

PERFORMANCE UNDER INVESTMENT PROJECTS

Investment portfolio overview

Today, KMG's investment portfolio includes projects across all areas of operations aimed at increasing the resource base and boosting the efficiency across the value chain. In 2021, the investment portfolio totalled KZT 58,890.5 bln, including KZT 14,872.7 bln attributable to KMG.

As part of portfolio management, KMG continues efforts to prioritise its projects, with decisions on any new investments taking into account their viability, strategic priority level, risks, and capital intensity.

KMG's investment portfolio includes a number of projects in conventional areas such as exploration, transportation and refining of oil, and in new realms, i.e. petrochemicals and sustainability. Green projects are expected to be added to the portfolio very soon.

2021 saw strong progress in terms of improving the investment attractiveness of our subsoil use projects. As requested by KMG, the Government of Kazakhstan considered and approved the cancellation of the export customs duty for offshore projects. This was part of the efforts to enhance the investment appeal of the oil and gas industry jointly with the Foreign Investors' Council and government agencies of Kazakhstan. The cancellation of the export customs duty for new and existing offshore oil and gas projects will deliver quick wins in terms of improving the industry's investment climate, launch field development, and ensure strong tax collection for Kazakhstan while also creating new jobs and increasing the share of local content in procurement.

Type of project	2021 investment portfolio attributable to KMG	
	KZT bln	%
Oil and gas exploration and production ⁶	13,918.2	93.6
Infrastructure projects	618	4.11
Oil transportation	143.5	1
Refining and marketing of oil products	95.2	0.64
Petrochemicals	94.2	0.63
Other	3.6	0.02
Total	14,872.7	100

Also, a discussion involving KMG, Foreign Investors' Council, and the Ministry of Energy is currently underway to develop an improved model contract for subsoil use projects to make the oil and gas industry more competitive.

Along with principal improvements in investment climate, KMG is also working to deliver against the targets currently at hand. In 2021, KMG successfully completed five investment projects in various areas:

- KPC gas debottlenecking (KGDBN);
- installation of the 4th injection compressor;
- construction and upgrade of a jack-up floating drilling rig;
- retail network development in the Black Sea region. Phase 1: construction of 25 filling stations in Romania in 2018–2020 (KMG International);
- construction of an air and nitrogen compressor for KPI Inc.

Oil and gas exploration and production

A considerable portion of KMG's investment portfolio relates to onshore and offshore oil and gas exploration and production projects. In 2021, upstream projects attributed to KMG totalled KZT 13,929 bln (93.6%).

The cancellation of the export customs duty will help to considerably improve the margins of existing offshore projects such as Abay, Isatay, Zhenis, and Al-Farabi, as well as new projects such as Kalamkas-Sea-Khazar.

As we mentioned in our Report for 2020, in October 2020, KMG and LUKOIL signed an agreement on the Al-Farabi project in Kazakhstan's sector of the Caspian Sea, defining the rights and obligations of KMG and LUKOIL regarding the operations of the future subsoil user under the project. In May 2021, we signed a hydrocarbon exploration and production contract for the Al-Farabi subsoil area. Al-Farabi Operating LLP obtained the subsoil use right under the contract and is now recognised a subsoil user. To date, all decisions regarding PJSC LUKOIL's involvement in the project have been duly adopted.

Also, in November 2021, KMG and PJSC LUKOIL signed a principles agreement on the Kalamkas-Sea-Khazar promising offshore project. Further negotiations are expected to define the concept, details, and terms and conditions for the joint development of the field. The project will help secure new reserves additions through inorganic growth in the form of contracts to engage in production at new fields.

⁶ Including projects implemented at large oil and gas assets.

To successfully run its offshore projects, KMG develops respective service infrastructure. In 2021, the Company completed an upgrade of Kazakhstan's first jack-up floating drilling rig Satti. This was a joint project with Caspian Drilling Company Ltd and British Petroleum.

Work continues to add new reserves through further exploration at existing onshore fields. As an example, we go on with our efforts in exploration at the S. Nurzhanov and West Karasar fields to increase hydrocarbon reserves. At East Urikhtau and the Rozhkovskoye field development project, pilot production is ongoing, with start of commercial production expected in 2023–2024.

2021 saw another addition to our portfolio: Turgai Palaeozoic, a project that will see the drilling of a 5,500 m deep exploration well. The block is located in the Kyzylorda Region. In August 2021, a hydrocarbon exploration and production contract was concluded, and preparatory work is ongoing to have the exploration well drilled.

KMG continues to partner with strategic investors in projects at large fields: Tengiz (20%), Kashagan (16.88%) and Karachaganak (10%).

At Tengiz, the Company is implementing the future growth project / wellhead pressure maintenance project.

Projects to maintain production plateau at the Karachaganak field are progressing as planned. In 2021, we successfully completed the KPC gas debottlenecking (KGDBN) project. The installation of the 4th injection compressor (4ICP) project is now nearing completion.

Oil transportation

In 2021, KMG's oil transportation projects totalled KZT 143.5 bln (1%).

During the year, the objective of Phase 2 of the second stage of the Kazakhstan–China oil pipeline construction was achieved, with throughput increase to 20 mtpa. As part of the project, we launched the first stage of flow reversal at the Kenkiyak–Atyrau oil pipeline section with a throughput of up to 6 mtpa.

Our key initiative here is the project to remove bottlenecks in Caspian Pipeline Consortium's oil pipeline system, which will help increase the CPC pipeline's throughput capacity to 72.5 mtpa.

Refining and marketing of oil products

The Kazakh–Romanian Investment Fund KMG International N.V. is completing the construction of 25 filling stations (Phase 1) in Romania to build a retail network for the sale of oil products.

To ensure energy security of Kazakhstan's northern and eastern regions, KMG following the review of a feasibility study in 2021 launched projects at Pavlodar Refinery to remove sulphur compounds from LPG and make winter diesel fuel. These projects are designed to reduce the emissions of hazardous substances into the environment, increase the output of light products, and improve the product slate of Pavlodar Refinery. The units are scheduled for launch in 2023 and 2024, respectively.

In 2021, KMG's projects in refining and marketing of oil products totalled KZT 95.2 bln (0.64%).

Petrochemicals

KMG is focused on creating a petrochemical industry in Kazakhstan, which marks a transition to a new level in the national company's development. In 2021, KMG's petrochemicals projects totalled KZT 94.2 bln (0.63%). In Q1 2022, KMG is to complete the construction of a polypropylene plant with a capacity of 500 ktpa. At the same time we are engaged in projects to produce polyethylene and butadiene with partners that have relevant expertise and experience.

In 2021, we completed an infrastructure project to build an air and nitrogen compressor for KPI Inc. at the National Industrial Petrochemical Technopark, a special economic zone.

Infrastructure projects

As a national company, KMG runs projects that are aimed at:

- addressing water supply issues in its regions of operation, such as an upgrade of the Astrakhan–Mangyshlak water pipeline and construction of a desalination plant in Kenderly with a daily capacity of 50,000 m³. The Astrakhan–Mangyshlak water pipeline upgrade project is currently at the design and estimate documentation stage, with efforts in progress to raise financing. As part of the Kenderly desalination plant project, tender procedures are soon to be completed to select a project management consultancy services provider to ensure technical support of the project;
- ensuring uninterrupted gas processing, including as a way to meet the needs of local residents.



A project to build a new gas processing plant in Zhanaozen is currently at the pre-FEED and feasibility study development stage. An environmental impact assessment is now underway, along with screening for impacts

of the planned activity. Preparatory work is ongoing to ensure project financing. The project is slated for completion in early 2024;

- improving the environment: Tazalyq project at Atyrau Refinery. In 2021, contracts for construction, project

management, technical supervision, and site supervision for Phases 1 and 3 were signed. Installation and construction work is ongoing.

In 2021, KMG's infrastructure projects totalled KZT 618 bln (4.11%).