



Consistently implementing new changes in business processes, we strive to ensure compliance of our activities with the principles of sustainable development, consistency of our economic, environmental and social goals.



- Digital transformation
- Production processes automatization
- Processes re-engineering



- Management system change
- Corporate culture development
- Corporate values introduction
- Financial stability improvement



- Ecological reporting transparency
- Labor safety indicators leadership



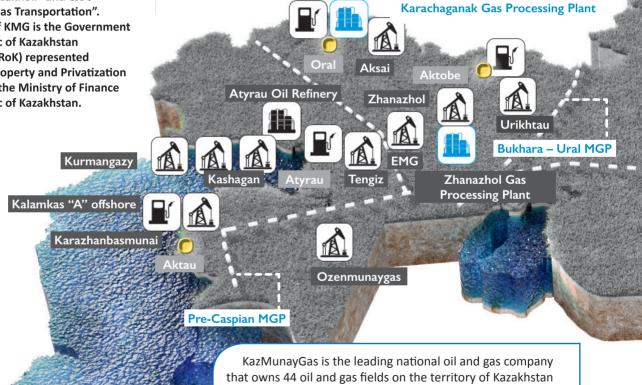
# **About the Company**

GRI 102-1, 102-2, 102-4, 102-5, 102-6, 102-7, 102-9

Joint Stock Company National Company "KazMunayGas" is a unique vertically integrated oil and gas operator that carries out a full production cycle from exploration and production of hydrocarbons, their transportation and refining to provision of specialized services and represents the interests of the state in the oil and gas industry of Kazakhstan.

KMG was formed by the decree of the President of Kazakhstan dated February 20, 2002 by merging CJSC "NOC "Kazakhoil" and CJSC "NC "Oil and Gas Transportation". The founder of KMG is the Government of the Republic of Kazakhstan (hereinafter – RoK) represented by the State Property and Privatization Committee of the Ministry of Finance of the Republic of Kazakhstan.

**KMG** shareholders: Joint Stock Company National Wealth Fund "Samruk-Kazyna" (90%) and the RoK National Bank (10%).



KazMunayGas is the leading national oil and gas company that owns 44 oil and gas fields on the territory of Kazakhstar and is one of the largest employers of the country. The company specializes in many areas of the oil and gas sector, manages major oil refineries in Kazakhstan and refineries in Romania, owns assets in such countries as Switzerland, Bulgaria, Georgia, Moldova and Turkey. Besides, the Company expands the scope of its activities working on implementation of new investment projects.

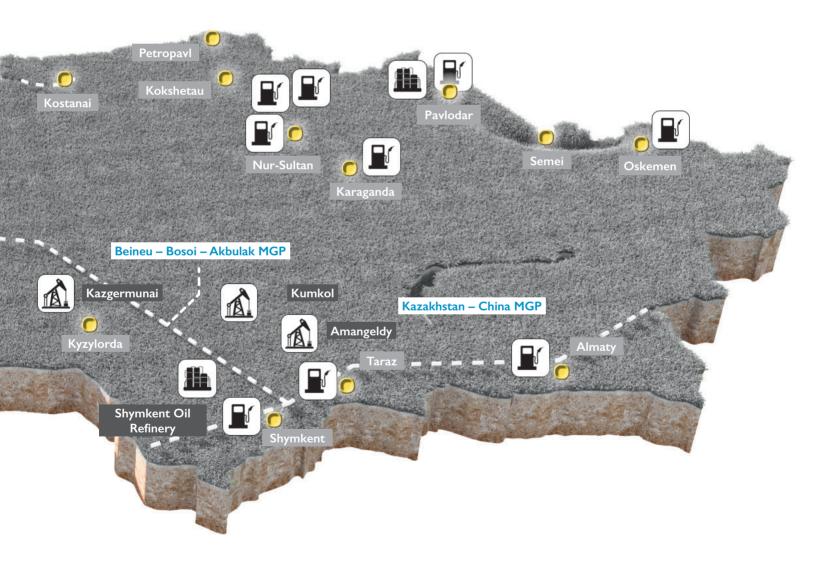
#### Location of KMG production assets and value chain

KMG ships diesel fuel for field agricultural works, and also provides social and production facilities and institutions with fuel oil during the heating period. The remaining volumes of oil products are sold to third-party buyers in the domestic market and for export.

All volumes of light oil products are sold in bulk in the domestic market of Kazakhstan. According

to the results of 2018, the share of deliveries to the domestic market amounted to 75% of the total sales of KMG oil products.

In the structure of export deliveries of oil products in 2018, the shipment of dark oil products to Europe prevailed, small volumes of oil products were supplied to Russia and China.



**Sustainability Report** 

## KMG OIL AND OIL PRODUCTS VALUE CHAIN



#### **KMG GAS VALUE CHAIN**



#### Wholesale distribution of KMG oil products produced by RoK refineries (2018 actual)\*, thousand tons

2018 actual	Domestic market	Export	Total
Gasolines	701	-	701
Diesel fuel	954	_	954
Jet fuel	34	_	34
Fuel oil	192	414	606
Vacuum gas oil	0	200	200
Heating oil	43	34	66
Calcinated coke	_	25	25
Total coke	44	33	77
Sulfur	9	4	13
Benzene	_	5	5
Bitumen	53	_	53
Paraxylene	_	2	2
Liquefied gas	128	_	128
HGU raw materials	4	_	4
Total 2018	2,162	717	2,868

<sup>\*</sup> total sales volumes of petroleum products are specified for 2018 out of resources of KMG EP and KMG

As required by the Technical Regulations of the Customs Union, motor fuels corresponding to environmental classes K4, K5 have been produced at domestic refineries since 2018.

### K4, K5 (EURO 4, EURO 5)

#### Herewith:



- Volume fraction of benzene of not more than 1% for the environmental class K4, K5;
- Mass fraction of sulfur is not more than 50 mg/kg for class K4, and not more than 10 mg/kg for class K5;

Concentration of lead is not more than
 5 mg/dm³, for environmental class K4, K5.

The Company provides information on the quality of products manufactured at the Kazakhstani refineries through press releases in the media. Stakeholders can also familiarize themselves with the necessary information on the quality of fuel produced on the official websites of the refineries: <a href="PPCP">PPCP</a> https://www.pnhz.kz/product/quality of product/
<a href="Atyrau Refinery">Atyrau Refinery</a> https://www.anpz.kz/production/product/
<a href="PKOP">PKOP</a> http://www.petrokazakhstan.kz/rus/pages/processing\_subdivision.html.

#### Balance of production and consumption main types of fuels and lubricants in RoK\*\*

	201	2018 actual, thousand tons		
Name	GASOLINES	DIESEL FUEL	KEROSENE	
Production	3,943	4,434	388	
Consumption	4,217	4,865	647	
Import	408	377	261	

More details on the Company's operations and financial results are set out in the Annual Report for 2018.



<sup>\*\*</sup> the difference between production and consumption + import is the carry-over balance for the last year

#### MISSION AND STRATEGIC OBJECTIVES



### **MISSION**

Maximizing the Shareholders' benefits from participation in the development of the national petroleum industry

#### VISION

A highly efficient national and competitive integrated oil and gas producing and transporting company meeting the highest standards of safety operations and corporate governance

#### STRATEGIC GOALS

Value creation and financial sustainability strengthening

Increasing the level of manageability of subsidiaries and affiliates / JV

Corporate governance and sustainability

#### STRATEGIC RESULTS FOR KMG

Growth of free cash flow and return on investment

Implementation of a two-level management system

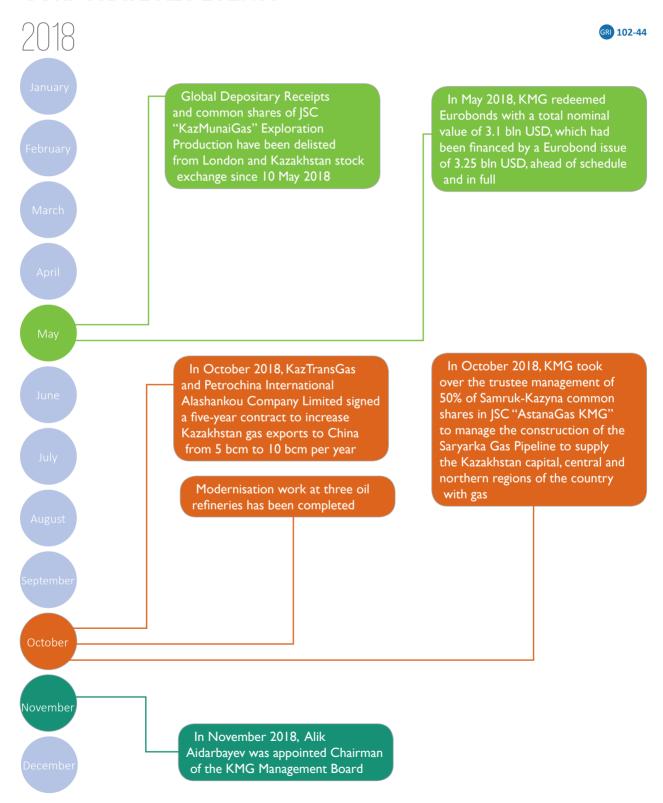
Environmentally responsible company

Ethics, compliance, corporate culture

## STRATEGIC RESULTS FOR SHAREHOLDERS

Increase in dividends to Shareholders

#### **CORPORATE KEY EVENTS**



Environmental Responsibility and Safety in the Workplace



## TRANSFORMATION AND DIGITALIZATION IN THE COMPANY





In 2018, the implementation stage of the Program of transformation of JSC NC "KazMunayGas" continued. The project activities were carried out in accordance with the initiatives announced by JSC "Samruk-Kazyna".

In the framework of implementation of the new KMG operating model, which enables outsourcing of noncore support functions, the Shared Services Centre on Information Technology of JSC NC "KazMunayGas" on the basis of LLP "KMG – Kumkol" was officially launched.

The most important project of transformation in the area of systematic and methodological changes (hereinafter referred to as SMC) in KMG operations is the Transformation of Key Business Functions and ERP Implementation. The methodological component of the project was completed in the reporting period.

Another major SMC project is the Introduction of Procurement Category Management (hereinafter referred to as PCM\*). KMG was tasked to cover by PCM at least 80% of expenditures for annual procurement under managed categories by 2022. For this purpose, it was necessary to develop and approve procurement category management strategies (hereinafter referred to as PCMS) for 67 categories.

In 2018, 7 PCMS were approved, including 'Procurement of Motor Transport Services for KMG Group in RoK', 'Technical Gases', 'IT Equipment', 'Additives and Reagents', 'Pump Rental Services', 'Split Service in Drilling', 'Procurement of Special Machinery Services'. 9 strategies were implemented: 'Production and Drilling Pipes', 'Oil Pumps', 'Diesel Fuel', 'Procurement of Motor Transport Services for KMG Group in Nur-Sultan', 'Catalyst for Catalytic Cracking', 'Technical Gases, Stage-1 (POCR)', 'Cars and Buses', 'Medical Insurance', 'Electric power'.

During the implementation of the project on introduction of PCM in KMG, a specific Centre of Competence was

established in the form of a department of category management and provision of large projects with goods, works and services (hereinafter referred to as GWS). This unit solves the problem of reducing procurement costs, improving the quality of procured GWS through standardization and unification of procured goods and services. Based on the standards of the Fund Samruk-Kazyna, KMG developed its own Regulations for GWS Procurement.

The process of procurement category management brings considerable benefits to the Company. For example, in the framework of the PCMS 'Procurement of Motor Transport Services for KMG Group in Nur-Sultan', the planned economic effect for 2018–2020 is KZT 867 million. Under the PCMS 'Production and Drilling Pipes', it is planned to receive benefits in the amount of KZT 1.3 billion during 5 years.

In 2018, two SMC transformation projects were implemented – "Introduction of New Model for Investment Portfolio Management in JSC NC "KazMunayGas" and "Introduction of New Risk Management Model: Improvement of Internal Control System and Implementation of the Business Continuity Management System".

The first project was implemented on the basis of SAP PPM software. The project is aimed at the transition of KMG to a fundamentally new business process of investment management – portfolio management. This approach allows to collect a pool of investment projects of SDEs/divisions of KMG and select high-performance projects once a year. It also ensures the selection of high-performance investment projects, taking into account KMG costs of other capital investments (current CAPEX) and financial opportunities to the Company.

In addition, the system implementation will make it possible to receive timely and reliable information on disbursement of capital investments under investment projects. This will greatly contribute to the control over approved project budgets, making timely decisions to ensure successful implementation of projects that

Procurement Category Management is an integrated approach to procurement, which allows to take into account the features of certain categories in a specific business area. Categorical management involves the analysis of purchase prices, the supplier market and the development of a procurement strategy based on the data.

eventually will improve the KMG Corporate Centre control over the progress in investment projects.

The second project ensures better compliance with requirements of the Corporate Governance Code, a positive impact on KMG's corporate governance rating, improvement of the attractiveness of the Company for investors in accordance with expectations of stakeholders. The project establishes a methodological foundation for operation in the Company of three mandatory and interrelated systems — risk management, internal control and management/business continuity management.

The introduction of such a methodology will ensure timely prevention of process risks through the introduction of control procedures and the identification of fraud risks through the enhancement of business processes. The project addresses areas of operational inefficiency. The manageability and controllability of key business processes, the degree of reliability of financial statements required for decision-making, planning and control of achievement of KMG objectives and reasonable assurance of reliability of its formation will improve. In addition, the potential threats should be identified and their impact on the KMG operation should be assessed with the aim of further improvement of sustainability and their response to the threats. This will enable the protection of the key stakeholders, reputation, brand and the efficient business operations. Finally, the level of risk culture of the Company's employees will improve due to involvement in the risk management process.

In 2018, the first pool of KMG digitization projects was pre-approved. The implementation of current digital initiatives continued in all basic areas of Company operations. Thus, in oil production, such a basic project was Digital Oil Field. In 2016 an oil and gas field management system was implemented as a pilot project at the Uaz

oil field of JSC "Embamunaygas" for ensuring maximum production performance. As a result, stable operation of wells were achieved by means of automation systems and the electricity consumption was reduced. In 2017-2018, the project was replicated at the facilities of the Prorva group of fields of JSC "Embamunaygas" where the further expansion in 2019 at the fields of JSC "Ozenmunaygas" and "Kazgermunay" JV LLP.

In the downstream segment, a project is being implemented at the Pavlodar and Atyrau oil refineries with the aim of extending the period between overhauls. It is aimed at ensuring the necessary level of maintenance, reliability and mechanical integrity of refinery equipment. Owing to this initiative, due to automation and introduction of new management processes, it will be possible to perform scheduled overhauls of refineries once in three years and accordingly less frequently to stop production.

Upon completion of the project, it is expected that the reliability of equipment will increase by 8%, repair costs will reduce by nearly 10%. It is also planned to reduce inventory by 10%; unscheduled downtime of equipment and the scope of emergency work will also be lower.

In accordance with the updated vision of the Transformation Program presented by the Fund Samruk-Kazyna, a new portfolio of KazMunayGas transformation projects will be formed in 2019. Criteria for selection of projects for the portfolio were developed taking into account the specifics of KMG. In particular, transformation initiatives should support the achievement of the Company's strategic objectives and KPIs. The Program portfolio will include projects aimed at reengineering of production and corporate business processes, the culture of high efficiency and digital solutions for the Business and etc.