



**A need for the reforms of the Ukraine's gas  
market**

by the Energy Community Secretariat

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## PURPOSE STATEMENT

High level assessment of the status quo of the Ukraine's gas market and recommendations for its sound improvement and structural transformation.

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# Ukraine Energy Market Observatory

## Assessment 1/24

### *A need for the reforms of the Ukraine's gas market*

#### **Introduction**

Ukraine's gas market is subject to martial law and functions in a heavily regulated environment. The main goal has been to preserve infrastructure, maintain control of domestic production and secure supply gas to households - around one million households are still left without gas supply at the time of publication of this assessment. As a result of the war, Ukraine is facing population decline, its impoverishment and heavy strains on budgetary resources.

Notwithstanding the challenges of war, Ukraine should investigate for better alternatives to secure gas supply to its customers, increase the sector's welfare and use the opportunities of energy transition by maximising its potential.

While the security of supply situation, under massive stress, remained sufficiently robust, state interventions in the gas market significantly affect the economic efficiency of the gas market's operation and its alignment with European rules and practices, political and social environment, which will be more difficult to correct with the passing of time.

To avoid this, the Secretariat recommends that Ukraine starts its reflection about the necessary reform processes immediately and bases them on the gas market fundamentals which were in place before the war, while paying due attention to the protection of the most vulnerable customers.

Moreover, the future will bring a different role for Ukraine as it ceases to be a transit country for natural gas, the country also should intensify the development of options and projects for low carbon gas production and its transport. This will allow Ukraine to embark on a long-term sustainable gas policy.

This paper aims at supporting Ukraine in building a trajectory for Ukraine for reforming its gas market and rebuild its system better.

#### **Background**

The pre-war Ukraine's gas market was the most advanced in the Energy Community. Ukraine's score in the annual implementation of the gas acquis assessed by the Secretariat stood at a respectable 83% at the end of 2021. Since then, the implementation score entered steady decline and stands at 65% in 2023<sup>1</sup>.

The gas market was essentially open before the full-scale war – the previously applied Public Service Obligation Act was abolished for all customer categories, and supplier switching was in full swing. The certified natural gas transmission system operator, GTSOU, might have been facing numerous challenges related to its financial viability, but it operated in line with most of the provisions from the Gas Network Codes applicable in the Energy Community. Its cross-border transmission capacity was allocated on the European capacity platforms with the

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<sup>1</sup> [https://www.energy-community.org/dam/jcr:3da7c4f8-ea23-4169-b1e9-66b0ed05fcb7/EnC\\_IR2023.pdf](https://www.energy-community.org/dam/jcr:3da7c4f8-ea23-4169-b1e9-66b0ed05fcb7/EnC_IR2023.pdf)

adjacent operators. The number of active market participants was quite high, and the storage capacity was used by foreign traders extensively<sup>2</sup>.

By the end of 2021, several challenges had affected the optimal performance of the gas market in Ukraine, including problems with unauthorised offtakes of gas<sup>3</sup>, below cost-reflective infrastructure tariffs, lack of independence and financial viability of GTSOU, accumulated debts by district heating companies. All these problems were on the agenda of the various stakeholders, including the Secretariat, when the Russian full-scale invasion started.

## **Interventions in the gas market**

The focus on securing affordable gas supplies for population under war conditions further affected the functioning of the gas market. For the reasons set out above, a number of actions should be taken to bring gas market back to an efficient performance and ensure the sector can add to the welfare of Ukraine. This is crucial not only for optimizing the regulatory framework and transactions related to natural gas, but also for renewable gases where Ukraine has a huge and largely untapped potential.

One of the serious drawbacks since the war started is the introduction of a ban on gas exports<sup>4</sup>, which violates basic Energy Community principles. The abolition of the export ban should be the priority of Ukraine.

The Public Service Obligation (PSO) scheme was re-introduced in 2022 and extended to nearly all segments of the market. Its ill-designed structure creates problems across the supply chain and results in reduced market competition and declining investments in the sector. The current PSO scheme is also responsible for the accumulation of significant costs to Naftogaz, which is obligated to provide gas under the PSO scheme, ultimately burdening the state budget. The PSO scheme should be brought in compliance with the Gas Law and be redesigned before it undergoes gradually phasing out over the next years. The impact on Naftogaz is the most obvious as it faces significant financial challenges and accumulates substantial accounts receivable; the district heating companies, due to moratorium on increasing the heat tariffs for households, in turn increase their debts for gas supply. Similarly, gas supply to electricity sector is also under the PSO scheme and, although here the gas prices are closer to the market level, the deviations occur which further accumulate the electricity producers' debt to Naftogaz.

Martial law also banned any increase in gas distribution tariffs, leading to further deterioration of the sector. At the same time, Naftogaz took over management of almost all distribution system operators<sup>5</sup>, based on a motion filed by the State Investigations Bureau. In Ukraine, the state is principal owner of the gas networks, with some exceptions, and could grant authorisation for their operation, maintenance and development to designated undertakings.

Notwithstanding the ownership of distribution system operators or the networks therein, their unbundling in line with the gas acquis must be ensured. This will be crucial for retail market opening, regardless of the ultimate owner of the assets and the model under which the distribution networks will be organised and managed. Strong and financially sustainable DSOs will be crucial also for the decarbonisation of the country's gas sector.

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<sup>2</sup> <https://www.energy-community.org/Ukraine/observatory.html>, assessment note 15/2023

<sup>3</sup> <https://www.energy-community.org/Ukraine/observatory.html>, assessment note 11/2023

<sup>4</sup> Gas of Ukrainian origin

<sup>5</sup> 27 DSOs since the end of 2023, <https://www.naftogaz.com/business/gas-distribution>

The fragile independence of the institutions, most notably of the national regulatory authority, NEURC<sup>6</sup>, has further deteriorated in war time. Restoring NEURC's independence, is crucial to restart the reform of the gas markets and gradually reduce interventions in the market. The Secretariat's assessment note<sup>7</sup> shows that [*Ukrainian legislation, including the NEURC Law, do not guarantee the independence of the Regulator. These structural concerns are serious*].

## **Post transit outlook - Transit dilemma**

The outlook for post 2024, when the transit contract between Naftogaz and Gazprom will have expired, has major consequences for the natural gas transmission system of Ukraine and its gas market development.

No transit or reduced transit is to be expected as of 1 January 2025. The probability of this scenario will even more increase by 2027, when the REPowerEU plan requiring the termination of all Russian pipeline supplies will kick in. This will pose serious challenges to the current *raison d'être* of the Ukrainian gas infrastructure.

The optimisation of the gas infrastructure assets under this challenge is the most pressing issue. Aware of that, GTSOU has been analysing options with international assistance. Ukrainian authorities will have to adopt a drafted law needed to allow GTSOU to decommission unused infrastructure. Significant cost savings (with an estimated 1.5bn UAH/year) may be expected.

One step in the right direction has been finally achieved with the strong involvement of the Secretariat - the long-awaited corporate governance reform of GTSOU, which abolished a non-effective structure and improved its independence and unbundling status is now in place.

Ukraine is and will remain a country with significant natural gas production, and a considerable share of natural gas in its primary energy supply. The future gas infrastructure business model can rely on increased national natural gas production (and transmission of those volumes), to be complemented and ultimately replaced by an increased production of decarbonised gases such as biogases and biomethane and its export/transmission to the EU markets. The clean hydrogen backbone from the east to the west of Europe can also start in Ukraine<sup>8</sup>.

## **Storage business and unlocking of existing routes**

Another important strategic advantage of Ukraine's gas system is its immense underground storage capacity. In the EU's closest neighborhood, Ukraine offers vast storage capacities (cca 31bcm), the majority of on its western borders. They are operated by the certified<sup>9</sup> storage system operator, Ukrtransgaz (UTG). Offering and using the additionally available gas storage facilities is of principal importance for the European Union, as it can ensure uninterrupted gas supplies, particularly in winter, and mitigate price spikes on the spot markets. The storing of gas in Ukraine by foreign market participants would additionally shave off the peaks of gas price hikes in the EU hubs during the withdrawal season, as the marginal quantities of gas

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<sup>6</sup> National Energy and Utilities Regulatory Commission

<sup>7</sup> <https://www.energy-community.org/Ukraine/observatory.html>, assessment note 17/2023

<sup>8</sup> The EU Commission published the new PCI/PMI list, defined according to the new TEN-E Regulation (2022/869), including one hydrogen project in which Ukraine participates (Generic corridor aiming to transmit hydrogen from Ukraine to Slovakia, Czechia, Austria and Germany)

<sup>9</sup> NEURC Resolution No.630 of 07.04.2023 "On making the final decision on the certification of the gas storage operator"

could be supplied from Ukraine to stabilize the market. In addition, the pure fact that additional gas is stored in the EU's closest neighborhood is beneficial for the overall security of supply of the EU.

A storage business case is also attractive for Ukraine's network operators for additional income (GTSOU and UTG in particular). Ukraine offers a tailor-made product, the so-called customs warehouse regime - CWR, which is tax and customs free (for up to three years), for gas stored in the Ukrainian storages and evacuated outside its borders, at special tariffs. The gas stored under the CWR is not embraced by the export ban and can be freely evacuated back to the original owner.

After the storage system's intense utilization during the COVID pandemic, the last season was moderately successful, with 2.5bcm of gas injected from the EU and Moldova. The technical resilience of the system is in place, the regulatory environment needs to be updated.<sup>10</sup>

Aside from the necessity of the State refraining from intervening in the gas business and correcting some ill-designed and noncompliant measures highlighted in this assessment, there is further room for the improvement of the storage business. For example, the storage system operator should optimize the products it offers to the market, e.g. by reorganizing capacity types and synchronizing the allocations with the auctions on the system's entry and exit points and offering different short- and long-term products. Due to the interface between the product and tariff design, the regulatory authority should be included in the process in the early stage of product design. Along with the necessary decarbonization of the gas sector, storage needs to be made available also to biomethane, hydrogen and possible CO<sub>2</sub> sequestration.

For the improvement of the of the gas regulatory framework of Ukraine, it is important to achieve synergies between the storage capacity and transmission capacity products. As Ukraine can offer extensive spare capacities at entry/exit cross-border points with the EU countries and Moldova, this infrastructure can be a bridge between Southern and Central Europe gas supplies, especially in scenarios after the termination of the Russian gas transit. The synergies to be created can go beyond the borders of Ukraine. Further work and cooperation with the upstream and downstream transmission operators is needed to unblock the bottlenecks across the routes, such as the Trans Balkan pipeline.

## **Decarbonised gases**

Ukraine's production of low carbon gases, most notably biomethane, is already a reality and will be slowly but surely rise. The production of green hydrogen has a more long-term perspective.

Low carbon gases production in Ukraine has a strong focus on export, which will help making the post war recovery more sustainable. At present, biomethane is ready for injection into gas networks. No or very small investments are needed for the modernization of the gas network in order to transport biomethane safely on a large scale. The plans presented by Ukraine are ambitious. The country has the largest surface of agricultural land in Europe. The estimates of its potential for the production of biomethane are in the range from a conservative 1 bcm per year around 2030 to up to 20 bcm of biomethane in 2050. This is very complementary with the REpowerEU non-binding target of 35 bcm in 2030, the number, which would increase further by 2050. The Memorandum of Understanding between the EU and Ukraine on a

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<sup>10</sup> <https://www.energy-community.org/Ukraine/observatory.html>, assessment note 15/2023

Strategic Partnership on Biomethane, Hydrogen and Synthetic Gases underlines the cooperation between the two parties in this regard.<sup>11</sup>

Decarbonisation of the gas sector will create additional jobs and will require significant investments. To make this happen, regulatory and governance obstacles must be removed, and the proper coordination and cooperation among various institutions, including NEURC, the State Agency for Energy Efficiency and Energy Saving (SAEE), and other government bodies is necessary to establish a market oriented regulatory and legislative framework.

SAEE is designated as the issuing body for the Guarantees of Origin (GOs) for renewable gases like biogas and biomethane Ukraine. GOs are presently issued by the European Union, proving that a specific quantity of gas originates from renewable sources. This is essential for maintaining transparency and trust in the market, particularly when considering ambitions to export decarbonised gases.

Acknowledging the crucial role that GOs play in facilitating the energy transition, there is an urgent requirement for a standardised framework within Ukraine and it is imperative to establish a framework that aligns with EU standards. In addition, the export ban on natural gas, which did not intend to include the ban on renewable gases, results in impossibility of exports of the latter without needed amendments (already drafted) to the custom code.

## Recommendations

The Secretariat considers that a set of actions are required to rectify non-compliances, resolve the outstanding issues and reduce the level of state intervention in the markets. Addressing the issues identified here should begin at latest at the end of March 2024, in a structured manner with policymakers, international community, and with the Ukrainian citizens. This paper calls for establishing a targeted dialogue, which could result in a roadmap for future actions.

### A) Improving the implementation record of Ukraine in gas markets – short term actions in 2024

- Establish a roadmap for smooth abolition of the export ban on gas, in particular on renewable gases.
- Establish a roadmap for the reform of the Public Service Obligation schemes with steps leading to their phase out. The roadmap should ensure that vulnerable consumers under the housing and utilities subsidy are adequately protected once the prices for households are liberalized.
- Re-introduction of a competitive tender for the supplier of last resort with no price caps.
- Include in the roadmap a gas release programme for Naftogaz corresponding to the reform of the PSO scheme.
- Include in the roadmap requirement to trade and clear at exchange(s), with development of the necessary standardized trading products, that shall contribute to the market's transparency and liquidity.
- Apply the Network Code on Balancing<sup>12</sup>.
- Improve consumption norm and introduce energy units in practice.

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<sup>11</sup> [https://energy.ec.europa.eu/publications/memorandum-understanding-between-european-union-and-ukraine-strategic-partnership-biomethane\\_en](https://energy.ec.europa.eu/publications/memorandum-understanding-between-european-union-and-ukraine-strategic-partnership-biomethane_en)

<sup>12</sup> [https://www.energy-community.org/dam/jcr:0c739eda-a10f-4e0e-bfb6-aa2c0ba7a0b2/Regulation\\_312\\_2014\\_NC\\_B.pdf](https://www.energy-community.org/dam/jcr:0c739eda-a10f-4e0e-bfb6-aa2c0ba7a0b2/Regulation_312_2014_NC_B.pdf)

- Apply the Capacity Allocation Mechanism Network Code by introducing bundled products at the interconnection points, subject to the EU TSOs' cooperation and EC/ACER assistance, where needed.
- Adopting the transmission tariffs fully in line with the Tariff Network Code, including the consultation and decision-making process based on the provisions of the code. Having in mind that the new tariffs must be adopted by end 2024 due to expiry of existing tariffs, the process in line with the Tariff Network Code should be launched latest by June 2024.
- Transposition of the security of gas supply Regulation, adoption of an updated risk assessment, update of the preventive and emergency plans.
- Ensure unbundling of DSOs in line with the gas acquis and empower NEURC with corresponding enforcement and monitoring competences.
- Enable NEURC to adopt transparent and cost reflective tariffs for all infrastructure operators, such as distribution tariffs allowing DSOs to purchase gas for its own consumption.
- Set up an attractive combination of transmission and storage tariffs to enable future optimal utilisation of underground gas storages.

Another course of needed actions relates to setting up the framework for the future gas market(s). Such actions have mid to long term effects and are more of a transformative nature. However, these actions should not in any way be postponed. Similarly to the short term actions for the benefit of improving market efficiency and security of supply, the dialogue about them should be opened immediately.

#### B) policy and strategic actions

- Adopt a decarbonisation strategy, and a hydrogen strategy in particular, and the corresponding action plans.
- Set up a regulatory and legislative framework for investments, exploration, production, storing, transmission, distribution of renewable / decarbonised gases in line with the relevant developments in the EU. The hydrogen backbone east-west should be identified as one of the infrastructure priority projects. This shall include timely transposition of the new TEN-E Regulation<sup>13</sup> in Ukraine for implementation of PCI/PMI with EU.
- The future gas infrastructure business model should be elaborated. It should be based on national natural gas production (and transmission of those volumes), but also on transmission of decarbonised gases such as biomethane to the EU markets. The transmission gas system of Ukraine has sufficient capacity to allow for different models –natural gas and hydrogen (blended or pure) pipelines.
- Couple the national gas market(s) with Moldova and/or neighbouring EU Member States.
- With the increasing role of the gas storage systems for the EU market, enhancing the corporate governance of its operator, Ukrtransgaz, should be considered taking the GTSOU as a role model. Ukrtransgaz could be spun off from Naftogaz, and operate independently or incorporated in GTSOU for operational decision making and optimization.

The Secretariat stands ready to assist the Ukrainian authorities in delivering on the above proposals.

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<sup>13</sup> [https://www.energy-community.org/dam/jcr:cccacd05-68f1-40d2-94e2-d0eed4288c53/EnC%20REGULATION%20\(EU\)%202022869%20\(002\).pdf](https://www.energy-community.org/dam/jcr:cccacd05-68f1-40d2-94e2-d0eed4288c53/EnC%20REGULATION%20(EU)%202022869%20(002).pdf)