ДИВИДЕНДТІК САЯСАТ

Дивидендтік Саясат

Компанияның Дивидендтік Саясаты Акционерлердің Жалпы Жиналысында 2022 жылдың 27 қазанында бекітілді.

Дивидендтік саясаттың мақсаты Акционерлердің Жалпы Жиналысына Компанияның дивидендтерінің мөлшеріне қатысты ұсыныстар беру процесінің ашықтығын қамтамасыз ету болып табылады. Дивидендтік саясаттың міндеттері акционерлердің, несие берушілердің және Қоғамның мүдделерін барлық мүдделі тараптардың құқықтарын өзара құрметтей отырып оңтайлы үйлестіру, сондай-ақ компанияның капиталдандыруы мен инвестициялық тартымдылығын арттыру қажеттілігі болып табылады.

Осы дивидендтік саясаттың негізгі принциптері:

- компанияның инвестициялық тартымдылығын арттыру;
- Компанияның операциялық қызметі мен инвестициялық жобаларын қаржыландыруды қамтамасыз ететін қызметті жүзеге асыру; және
- компанияның қаржылық тұрақтылығын және инвестициялық деңгейдегі несиелік рейтингтерді сақтауды қамтамасыз ету;

Компанияның Акциялары бойынша дивидендтер төлеу туралы шешімді Акционерлердің Жалпы Жиналысы қабылдайды.

Дивидендтер төлеудің негізгі шарттары:

- Компанияның есепті кезеңдегі шоғырландырылған таза кірісі немесе есепті кезеңнің соңындағы бөлінбеген кірісі бар;
- осы дивидендтік саясаттың ережелерінде және заңнамада көзделген дивидендтерді есептеу мен төлеуге ешқандай шектеулер жоқ;

компанияның тиісті кезеңдегі қаржылық есептілігіне аудит жүргізу туралы; және

акционерлердің Жалпы Жиналысының шешімі.

Қоғамның Акциялары бойынша дивидендтерді есептеуге және төлеуге жол берілмейді:

- егер Компанияның меншікті капиталының мөлшері теріс болса немесе Оның Акцияларына дивидендтер есептеу нәтижесінде Компанияның меншікті капиталының мөлшері теріс болып қалса, онда;
- егер Компанияда оңалту және банкроттық туралы заңнамаға сәйкес төлем қабілетсіздігі белгілері болса немесе Осы белгілер Компанияда оның Акциялары бойынша дивидендтер есептеу нәтижесінде Пайда болса; және

заңнамада көзделген басқа жағдайларда

Директорлар Кеңесі Акционерлердің Жалпы Жиналысына Өткен қаржы жылындағы шоғырландырылған бос ақша қаражаттарының қозғалысы және компанияның бір жай акциясына шаққандағы дивидендтер мөлшері негізінде есептелген Компанияның шоғырландырылған таза кірісін бөлу туралы ұсыныс енгізеді..

Дивидендтік саясаттың мақсаттары үшін бас әріппен жазылған сөздер келесі мағынаға ие:

"Бос Ақша Қаражаттарының Қозғалысы" Компанияның операциялық қызметтен шоғырландырылған ақша ағындарын білдіреді (бірлескен кәсіпорындардан және онымен байланысты компаниялардан алынған дивидендтерді қоса алғанда, бірақ мұнайды жеткізуге алынған аванстар бойынша айналым қаражаттарының өзгеруін есепке алмағанда) негізгі құралдарды сатып алуды шегергенде (негізгі құралдар бойынша аванстар деп аталады)

материалдық емес активтерді сатып алуды шегергенде даму активтерінің депозиттерін сатып алуды шегергенде бағалау және барлау активтерін сатып алуды шегергенде еншілес/бірлескен кәсіпорындағы пайыздарды сатып алуды шегергенде, сондай-ақ негізгі капиталға қатысу үлестерін сатудан түскен қаражат. а

еншілес/бірлескен / қауымдастырылған кәсіпорын (есепті кезеңдегі қызмет нәтижелері бойынша Қазақстан Үкіметінің 2015 жылғы 30 желтоқсандағы № 1141 Және 2020 жылғы 29 желтоқсандағы № 908 Қаулыларымен (түзетулермен) бекітілген тізімдерге сәйкес Компания активтерін бәсекелестік ортаға беру нәтижесінде алынған қаражатты қоспағанда).

"Жалпы Қарыз" ноталарды (облигацияларды) және қарыздарды (қысқа және ұзақ мерзімді) білдіреді.

"Таза Қарыз" қолма - қол ақшаны шегергендегі Жалпы Қарызды және банктік депозиттерді шегергендегі олардың баламаларын (қысқа мерзімді) білдіреді.

"EBITDA КӨРСЕТКІШІ" сатып алынған мұнай, газ, мұнай өнімдері мен басқа да материалдардың құнын шегергендегі бірлескен кәсіпорындар мен қауымдастырылған компаниялардан алынған кірістер мен дивидендтерді, өндіріс шығындарын шегергендегі жалпы және әкімшілік шығындарды, тасымалдау және сату шығындарын шегергендегі салықтарды білдіреді.табыс салығынан басқа.

Компания дивидендтердің келесі мөлшерін төлеуді қамтамасыз ету үшін бар күшін салады:

бұл көрсеткіш кем дегенде 50 пайызды құрайды. ЕГЕР ТАЗА қарыздың EBITDA-ҒА ҚАТЫНАСЫ 1,0-ден аз болса, Бос Ақша Ағынының;

бұл көрсеткіш кем дегенде 40 пайызды құрайды. ЕГЕР ТАЗА Қарыздың EBITDA-ҒА ҚАТЫНАСЫ 1,0-ден жоғары болса, БІРАҚ 1,5-ке тең немесе одан аз Болса, Бос Ақша Ағынының;

бұл көрсеткіш кем дегенде 30 пайызды құрайды. Егер ТАЗА Қарыздың EBITDA-ҒА ҚАТЫНАСЫ 1,5-тен жоғары болса, БІРАҚ 2,0-ге тең немесе одан аз Болса, Бос Ақша Ағынының; және

төлемнің пайыздық мөлшерлемесі Компания Акционерлерінің Жалпы Жиналысының ШЕШІМІМЕН АНЫҚТАЛАДЫ, ЕГЕР ТАЗА Қарыздың EBITDA-ға қатынасы 2,0-ден жоғары болса.

Дивидендтердің мөлшері бойынша ұсыныстар беру кезінде Директорлар Кеңесі болашақ күрделі шығындар мен инвестициялық жобаларды қаржыландыру, қарызға қызмет көрсету, қаржылық тұрақтылықты сақтау үшін ақша ағындарының барабар деңгейін ұстап тұру, инвестициялық деңгейдегі несиелік рейтингтер және басқа да жағдайларды ескереді.жағдайлар.

Акционерлердің Жалпы Жиналысы Қоғамның Акциялары бойынша дивидендтер төлемеу туралы Шешім Қабылдауға Құқылы, Бұл шешімді Компания Жарғыда, Компанияның корпоративтік сайтында анықталған бұқаралық ақпарат құралдарында міндетті түрде жариялай отырып., сондай-ақ компанияның бағалы қағаздары осындай шешім қабылданған күннен бастап 10 күн ішінде сатылатын қор биржасының талаптарында белгіленген басқа тәсілдермен.

2019, 2020, 2021 жылдары Және 2022 жылдың алғашқы алты айында Компанияның "Самұрық-Қазына" мен ҚДБ-ға төлеген дивидендтерінің жалпы сомасы 36 998 миллион ТЕҢГЕНІ (бір акцияға 60,64 ТЕҢГЕ), 81 738 МИЛЛИОН ТЕҢГЕНІ (бір акцияға 133,97 ТЕҢГЕ), 49 999 МИЛЛИОН ТЕҢГЕНІ (бір акцияға 81,95 ТЕҢГЕ), ТЕҢГЕНІ құрады.тиісінше 199 997 млн. теңге (бір акцияға 327,80 теңге).

Мұнайдың орташа жылдық бағасы барреліне кемінде 70 АҚШ долларын құрайтындықтан, Компания Компанияның 2022, 2023 және 2024 қаржы жылдарының әрқайсысына қатысты 200-250 миллиард ТЕҢГЕДЕН кем емес (барлық акционерлеріне барлығы) жылдық дивидендтер төлеуге ниетті.сәйкесінше 2023, 2024 және 2025 жылдары төленеді. Жоғарыда айтылғандай, дивидендтерді бөлу туралы шешімдер Директорлар Кеңесінің ұсыныстарына және акционерлердің жалпы Жиналысының қолданыстағы заңнама талаптарын, нарықтық жағдайларды, мұнай бағасын, Компанияның қарыз профилін, оң рентабельділігі мен бос ақша ағындарын ескере отырып қабылданған Шешімдеріне бағынады., инвестициялық бағдарлама және күрделі шығындар, Сондай-ақ Компанияның жоғарыда аталған мөлшерде дивидендтер төлеу қабілетіне әсер етуі мүмкін басқа да маңызды жағдайлар.

CAPITALISATION

The following tables set forth the Group's capitalisation as at 30 June 2022, derived from the Financial Statements included elsewhere in this Prospectus. This information should be read in conjunction with "*Selected Consolidated Financial and Operating Information*", "*Operating and Financial Review*" and the Financial Statements included elsewhere in this Prospectus.

	As at 30 June 2022
	(*KZT millions*)
Non-current borrowings	3,578,712
Non-current lease liabilities	40,801
Current borrowings	355,985
Current lease liabilities	9,931
Total borrowings and lease liabilities	**3,985,429**
Share capital	916,541
Additional paid-in capital	1,142
Other capital reserves	(27,007)
Currency translation reserve	2,690,703
Retained earnings	5,414,887
Non-controlling interest	(70,007)
Total equity	**8,926,259**
Total capitalisation[(1)]	**12,911,688**

(1) Total capitalisation is the sum of borrowings and lease liabilities and total equity.

Except as described below, there have been no material changes in the consolidated capitalisation of the Group since 30 June 2022, the end of the last financial period for which financial information has been published.

On 15 September 2022, the wholly owned subsidiary of the Company, Coöperatieve JSC "OZENMUNAIGAS".U.A., exercised the Kashagan Call Option and acquired the shares in OMG Kashagan from Samruk-Kazyna, thereby becoming the sole shareholder in OMG Kashagan. The purchase price is U.S.$3.8 billion to be paid in several tranches until 30 June 2023. The Company intends to cover 42 per cent. of the purchase price from the net proceeds from the 3 per cent. coupon 751.6 KZT billion (U.S.$1.6 billion) bonds due 2035 issued by the Company on KASE and held by Samruk-Kazyna, with the rest of the purchase price to be paid by the funds of Kashagan from operating activity and through an offset against Samruk-Kazyna's obligations to the Company. The acquisition of interest in OMG Kashagan will also increase the Company's debt by U.S.$2.3 billion (as of 30 September 2022), including U.S.$1.6 billion of above-mentioned bonds and U.S.$0.7 billion in the form of a guarantee to Samruk-Kazyna on the rest of the purchase price to be paid by the funds of OMG Kashagan from its operating activities (until 30 June 2023).

As parties to this transaction are controlled by Samruk-Kazyna, the Company applied the pooling of interests method with respect to this acquisition and will present its consolidated financial statements for

the nine months period ended 30 September 2022 as if the transfer of the controlling interest in OMG Kashagan had occurred from the beginning of the earliest period presented. i.e. 31 December 2021, regardless of the actual date of the combination (14 September 2022) and will result in restatement of financial information presented as of 31 December 2021 and for nine months ended 30 September 2022.

The assets and liabilities of KMG Kashagan transferred under common control are recorded at the carrying amounts of the predecessor, Samruk-Kazyna. No new goodwill is recognized as a result of the combination. Difference between the carrying value of net assets acquired and consideration paid was recognized within equity. The components of equity of KMG Kashagan are added to retained earnings of the Company as business combination under common control.

THE OIL AND GAS INDUSTRY IN KAZAKHSTAN

Brief overview of oil and gas industry, general trends and its impact on Kazakhstan

Production and reserves

Oil and gas industry has been crucial to Kazakhstan since its independence providing economic activity, employment, taxes, investments and quality of life for its people. Kazakhstan's oil production more than tripled from 26.6 million tonnes in 1991 to 85.9 million tonnes in 2021 showing country's capacity to satisfy world's growing demand for energy. Natural gas production increased almost 7 times from 7.9 billion cubic meters in 1991 to 54.2 billion cubic meters in 2021. The growth was achieved due to the collaboration of government and foreign and domestic investors. Oil production growth was driven mainly by three megafields: Tengiz, Karachaganak and Kashagan.

Kazakhstan accounts for 3.3 per cent. of the world's proven hydrocarbon reserves. Kazakhstan's proven recoverable oil reserves amount to 3.9 billion tonnes (12th place in the world), natural gas reserves, including Caspian offshore, exceed 2.7 trillion cubic meters (14th place in the world). Substantial proven reserves and transparent and predictable institutional sphere make Kazakhstan attractable for investors. Since its independence in 1991 Kazakhstan has attracted U.S.$200 billion of foreign direct investments into oil and gas industry establishing itself as an economic leader in Central Asia. Oil and gas condensate account for about 60 per cent. of Kazakhstan's exports, whereas oil and gas industry's average share in GDP during 2010-2020 was about 21 per cent. depending on the world oil prices. Simultaneously, taxes and all types of government proceeds from oil and gas industry make up from 33 to 50 per cent. of the state budget.

While oil reserves and production at old oilfields is decreasing, exploration and development of new oilfields becomes more crucial. Government is planning to expand oil production both at megaprojects and at new prospective exploration blocks by increasing efficiency of auction procedures for selling oil extraction contract rights.

Transportation

There are three major export pipelines in Kazakhstan: the CPC pipeline, the Uzen-Atyrau-Samara pipeline (the "**UAS pipeline**") and Kazakhstan-China Pipeline (the "**KCP pipeline**"). The CPC pipeline has a capacity of 67 million tonnes of oil per year. In 2019, CPC started expansion program aimed to increase capacity to 81.5 million tonnes of oil per year by the end of 2023. This project is related to the expansion of Tengiz and Kashagan oilfields. The UAS pipeline has a capacity of 17.5 million tonnes per year, the KCP pipeline – 20 million tonnes. Additionally, Aktau port at Caspian Sea has a capacity of 5.2 million tonnes per year.

Kazakhstan exports about 68 million tonnes of oil and processes about 17 million tonnes of oil annually. The main export pipelines are the CPC pipeline and the UAS pipeline, both pipelines are going through Russian territory to the Russian sea ports. Taking into consideration the tensions between Russia and western countries that has increased recently, Kazakhstan's oil export routes are exposed to some risks. The KCP pipeline transits oil from Russia to China and exports oil from Kazakhstan to China.

Since the beginning of the Russia-Ukraine military conflict in February 2022, there have been a few events causing or threatening temporary suspension of the CPC marine terminal at Novorossiysk. In response to these events, Kazakhstan started working on diversifying its export channels by negotiating expansion of existing export capacities to China or to the Mediterranean Sea and Black Sea through Azerbaijan, Georgia and Turkey. There is also an opportunity to make swap oil sales to Iran, transporting Kazakhstan oil across the Caspian Sea to the Northern Iran and receiving Iranian oil at Persian Gulf. Nevertheless, the CPC pipeline remains the most profitable export route for Kazakhstan's oil.

Oil refinery

Main oil refinery factories are located in Atyrau, Pavlodar, Shymkent and Aktau with total capacity about 18.5 million tonnes. Additionally, there are several mini-factories although their production is insignificant. Pavlodar Refinery processes Russian oil due to technological issues, the other refineries in Kazakhstan process domestic oil. Kazakhstan has undertaken and finished several investment projects aimed to create modern ecology-friendly petrochemical industry around oil refinery factories.

Oil refineries of Kazakhstan

Location	Atyrau	Pavlodar	Shymkent	Aktau
Year of construction	1945	1978	1985	2013
Capacity, million tonnes	5.5	6	6	1
Refined in 2021, million tonnes	5.5	5.4	5.1	0.92
Utilization in 2021	100 per cent.	90 per cent.	85 per cent.	92 per cent.
Nelson Index	13.9	10.5	8.2	-
Share of light oil products	63	69	80	-

Source: KMG Annual Report 2021.

Oilfield services

Kazakhstan systematically supports national entrepreneurs, especially in oilfield services. At the dawn of independence, government developed legislative measures in order to support and protect interests of domestic suppliers of goods, works and services. Nevertheless, due to the lack of experience and qualification of local small and medium businesses, the oilfield services market of Kazakhstan was dominated by foreign companies. The situation improved only by the late 2000-s when local content in oil companies' purchases became strategic issue for Kazakhstan. Ongoing expansion and development projects at three megafields (Tengiz, Kashagan and Karachaganak) allowed local businesses to receive construction contracts as well as catering, accommodation, waste management and other contracts. By that time the level of local businesses substantially increased. Coupled with government control of compliance with contractual obligations it allowed local businesses to form joint ventures with international corporations. Apparently, the state policy will continue to support domestic businesses engaged in oilfield services due to its social and economic importance.

Procurement of oilfield services of Kazakhstani origin

Segment	**Payments by years, billion Tenge**					**Kazakhstani origin share**
	2016	2017	2018	2019	2020	
Construction & installation work	888	1032	1519	1875	1125	34 per cent.
Drilling	349	418	372	403	361	69 per cent.
Design & Engineering	334	493	517	389	251	12 per cent.
Maintenance & Repair	218	252	252	470	247	65 per cent.
Geology & Geophysics	253	135	186	259	193	29 per cent.
Total	2042	2330	2847	3397	2176	40 per cent.

Source: KazEnergy Association.

Personnel

Amidst the Government of Kazakhstan concluding subsoil use contracts with international industry majors, the oil and gas industry needed new highly qualified, motivated personnel to implement them and ensure further growth of the oil sector. The Kazakhstan Government started reforms of education system, modernization of universities and university programs to comply with the international education standards. Additionally, along with other contractual obligations, the Kazakhstan Government introduced requirements for oil and gas companies to hire local employees as part of local

content obligations and to spend a portion of their revenues on development of local personnel. In order to comply with the requirements, international corporations opened training centres in Kazakhstan, often in cooperation with local universities. In the framework of the international oil projects there is a constant process of transfer of high quality, rare expertise and knowledge from international oil firms to the national employees. Human capital showed significant progress since Kazakhstan's independence and it is expected to grow in the future with upcoming investment projects.

Crude oil price

Oil prices in the period of 2011-2021 averaged U.S.$75 per barrel fluctuating from U.S.$42 per barrel in 2020 to U.S.$112 per barrel in 2021.

In 2021, the demand for liquid fuels outstripped the supply in the production and consumption balance, which was due to a relative recovery in tourist flows and air transportation coupled with the global economy being unshackled from the major restrictions of the prior year. For more than a year, oil consumption was ahead of production due to cuts under the OPEC+ Oil Agreement entered into by the member-states of the OPEC+, restricted investment on the part of U.S. oil producers, and other supply disruptions, which also led to constant release of oil stockpiles around the world and a spike in oil prices.

It was U.S.$50 per barrel at the start of 2021 and peaked at U.S.$86 per barrel at the end of October 2021, reflecting the December 2020 decision by OPEC+ to limit production growth in 2021 in order to support higher prices. By the end of 2021, there was a price increase precipitated in part by fears around the Omicron variant causing oil consumption drop-off, followed by a decrease when the variant turned out to be less dangerous, but more contagious. Brent crude oil traded at an average of U.S.$70.86 per barrel in 2021, up 70 per cent. year-over-year amid the easing of pandemic-related restrictions. The West Texas Intermediate (WTI) crude price mirrored Brent, trending U.S.$3.0 per barrel lower on average.

In 2022, as the military conflict in Ukraine unfolded and Western countries had imposed sanctions on Russia, crude prices went up as high as U.S.$128 per barrel. The Brent crude oil price has increased from an average of U.S.$87 per barrel in January 2022 to U.S.$123 per barrel in June 2022, and average price for 6 months of 2022 set at U.S.$106 per barrel. As mentioned above, crude oil prices increased in the first half of 2022 following the commencement of the Russia-Ukraine military conflict in February 2022. As a result of the invasion, several countries-imposed sanctions on imports of crude oil and petroleum products from Russia. In addition, many international oil companies and other firms ended operations in Russia and limited or stopped trading Russia's crude oil and petroleum products. These actions have reduced Russia's oil production and caused crude oil prices to rise. Several OPEC+ members have produced below their targets, which has also put additional upward pressure on oil prices. These factors, along with already low global inventories, have intensified both upward oil price pressures and oil price volatility.

According to the U.S. Energy Information Administration (EIA) the Brent crude oil price will average U.S.$101 per barrel in the second half of 2022 and then fall to U.S.$94 per barrel in 2023. The forecast price declines are the result of expected increases in global oil inventories in late 2022. Most of the price declines in EIA forecast occur in the second half of 2022, with prices falling from U.S.$123 per barrel on average in June to U.S.$97 per barrel in the 4th quarter of 2022. Despite the EIA expectation of inventory growth, they are currently lower than in 2019, which may limit some of the downward price pressures associated with rising inventories and raises the potential for continuing volatility. In addition, EIA expects more balanced markets in 2023. As a result of this balance, crude oil prices in EIA forecast decline slowly through 2023, falling from U.S.$97 per barrel in the 4th quarter to U.S.$93 per barrel in the 4th quarter of 2023. Actual prices will be based on the degree to which existing sanctions imposed on Russia, any potential future sanctions, and independent corporate actions affect Russia's oil production and the sale of Russia's oil in the global market. Global economic developments will also be critical for oil prices.

In the second half of 2022 the price of Brent oil will stay at U.S.$135 per barrel, and on average for the year it will be U.S.$122 per barrel. The decline in oil production in Russia due to sanctions, low probability of reaching an agreement on the Iranian nuclear deal, which will not allow Iranian oil to be brought to the market, as well as the reduction in free production capacity in OPEC+ countries remain the main factors influencing the global oil production.

Global oil demand and supply

Oil is the world's dominant fuel at 31 per cent. of global primary energy consumption (BP Statistical Review of World Energy 2022). Population and income growth are the two most powerful driving forces and therefore GDP, that shape the demand for oil. According to OPEC, global consumption of petroleum and liquid fuels averaged 96.9 million barrels per day in 2021, up by 5.7 million barrels per day from 2020, when consumption fell significantly because of the pandemic.

Global consumption of hydrocarbons, over the last decade grew roughly 1 per cent. per year on average. Demand for oil came mostly from Asia – China's consumption shot up from 9.4 million barrels per day in 2011 to 14.9 million barrels per day in 2021. As a result, China's consumption was the main driver behind world oil demand in this period reaching 68 per cent. of incremental growth. India – another important consumer of oil responsible for 15 per cent. of increment, altogether these two countries provided more than 83 per cent. of incremental global demand.

At the same time, as emerging countries saw the most pronounced growth in hydrocarbon demand, developed countries demonstrated weak consumption pattern. Thus, demand for oil from the Organization for Economic Co-operation and Development (the "**OECD**") Europe countries in the past decade shrank by almost 9 per cent., while region of OECD America generated a mild growth of just 1 per cent. The U.S. economy fared better producing growth of 4 per cent., as it had advantage of lower oil prices due to massive shale oil output.

The OPEC expects global oil demand will expand by 2.7 million barrels per day next year and growth to exceed the increase in supplies by 1 million barrels per day. To fill this wide gap, OPEC members would need to significantly hike production, however OPEC producers are already falling behind the volumes needed due to various obstacles like underinvestment and political instability. Because of this emerged supply shortfall, fuel inventories on a global scale are shrinking fast, while USA, for example, resorted to its strategic petroleum reserves to mitigate the problem. According to the EIA, global oil demand growth has been marginally reduced to 1.7 million barrels per day in 2022, reaching 99.2 million barrels per day. A further 2.1 million barrels per day gain is expected in 2023, led by a strong growth trajectory in non-OECD countries.

At the beginning of October meeting OPEC+ member-countries took a decision to lower the overall production target by 2 million barrels per day from November 2022 – the biggest cut since the group reduced quotas by 9.7 million barrels per day at the start of the Covid-19 pandemic outbreak in 2020. This cut in targets were approved until the end of 2023. According to OPEC+ the decision to cut oil production was taken in light of the uncertainty that surrounds the global economic and oil market outlooks, and the need to enhance the long-term guidance for the oil market. On the one hand, several oil-consuming economies face a potential recession on the back of rising inflation, fueled by energy price hikes since the start of the Russia-Ukraine military conflict. On the other hand, supply constraints are large, with limited spare crude production capacity within OPEC+ and elsewhere exacerbated by uncertainty over the impact of the EU's upcoming embargo on Russian seaborne imports and price caps on Russian oil.

World Oil Outlook[4] published by OPEC outlined global primary energy demand that is expected to increase by 28 per cent. in the period between 2020 and 2045. This forecast was based on the evolution

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[4] OPEC World Oil Outlook, September 2021.

of global economy, oil demand, supply forces, oil trade, as well as other drivers, such as policies, technological changes and sustainable development goals.

The global economy is predicted to double in size between now and 2045, while the world's population will increase by about 1.7 billion people. All energy products, with the exception of coal, will continue growing. Gas and renewables have the biggest increase, but oil is still anticipated to maintain its top spot in the energy mix.

Huge investments are needed to supply this demand. Underinvestment is still one of the biggest problems facing the oil sector, and the COVID-19 outbreak made matters worse. The volume of investments decreased by almost 30 per cent. in 2020. It would not be in the interests of, either producers, or consumers to have additional instability and a future energy shortage without the necessary investments.

Crude oil demand is estimated to grow further, with global GDP growth serving as a major driver. From 2011 to 2021, the real global GDP increased by 3.2 per cent. per year on average. The average yearly rate of global GDP growth between 2020 and 2045 is projected to be 3.1 per cent. Non-OECD nations will be a major driver of global growth through 2045. These countries are expected to experience economic expansion by 3.9 per cent. per year on average favouring form such factors as: improving labour productivity and a growing population of working age, even as the pace of GDP growth begins to slow eventually in the long-term.

Constrained demand and the massive fiscal stimulus to offset the effects of the pandemic are expected to cause growth in OECD economies to emerge more at the start of the medium-term period. The forecast for medium-term growth in developing nations is expected to be rather diverse, with India and China likely to see the fastest growth rates. The size of the world economy in 2045 will more than double that of 2020. In 2045, it is anticipated that China and India together will represent 37 per cent. of the world GDP. The OECD countries is set to account for slightly less, at 34 per cent.

The global population is expected to reach 9.5 billion people by 2045. Future demographic trends included the aging population, an increase in the number of people who are of working age, as well as increasing rates of urbanization and migration. During the projection period, an increase of almost 900 million people in the working-age population (15-64 age group) worldwide is anticipated, mainly by non-OECD countries.

Oil demand growth from non-OECD, Asia Pacific and other developing nations is expected to partially offset any decline in OECD country demand for crude oil caused by the increasing availability of alternative energy sources, improved energy efficiency and the introduction of new innovations in the energy consumer markets, such as electric vehicles.

Long-term forecasts show that primary oil demand would increase from 82.5 million barrels of oil equivalent per day in 2020 to 99 million barrels of oil equivalent per day in 2045. Despite slowing oil demand growth in the second part of the forecast period and significant growth in other energy sources, such as other renewables, gas and nuclear, oil is expected to maintain the highest share in the global energy mix during the entire time span. In 2020, oil accounted for 30 per cent. of global energy demand structure. The share of oil is predicted to steadily increase to a level of more than 31 percent by 2025, before it starts to fall and reach 28 percent by 2045, along with the post-pandemic oil demand recovery.

The estimated rise in global oil demand over the medium term (2020–2026) is 13.8 million barrels per day. However, within the first three years (2021–2023), almost 80 per cent. of this new demand will materialize, particularly as part of the COVID-19 crisis recovery period. In the period leading up to 2026, the OECD expects its oil demand to rise by almost 4 million barrels per day. However, even with all of this growth, demand won't reach where it was prior to COVID-19. Over the medium term, it is expected that non-OECD demand will increase by about 10 million barrels per day, with over half of this growth being required to offset a decline in demand in 2020.

Between 2020 and 2045, the global oil demand is expected to increase by 17.6 million barrels per day from 90.6 million barrels per day in 2020 to 108.2 million barrels per day in 2045. Long-term estimates show a different consumption pattern, with demand continuing to expand in non-OECD countries while contacting in the OECD. This trend is expected to start in the medium term and then pick up strength throughout the long run. The OECD oil demand is anticipated to reach its peak in 2023 at a rate of around 46.6 million barrels per day before starting a longer-term drop that would bring it to a level of 34 million barrels per day by 2045. In contrast, oil demand is set to continue growing in the non-OECD region. Oil demand in this group of nations is anticipated to rise by 25.5 million barrels per day between 2020 and 2045, reaching a level of 74.1 million barrels per day in 2045, driven by an expanding middle class, rapid population growth, and stronger economic growth potential.

Oil demand in the Reference Case, 2021–2045 (million barrels per day)

	2021	2025	2030	2035	2040	2045
OECD	44.8	46.3	44.0	40.8	37.3	34.2
Non-OECD	52.2	57.3	62.6	67.1	70.8	74.1
World	96.9	103.6	106.6	107.9	108.1	108.2

Source: OPEC

Estimations highlight the pattern with the greater proportion at the beginning of the period for future demand growth. During the first five years of the estimated period, the annual rate of growth in oil demand is 2.6 million barrels per day on average. After that, it is predicted that average yearly growth will seriously decelerate, reaching 0.6 million barrels per day during the second five-year period and then 0.3 million barrels per day between 2030 and 2035. Following that, estimates show that the global demand for oil will reach its climax.

The transportation sector is anticipated to be the main constituent to future gradual demand, contributing 13 million barrels per day between 2020 and 2045. The road transportation and aviation sectors are expected to add about 6 million barrels per day each to this growth or more than 90 per cent. of it, though a significant share of these increases is due to the sharp demand decline in these two sectors experienced during pandemic in 2020. However, adjusting long-term projections for the demand contraction in 2020, the petrochemical sector retains the position of largest source of additional demand to 2045.

Oil demand growth by sector, 2020–2045 (million barrels per day)

Demand in 2020		90.6
Growth in transportation	Other	0.9
	Aviation	5.8
	Road	6.3
Growth in industry	Other	0.6
	Petrochemicals	4.3
Growth in other sectors		0.7
Demand in 2045		108.2

Source: OPEC

The non-OPEC liquids supply is anticipated to continue to improve into 2022 and return to its pre-pandemic levels. With the world economy increasing rapidly, a rebound in oil demand, and the efforts of OPEC and other participating nations to stabilize the market, the fundamentals appear to be stable and supportive of a return to upstream activity and investments. Thus, it is expected that the total liquids supply from non-OPEC will increase from 62.9 million barrels per day in 2020 to 70.4 million barrels per day in 2026. The key contributors to growth are the US, Brazil, Russia, Guyana, Canada, Kazakhstan, Norway and Qatar.

Strong market fundamentals should encourage the U.S. tight oil industry to resume growth starting in 2022. U.S. tight oil output is anticipated to increase from 11.5 million barrels per day in 2020 to 14.8 million barrels per day in 2026. In the late 2020s, tight oil production is anticipated to reach a peak of

15.2 million barrels per day, and the U.S. total liquids will peak at about 20.5 million barrels per day at around the same time.

In the long-term, after the U.S. liquids supply peaks, total non-OPEC liquids output is set to decline from a peak of 71 million barrels per day around 2030 to 65.5 million barrels per day in 2045, basically level with the pre-pandemic 2019. As a result, OPEC liquids, which are expected to recover to pre-pandemic levels around the mid-2020s, rise further, increasing from 35.7 million barrels per day in 2030 to 42.7 million barrels per day in 2045. OPEC's global market share rises from 33 per cent. in 2020 to 39 per cent. in 2045.

The total amount of investment required in the oil sector from 2021 to 2045 is U.S.$11.8 trillion. 80 percent of this or U.S.$9.2 trillion is allocated to the upstream sector, the majority of which is located in North America as medium-term non-OPEC supply growth is mostly driven by the U.S. tight oil. An additional U.S.$1.5 trillion and U.S.$1.1 trillion in downstream and midstream investments are required, respectively, to expand and maintain the refinery, storage, and pipeline facilities linked to the delivery of oil to market.

Recent developments have demonstrated that there are several uncertainties regarding the main factors that affect future oil demand. Given the global economy, the medium-term risk for oil consumption is skewed to the downside and primarily related with a potentially prolonged pandemic crisis. Long-term risk is fairly symmetrical, with each option deviating from the reference case at the end of the forecast period by more than 6 million barrels per day.

Crude oil export and infrastructure for its transportation in Kazakhstan

Kazakhstan has advanced and diversified oil and gas transportation, refining and processing infrastructure, which facilitates the country's access to global sales markets.

In 2021, the demand for liquid fuels outstripped the supply in the production and consumption balance, which was due to a relative recovery in tourist flows and air transportation coupled with the global economy being unshackled from the major restrictions of the prior year.

According to the EIA, the average liquids consumption in 2021 amounted to 96.9 million barrels per day, up 5.0 million barrels compared to 2020 with its significantly lower consumption due to COVID-19.

In 2021, OPEC+ member-countries, including Kazakhstan, continued to impose restrictive measures on oil production due to decrease in global demand for energy resources. Thus, in 2021, oil production in Kazakhstan remained almost at the level of 2020 and amounted to 85.9 million tonnes, while the volume of export of Kazakhstan oil decreased by 1.3 per cent. that is 67.6 million tonnes (see charts below)[5]. In the first seven months of 2022 oil production in Kazakhstan amounted to 49.9 million tonnes of oil (including gas condensate) remaining almost flat compared to the same period of 2021, while the volume of export of Kazakhan oil in the first five months of 2022 amounted to 24.4 million tonnes.

	Oil and gas condensate production in Kazakhstan	**Kazakhstan oil export**
	million tonnes	
2021	85.9	67.6
2020	85.7	68.5
2019	90.5	72.2

[5] Source: KTO's 2021 annual report.

Most of oil exports continue to transit through Russia, mainly via the premium CPC pipeline and the UAS pipeline. Oil is also piped directly to China via the KCP pipeline and tankered across the Caspian Sea for onward westward export.

The CPC pipeline is the key export route for Kazakhstan liquids. It was commissioned in 2001 and a U.S.$5.1 billion expansion project was completed in 2018. The CPC pipeline runs across west Kazakhstan and Russia to a dedicated marine terminal at Yuzhnaya Ozereyevka, near Novorossiysk on the Black Sea.

Kazakhstan oil and gas condensate export in 2021, million tonnes

CPC oil pipeline	53.2
Atyrau-Samara oil pipeline	11.2
Atasu-Alashankou oil pipeline	0.9
Aktau Port	2.1
Railways	0.2

The UAS pipeline transports oil from fields in the Atyrau and Mangistau regions to Russia. The pipeline system runs for approximately 1,237 kilometres from Uzen in southwest Kazakhstan via Atyrau before crossing into Russia and linking with Russia's Transneft system at Samara. The Atyrau-Samara section of the UAS pipeline has capacity of 17,5 million tonnes per year. In June 2002, Kazakhstan signed a 25-year oil transit agreement with Russia. Under such agreement, Kazakhstan will export at least 15 million tonnes of crude oil per year using the Russian pipeline system. Before completion of the CPC pipeline, Kazakhstan exported almost all of its oil through the UAS pipeline.

The KCP pipeline comprises two existing Soviet era pipeline sections and three major new pipeline sections with a total length of over 2,800 kilometres from Atyrau in western Kazakhstan to Alashankou on the Kazakhstan-China border. It is among the world's longest oil pipeline systems. At the Chinese border the pipeline links into the infrastructure in the Xinjiang province in northwest China. The pipeline has been built in several stages, each with different ownership structures. The three new-build segments are operated by joint ventures between the Company and CNPC.

In 2021, over 98 per cent. of Kazakhstan oil export transited through Russia via the CPC UAS pipeline and the port of Aktau. Due to completion of the CPC pipeline expansion project in 2017 and higher economic attractiveness, almost all oil produced at the Tengiz, Kashagan and Karachaganak fields was transported via the CPC pipeline. While, in 2019 CPC shareholders decided to implement the CPC pipeline Debottlenecking Project to increase its capacity to 81.5 million tonnes per year, including Kazakhstan section up to 72.5 million tonnes per year. The project is scheduled to be completed in 2023. It is anticipated that the forthcoming increase of crude oil output at Tengiz and Kashagan fields will be exported via the CPC pipeline.

In 2021, Kazakhstan oil export by the CPC route reached 53.1 million tonnes making 78 per cent. of the total Kazakhstan oil export for the reporting year.

The UAS pipeline is the second by Kazakhstan oil export to the global market. Oil is supplied via the Atyrau-Samara oil pipeline and further via the Transneft system up to Ust-Luga Baltic terminal and Novorossiysk Black Sea port. In 2021, 11.2 million tonnes of Kazakhstan oil were transported via the UAS pipeline. The decrease of oil supply via this pipeline by 17 per cent. compared to 2020 is related to the general decrease in delivery of product to the main oil pipeline system and redistribution of supplies to other directions.

The volume of Kazakhstan oil transportation via the Atasu-Alashankou oil pipeline increased by 50 per cent. in 2021 and amounted to 0.9 million tonnes excluding transit of Russian crude oil, which amounted to 10 million tonnes.

Oil refining in Kazakhstan

According to the EIA, Kazakhstan is an oil producer since 1911 and has the second largest oil production after Russia among the CIS countries.

The oil and gas industry is a key sector of Kazakhstan's economy due to its significant hydrocarbon reserves. This industry, together with related sectors (such as transportation, construction of production facilities and geology), accounts for approximately 17 per cent. of the total gross domestic product (GDP) of Kazakhstan, according to estimates by the Kazakhstan Association of Oil, Gas and Energy Sector Organisations "KAZENERGY" in the fifth National Energy Report published in October 2021. The crude oil and natural gas production sector accounted for 28 per cent. of gross foreign direct investment inflows in 2021. In 2021, exports of crude oil, natural gas and oil products accounted for 57 per cent. of Kazakhstan's total exports.

As production expanded over the past decades, Kazakhstan has significantly strengthened its position in the global hydrocarbon market. According to BP's Statistical Review of World Energy (July 2021), Kazakhstan ranks 12th globally by the volume of its proved reserves. According to the data and analysis provided by the Information and Analytical Centre of Oil and Gas of the Ministry of Energy, Kazakhstan produced 85.9 million tonnes of crude oil and gas condensate in 2021 (83.3 million tonnes and 2.5 million tonnes, respectively), up 0.3 per cent. year-over-year. At the end of December 2021, the Ministry of Energy estimated the country's oil output in 2022 at 87.5 million tonnes. In 2022, TCO is expected to produce 28.73 million tonnes, KPO – 10.49 million tonnes and NCOC – 15.23 million tonnes. Oil exports in 2022 are estimated at 67.5 million tonnes.

According to the Information and Analytical Centre of Oil and Gas of the Ministry of Energy, the throughput at Kazakhstan refineries in 2021 was 17.03 million tonnes, up 7.7 per cent. year-over-year. The production of all grades of petrol was at 4.81 million tonnes (up 7.3 per cent. year-over-year), jet fuel was at 0.587 million tonnes (up 34 per cent. year-over-year), and diesel fuel was at 4.87 million tonnes (up 7 per cent. year-over-year).

Oil refining in Kazakhstan represents a highly regulated industry.

Kazakhstan has three major oil refineries supplying the northern region (Pavlodar Refinery), the western region (Atyrau Refinery) and the southern region (Shymkent Refinery). Crude oil is also processed at small private refineries. In 2021, all three refineries together, and CaspiBitum, produced a combined 12.7 million tonnes of crude oil products (net to KMG) – 4,867 thousand tonnes attributable to Atyrau Refinery, 4,935 thousand tonnes attributable to Pavlodar Refinery, 2,352 thousand tonnes attributable to Shymkent Refinery, and 460 thousand tonnes attributable to CaspiBitum.

Oil product output, thousands of tonnes (net to KMG)	**2021**	**2020**	**2019**
Atyrau Refinery	4,867	4,525	4,892
Pavlodar Refinery	4,935	4,609	4,794
Shymkent Refinery	2,352	2,145	2,477
CaspiBitum	460	428	439

Source: Annual reports of KMG for 2019, 2020 and 2021

Information about the main competitors of the Issuer, indicating their names and locations, the scale of competition.

Exploration and Production

Kazakhstan's oil and gas sector has been an attractive investment opportunity for leading western, Asian and Russian oil and gas companies. Since Kazakhstan's independence in 1991, several major western and other oil companies have invested in the oil and gas sector of Kazakhstan. In recent years, principal competition in the exploration and production sector has been from China, which has enhanced its presence in Kazakhstan's oil and gas industry by acquiring several oil-producing companies, as well as

by entering into several significant joint ventures with the Company. These joint ventures include, amongst others:

(1) PKI, an oil producer, in which the majority stake is owned by China National Petroleum Corporation (CNPC);

(2) CCEL, a joint venture with CITIC Resources Holding Limited;

(3) KCP, a joint venture of KTO with China National Oil and Gas Exploration and Development Corporation, which operates Kenkiyak-Kumkol and Atasu-Alashankou pipelines – parts of a pipeline network connecting western Kazakhstan with the Chinese border;

(4) MMG, an oil producer owned by MIBV, a 50-50 joint venture with CNCP E&D; and

(5) MunaiTas, which operates the Kenkiyak-Atyrau pipeline and in which CNPC Exploration and Development Company Ltd owns a 49.0 percent interest.

According to the 2021 National Report prepared by KazEnergy Association, in 2020, approximately 16.1 per cent. of the crude oil produced in Kazakhstan is produced by companies with Chinese companies' shareholding (including not only CNPC but also other Chinese companies). Kazakhstan upstream sector also has a significant number of smaller ("independent") companies such as Zhaikmunai LLP, Emir Oil LLP, Jupiter Energy Limited, Kom-Munai LLP and others. In 2020, a total of 82 smaller companies accounted for 14.5 per cent. of the total crude oil production in Kazakhstan.

The Company does not foresee competition for reserves from regional and international oil and gas companies, since the Company is the beneficiary of the state's priority right to acquire interests in subsoil use contracts and a right to participate in exploration and development of offshore fields.

Transportation

Kazakhstan occupies a favourable geographical position as a transit country between major gas producers in Turkmenistan, Uzbekistan and Russia and large gas consumption centres in eastern and Western Europe. KTO is the monopoly operator of the main oil transportation systems in Kazakhstan and, accordingly, does not face competition for this international transit business or for domestic oil transportation.

Refining, Marketing and Trading

Following its purchase in August 2009 of MMG's controlling interest in Pavlodar Refinery, which is the largest and most technologically-advanced refinery in Kazakhstan and services north Kazakhstan and the adjacent regions in Russia, the Company now has a significant or controlling interest in all three of Kazakhstan's principal oil refineries: Pavlodar Refinery, Atyrau Refinery and Shymkent Refinery.

Because of the location of these three refineries, the Company can supply the domestic market and, if sufficient quantities of refined products are available, export to Europe. In addition, through its ownership of KMGI (formerly, the Rompetrol Group), the Company indirectly owns 54.6 percent of each the Petromidia Refinery and the Vega Refinery in Romania (as of December 31, 2021).

KMG has implemented a major investment program to modernize three major oil refineries in Kazakhstan, which contributed to an increase in refining capacity and improved quality of petroleum products, and full provision of the domestic market with petroleum products to meet its needs, as well as expansion of exports of petroleum products to regional markets.

Oil export

The Company's oil-producing subsidiaries OMG, EMG, and Kazakhturkmunai LLP ("**KTM**") sell oil for export exclusively to the Company's system trader, KMG Trading AG, which is a 100 percent subsidiary of the Company. The Company's joint ventures MMG, KBM, Kazgermunai, PKI, and Kazakhoil Aktobe export oil to various participants in the international oil market (in Europe and China), including large international traders as well as KMG Trading AG.

Domestic market

The Company's oil-producing subsidiaries OMG, EMG, and KTM sell oil to the domestic market exclusively in favour of the Company within the framework of the relevant oil processing scheme. The Company refines oil purchased from its 100 per cent. oil-producing subsidiaries at a price equal to the sum of the cost of oil and its transportation to the Atyrau Refinery, Pavlodar Refinery or Shymkent Refinery. Petroleum products obtained as a result of oil-producing organizations oil are sold on the domestic market to wholesale buyers, mainly being:

- KazMunayGas-Aero LLP, 100 percent a subsidiary of the Company (which is, according to the Republic of Kazakhstan Resolution No. 1304 dated 12 December 2014, a single operator for the supply of petroleum products to the Armed Forces of the Republic of Kazakhstan, the Border Service of the National Security Committee of the Republic of Kazakhstan, the National Guard of the Republic of Kazakhstan, an authorized body in the field of civil protection, an authorized body in the field of state material reserves: motor gasoline, diesel fuel, fuel oil, aviation fuel); and
- Since April 2019, PetroRetail LLP, which owns Qazaq Oil, one of the largest gasoline filling networks in the Republic of Kazakhstan with more than 370 filling stations and carries out retail sales of gasoline and diesel fuel throughout the Republic of Kazakhstan. The Company used to own the Qazaq Oil (then-KMG) gasoline filling stations through KMG-Retail LLP and in 2019 sold 100 per cent. in KMG-Retail LLP to PetroRetail LLP.

The Group also supplies products to Helios LLP, operator of another leading gasoline filling network in Kazakhstan with more than 270 filling stations in every region of Kazakhstan, Sinoil LLP, operator of a gasoline filling network present in most regions of Kazakhstan, and to regional partners of Gasprom Neft LLC, who operate a few gasoline filling stations across Kazakhstan under the Gasprom Neft brand.

The Company's joint ventures MMG, KBM, Kazgermunai, PKI, and Kazakhoil Aktobe do not sell oil within the framework of the oil processing scheme when selling oil to the domestic market of Kazakhstan. They sell oil to various participants in the domestic oil market of the Republic of Kazakhstan on market terms for further processing at the oil refineries of the Republic of Kazakhstan. The list of such oil buyers includes various traders, including Petrosun LLP.

In July 2022, the Company acquired 49 per cent. stake in Petrosun LLP, one of the major wholesale buyers of oil from subsoil users and oil products from domestic refineries. The remaining 51 per cent. stake in the company is owned by CNPC International.

The ease or difficulty of entering the industry, the likelihood of new competitors entering the industry.

Given the high capital intensity of the oil and gas industry, as well as the presence of large players in the market, entering the industry is quite difficult for new companies due to the need for significant investments in the organization and further maintenance of the infrastructure. In addition to the necessary availability of the exploration and production rights, production and transport infrastructure, and highly qualified personnel, new players need continuous investment in high-tech equipment, exploration of new oil fields, oil and gas technology research, marketing, and more.

The trend towards carbon neutrality in the oil and gas sector.

Carbon neutrality

At the beginning of the 21st century, the threat of global climate change caused by anthropogenic greenhouse gas (GHG) emissions became apparent. As concern about this problem grows, there is increasing pressure from the public and investors on companies and governments to ensure immediate action adequate to the magnitude of the threat.

At the international level, the Paris Agreement was adopted back in 2015 with the goal of "keeping the increase in global average temperature markedly below 2 degrees Celsius above pre-industrial levels

while making efforts to limit temperature rise to 1.5 degrees Celsius, teach humanity to better adapt to the effects of climate change and move toward low-carbon development. At the same time, the UN declared the Sustainable Development Goals, in particular urgent action on climate change and its impacts (Goal 13) and universal access to affordable, reliable, sustainable and modern energy for all (Goal 7).

In November 2016, Kazakhstan ratified the Paris Agreement under the United Nations Framework Convention on Climate Change (the "**Paris Agreement**"), which is believed to have effectively replaced the Kyoto Protocol and outlines the international and legal principles for global efforts to reduce greenhouse gas emissions, increase energy efficiency, transition to renewable energy sources and gradually move away from fossil fuel flaring. Kazakhstan's nationally determined planned contribution under the Paris Agreement is to reduce the country's greenhouse gas emissions by at least 15 per cent. from 1990 levels, or by 25 per cent. (subject to certain conditions) by 2030.

At the end of 2019, the EU presented to the public a comprehensive legislative initiative, the EU Green Deal, which is based on achieving 100 per cent. climate neutrality (zero net emissions of all GHGs, i.e., GHG emissions equal to GHG capture and sequestration) by the EU states by 2050, both across the EU and at national level.

China in September 2020 announced a desire for carbon neutrality by 2060 and its commitment to "green" development. In October 2020, similar statements on the desired achievement of carbon neutrality in 2050 were made by Japan and South Korea. Canada in January 2021 also announced the goal of achieving carbon neutrality in 2050.

Given that the reduction of greenhouse gas emissions has become an inevitable global trend in 2021 Kazakhstan has set a course for carbon neutrality.

Developing a decarbonisation strategy is a complex, multi-step process, unique to each company in its own way, depending on its asset structure, production technology, investment portfolios and current national regulation.

Transition to low-carbon sources of energy supply of enterprises in the industry

A growing number of oil and gas companies are focusing on the use of renewable energy sources (RES) and electricity storage (for energy supply), biofuels (as a replacement for traditional hydrocarbons in oil refining), and low-carbon fuels (in particular for marine transportation of their products) in their production processes.

Corporate decarbonisation methods:

- Asset portfolio optimization – divestments (abandonment of unattractive carbon-intensive assets); mergers and acquisitions to improve asset quality and diversify into new, less carbon-intensive businesses (primarily by building up the gas business); restructuring; development of the oil and gas chemical business and creation of corporate venture funds focused on innovation (e.g., in methane leakage reduction, operational efficiency, hydrogen technologies, etc.)
  Important aspects of corporate decarbonisation strategies also include industrial cooperation in research and development (R&D), venture investments and deep decarbonisation pilot projects, which can significantly increase the speed of development and implementation of these technologies.
- The growing interest of oil and gas companies to the petrochemical and chemical industry can be particularly noted, as they see an opportunity to increase efficiency in joint activities. This means integration with their refineries, monetization of available hydrocarbon raw materials, increasing product margins and solving problems of decarbonisation.

- The use of carbon credits – this method is used with great care and with an individual approach to review and verification. The basic approach: first reduce all emissions, whichever is possible, and only compensate the remaining emissions with these tools.
- Reducing GHG emissions by investing in land use based on regenerative technologies - oil and gas companies are increasingly considering projects related to natural carbon sinks, although they have some concerns at the stage of selecting projects and partners, since it is difficult to calculate the actual anthropogenic impact.

Many oil and gas companies have plans for deep decarbonisation, which include the introduction of carbon capture, utilization and storage (burial) technologies and the use of hydrogen as a fuel.

Reporting standards

PWC analysts analysed sustainability reports of the world's largest oil and gas industry leaders, as well as an analysis of topics in the ESG ratings to identify the most significant topics. According to the 2020 reports, Global Reporting Initiative (GRI), Task Force on Climate-Related Financial Disclosures (TCFD) and Sustainability Accounting Standards Board (SASB) continue to be leaders among sustainability reporting standards. IPIECA, WEF, UNGC standards are more often used for reporting in the oil and gas industry.

The decarbonisation trend is increasingly affecting oil and gas companies. The Paris Climate Agreement, the UN Sustainable Development Goals, and the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) have created significant incentives for industry companies to start formulating their decarbonisation strategies and disclosing their efforts in this area. This trend is steadily accelerating, with more companies from around the world joining in - while in 2016 only 5 oil and gas companies publicly articulated commitments to reduce GHG emissions, by 2019 that number had risen to 15. Even China's PetroChina Corporation, which has never previously disclosed its emissions reports, announced in August 2020 that it intends to reduce GHG emissions to zero net by 2050 and to invest in geothermal, wind and solar power, as well as in pilot hydrogen projects.

According to the PWC report "Significant ESG Topics" 90-100 per cent. of global leaders in the industries studied believe that "GHG emissions" is a significant topic. In Kazakhstan, this topic is significant for 100 per cent. of companies analysed by PWC analysts in the oil and gas sector. Given that Kazakhstan has embarked on a course towards carbon neutrality this topic is essential for Kazakhstan oil and gas companies. In order to achieve a zero balance of emissions, Kazakhstan will have to make significant changes in terms of expanding the use of renewable energy sources, improving energy efficiency and switching to biofuels and hydrogen.

Regulators, investors, and consumers are putting increasing pressure on oil and gas companies to reduce the carbon footprint of their products. According to the World Energy Outlook 2020 report, the oil and gas industry's Scopes 1 and 2 emissions accounted for 12 per cent. of total global anthropogenic GHG emissions in 2017. Scope 3, meanwhile, is the largest GHG emitter of the entire oil and gas sector (about 33 per cent. of global GHG emissions), and for vertically integrated oil companies, Scope 3 emissions are, on average, seven times greater than Scopes 1 and 2. And it is these emissions that cause the greatest concern and pressure on oil and gas companies under the global decarbonisation paradigm.