



Association of Gas Producers of Ukraine

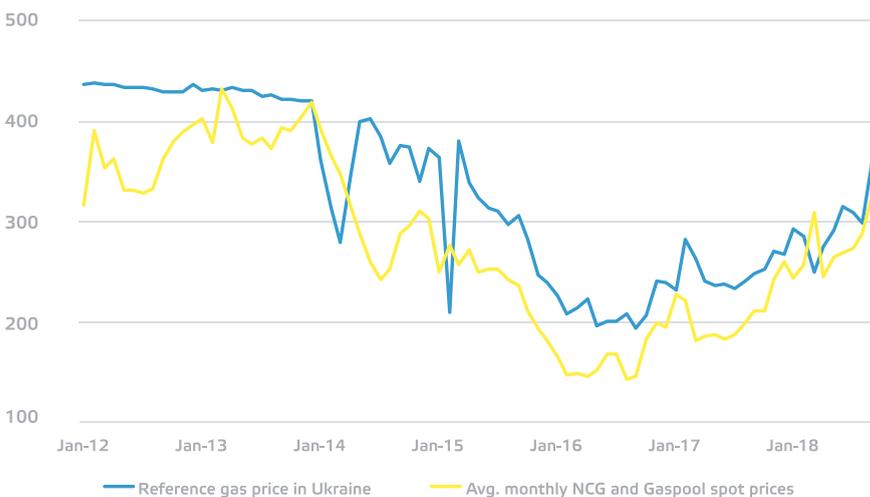
SNAPSHOT OF UKRAINE'S NATURAL GAS EXPLORATION AND PRODUCTION SECTOR

GOVERNMENT POLICY | Incentive Taxation and Simplified Permitting System

The Ukrainian government formed a common strategic goal to make Ukraine an energy independent state and to completely abandon its dependence on imported gas. This objective is aimed to turn Ukraine in self-sufficient gas supply country due to significant growth of domestic gas production in the foreseeable future. The government improved the fiscal regime, simplified the permitting system, and adjusted the rules for access to reserves. These steps increased the international attractiveness of Ukraine's upstream sector. Currently, Ukraine is working to conduct international petroleum licensing rounds through online auctions and Production Sharing Agreements' tenders

Wholesale gas prices in 2012-2018

\$/1000cm, net of VAT



Sources: Naftogaz of Ukraine, NCG, Gaspool, NERC (2012-15).

DEMAND

SIGNIFICANT CONSUMPTION AND ATTRACTIVE PRICES

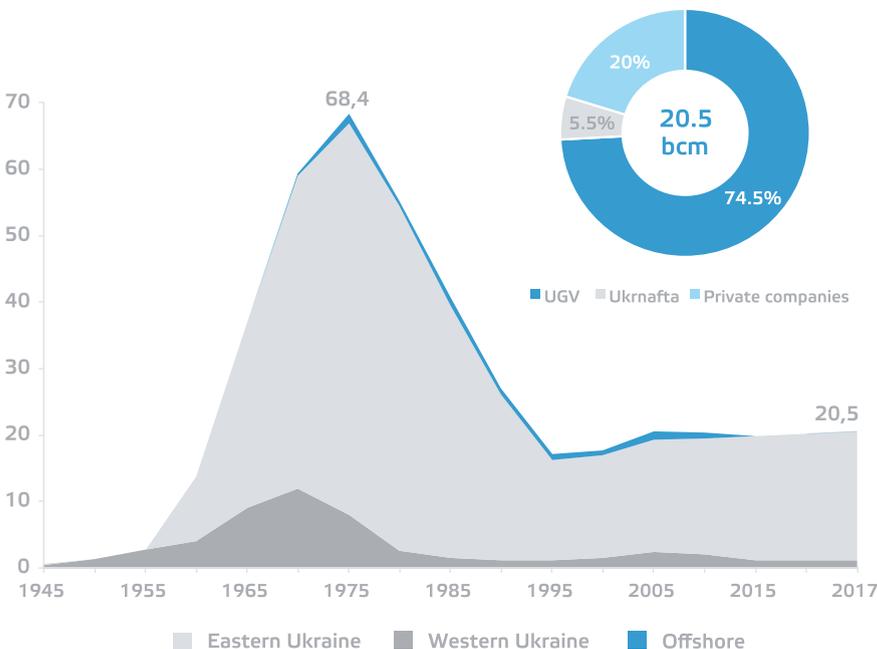
Natural gas plays a significant role in Ukraine's energy mix, accounting for 35% of the country's energy needs. In 2017, gas consumption in Ukraine was around 32 bcm, making it the 7th largest consumer in Europe. Future gas demand will most likely stay within a range of 30 to 35 bcm per year until 2035, based on the estimates of the Energy Strategy of Ukraine.

The domestic gas market is split between industrial and residential consumers. The latter sector still benefits from a regulated price that is expected to be increased to market level by 2020, according to a liberalization calendar sealed with the IMF.

Import parity prices traditionally secure favorable netbacks for domestic gas producers. Since 2015, prices in Ukraine have been driven by the liquid benchmarks in Europe.

Distribution of gas production by regions and companies

bcm



Source: Ministry of Energy of Ukraine.

SUPPLY

GAS MARKET IS COMPETITIVE DUE TO MANY DIFFERENT SUPPLIERS

Ukraine is among the major gas producing countries in Europe with stable annual output over the last two decades. In 2017, imports accounted for 36% of total domestic consumption.

Developed and undeveloped booked reserves are estimated at 905 bcm in proven petroleum basins, plus 408 bcm of contingent resources. It is assumed that much of the remaining proved undeveloped reserves can be extracted through improved recovery and by successfully delineating new pools and satellites of existing fields.

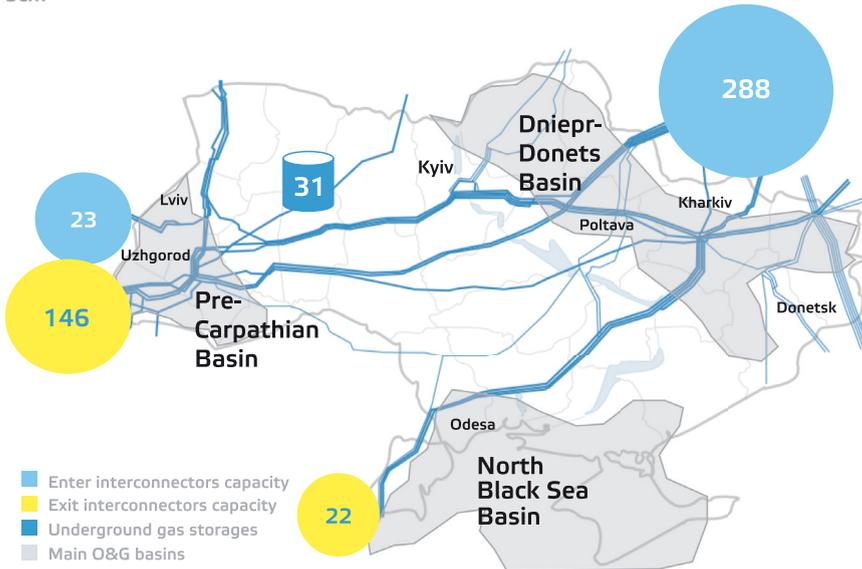
No mandatory national oil company participation rules apply. Besides that, state share in Ukraine's upstream industry remains high: UGV and Ukrnafta together extract 80% of the country's natural gas. Currently, UGV seeks partnership for cooperation under the Integrated Services Contracts and Production Enhancement Contracts.



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Gas transmission and storage facilities in Ukraine bcm



Source: Ukrtransgaz.

TRADE

RAPID COMMERCIALIZATION OF NEW DISCOVERIES

Ukraine has a well-developed gas pipelines system with surplus capacity, which is used both for domestic gas distribution and for the transit of Russian gas to Europe. The state-run TSO ensures third-party access to the transmission system under equal, non-discriminatory and transparent terms in line with European energy legislation requirements.

Gas transportation, distribution, and storage tariffs are set by the National Regulatory Commission, using RAB methodology and based on the European entry-exit booking capacity approach. Ukraine has no restrictions or special duties on the import or export of natural gas. There is also no need to obtain permits for trade.

Number of active drilling rigs onshore units



Source: AGPU, Baker Hughes, a GE company Rig Count.

OPPORTUNITIES FOR INVESTORS

Existing fields redevelopment – most of the reserves booked by state-run producers are mature and not fully in production due to lack of investment and knowledge. These old brownfields require comprehensive application of high-end technologies in tight cooperation with leading oil-field services companies.

Small fields development – the remaining third of reserves are spread across 367 small fields with less than 5 bcm in booked reserves. These fields require capital, affordable technology and focused attention, namely a large number of small producers developing their own niche businesses.

New large discoveries – they require investors with the ability to conduct modern seismic analysis, to carry out massive ultra-deep drilling (over 5,000 meters), and to unlock hard-to-recover reservoirs.