



Association
of Gas Producers
of Ukraine

Ukraine's untapped gas potential

Resource base and ways to cooperate

Tirana,
October 2023

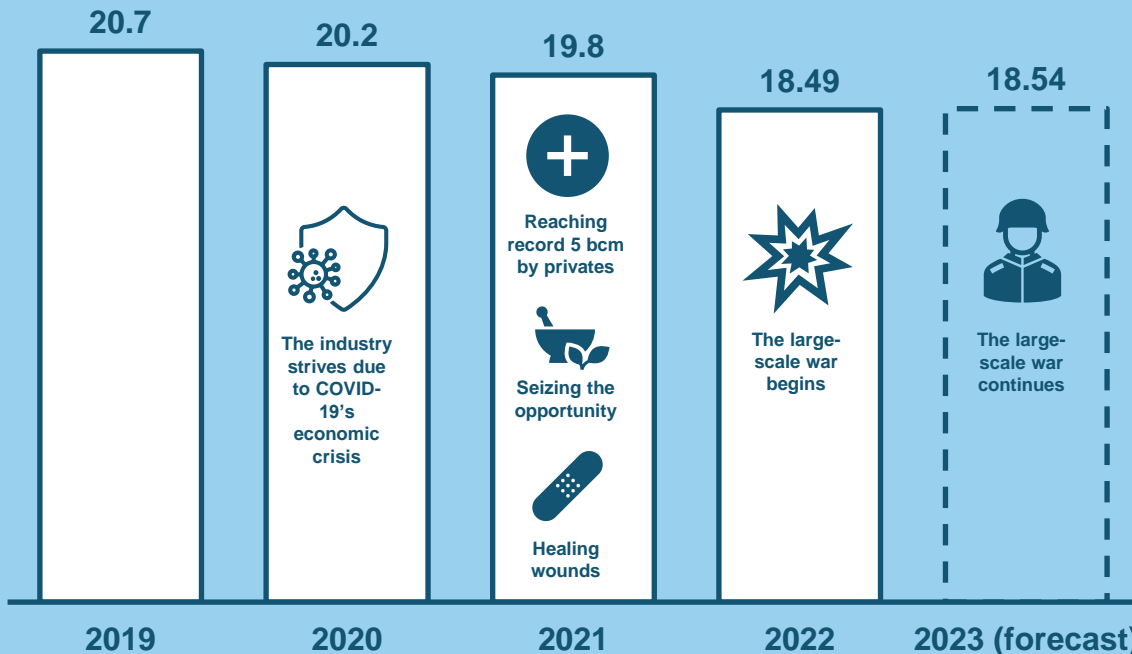
590 DAYS OF WAR, PRODUCTION MAINTAINED, AND THE SYSTEM CONTINUES TO OPERATE RELIABLY



They aimed to capture Kyiv in three days. Instead, the capital witnessed a parade of destroyed Russian vehicles

They sought to disrupt the industry's operations. Yet, we've persevered and have no plans to reduce production

- ⦿ For a year, seven months, and 13 days, we continue to resist a full-scale onslaught
- ⦿ The energy system withstands drone and missile strikes, especially during the winter
- ⦿ Our goal is to defend sovereignty and reclaim what rightfully belongs to us

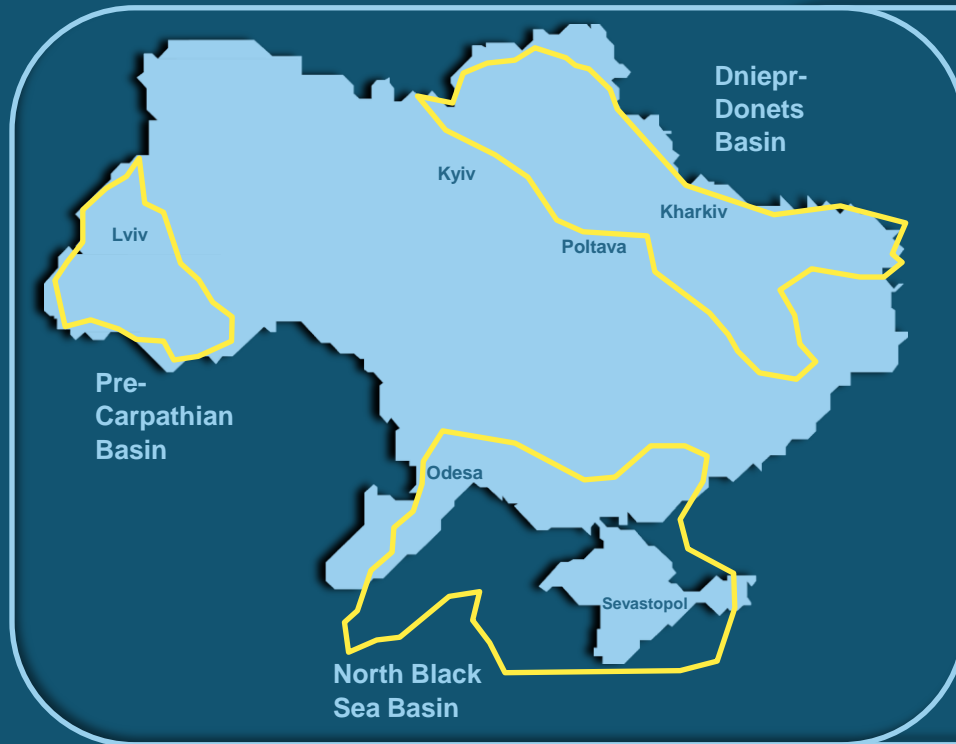


Despite the war, we endure:

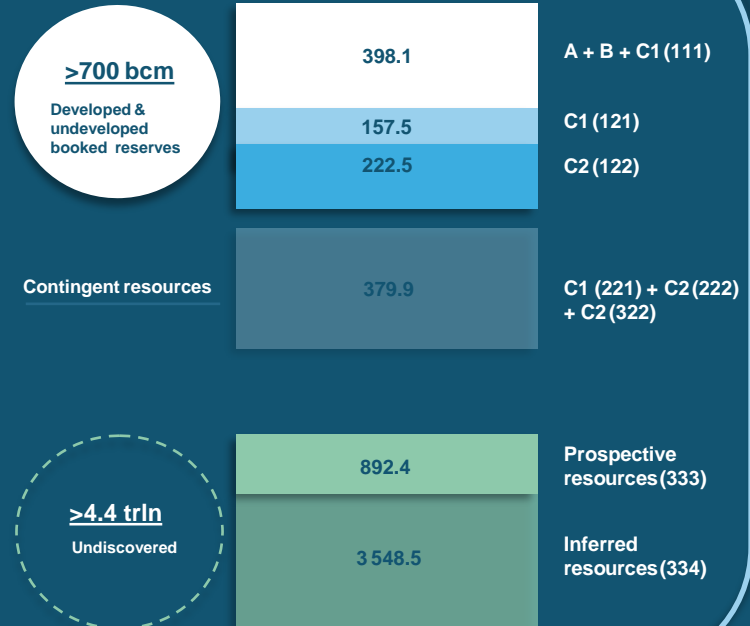
- The largest GTS in Europe** Operates as usual
- The largest UGS in Europe** Actively used by both residents and foreign palyers



A ROBUST RESOURCE BASE - GATEWAYS TO SUCCESS. INVESTMENTS HAVE THE POTENTIAL TO UNLOCK THEM



GAS RESERVES AND RESOURCES IN UKRAINE, BCM



- Three oil and gas regions, each with its own unique characteristics. Together, they hold more than 700 bln developed and undeveloped booked reserves and 4.4 trln of undiscovered ones
- Approximately 500 gas deposits and 540 licenses in an industry with 110 years of history since the discovery of the first significant deposit in Galicia
- The fastest possible de-occupation of territories will enable the full realization of projects that have accumulated during the time of war



THE LARGEST IN TERMS OF RESERVES AND PRODUCTION, THE EASTERN OIL AND GAS REGION

90%

of natural gas production

80%

of total discovered reserves

100 bcm

Tight gas reserves only within the Eastern region

1.2 trln cm

Technically recoverable tight gas reserves

>85%

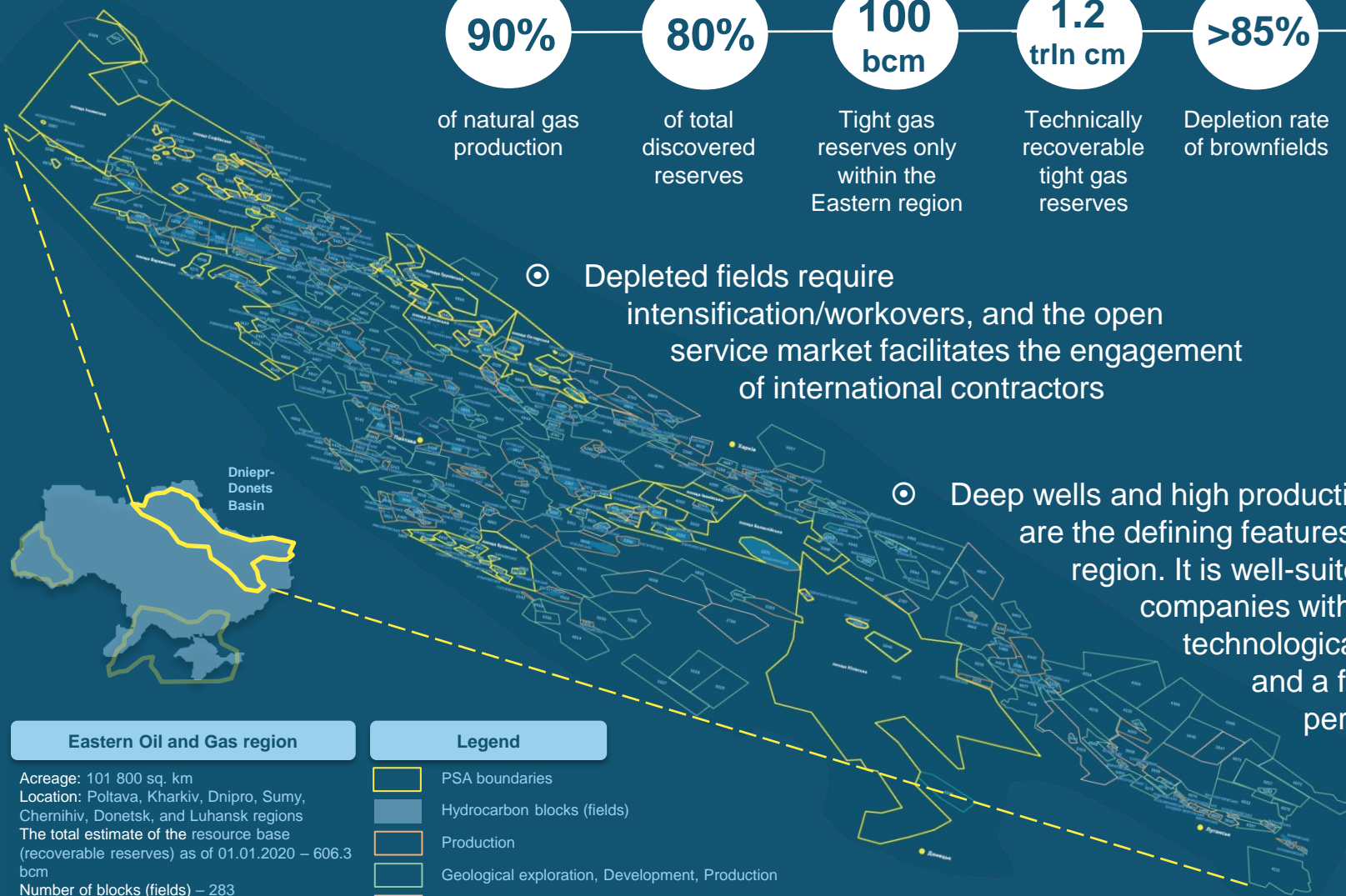
Depletion rate of brownfields

>5 km

Deep gas wells

Depleted fields require intensification/workovers, and the open service market facilitates the engagement of international contractors

Deep wells and high production rates are the defining features of this region. It is well-suited for companies with technological expertise and a forward-looking perspective



Eastern Oil and Gas region

Acreage: 101 800 sq. km
Location: Poltava, Kharkiv, Dnipro, Sumy, Chernihiv, Donetsk, and Luhansk regions
The total estimate of the resource base (recoverable reserves) as of 01.01.2020 – 606.3 bcm
Number of blocks (fields) – 283
2363 The number of license

Legend

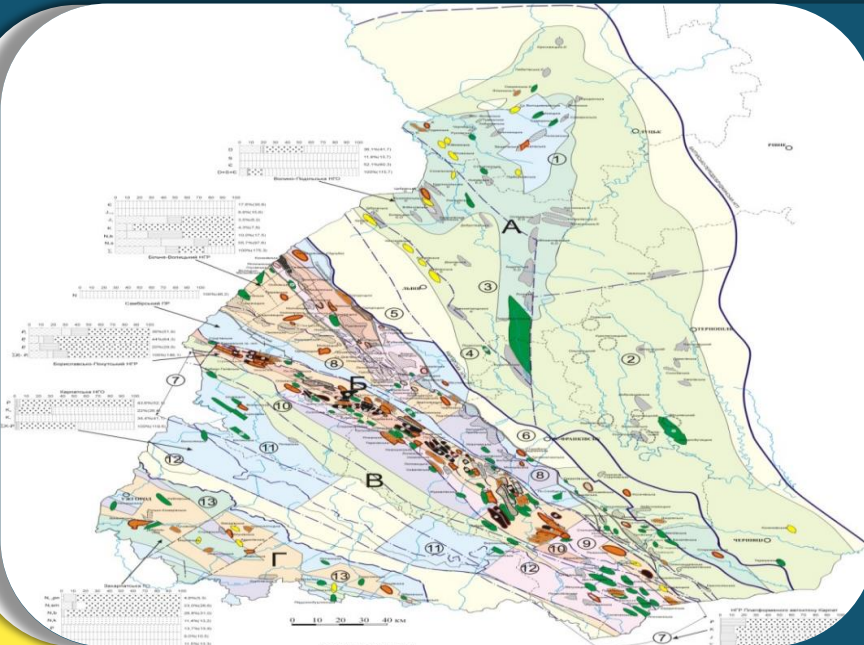
- PSA boundaries
- Hydrocarbon blocks (fields)
- Production
- Geological exploration, Development, Production
- Geological exploration, Development
- Creation of geological Zones/Territories



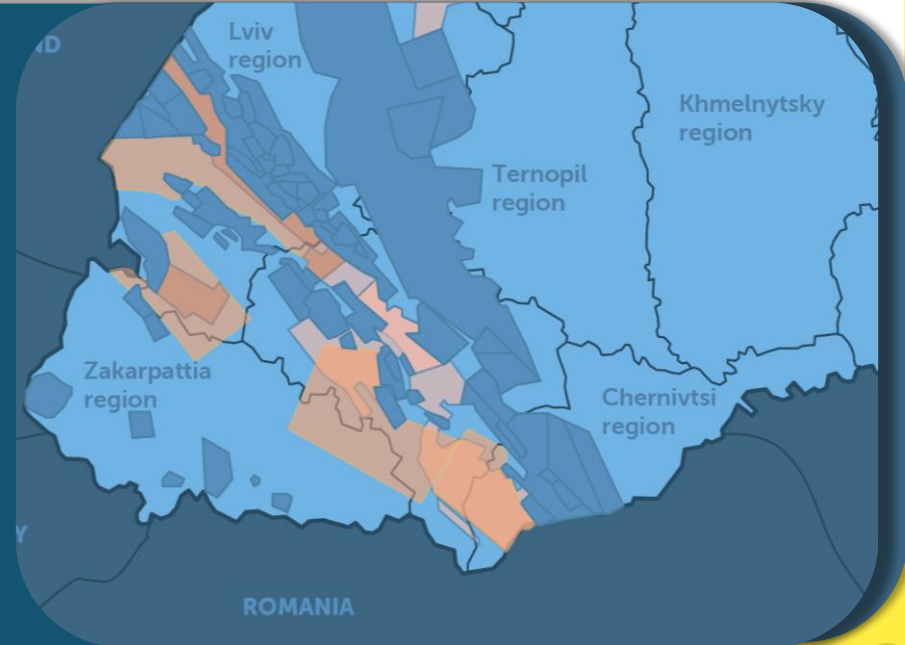
TRANQUIL AND PRACTICAL WESTERN OIL AND GAS REGION

- The Carpathian region remains largely undeveloped due to the lack of significant investments during the Soviet Union era
- However, approximately 10 000 sq. km of this region, characterized by rocks similar to those successfully explored and developed in neighboring countries such as Poland, Romania, Slovakia, and Hungary, is poised for development
- Gas potential by Naftogaz's evaluation of this acreage at >1.5 tcm GIIP and EUR
- Conventional collectors are prevailing, and EUR (P50) are ≈20-60bcm
- Low depth of up to 2 km, cheap wells, and the advantage of the safest region to develop since the beginning of the war

Prospective Oil&Gas reserves of the Western region



Carpathians project





PROMINENT WITH EXCEPTIONALLY EVIDENT POTENTIAL – BLACK SEA SHELF

Only within the Dolphin Project (Black Sea Offshore)



36 licenses owned
by Naftogaz



4 type plays, including
shallow water, slope, and
deep water

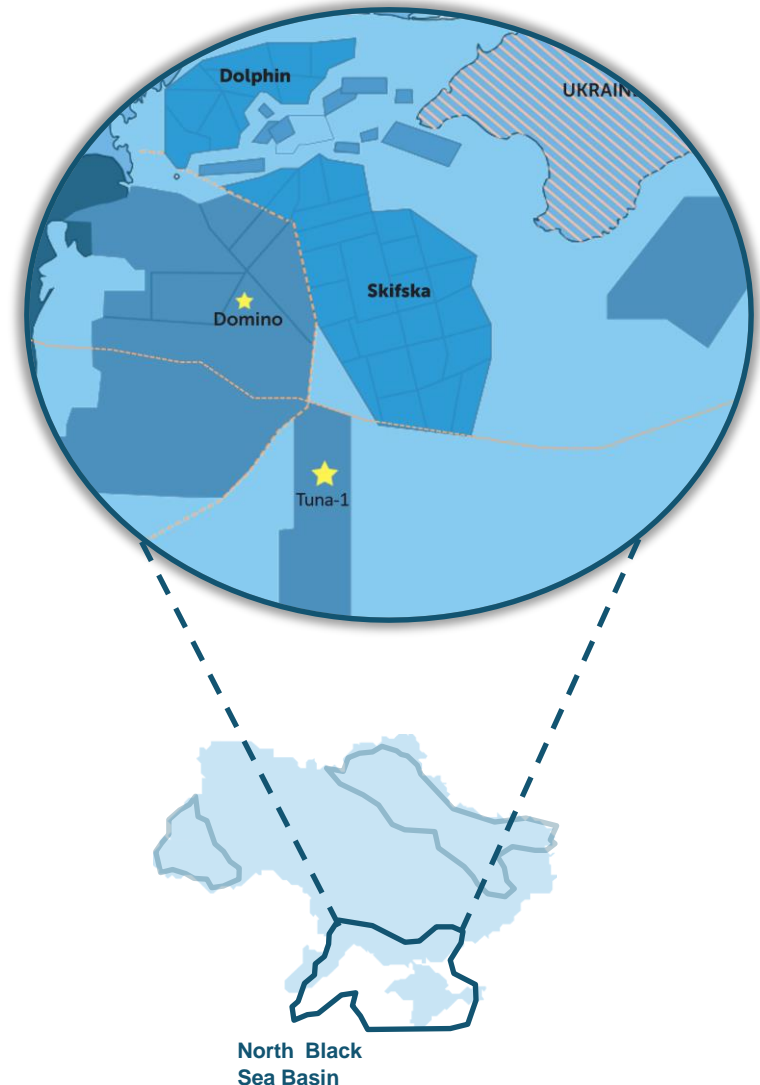


Almost 30 000 sq. km



GIIP is estimated at 1.6
tcm and EUR of 200 bcm

- ⦿ The Ukrainian shelf holds tremendous potential for hydrocarbon exploration and production
- ⦿ The Oil&Gas reserves in the Ukrainian part of the Black Sea are estimated at 2.3 trillion cm, accounting for 40% of Ukraine's total energy reserves
- ⦿ The majority of them are concentrated in deep waters, sharing similar geology with Romanian and Turkish blocks
- ⦿ The state identifies offshore deepwater production as a key priority post-victory



PRODUCTION SHARING AGREEMENTS FOR THOSE WHO CONFIDENT IN THEIR CAPABILITIES



Large blocks, long-term agreements – up to 50 years



The state guarantees investments, and disputes can be resolved in foreign arbitrations



Special tax regime with royalty rates: 1.25% for gas, 2% for oil and condensate



Production sharing among investor and the state, as well as redistribution of investments

The winners



Zakhidnadraserwis is the first company that produces hydrocarbons under PSA. It took a little bit more than two years from the signing

Together, PSA winners pledged to conduct the following during the first five years:



8 245
sq. km

3D seismic
of which 2D – 1500 sq. km
for the Oleska block



78
pcs.

Explorational wells



\$1.3+
bln

Investment

- ⦿ Thirteen PSAs have been signed, primarily in the eastern regions
- ⦿ Both domestic and foreign players are among the winners
- ⦿ Due to the war, 11 out of 13 PSAs were forced to declare force majeure
- ⦿ However, for the first time in Ukraine's history, and even during the war, one company have officially commenced production
- ⦿ Ukraine plans new PSAs for hydrocarbons and other valuable minerals
- ⦿ Investors have the option to participate in bidding for new areas or enter partnerships in existing agreements

E-AUCTIONS FOR THOSE WHO VALUE SIMULTANEOUS TRANSPARENCY AND EASE

Since 2019, Ukraine has
been conducting online auctions

Prequalification has been
eliminated, and the winner is
the one who pays more



Sold in
2019-2023



30
blocks



\$94
million



4 445
sq. km

Prepared for
2023-2024+



38
blocks



\$21.6*
million



5 100
sq. km

*some of the blocks are waiting for evaluation

- The mechanism has proven itself successful due to its competitive and transparent nature, where private and state-owned companies compete by bidding the highest price
- The business believes in Ukraine
Despite the war, in November 2022, a block was purchased for \$30 million via e-auction
- Online auctions will continue, and the Ukrainian Geological Survey already has an up-to-go list of promising fields for investors

HOW HARD?

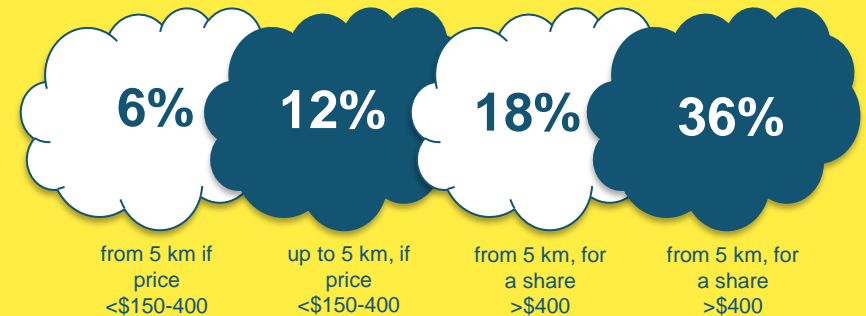
Spoiler - easy

Win in the bidding process

Launch E&P activity based on
the work program

Begin to produce, return
investment, and gain profit

WHAT ARE THE ROYALTY RATES?



FREE LICENSE TRANSFERS – A DESIRED TOOL FOR E&P PLAYERS



Adopted Draft law No. 4187 (amended), or the Law 2805-IX envisages the following:



The income from subsoil for Ukrainians



Transparency and openness



“Dormant” licenses in the past



Digitalization is the future



Liberalization of license circulation!



National security - the priority

- ⦿ Prior to the adoption of the bill, acquiring an existing license could only be accomplished by purchasing a company that held the license along with its work program and obligations
- ⦿ Starting from March 28, a license can be obtained as an asset through the Ukrainian Geological Survey → now you can purchase it for your legal entity along with a work program and operate accordingly
- ⦿ The adoption of the revised draft law No. 4187 is a step by the state toward the business. It is also a powerful signal to international partners that Ukraine is committed to the European integration course and will not deviate from it
- ⦿ A clear and transparent system in the sector will increase competition, which will ultimately encourage businesses to invest more actively in the development of Ukrainian mineral resources



EACH REGION, LIKE EVERY INVESTOR, IS UNIQUE. BEARING THIS IN MIND, WE FOUND A WAY THAT SUITS EVERYONE



- ⦿ Ukraine is diverse, from the uniqueness of the Carpathians and Galicia to the industrial achievements of Donbas and the picturesque landscapes of Crimea
- ⦿ Soon, we will reclaim what the enemy treacherously tries to take from us
- ⦿ We have no choice but to strive for improvement, fostering industry growth, including through partnerships in the oil and gas sector
- ⦿ Today, more than ever, it's vital to believe in Ukraine. In return, we can offer a plethora of promising projects and opportunities



ONE VOICE OF THE INDUSTRY

92%

natural gas
production

9%

consolidated
budget tax revenues

26

thousand jobs

