targets relating to water pollution, water withdrawals, WASH, or other water-related categories.

	Target set in this category
Water pollution	*Select from:* ☑ Yes
Water withdrawals	*Select from:* ☑ Yes
Water, Sanitation, and Hygiene (WASH) services	*Select from:* ☑ Yes

	Target set in this category
Other	*Select from:* ☑ Yes

[Fixed row]

(9.15.2) Provide details of your water-related targets and the progress made.

Row 1

(9.15.2.1) Target reference number

Select from:

☑ Target 1

[Add row]

(9.15.3) Why do you not have water-related target(s) and what are your plans to develop these in the future?

(9.15.3.1) Primary reason

Select from:

☑ We are planning to introduce a target within the next two years

(9.15.3.2) Please explain

The KMG Group long term water management program with targets was delepoved and currently under approval proccess.
[Fixed row]

C10. Environmental performance - Plastics

(10.1) Do you have plastics-related targets, and if so what type?

	Targets in place
	Select from: ☑ No, and we do not plan to within the next two years

[Fixed row]

C11. Environmental performance - Biodiversity

(11.2) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

(11.2.1) Actions taken in the reporting period to progress your biodiversity-related commitments

Select from:

☑ Yes, we are taking actions to progress our biodiversity-related commitments

(11.2.2) Type of action taken to progress biodiversity- related commitments

Select all that apply

☑ Land/water protection

☑ Land/water management

☑ Species management

☑ Education & awareness

☑ Law & policy

[Fixed row]

(11.3) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?
	Select from:

	Does your organization use indicators to monitor biodiversity performance?
	☑ No, we do not use indicators, but plan to within the next two years

[Fixed row]

(11.4) Does your organization have activities located in or near to areas important for biodiversity in the reporting year?

Legally protected areas

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ Yes (partial assessment)

(11.4.2) Comment

SDEs of KMG constantly monitor the flora and fauna, conducting hydrogeological monitoring, seasonal baseline environmental studies, regular environmental monitoring.

UNESCO World Heritage sites

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ No

(11.4.2) Comment

Within its environmental policy, the company undertakes: - not to carry out activities in specially protected natural areas that are of particular value as a habitat for rare, endangered and high value species of animals; to conduct risk assessment when operating in environmentally sensitive areas.

UNESCO Man and the Biosphere Reserves

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ No

(11.4.2) Comment

Within its environmental policy, the company undertakes: - not to carry out activities in specially protected natural areas that are of particular value as a habitat for rare, endangered and high value species of animals; to conduct risk assessment when operating in environmentally sensitive areas.

Ramsar sites

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ No

(11.4.2) Comment

Within its environmental policy, the company undertakes: - not to carry out activities in specially protected natural areas that are of particular value as a habitat for rare, endangered and high value species of animals; to conduct risk assessment when operating in environmentally sensitive areas.

Key Biodiversity Areas

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ No

(11.4.2) Comment

Within its environmental policy, the company undertakes: - not to carry out activities in specially protected natural areas that are of particular value as a habitat for rare, endangered and high value species of animals; to conduct risk assessment when operating in environmentally sensitive areas.

Other areas important for biodiversity

(11.4.1) Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity

Select from:

☑ No

(11.4.2) Comment

Within its environmental policy, the company undertakes: - not to carry out activities in specially protected natural areas that are of particular value as a habitat for rare, endangered and high value species of animals; to conduct risk assessment when operating in environmentally sensitive areas.
[Fixed row]

(11.4.1) Provide details of your organization’s activities in the reporting year located in or near to areas important for biodiversity.

Row 1

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Kazakhstan

(11.4.1.5) Name of the area important for biodiversity

Kokzhide-Kumzhargan Local State Nature Reserve

(11.4.1.6) Proximity

Select from:

☑ Up to 10 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

Comprehensive monitoring will be conducted, including monitoring of groundwater. A roadmap for the liquidation of wells near the Kokzhide sands is being developed. In September 2023, KMG experts took part in the Workshop “Birds of Prey and Energy“ as part of the III International Scientific and Practical Conference “Palearctic Eagles: Study and Protection“ organised by Biodiversity Research and Conservation Centre Public foundation(BRCC). Such relevant topics as the development of practical actions to mitigate negative factors affecting raptors in steppe and desert regions, such as bird mortality at power grid facilities, RES, improvement of legislation in the field of avifauna, international experience in bird rescue, types of bird protection devices for overhead lines and substations were presented and discussed.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No negative effects was determined.

Row 2

(11.4.1.2) Types of area important for biodiversity

Select all that apply

☑ Legally protected areas

(11.4.1.3) Protected area category (IUCN classification)

Select from:

☑ Category IV-VI

(11.4.1.4) Country/area

Select from:

☑ Kazakhstan

(11.4.1.5) Name of the area important for biodiversity

Special environmentally sensitive zone of Kazakhstan Sector of the Caspian Sea

(11.4.1.6) Proximity

Select from:

☑ Up to 70 km

(11.4.1.8) Briefly describe your organization’s activities in the reporting year located in or near to the selected area

In July 2023 under the contract with Aktau-Balyk LTD LLP, Zhenis Operating LLP carried out works on compensation of damage to fish resources during construction and liquidation of well V-1 by releasing fish seed (sterlet) in the quantity of 4,467 pcs into the Ural River (Atyrau Region, RoK). This work was carried out in order to compensate for unavoidable damage to fish resources and replenish the biodiversity of the Caspian Sea. In March 2023, KMG experts participated in the workshop meeting to develop a sensitivity map for oil spill response purposes in the Kazakhstan sector of the Caspian Sea, organised by the Oil Spill Preparedness Regional Initiative. Current methods of monitoring of offshore areas using new technologies were presented, the need to create a sensitivity map in the Kazakhstan sector of the Caspian Sea was pronounced in order to ensure preparedness and response to oil pollution and to organise cooperation.

(11.4.1.9) Indicate whether any of your organization’s activities located in or near to the selected area could negatively affect biodiversity

Select from:

☑ No

(11.4.1.11) Explain how your organization’s activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

No negative effects was determined.
[Add row]

C13. Further information & sign off

(13.1) Indicate if any environmental information included in your CDP response (not already reported in 7.9.1/2/3, 8.9.1/2/3/4, and 9.3.2) is verified and/or assured by a third party?

	Other environmental information included in your CDP response is verified and/or assured by a third party
	Select from: ☑ Yes

[Fixed row]

(13.1.1) Which data points within your CDP response are verified and/or assured by a third party, and which standards were used?

Row 1

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Water

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Water security

☑ All data points in module 9

(13.1.1.3) Verification/assurance standard

General standards

☑ ISAE 3000

(13.1.1.4) Further details of the third-party verification/assurance process

The data disclosed in this section was verified as part of the verification of KMG's 2023 Sustainability Report. The conclusion of the verifier on pages 210-212 of the attached report.

(13.1.1.5) Attach verification/assurance evidence/report (optional)

KMG_2023_EN.pdf

Row 2

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Water

☑ Biodiversity

(13.1.1.2) Disclosure module and data verified and/or assured

Identification, assessment, and management of dependencies, impacts, risks, and opportunities

☑ Identification of priority locations

(13.1.1.3) Verification/assurance standard

General standards

☑ ISAE 3000

(13.1.1.4) Further details of the third-party verification/assurance process

The data disclosed in this section was verified as part of the verification of KMG's 2023 Sustainability Report. The conclusion of the verifier on pages 210-212 of the attached report.

(13.1.1.5) Attach verification/assurance evidence/report (optional)

KMG_2023_EN.pdf

Row 3

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Water

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Consolidation approach

☑ All data points in module 6

(13.1.1.3) Verification/assurance standard

General standards

☑ ISAE 3000

(13.1.1.4) Further details of the third-party verification/assurance process

The data disclosed in this section was verified as part of the verification of KMG's 2023 Sustainability Report. The conclusion of the verifier on pages 210-212 of the attached report.

(13.1.1.5) Attach verification/assurance evidence/report (optional)

KMG_2023_EN.pdf

Row 4

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Climate change

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Climate change

☑ All data points in module 7

(13.1.1.3) Verification/assurance standard

General standards

☑ ISAE 3000

Climate change-related standards

☑ ISO 14064-3

(13.1.1.4) Further details of the third-party verification/assurance process

The data disclosed in section 7 was verified as part of the verification of KMG's 2023 Sustainability Report. The conclusion of the verifier on pages 210-212 of the attached report.

(13.1.1.5) Attach verification/assurance evidence/report (optional)

KMG_2023_EN (1).pdf

Row 5

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Climate change

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Climate change

☑ Fuel consumption

☑ Year on year change in absolute emissions (Scope 1 and 2)

(13.1.1.3) Verification/assurance standard

Climate change-related standards

☑ ISO 14064-3

(13.1.1.4) Further details of the third-party verification/assurance process

An independent verification of greenhouse gas (GHG) emissions data for 2023, covering Scope 1, 2, and 3 (category 11), was conducted in accordance with ISO 14064-3 standards. This includes the verification of direct emissions (Scope 1), indirect emissions from energy consumption (Scope 2), and all other indirect emissions (Scope 3).

(13.1.1.5) Attach verification/assurance evidence/report (optional)

заявление о верификации (английская версия).pdf

Row 6

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Climate change

(13.1.1.2) Disclosure module and data verified and/or assured

Identification, assessment, and management of dependencies, impacts, risks, and opportunities

☑ Identification, assessment, and management processes

(13.1.1.3) Verification/assurance standard

General standards

☑ ISAE 3000

(13.1.1.4) Further details of the third-party verification/assurance process

The data disclosed in section 2 was verified as part of the verification of KMG's 2023 Sustainability Report (pp.63-72). The conclusion of the verifier on pages 210-212 of the attached report.

(13.1.1.5) Attach verification/assurance evidence/report (optional)

KMG_2023_EN (1).pdf

Row 7

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Climate change

(13.1.1.2) Disclosure module and data verified and/or assured

Disclosure of risks and opportunities

☑ Other data point in module 3, please specify **:**risks management

(13.1.1.3) Verification/assurance standard

General standards

☑ ISAE 3000

(13.1.1.4) Further details of the third-party verification/assurance process

The data disclosed in section 3 was verified as part of the verification of KMG's 2023 Sustainability Report (pp.63-72). The conclusion of the verifier on pages 210-212 of the attached report.

(13.1.1.5) Attach verification/assurance evidence/report (optional)

KMG_2023_EN.pdf

Row 8

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Climate change

(13.1.1.2) Disclosure module and data verified and/or assured

Introduction

☑ All data points in module 1

(13.1.1.3) Verification/assurance standard

General standards

☑ ISAE 3000

(13.1.1.4) Further details of the third-party verification/assurance process

The data disclosed in section 1 was verified as part of the verification of KMG's 2023 Annual Report. The conclusion of the verifier on pages 288-378 of the attached report.

Row 10

(13.1.1.1) Environmental issue for which data has been verified and/or assured

Select all that apply

☑ Climate change

(13.1.1.2) Disclosure module and data verified and/or assured

Business strategy

☑ Other data point in module 5, please specify **:**Governance, low-carbon scenario modelling, Strategy, GHG inventory

(13.1.1.3) Verification/assurance standard

General standards

☑ ISAE 3000

(13.1.1.4) Further details of the third-party verification/assurance process

The data disclosed in section 4 was verified as part of the verification of KMG's 2023 Sustainability Report pp. 5-6, 33-36 Governance pp.13-26 low-carbon scenario modelling pp. 27-32 Strategy pp. 7-12 GHG emission inventory The conclusion of the verifier on pages 210-212 of the attached report.

(13.1.1.5) Attach verification/assurance evidence/report (optional)

KMG_2023_EN.pdf
[Add row]

(13.2) 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.

	Additional information	Attachment (optional)
	KMG 2023 Anual Report.	*KMG_AR23_ENG.pdf*

[Fixed row]

(13.3) Provide the following information for the person that has signed off (approved) your CDP response.

(13.3.1) Job title

Deputy Chairman of the Board Management

(13.3.2) Corresponding job category

Select from:

☑ Other, please specify

[Fixed row]

(13.4) Please indicate your consent for CDP to share contact details with the Pacific Institute to support content for its Water Action Hub website.

Select from:

☑ Yes, CDP may share our Disclosure Submission Lead contact details with the Pacific Institute