

MINISTRY OF ENERGY OF THE REPUBLIC OF KAZAKHSTAN





BRIEF INTRODUCTION





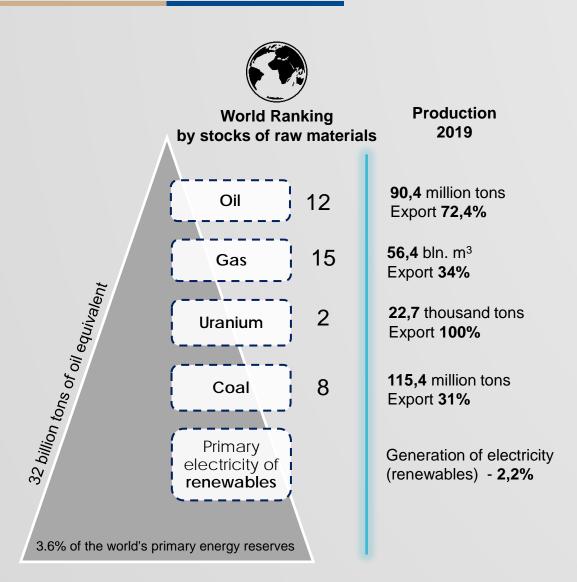
«Among the CIS countries, Kazakhstan has become a leader in attracting foreign direct investment, as well as in a number of other positions»

President of the Republic of Kazakhstan – Kassym-Zhomart Tokayev



MINERALS AND ENERGY RECOURSES





KAZAKHSTAN TAKES THE 6TH PLACE IN THE WORLD ON MINERALS RESERVES, AS WELL AS:

- 1 place on the explored reserves of zinc, tungsten and barite
- **2 place** on the explored reserves of silver, lead and chromites
- 3 place on the explored reserves of copper and fluorite

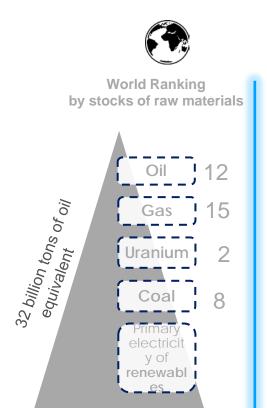
KAZAKHSTAN'S RANKING AMONG THE CIS COUNTRIES ON THE VOLUME OF MINERALS RESERVES:

- 1 place on chrome ores and lead
- **2 place** on oil, silver, copper, manganese, zinc, nickel and phosphoric raw materials
- 3 place on gas, coal, gold and tin
- **4 place** on the explored reserves of molybdenum
- 6 place on the explored reserves of gold





OPPORTUNITIES IN PETROCHEMICAL INDUSTRY



Production 2019

90,4 million tons Export 72,4%

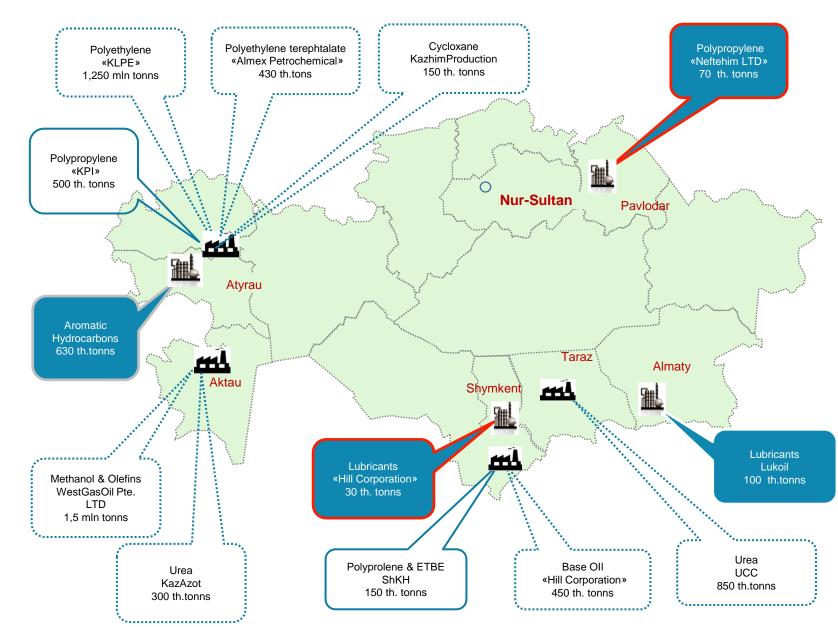
56,4 bln. m³ Export **34%**

22,7 thousand tons Export 100%

115,4 million tons Export 31%

Generation of electricity (renewables) - 2,2%

Operating
Under Construction
Perspective



BUSINESS-FRIENDLY ENVIRONMENT

Kazakhstan is 25th in the World Bank's Ease of Doing Business Ranking and among the most improving economies

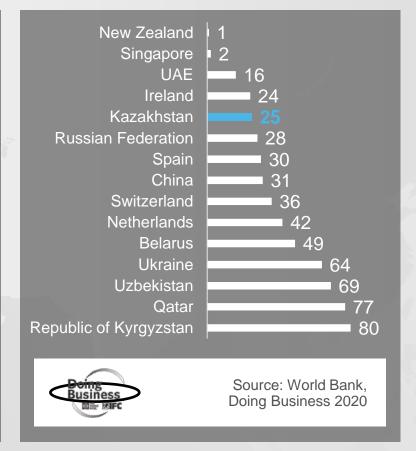


#7 for minority investors' protection

4 easy steps to start a business in just 5 days (#22)

3 easy steps to register property in just 3 days (#24)

Just 100 days to receive all construction permits (#37)



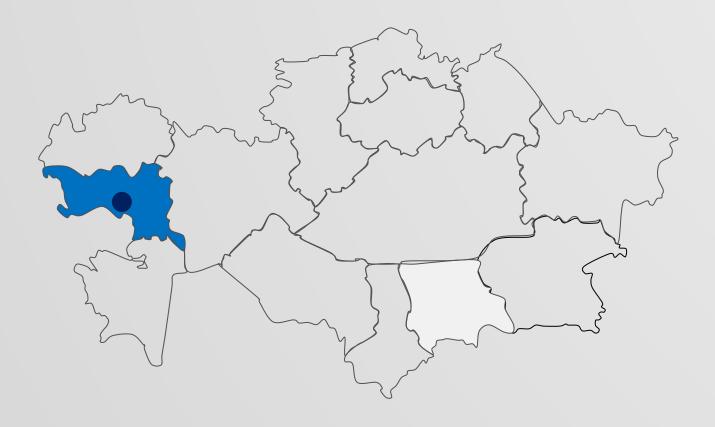


SPECIAL ECONOMIC ZONES



Samruk-Kazyna JSC and the Government of RoK approved the development and financing of two Special Economic Zones

- National Industrial Petrochemical Technopark. Located in Atyrau region (Western Kazakhstan);



TAX INCENTIVES

- Corporate income tax 0%
- Land tax **0**%
- Property tax 0%
- Social Tax (for 5 years) 0%
- Exemption from the VAT

EXEMPTION FROM CUSTOMS DUTIES

For goods

- Imported into the SEZ territory
- Exported* from the SEZ territory to the Customs Union

NON-FISCAL INCENTIVES

- Free plot of land for the entire period of existence of a SEZ
- Simplified procedure for employment of fore



SEZ NIPT ATYRAU



General Information

Period:Location:

2007 – 2032 Atyrau Region

Total Area:

3475 ha

Shareholder:

- Ministry of Energy of the Republic of Kazakhstan

- United Chemical Company LLP

Location

• Distance to Atyrau city - 42 km.

• Distance to highway – 5 km

• Railway access to the Russia, China and Central Asian countries.



Feedstock

Gas supply

- TCO Dry gas (Tengiz oil field)
- NCOC- LPG (Kashagan oil field)

Raw minerals in the region

- 4,5 billions tons of oil
- 2,0 trillion m³ of natural gas.

Infrastructure



Completed Utilities

- Gas-turbine Power plant 310 MW
- Access rail road -15,6 km.
- Railway station
- Access automobile road 5,3 km.
- Grid connection-110-kV and 220-kV
- Power Substation -110/35/10 kV and 220 kV

Industrial Infrastructure – under construction

- Water treatment system 15 000 m³/day (1st stage)
 46 000 m³/day (2nd stage)
- Industrial gases Nitrogen: 7 000 m³ (1st stage)
 - 28 500 m³ (2nd stage)

Consulting services





Development of a conceptual Master-plan, including a market research review, designing of a land-use plan and a SEZ infrastructure plan



3 475,9 ha SEZ Area

2391 ha infrastructure

1084 ha projects

463,7 ha Karabatan site

285 ha Technopark site 336 ha Reserve (Karabatan)

COMPLETED INFRASTRUCTURE (for functioning of the current projects and construction of polypropylene production project)



Power plant Output – 310 MW



Flyover Capacity - 3668 auto/d



110 kV & 220 kV Substation and PL's Length: PL 110 kV - 38,5 km, PL 220 kV - 42 km Capacity - 12 MW



Railroad station Length – 6,8 km. Capacity – 2,3 млн. t/y.



Access railway, «Karabatan» st. extension Length – 15,4 km.



Access road Length - 5,3 km.

ON-GOING INFRASTRUCTURE (1st stage - for starting the polypropylene production)

Production infrastructure



Water treatment plant Capacity – 15 th. m³/d Progress – FS developed



Customs checkpoint Area- 260 m²

General infrastructure



Evaporator pond Quantity - 2 cells (78 ha)



Internal roads Length – 3,1 km.

Other facilities:

- Weighbridge and X-ray unit
- Engineering communications
- Landscaping

<u>Private</u> nvestment

State budget

 N_2O_2

Industrial gases unit Output – 35,5 th. nm³/h Progress – Detailed design



for 6 cars



Gas station 3 units



Solid waste landfill Area - 17 ha.



Laundry Capacity – 500 kg/d.

INFRASTRUCTURE EXTENSION (2nd stage – ensuring the functioning of the polyethylene production and others)





Output - 45 th. m³/d



Length - 1,1 km.



Administration building Area – 3 077,4 m²

Other objects (Karabatan):

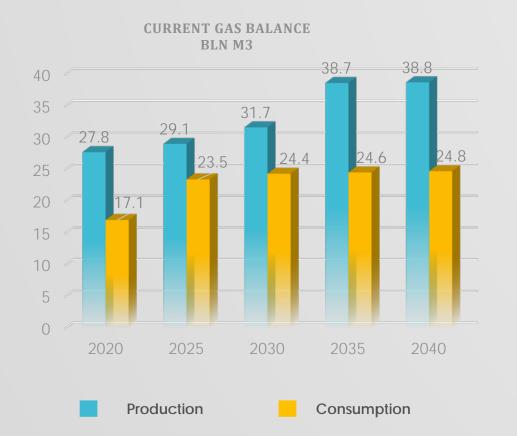
- Engineering networks and structures
- Security video surveillance
- Lighting

- Parking for 34 and 42 cars
- Landscaping

New opportunities



The government provides support in providing feedstock to strategically important investment projects for the production of petrochemicals with high added value



Amendments were made to the Law of the Republic of Kazakhstan "On Gas and Gas Supply" in part:

- Granting the right to purchase liquefied petroleum gas to industrial consumers using it as a raw material for the production of petrochemical products, for which state price regulation will be implemented
- Establishing a commodity gas pricing mechanism for investment projects that use gas as a raw material producing petrochemical products, according to the formula: cost of gas supply plus the minimum rate of marginality for a national operator (7%).



PROJECTS

PROJECTS	CAPACITY	PERIOD	IMPLEMENTATION STAGE	PARTNERS
Polyethylene	1 250 KTA	2018-2025	Feasibility Study	New Strategic Partner
Polypropylene	500 KTA	2017-2021	Construction	National Operator
Polymer Production	BOPP – 10 KTAPE film – 4 KTAPP bags – 24 mln. pcs.	2012-2015	Operation	Looking for partners/ Under Due Diligence
Methanol to Olefins	300 th.tons methanol 600 th.tons olefins	2019-2024	Feasibility Study	Looking for partners
Urea Production	850 th.tons	2017-2024	Feasibility Study	Identified
Base oils	450 th.tons Base oils	2017-2022	Deal structuring	Looking for partners
Production of ammonia	300 th.tons	2019-2023	Exploration	Looking for partners



Company overview

Name: Global Chemical LLP»

Activity:

- · Caustic soda production;
- Calcium Hypochlorite production;
- Coagulant production.

Capacity:

Products on the terms of EXW (EXW - on pickup terms)

- Sodium hydroxide 48%: 30 thousand tonnes per year;
- Calcium hypochlorite: 16.5 thousand tonnes per year;
- Ferric chloride 40%: 5 thousand tonnes per year;
- Hydrochloric acid 35%: 8.5 thousand tonnes per year;
- PAC-17 (aluminum oxychloride): 2 thousand tonnes per year.

Raw materials on the terms of DAP (DAP – delivery to the place of destination, before production)

- NaCl (Salt): 27 thousand tonnes per year;
- Fe (Metal shavings): 750 tonnes per year;
- Alumina (Aluminum): 560 tonnes per year;
- Ca(OH)2 (Slaked lime): 10.5 thousand tonnes per year;

Location: , Atyrau oblast, 060000, Atyrau, building 301/32, office 4

Construction of a complex for the production of chemical products

Project Participants

Project Participants



Akkim

Akkim, a leading Turkish manufacturer of chemicals, was founded in Yalov in 1977 and has expanded its production activities in many areas over the past 40 years. Akkim is a chemical company serving its customers in 6 continents with a range of products, including chloralkali and its derivatives, peroxides, methylamines, persulfates, bisulfites, auxiliaries for the textile industry, chemicals for paper and water processing, and concrete additives.

Akkim is the developer of the technology by which the Company's chemical products will be manufactured.



SPK Atyrau

(R)

Licensor /

Project

Operator

The main goal of the Company is to promote the economic development of Atyrau oblast by consolidating the public and private sectors.

The main tool for promoting entrepreneurship development is the Company's participation in joint projects with private businesses, based on the principle of public-private partnership to boost business activities and to increase the investment attractiveness of small and medium-sized businesses in the region.

(E)

Co-developer

Global Chemical

TUZ LLP

TUZ LLP is a plant for the processing of salt in Atyrau oblast. The main activity of the company is the extraction and processing of sludge table salt, the production of low concentrated sodium hypochlorite.

Technical

water supplier



Su Arnasy Kazakhstan Association

The object of the Association is to improve the activities of water supply and drainage enterprises. The main goal of the Association is to represent and protect the rights and legitimate interests of water supply and wastewater disposal enterprises in all government bodies, public and other organizations in the Republic of Kazakhstan and beyond.

Investment attractiveness of the Project

Indicator	Results
Investment amount, US\$ thousands	70,000
Project NPV, US\$ thousands	55,646
IRR, %	22.2%
EBITDA margin, %	49%
Payback period, number of years from the start of production	6.1
Discounted payback period, number of years from the start of production	8.8



Project overview

Construction of a gas chemical facility for processing of natural gas and methanol with special technologies used, where gas is primarily processed into methanol and then methanol is processed into olefins.

Project goal

The construction of a gas chemical complex in the Aktau Sea Port special economic zone to process methanol, which is a product of the processing of natural gas, into olefins.

Commercial products

- · AA Grade Methanol: 1,800 thousand tonnes annually.
- Olefins: 600 thousand tonnes per annum (propylene 360 thousand tonnes, ethylene – 240 thousand tonnes).

Production capacity:

- 1,800 million m³ of natural gas annually +/- 10% depending of gas composition.
- 1,500 thousand tonnes of methanol.

Initiator: WestGasOil LTD, an industrial enterprise in the West Kazakhstan engaged in large-scale gas chemical projects.

Project location: Mangystau Oblast, the city of Aktau.

Project investment attractiveness

Index	Value
Investment, US\$ thousands	1 800 000
Project NPV, US\$ thousands	1 068 605
IRR, %	21,2%
EBITDA margin, %	63%
Payback period, years from the production start	6,9
Discounted payback period, years from the production start	9,7

Construction of a gas chemical complex for the production of methanol GTM technology developer: Haldor Topsoe



General information

Name: Haldor Topsoe

Profile:

- chemical industry
- · petrochemical industry
- · fuel and oils
- natural gas

Year of establishment: 1940 Location: Lyngby, Denmark Staff: 2,340 employees







Over decades, Topsoe has been one of the leading providers of methanol production technologies. This position is based on activities and experience in all disciplines important for modern methanol production:

- Topsoe worked out a methanol technology, which is widely used in the modern methanol industry, and Topsoe constantly invests significant efforts in the further development of its methanol technology.
- Topsoe research laboratories work in all catalytic areas related to methanol production.
- Topsoe has developed software enabling to imitate the catalytic reaction stages in reactors of any design. The software development relies on the fundamental and applied research, as well as industrial feedback. The company also put in place basic process equipment, which is part of the methanol plant.
- Topsoe has got broad experience in helping methanol plant owners to analyze performance, troubleshoot, research optimization and upgrading options to increase productivity and/or energy efficiency.
- Topsoe has long-term experience in catalyst development. Today, the company supplies more than 150 different catalysts and is able to develop and produce tailor made catalysts.
- Topsoe provides highly professional technical support aimed at improving the profitability of the methanol plant and maximizing availability and utilization.



General information about the Initiator

Name: Zhaik Petroleum Ltd

Business:

- · Processing of natural gas
- Methanol production.

Production capacity:

350 thous, tonnes of methanol.

Export potential: domestic market, Europe,

PRC

Project location: Beles village, Baiterek district, 090000, West-Kazakhstan Oblast, Kazakhstan

CEO:

Murzanov Yerzhan Murzabulatovich

Date of first registration:

15 September 2012

Date of last re-registration:

4 September 2018

Construction of a gas chemical complex for the production of methanol

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Investment attractiveness of the Project

Indicator	Results 166,100	
Investment, US\$ thousands		
Project NPV, US\$ thousands	127,522	
IRR, %	22.4%	
EBITDA margin, %	43%	
Payback period, years from the production start	6.3	
Discounted payback period, years from the production start	9.3	

Processing Industry Projects Support



Signing a priority investment contract *

Placement of the project in the Special Economic Zone **

- Corporate income tax
- Land tax
- Property tax
- Customs duties

0%

* Exemption for 8 and 10 years

** Exemption for the duration of the SEZ

(2) Financial Measures

Preferential Financing





- Interest rate: from 8% in KZT
- Loan amount: from 7 billion KZT (≈ \$ 18 million)
- Loan term: 20 years
- Grace period: up to 24 months
- Share of own participation: from 20%
- Collateralized liquid assets: from 30%

Small and Medium Business

Private banks (second-tier banks) under the Economics of Simple Things Program

- Rate: 5% in KZT
- Duration: up to 7 years
- Loan guarantee: from 20 to 50%

(1) Fiscal

Exemption from VAT on the import of equipment

- Investment contract
- Offset Method

According to the approved list

VAT refund / Duties exemption

- 100% when exporting products to foreign markets
- 100% duties exemption upon signing an investment contract

Project Co-financing

State funds are included in the share of the project up to 50% in KZT







Other forms of Financial Support



- Export financing
- Loan insurance
 - Co-financing the development of a Feasibility Study for the bank

(3) Subsidies and Refunds

Support for Industrial and Innovative Activities

- 1. Providing State Support <u>aimed at increasing</u> <u>Labor Productivity</u> and developing territorial clusters (*max amount of support is 40%, but not more than 60 million tenge*):
- 2. The provision of **innovative grants** for:
- -commercialization of technologies (50%, but not more than 200 million tenge);
- -technological development of existing companies (70% under a License Agreement and 50% for the purchase of equipment, but not more than 400 million tenge):
- -technological development of industries (70% under a License Agreement and 50% for the purchase of equipment, but not more than 500 million tenge);
- 3. Reimbursement of a portion of the costs related to promoting domestic processed goods in the foreign market;
- 4. Reimbursement of a portion of the costs related to promoting domestic processed goods, works and services (in the domestic market).

Thank you for your attention!



