

# Regional energy security

**By HE SAUAT MYNBAYEV**

MINISTER OF OIL AND GAS, REPUBLIC OF KAZAKHSTAN



SAUAT MYNBAYEV graduated from Lomonosov Moscow State University as an economist-cybernetician. He was First Deputy Chairman of the Board of Directors of Kazkommertsbank Joint-Stock Bank and in 1998 became Minister of Finance. From January 1999 he was Deputy Head of the Presidential Administration and became Minister of Agriculture in 1999. He has also served as Deputy Prime Minister and Minister of Industry and Trade. He was Chairman of the Board of Samruk JSC (2006-2007) and was appointed Minister of Energy and Mineral Resources in 2007. He became Minister of Oil and Gas in 2010.

The domestic oil sector has played a key role in building our new country. In the years following independence Kazakhstan's oil and gas sector has grown at a significant rate. The large-scale development of the Kazakh sector of the Caspian Sea has commenced, and the oil and gas fields opened up in earlier times are now being developed rapidly.

**Oil sector**

Kazakhstan's proven oil and gas condensate reserves amount to some 5.3 billion tons, which makes it the world's tenth largest oil and gas rich country. The bulk of these reserves are found in the major fields, which are being developed or have been prepared for development, among them Tengiz, Kashagan and Korolevskoye for oil and Karachaganak, Zhanazhol and Urikhtau for oil and gas condensate.

The production of liquid hydrocarbons has grown steadily over the past two decades. The 2012 output was about 80 million tons, or more than three times the 1991 production. At the same time, the oil and gas sector is poised for further growth.

While our 2013 target is 82 million tons of oil and condensate, by 2020 we estimate production may reach 102 million tonnes. This is a conservative estimate, however, since it does not take account of possible output from fields currently being investigated under the 65 current exploration contracts. Of course, some of the relevant geological structures will turn out to be dry, but in others reserves will be proved and, of course, opened up for development.

It should be noted that the achievement of these output figures depends to a considerable extent on the success of projects in the Kazakh sector of the Caspian, given that many onshore fields have already passed peak production. However, we are also seeking to boost production from the latter fields by increasing the oil recovery rate and applying new technologies.

New technologies are not cheap, of course, so progress primarily depends on funding and managerial expertise. Both prerequisites are available from the major transnational companies. Kazakhstan is already working with many of them, and we are ready for further cooperation in this sphere.



Photo courtesy of BG Group

Processing facility, Karachaganak gas and condensate field, Kazakhstan

### Gas sector

As for gas, Kazakhstan's proven reserves amount to 3.9 trillion cu m, or 1.9 per cent of the world's reserves.

However, most of the country's reserves are composed of casing head gas, and a large part of this is pumped back into the reservoir to improve the efficient use of natural resources and enhance the recovery of hydrocarbons. Therefore, although the output of raw gas is growing substantially, the production of commercial gas in Kazakhstan will not reach its potential until 2030; most of the increase in commercial gas production is expected beyond that year.

### Oil transportation

Given that oil production is expected to increase in the country in the near future, the expansion and diversification of the transport infrastructure for the oil and gas sector has become very important. Our key priority is supplying the domestic market, as you understand, and domestic demand is growing fast. Still, thanks to robust production we are able to export the larger part of our oil.

Kazakhstan lies squarely between the key oil markets of the European Union and China. Of course, oil can also be supplied to other distant markets via the Black Sea or the Baku-Tbilisi-Ceyhan pipeline to the Mediterranean, as well as the closer markets of Uzbekistan, Afghanistan and others. Nevertheless, from the point of view of export volumes our key markets are the European Union and China.

Let me now comment on the key export routes of Kazakh oil and plans for their further development:

- Caspian Pipeline Consortium. In 2012 the CTC carried 28 million tons of Kazakh oil. A project is currently under way to increase its capacity from the current 28.2 million to 67 million tons per year, with Kazakhstan accounting for 52.5 million tons of the total. The project will be implemented in three stages and completed by 2015. From the point of view of the netback price the CTC is the most efficient transportation route for us so far.
- Atyrau-Samara. The 2012 oil transportation amounted to 15.5 million tons. It will continue as our key route, but exports in that direction are not expected to grow.
- In 2012 Kazakhstan exported 10.5 million tons of oil to China, and we are planning to increase our oil exports to that country up to 20 million tons. An appropriate agreement is in process, and from the technical point of view this can be done without delay.
- Altogether 7 million tons of oil was shipped from the Aktau seaport in 2012; some of those shipments go via Makhachkala to the Black Sea, others via Baku to Batumi. Of course, some of that oil can be pumped into the Baku-Tbilisi-Ceyhan pipeline if there is sufficient capacity and subject to acceptable commercial terms.

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Oil pipeline under construction in the Mangistau region of Kazakhstan