



Development Strategy 02



Development Strategy

Embamunaigas JSC is a highly efficient oil and gas Company with majority state interest, meeting the highest safety standards, with highly qualified personnel and a profitable resource base ensuring long-term development.

**OUR
VISION**

We produce oil and gas in order to ensure stability for employees and efficiency for the shareholder by balancing social and business interests well.

**OUR
MISSION**

Human life is our absolute value. Ensuring the safety of life and health of our employees through the introduction of a safety culture for themselves and their colleagues. An employee who comes to work must return home safe and sound.

Making it through. The Company is committed to achieving the stated results and goals. We value result-motivated employees.

Careful attitude to the motherland and the Company. The Company appreciates the environmentally friendly employees and those taking care of Company's assets.

Expertise. The Company creates conditions to improve the expertise of its employees. We value employees seeking to acquire new knowledge and create equal conditions for career growth.

Ethics and respect for the individual. The Company is committed to creating a culture of relations based on mutual respect and trust.

**OUR
VALUES**

Development Strategy [continued]

Strategic Priorities

Strategic Priorities

The Board of Directors of Embamunaigas JSC approved the Development Concept of the Company until 2027. The Concept was developed in accordance with strategic documents of the Republic of Kazakhstan, including the Development Strategy of the Republic of Kazakhstan 2050, the “Digital Kazakhstan” State Program and the development strategy of KazMunayGas National Company JSC.

The development concept defines a set of rules and principles that guide the Company in making decisions and which, in its opinion,

define successful development of the business. This document is the basis for elaboration of subsequent program documents, forecast financial and economic models (business plans), risk management system, annual budget of the Company, as well as in formation of the portfolio of the Company’s projects, including investment projects.

According to the Development Concept, the main strategic priorities of the Company in decision making are as follows:

Profitability

as an essential condition for the existence of the Company.

Energy efficiency.

When choosing technologies for new and existing projects, the Company will give priority to the use of energy efficient technologies.

Environment.

Rational use of subsoil and reduction of adverse environmental impact. With the growth of production, the Company is introducing new technologies that reduce the adverse environmental impact.

Social stability.

Ensuring the employment of the Company’s employees through the rational distribution of staff for current and new projects.

Automation of production.

Improving performance and occupational safety.

The implementation of the Development Concept of Embamunaigas JSC will allow the Company to make a significant contribution to the economic development of the region and confidence in the future for a team of many thousands.

Development Strategy [continued]

Advantages of the Company

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Field experience at the last stage of operation.

Over a long period of time, the Company has been steadily maintaining the production bar of 2.8 mln tonnes despite depletion of fields.

Put together team. Trust and mutual understanding between the management and employees of the Company.

Stable financial position and high liquidity.

Favorable geographical position. The Company operates in the Caspian Depression, which has a high potential for discovering new oil and gas fields (about 65% of crude hydrocarbon in the RoK) and a developed oil transportation infrastructure.

Strategic Lines of Activities

The priority line of activities of the Company is the formation of a competitive resource base supporting the stable and long-term (more than 25 years) development of Embamunaigas JSC to provide employment and create shareholder value through:

- conducting exploration operations under existing and new contracts,
- conducting additional exploration at existing fields, and
- acquiring new assets.

The Company produces oil and intensifies production at the operating fields through the introduction of new technologies to increase the oil recovery factor (ORF).

In order to ensure the continuous production processes, the Company develops oil service processes aimed at increasing the time between overhauls (TBO) of wells, increasing the operation factor of the special-purpose equipment fleet and providing comfortable living conditions for personnel.

The utilization of associated gas generated in the process of oil production is a prerequisite for the environmental friendliness. In addition,

the portfolio of investment projects of the Company contains projects for the exploration and production of gas fields. Thus, the Company considers the development of the gas business as a promising direction, including measures to upgrade the existing and build new associated gas processing plants to produce marketable gas and other products. In addition, the Company implements measures for the construction of gas piston power plants (GPPP) in order to generate its own electricity. The Company will use the products for its own needs as well as for sale in the domestic market

In order to maintain the production and social infrastructure at the fields, the Company builds and repairs highways, solves the problems of staff accommodation and meals, and ensures the rational use of economic infrastructure facilities.

In order to ensure the stable development of all business lines, the Company pays great attention to the development of occupational health and safety, HR and production automation.

01

Company's Profile

02

Development Strategy

03

Management Report

04

Corporate Governance

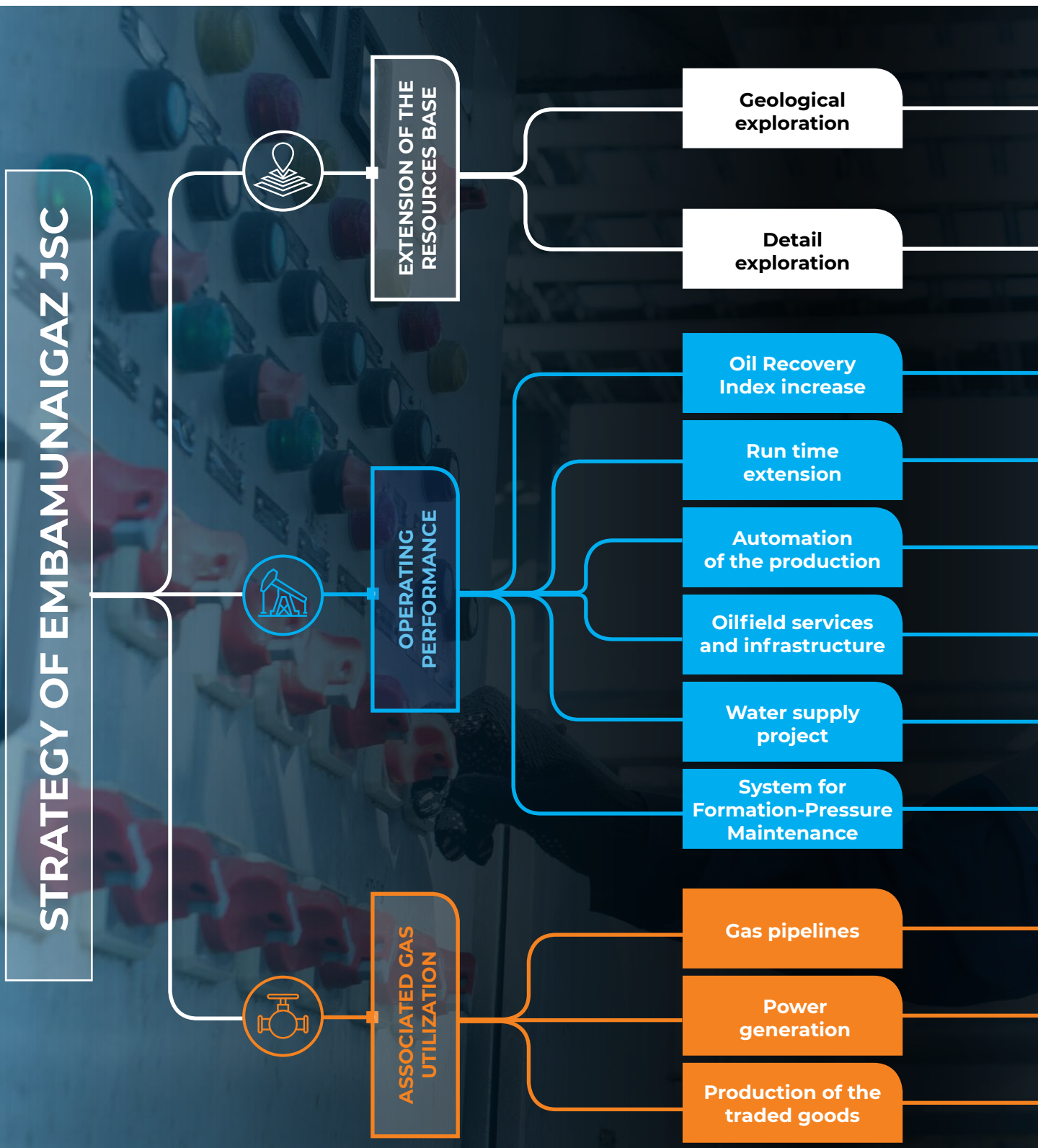
05

Sustainable Development Report

06

Appendix. Financial Statements

Tree of objectives of the strategic projects



Exploration of Zhaiyk site

Geological survey in Emba 5 site

Exploration of Karaton-Sarkamys site

Exploration of Taisogan site

Transfer C2 reserves in C1

Detail exploration of the unopened layers

Polymer waterflooding technology replication

Utilization of technology on the high-viscosity oil fields development

New approaches for the organization of the oilfield operations (leasing of equipment, tools, repair works carrying out)

Replication of the project "Intellectual deposit"

Realization of the program of the heavy equipment fleet renewal and the wheeled transport transfer to the outsourcing

Realization of the project of the transportation provision automation

Water supply organization for the oil facilities of the Prorva group deposits

Realization of the program on the improvement of the system for formation-pressure maintenance

Construction of the gas pipeline of the Complex Gas Treatment Unit "Prorva" from GMP "Tolkyn" up to the system "Intergas Central Asia"

Construction of the gas pipeline of the "Gas Treatment Unit v. Balgimbayev - v. Tumannoje"

Gas engine generator station installation for the proper power production

Modernization and reconstruction of gas plants and units, output of the new products out of the oil-associated gas

01

Company's Profile

02

Development Strategy

03

Management Report

04

Corporate Governance

05

Sustainable Development Report

06

Appendix. Financial Statements

Development Strategy [continued]

Interim Results for 2018–2019 | Increase of Resource Base

Interim Results for 2018–2019

Increase of Resource Base:

GPE:

1. **Geological survey at Emba-5** – works are completed, contract territory transferred to the State
2. **Contract 3577 (for the Karaton pre-salt complex)** – under implementation (currently, seismic data dynamic interpretation is underway)
3. **Contract 327 “Exploration and production of crude hydrocarbons at the Taisoigan block”** – under implementation (structural and dynamic interpretation is underway)

Further Exploration:

Within the framework of the tasks determined by the Development Strategy of KazMunayGas National Company JSC and the Company's Development Concept, Embamunaigas JSC successfully carries out systematic work to replenish the oil and gas resource base by conducting geological prospecting in exploration areas and further exploration of existing fields. In 2019, as a result of comprehensive work in this direction, a significant increase in reserves in the amount of 14.8 mln tonnes was ensured.

According to the results of the year, the remaining recoverable reserves of Embamunaigas JSC as of 01.01.2020 amounted to 86.2 mln tonnes as

compared to 74.3 mln tonnes as of 01.01.2019. In 2019, the RoK State Commission on Mineral Reserves reapproved and additionally put on the books oil reserves for the existing fields S. Nurzhanov, Kenbai (Eastern Moldabek site), Dosmukhambetovskoye, Botakhan and the newly discovered Western Karasor field.

Large-scale 3D CDPM field seismic survey work on the Taisoigan site, Kyzylkoginskiy region in the amount of 5,600 sq. km are completed. Processing and interpretation of obtained 3D CDPM data is currently being carried out, based on which promising structures will be prepared for setting up exploration drilling.

Embamunaigas JSC applies modern approaches and technologies for production of remaining oil reserves. One of these technologies is horizontal wells development, which shows higher efficiency than vertical ones. In 2019, 5 horizontal wells were drilled at Emba. 4 currently operate and provide good oil production rates and 1 well is being tested. The Company further plans to drill horizontal wells in highly viscous layers lying at a vertical depth of up to 300 m and annually increase the share of horizontal wells in production drilling.

Development Strategy [continued]

Interim Results for 2018–2019 | Operating Efficiency

Operating Efficiency:

The Company continues systematic work to increase efficiency of production activities. The annual plan of organizational and technical measures to fulfill the planned indicators of oil production was successfully implemented. At the end of 2019, overhaul life has increased.

In 2019, thanks to the implemented cloud solutions for the project of using special-purpose equipment in real time, Embamunaigas JSC switched to single fleet management system. Consequently, consumption level of fuels and lubricants were reduced, vehicle metering was automated, accuracy of calculating cost price of expenses was enhanced, losses at production sites were minimized by reducing waiting time

of special-purpose equipment for repair work. As of today, the solutions have been implemented in six units of the company, and integration with existing IT systems has been carried out. As a result of the project, organizational structure was revised, changes to internal procedures and the accounting system were made, efficiency of using the fleet was increased, IT solutions-based single integrated information environment was created, which allowed solving several problems at one stroke: ensure transparency of management, control and accounting processes; reduce time for preparing regulatory and management reporting, increase data reliability and minimize human factor impact.

Utilization of Associated Gas:

By commissioning of the associated petroleum gas treatment unit of the Prorva group of fields,

the Company significantly reduced the volume of associated petroleum gas burned.

Strategic Indicators

KPI	UoM	2018 (ACTUAL)	2019 (PLAN)	2019 (ACTUAL)	2020 (PLAN)	2022 (PLAN)	2027 (PLAN)	2032 (PLAN)
Reserves	mIn tonnes	74.30	77.009	86.6235	85.820	202.64	184.68	146.24
Production output	mIn tonnes	2.9	2.9	2.9	2.8	3.99	3.15	11.3
Lifting costs	tenge/tonne	23,000.44	26,981.68	24,458.14	30,868.58	–	–	–
Headcount	ppl	4,942	5,222	4,928	5,150	5,100	5,060	–
ROACE	%	27%	25%	33%	17%	>WACC	>WACC	>WACC
EBITDA	mIn USD	337.7	376.8	430.8	265.6	384.1	248.3	1,840.7
EVA	mIn USD	139.21	103.1	172.8	42.8	>0	>0	>0

01

Company's Profile

02

Development Strategy

03

Management Report

04

Corporate Governance

05

Sustainable Development Report

06

Appendix: Financial Statements

Development Strategy [continued]

Key Risks

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In order to manage risks, the Company has developed and approved risk management documents and procedures. The Company identified the following key risks in implementing the Development Concept and risk mitigation measures:

No.	Factors	Potential impact	Mitigation measures
1	Decreased production at fields that are in the final stages of development due to the high cost of production	Reduced production volumes	Increased reserves due to exploration operations and M&A transactions
2	The high level of geological risks due to the depth of the promising layers of the pre-salt Karaton project	Decreased Company's value	A strategic partner recruitment
3	Reduced investment potential for financing projects due to the shareholder withdrawing a significant amount of dividends	No increase in reserves and production rates	The Concept approved by the shareholder (including the investment and dividend policies) as well as business plans for investment projects.
4	Reduced oil prices (below baseline)	Reduced Company's earnings	Search for business cost reduction initiatives
5	Negative change in the economic macroparameters of Kazakhstan (KZT-to-USD exchange rate, inflation rate)	Reduced Company's value, increased costs	Developed and implemented measures to optimize the Company's tax policy
6	The risk of unauthorized strikes	Break of continuous operation	Weighted policy on process outsourcing Prompt implementation of staff retraining programs. Monitoring and analysis of the social climate in the Company

