

Final decision on Naftogaz unbundling: implications analysis

Key findings

- Deep structural reform of the national gas market is a (geo)strategical political and economic decision of Ukraine has been made under adverse external circumstances after 2014 given its importance for economy and domestic political agenda.
- Strategic goals of gas market reform are focused around modernization of institutional framework of internal gas market creating conditions for better competition, regulation and consumers' protection as well as sophisticated rules for non-discriminatory and transparent access of market players to gas transmission and storage facilities. Ultimately it should have led to fair energy prices, flexible interoperability with EU gas markets and related infrastructure, and resulting better gas supply security to the country.
- Recent decision of Ukrainian Government to approve the final action plan for Naftogaz unbundling may finally lift a deadlock for finalization of structural shift of Ukrainian gas market to EU competitive model.
- Main motivation to create to separate from Naftogaz structure an independent transmission system operator (TSO) of Ukrainian gas transportation system (GTS) is to have a leverage on the ongoing negotiations with Russia on the gas transit contract after 2020.
- However, unbundling will have far reaching consequences for the whole gas sector as it will trigger a number of necessary changes in other segments of internal gas market that has been blocked so far by groups in the Parliament and Government interested in distorting competition and different regulatory deficiencies and derogations from EU rules.
- Major positive benefits may be identified for gas imports and trade as new TSO will open new possibilities for imports and development of trade products and infrastructure. Important possible outcome may be de-monopolization and de-regulation of retail gas supplies to population and increase the general confidence of Western investors into better regulatory environment on Ukrainian gas market.
- Appearance of anew TSO company as an independent non-biased party on the ongoing negotiations with Gazprom regarding Russian gas transit over Ukrainian GTS after 2020 will positively contribute at least to avoiding of any extremal scenarios of gas supply crises like it was in the past however possible duration and specific parameters of a new gas transit contracts remaining highly conditional on general political background of Ukrainian – Russian relations and strategy.

Introduction

Ukraine declared an intention to reform the national gas market and align the respective regulations with the EU rules yet back to 2009 when country was considering to join the Energy Community Treaty. The main reasons were to seek access for alternative sources of gas supply after winter-2009 gas crisis with Russia and cheap Western money to invest into modernization of the national gas transmission system (GTS)¹.

Maidan uprising and the subsequent hostilities with Russia among other things resulted in halt of Russian gas supplies and forced Kyiv to seek for alternative supplies and closer integration with EU gas markets. As a result, shortly after the signing of the Association Agreement with the EU (2014) Ukraine passed a framework Law On the Natural Gas Market in which the political goal to reform national gas market in line with competitive model prescribed in EU energy Packages become legally binding.

The progress, however, appeared to be mixed as deep structural changes of vertically integrated monopolies at national and regional levels did not follow quick progress in gas imports from the EU and wholesale supply to large industrial consumers². In particular, separation of gas transmission and storages activities from other types of business of the national oil & gas company Naftogaz NJSC (or 'unbundling' in legal terms that is the key to competition on gas markets) stuck in a heavy conflict over the choice of a specific unbundling model between the Government and company management that were representing the different vested interests of the former ruling coalition and was resolved only in 2019.

Naftogaz unbundling has been unlocked only in September 2019 when new Government decided on the final model of legal functional separation of gas transmission business out of the Naftogaz corporate structure. This paper is focused on assessment of likely perspectives and challenges of implementation of chosen model, impacts for the natural gas market reform in terms of better competition, regulation, fair pricing and consumer protection on different segments and key stakeholders' particular interests as well as contribution to signing of new gas transit contract with Russia integration of Ukrainian GTS into European gas markets.

Chapter 1 Ukraine's obligations and strategical goals of national gas market reform under the Association Agreement and Energy Community Treaty

After entering the Energy Community Treaty and signing the Association Agreement with the EU Ukraine has obliged itself to carry out gradual approximation its legislation in energy sector to EU law (or *acquis communautaire*), including a set of specific obligations to align functioning of domestic gas market to EU rules that were aimed to make Ukrainian gas market more competitive, transparent, better regulated (incl. consumers protection) and interconnected with the EU gas markets that would open the alternative gas supply routes and highly demanded investments into gas infrastructure.

¹ Different assessments for full modernization costs of Ukrainian GTS vary between USD 5 and 12 bn depending on scale.

² Ukraine received first test volumes of so-called 'reverse' gas from EU in August 2014 via Slovakia.

The main trigger for Ukrainian authorities to start reforming of gas sector using EU gas regulation as a pattern was a severe conflict with Russia over geopolitical choice of Ukraine to be a part EU economic space by negotiating an Association Agreement with EU. Among other issues, relations with Russia regarding domestic gas supplies and transit of Russian gas to Europe³ has been systematically deteriorating starting from Orange Revolution (2004-05) and after the 'hot war' flared in the beginning of 2014 gas supplies to Ukraine has been ceased completely. Therefore, apart from abstract political goals, Ukraine had no other chance but to organize alternative gas imports from the EU and organize interconnection with neighboring EU countries. Receiving the macro-financial assistance from the IMF and Brussels has also been a powerful stimulus for initiation of gas market reform and adoption of necessary legal changes as it was conditional to getting Western money during critical period of 2014-2015 when Ukrainian economy was hit by war and broken economic ties with Russia.

Since 2014 the Association Agreement gas sector provisions and Energy Community legal agenda operated with slightly different sets of obligations and, what is more important, with different deadlines for implementation that posed some uncertainty both for Ukraine and the EU which versions of EU laws and by when should be used for approximation⁴. On March 18, 2019 the Annex XXVII of the Association Agreement was finally amended⁵ and the obligations were aligned with the framework and deadlines of the Energy Community Treaty.

According to them (please, see the full list of respective EU acquis in Annex II) Ukraine has to reach the following strategic targets:

1. Setting up a new **institutional framework of internal gas market** providing framework conditions for competition (incl. unbundling), regulation (intendent national regulatory agency from the Government and other types of political and business interference) and consumers protection;
2. Implementing the **secondary regulation on rules of access** to the natural gas transmission networks for market players (so-called, third parties), as well as rules for capacity allocation mechanisms and harmonised transmission tariff structures for gas transmission networks;
3. Reach full **interoperability with the EU** gas market and develop data exchange rules;
4. Ensure sufficient **security of supply** and develop response mechanism for gas supply crisis;

Specific policy goals and targets for different segments of internal gas market can be summarized in the following Table 1 below.

³ Russia was always using gas price leverage and schemes of gas supply domestic Ukrainian consumers and re-export to Europe as a source of high-level corruption and loyalty of Ukrainian elites to Moscow.

⁴ I.e., Energy Community Secretariat has been always operating by more extensive and updated list of gas EU acquis that always prevailed over the Association Agreement timetable (defined by article 341 and Annex XXVII), however using quite outdated implementation deadlines (2015 - 2017).

⁵ Council Decision (EU) 2019/466 of 18 March 2019 on the position to be taken on behalf of the European Union within the Association Council established by the Association Agreement between the European Union and the European Atomic Energy Community and their Member States, of the one part, and Ukraine, of the other part, as regards the amendment of Annex XXVII to that Agreement.

Table 1 Policy goals and targets of Ukrainian gas market reform stipulated by the Association Agreement with the EU and Energy Community legal agenda

Policy goal	Targets	Related EU laws	Implementation deadlines
Unbundling of integrated undertakings at natural gas wholesale and retail markets	Ukraine has to achieve the complete separation of gas production, trade and supply interests from gas transmission and distribution systems at all segments of the gas market, as well as effectively prevent any conflict of interests between these activities on gas market afterwards. Independent companies that will be transmission and distribution system operators are to be established.	Directive 2009/73/EC ⁶	2017
Implementation of EU-like third party access (TPA) rules to gas transmission networks	Ukraine should develop and implement the transparent and non-discriminatory TPA rules (for all market players) to natural gas transmission networks, gas storages and LNG facilities. These rules should cover tariff-setting (solely for access to networks), services to be offered by TSOs/DSOs/SSOs/LNG operators, rules of capacity allocations, as well as requirements to transparency and balancing of the networks.	Regulation (EU) 715/2009 Regulation (EU) 2017/460 Commission Regulation (EU) 2017/459	2018 - 2020
Ensuring competition on wholesale gas market	Eliminating barriers to trade at wholesale segment of national gas market by aligning the trade rules, imposing the market-based pricing, regulation for market infrastructure, contractual framework, virtual trading points (VTP) and storages access regulation, rules for participations of traders in network balancing etc. in line with EU acquis and best practices.	Directive 2009/73/EC Regulation (EU) 715/2009 Regulation (EU) 1227/2011 EU best practices	2017 - 2020

⁶ Non-amended version of 13 July 2009 as stated in [Energy Community legal agenda](#).

<p>Ensuring competition on retail gas market</p>	<p>Eliminating barriers to competition between retail gas suppliers and ensuring for them equal and transparent access to regional gas distribution networks (owned and operated by DSOs) and distortions to pricing mechanism imposed by state regulations.</p> <p>Retail customers has to be granted the right to freely choose and switch a supplier.</p> <p>Household consumers, incl. district heating companies supplying heat to households, should be granted sufficient protection in the event of crisis and non-interruptible gas supply.</p>	<p>Directive 2009/73/EC</p> <p>Directive 2004/67/EC</p> <p>EU best practices</p>	<p>2017</p>
<p>Reaching full interconnectivity with European gas markets (TSOs)</p>	<p>Appropriate regulation regarding interoperability and data exchange rules has to be implemented in Ukraine.</p> <p>Ukrainian gas transmission system TSO has to be fully interconnected with its EU neighbors, having developed interconnection infrastructure and signed interconnection agreements, thus, securing non-interruptible trade flows with the EU</p>	<p>Regulation (EU) 715/2009</p> <p>Regulation (EU) 703/2015</p>	<p>2018</p>

Source: Article 341 and Annex XXVII-B of the Association Agreement with the EU, Energy Community acquis legal agenda

Chapter 2 Analysis of the final Government decision regarding the model of Naftogaz unbundling

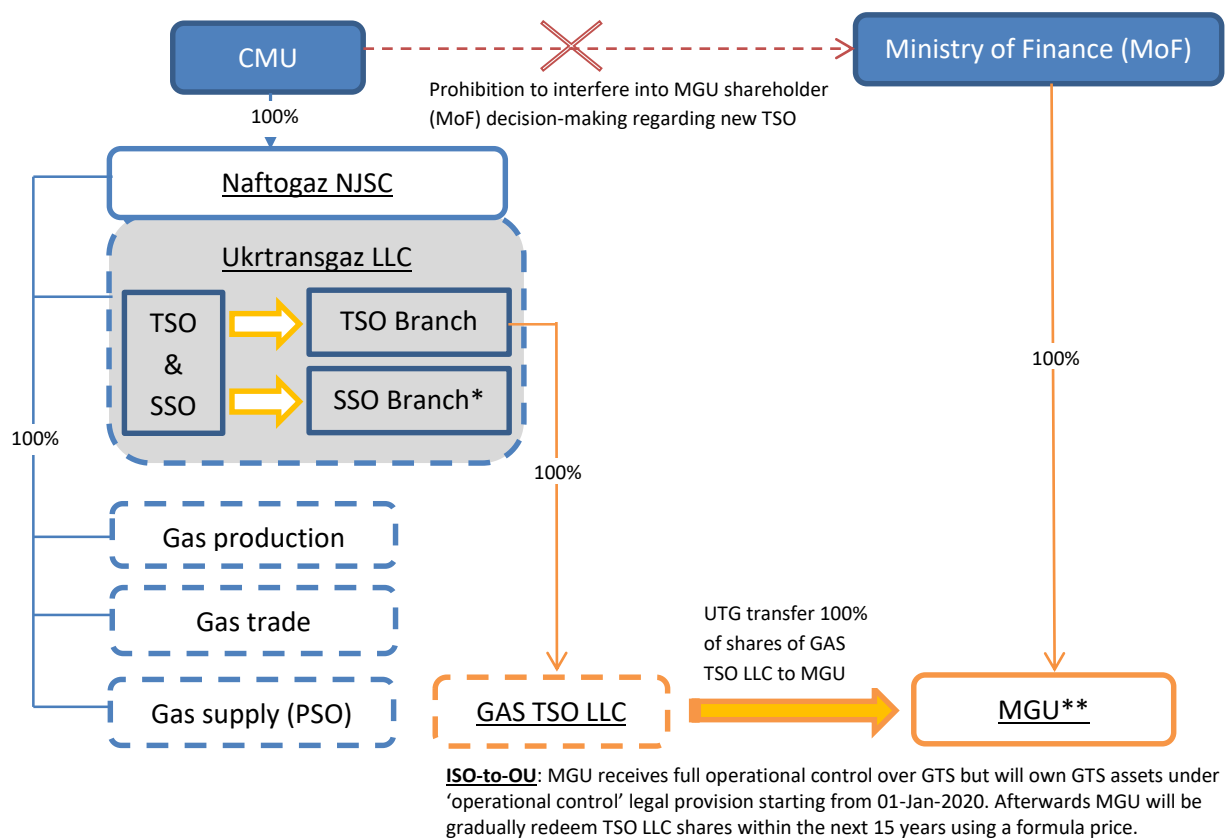
As was stated above the Cabinet of Ministers of Ukraine on September 18, 2019 has finally decided on selection of unbundling model for a national vertically-integrated company Naftogaz NJSC by adopting its **Resolution No. 840** *On Unbundling Activity on Transportation of Natural Gas and Securing Activity of the Gas Transmission System Operator* containing an *Action Plan on Requirements regarding Naftogaz Unbundling and Ensuring Independence of the Gas Transmission System Operator*. Below is the analysis of the legal aspects of the CMU decision, its potential benefits for natural gas market, risks of implementation and direct impact on new TSO viability as well as Naftogaz company after unbundling.

2.1 Description of the legal model

The CMU decision has finally brought a long-awaited decision regarding what specific model would be chosen to separate gas transportation system from the corporate structure of Naftogaz NJSC and eliminate any possibility for the conflict of interests between remaining Naftogaz businesses (and company's top-management) and new transmission system operator (TSO) that will execute quasi-ownership and operational management over Ukrainian GTS.

First, the decision put an end to a dispute between the Cabinet / Ministry of Energy and Naftogaz top-management over an issue which type of unbundling model allowed by EU Gas Directive to choose. In September 2019 the parties achieved compromise that Regulation No 840 will trigger ISO option for GTS separation referring to Article 27 of the Law On the Natural Gas Market according to which new TSO will be legally separated from Naftogaz structure and will be fully in charge of operational, maintenance and investments decisions regarding Ukrainian GTS.

Figure 1 Naftogaz unbundling model



Source: CMS, Naftogaz annual report 2018

* SSO Branch will be left in Ukrtransgaz until decision regarding UGS will be taken

** MGU - Magistralni Gazoprovody Ukrayiny or Trunk Pipelines of Ukraine – Ukrainian name of TSO

Second, legal and organisational separation will have to occur on 01 January 2020 when Ukrtransgaz LLC will sell 100% of shares of its subsidiary GAS TSO LLC to MGU that, in turn, will be owned in 100% by the Ministry of Finance. The choice of the Ministry of Finance as a sole shareholder of new TSO (MGU) has been purposely made to eliminate the potential conflict of interests between the energy

wing of the Cabinet of Ministers (represented by the Ministry of Energy in a former unbundling CMU decision) and management of MGU as the MoF has no direct material interest in GTS operations⁷.

Third, 100% of GTS ownership rights will be transferred by GAS TSO LLC to MGU on 01 January 2020 and MGU payments for these shares will be deferred within the next 15 years and their ultimate price (payment) will be dynamic depending on results of GTS operations (being derived from gas transmission volumes and tariffs). During this 'transitional' period MGU will be only formal GTS shareholder executing the right of so-called 'operational control' over GTS assets⁸. Hence, after a 15-years long transition period (or earlier) MGU may become a 'real' owner of GTS assets thus implementing full OU model. That's why new Energy Minister Oleksiy Orzhel stated that the adopted unbundling model is 'temporary ISO that is converting to OU' and the only Ukrainian peculiarity of this future OU is legal provision that legally GTS assets will be owned by the state and not by TSO as a legal entity. This 'hybrid' mechanism has been chosen intentionally with a purpose to keep a green light of further participation of Naftogaz in Stockholm Arbitrage proceedings enabling the situation in which holding still has an economic interest (payments from MGU) in GTS operations⁹ and may claim for compensation if Gazprom decides to cease Russian gas transit over Ukrainian route without signing a contract.

2.2 Benefits / risks analysis of the chosen unbundling model for proper gas market functioning and prospects of its implementation

If fully implemented the chosen unbundling model of Naftogaz is considered carrying a number of **benefits** for Ukrainian gas market functioning and reform efforts, including:

- **'Decoupling' of gas transmission regulations from 'energy block' of the Government**

First of all, establishment of a new TSO may eliminate traditional control over Naftogaz by the so-called 'energy block' of the Government represented by the Ministry of Energy or special Vice-Prime-Minister in Groysman Cabinet. This impact had different levels and scope of interference and apart of purely financial interests in corruption rent has been always creating high uncertainty over regulatory decisions related to GTS functioning. For example, despite a recent reform and formal legal independence of national energy regulator¹⁰ that developed and approved the majority of necessary secondary laws on gas market it has been interfering by the Government in the case of setting gas transmission tariffs. The Government and Naftogaz pushed regulator to approve new methodology of gas transmission tariffs for transit using it as a tool with disputed with Russian Gazprom. For example, in 2016 tariffs for Ukrainian GTS cross-borders points were enormously hiked to

⁷ However, the Minister of Finance Oksana Markarova was not happy to receive MGU under management as the sources stated that were attending the respective Cabinet meeting.

⁸ That is purely Ukrainian phenomenon stipulated by Commercial Code of Ukraine. From GTS use prospective it can be considered either as (a) quasi-concession of gas transmission assets by MGU, and/or (b) a hidden subsidy of remaining Naftogaz group by the incomes of a formally separated TSO company that may pose some risks for TSO certification in the Energy Community Secretariat.

⁹ According to Naftogaz Group annual report for 2018 gas transit, domestic transportation and storages activities were accounted for around 40% of company cash-flow and about 40% of revenues, so it's quite a considerable motivation for a company to receive the payment from MGU in similar discounted equivalent (preliminary estimate of GTS assets value was about 95 UAH bn).

¹⁰ The national regulatory agency (NRA) in energy sector in Ukraine is the National Energy and Public Utilities Regulatory Commission (NERCU).

USD 12.47/1000 m³/day (entry points) and USD 36.4/1000 m³/day (exit points) by including accelerated depreciation of GTS assets in order to make Gazprom more compliant to transit gas after 2020. Hence, appearance of the Ministry of Finance as a controlling authority give moderate hopes that at least new TSO will not again be a bargaining chip into energy games of the Government and switch to normal business logic.

- Appearance of new TSO will increase **chances to avoid at least risk scenarios on the ongoing trilateral talks between Ukraine, EU and Russia regarding Russian gas transit** through Ukraine after 2020. As unbundling and creation of a new TSO were the main preconditions of EU support of Ukraine on the negotiations with an idea to build new contract on more predictable EU transit contractual framework, existence of MGU may contribute to conclusion at least mid-term transit agreement and make Ukrainian GTS functioning more stable in terms of gas flows.
- The Government as a main shareholder of Naftogaz will have more interest **to continue reforms on retail gas market** with a purpose to ensure financial stability of the company after gas transmission business separation as Naftogaz will expectably loose ~ 40% of cash flows and revenues generated by the GTS left with regulated segments of extraction, domestic transportation and gas sales to residential gas distribution and supply companies (oblgazes¹¹) and district heating companies under public service obligations regime¹².
- Independent TSO governed by an independent regulator in terms of setting fair tariffs will assure the long-term sustainability of Ukrainian GTS by backing-up **the necessary investments into current maintenance and upgrade of gas transmission facilities**. It also may be as one of positive factors for attraction of Western investments into GTS business (though an attempt of Ukrainian Government to offer to EU gas companies the non-controlling stake at MGU made in the last year failed due to overall uncertainty of the unbundling success).
- Independent and properly regulated TSO can be a **factor for further development of modern gas trading**, especially by new short-term spot products that may boost market liquidity and contribute to fair pricing.
- Independent TSO has higher chances to reach **better interoperability with European TSOs** and develop new interconnections points with neighbouring EU countries, hence, contributing to **better security of supply**.

However, adopted unbundling model also carries a number of risks that may undermine successful operation of new TSO of Ukrainian GTS, specifically:

- Given traditional gap in Ukraine between law and informal ties between stakeholders there may be a case when **Government may keep indirect control over business processes of the new TSO** in favour of Naftogaz interests (or another group of interest like Firtash's oblgazes,

¹¹ Ukrainian acronym (Oblastna Gazova Kompaniya) for regional gas distribution company that sell has to final retail customers via local gas distribution networks.

¹² CMU Resolution No. 867 "On the Approval of the Provisions for Imposing Public Service Obligations on the Natural Gas Market Entities for Ensuring the General Public Interests in the Process of Functioning of the Natural Gas Market" of 19 October 2018.

for example) as the Ministry of Finance and national regulatory agency are de-facto controlled by the one-party Government.

For example, the Government may impose some distortions to tariff setting mechanism for GTS access defending vested interests of one or another gas market players or provide non-market interventions for decreasing prices for population (e.g. playing around with transportation tariffs of a new TSO) that may pose a threat to a financial position of a new TSO and/or long-term investments planning. It also, inter alia, may prevent foreign companies to invest into GTS business due to this possible political interference.

- **Certification of a new company by the Energy Community** may be stuck due to uncertainty of the Ukrainian innovative 'temporary ISO to OU' ownership model may pose questions from the EU side on real independence of the MGU company as the GTS assets and remaining Naftogaz holding parts will be owned by the state (though controlled by the different ministries).

However, Ukrainian regulator is expected to run a 'preliminary certification' decision (the respective decision has been approved in August 2019). EnC, in turn, has already given its 'conditional approval' of Naftogaz unbundling model that is not completely in favour of mechanism of ownership rights structure transfer from Ukrtransgaz to MGU but may be revoked later conditional to fulfilment of specific conditions related legal and operational independence of new TSO company.

- **Uncertain consequences of 'formula approach' application** to calculate the price of GTS assets to be sold to MGU due to lack of specific mechanism in the Government unbundling plan. If MGU will be decided to pay quite high instalments over the first 3-5 years of operation, it may undermine financial stability of the company and even lead to bankruptcy.
- **Domestic political agenda related to traditional 'tariff issue' will prevent or extend in time necessary changes on retail segment of gas market**, including politically motivated regulated prices on domestically extracted gas, tariffs on domestic transportation and final retail prices for population and district heating companies.
- **There is a still space for informal political interference**, especially via not completely independent from the Government energy regulator power to interfere into regulatory framework of gas transmission. Interfered and/or derogated business model of TSO may result in lack of investments into GTS modernization and financing new interconnectors with Europe.

Given quite strong motivation of new Ukrainian Government reach success in signing new transit contract with Russia, reach an agreement with the IMF and attract FDI in economy the **prospects for implementation of the unbundling decision looks quite optimistic at the current moment**. Current political environment is also supportive to move further with delayed gas market reform as new political actors are not involved into former energy-related groups of interest (like, Ahmetov or Firtash) so they may produce non-biased decisions regarding control of TSO and energy regulator. However, the impediments for effective TSO functioning may appear later with crystallization of interests groups inside ruling party and/or biased decisions of energy regulator. Additional problems may arise in the long-term when Russian gas transit volumes will be decreasing and overall business

model of Ukrainian GTS will have to be revised again. That's an additional factor that may prevent investments and development of new TSO.

2.3 New TSO business model and investments into Ukrainian GTS

After 01 January 2020 new TSO – MGU company – is expected to be fully licensed and authorized to provide commercial services on gas transportation for (a) transit, as well as for needs of (b) domestic transit. The company will manage the reorganised GTS structure that counts for 4 regional branches, 20 linear production departments, with staff of approximately 10,000 people¹³.

The business model of a new TSO will be highly conditional on expected volumes of Russian transit gas that would flow over Ukrainian GTS after 2020 that, in turn, will impact level of transit tariff applicable for gas transit volumes to make MGU enough profitable to cover operational expenditures as well as finance investments into modernisation of GTS. The possible range of tariffs is shown in Table 2 below.

Current transit contract has been operating with transit tariff in a range between USD 2.09 – 2.81/1000 m³/100 km of distance, incl. all related costs and technical gas. In 2016 Ukraine transferred to new system of calculation of gas transmission tariffs using ‘entry-exit’ points and prior to the 1st round of negotiations in Brussels Naftogaz proposed the tariffs in a range between USD 2.5 and 3.2/1000 m³/100 km which however are not competitive comparing with current Nord Stream 1 tariff. Final tariff for Ukrainian GTS will depend on agreed volumes and under certain expectations will be close USD 2/1000 m³/100 km.

Table 2 Comparison of transportation tariffs via Ukrainian GTS and Nord Stream 1

Tariff type	Rate (1000 m ³ / 100 km)
‘Old’ tariffs of acting transit contract disputed in Stockholm	2.09 – 2.81
‘New’ tariffs approved by the regulator using new EU methodology	1.92
Naftogaz proposals for 2019 negotiations:	
- up to 90 bcm	2.56
- up to 60 bcm	3.21
Current Nord Stream 1 tariff	1.87
Realistic proposal for a new contract (45-60 bcm) at 2019 negotiations	2.02 – 2.26

Source: Interviews, own calculations

Another factor that will influence the long-term sustainability of MGU financial model are volumes and tariffs for domestic transportation. To make MGU sustainable, two ‘domestic’ problems are to be resolved:

- Economically unjustified domestic transportation tariffs that are to be revised upwards to full economic costs recovery level (incl., i.e., necessary investments);

¹³ Conditional to timely certification by the Energy Community which, in principle, shouldn't be a problem given political backup of Ukraine in the gas transit negotiation from Brussels.

- Unauthorised gas offtakes by oblgazes for balancing that use technological gas free-of-charge making losses for Ukrtransgaz¹⁴.

If not resolved and not having the support from Naftogaz group and/or state budget even these two factors may lead to significant losses to MGU and even bankruptcy of the company in the next 6 months after unbundling. Projected volumes of Russian transit, transit tariff as well as revenues will be crucial factors to long-term sustainability and predictable cash-flow of MGU. It will also have significant impact on attracting of foreign investors into financing of modernisation of Ukrainian GTS that had been built in 70-80s and requires technological upgrade to compete with new Russian pipelines that were estimated by Ukrtransgaz at about USD 5 bn in 2013¹⁵.

2.4 The destiny of Naftogaz after unbundling: projections

Being left without its most valuable asset – Ukrainian GTS – that has been generating ~ 40% of group revenues Naftogaz will be in need of further restructuring of its business to continue sustainable operations.

First, the company will still be an owner of **underground gas storages** as the latter were excluded from unbundling process in the latest CMU decision. In turn, Naftogaz may execute significant market power in imports and wholesale trading of natural gas as storages are important factor for trading to gain from summer-winter price differential domestically and cross-border trade with the EU for flexible supplies during winter. But may be storages will also be separated from Naftogaz to SSO operator as it referred in natural gas market law and being investigated by the Government.

Second, Naftogaz will remain a strong **player on wholesale market** delivering the majority of imports from the EU into the country. However, its share on direct gas supplies to industrial consumers not significant and company has to strengthen its position as large wholesale supplier to compete with other traders.

Third, unbundling of the company will inevitably raise a question of a **special regime of PSO** (public service obligations) as a company is obliged by the law to supply gas to residential consumers and district heating companies that supply heat to population at regulated prices that are loss-making for the company. The Government will have to make a decision whether to keep PSO prices and compensate the difference from the budget or finally introduce the competitive prices at retail segment of gas market following demands of the IMF.

Chapter 3 Consequences of Naftogaz unbundling for different segments and actors of Ukrainian gas market

Implementing one of the cornerstone elements of the EU 3rd Energy Package in Ukraine will have a number of long-term consequences for national gas market as it will mark the ability of Ukrainian authorities to develop a competitive environment in gas transportation, the sector that was always

¹⁴ According to Ukrtransgaz estimates, 100-150 mln m3 of natural gas is off-taken monthly by distribution system operators from the TSO network without payment due to a loophole in acting GTS Network Code.

¹⁵ Calculations made by Mott McDonald for Ukrtransgaz in 2013 assuming transit volumes between 60 – 110 bcm/a (<https://www.epravda.com.ua/news/2013/06/4/377923/>).

sensitive to political interference that was conducting for populist reasons and high-level political corruption related to servicing of Russian gas transit flows to Europe.

These consequences have two obvious dimensions: (a) domestic that serves the natural gas demand of populations and industrial consumers and (b) external, linked to a role of Ukraine as one of the main transit route for Russian gas as well as attempts of Ukraine to get of Russian gas dominance in import supplies, diversify imports by interconnecting with European gas infrastructure and develop itself as a trading gas hub in CEE region.

3.1 Domestic gas market after Naftogaz unbundling

Table 3 Comparison of transportation tariffs via Ukrainian GTS and Nord Stream 1

Actors / Segment	Production	Trade	Gas transmission	Distribution & supply
Gas extraction companies	<ul style="list-style-type: none"> Competitive access to GTS / storages on daily basis 			
Importers / Traders		<ul style="list-style-type: none"> New supply routes Predictable trading rules and TPA access Development of modern trade systems Re-opening market for Russian imports (Gazprom) Elimination of Naftogaz monopoly in PSO segment 		<ul style="list-style-type: none"> Opening of retail market
Government		<ul style="list-style-type: none"> Security of supply 	<ul style="list-style-type: none"> Securing gas transit revenues Sustainability of GTS system 	<ul style="list-style-type: none"> Pressure to resolve PSO problem Pressure to resolve oblgazes unauthorized offtakes of gas from GTS
Oblgazes			<ul style="list-style-type: none"> New rules of GTS – GDS network balancing 	<ul style="list-style-type: none"> Elimination of supply monopoly Operational and financial unbundling at DSO level

Population				<ul style="list-style-type: none"> • Higher but fair retail prices • Better quality of supply
Industrial consumers		<ul style="list-style-type: none"> • Diversification of suppliers on competitive market • Competitive prices 	<ul style="list-style-type: none"> • Transparent access to GTS 	

Source: Own analysis

3.1.1 Production

Ukraine has vast resources of natural gas and covering around 65 per cent of national gas consumption by own production (21 bcm in 2018). Domestic production dominated by Naftogaz extraction subsidiary – UkrGasVydobuvannya JSC – that controls around 70% of the market however having stagnating extraction volumes due to lack of investments caused by regulated price environment (all state-produced gas must be sold to population at regulated PSO prices). After liberalization of gas wholesale trade there also was observed fast growth of private gas production companies that received possibility to sell domestically extracted gas on competitive market prices.

In principle, separation of TSO from Naftogaz structure will have no significant impact on domestic gas production segment as since 2015-16 energy regulator developed and implemented the necessary regulatory framework of access to gas transmission infrastructure according to EU rules (GTS Network Code, balancing rules, an others), including daily balancing of GTS. Already Ukrtransgaz has been testing this system and interviewed production companies stated that they are receiving transparent and non-discriminatory access to GTS and storage facilities.

However, Association of Gas Producers of Ukraine (AGPU)¹⁶ consider Naftogaz unbundling and separation of TSO as a very **important side factor** that may provide sufficient guarantees on **making impossible any distortions of TPA mechanism from the Government side** linked with possible conflict of interests and attempts to interfere into private segment of gas extraction market. In general it would be positive message for potential foreign investors (though not the central one like licencing, taxation and access to gas deposits) to invest into gas production in Ukraine securing the option that they would always be possible to freely transport and sell extracted gas either in Ukraine or other countries using GTS infrastructure.

3.1.2 Trade

As was mentioned above introduction of EU-based regulation for non-discriminatory access to gas transmission infrastructure was favouring not only to gas producers but triggered liberalisation of natural gas imports, wholesale trade and supply to large commercial consumers of gas that consume around 9 bcm each year (out of total 32.3 bcm).

¹⁶ The members of AGPU are the largest state gas producing company UkrGasVydobuvannya JSC (Naftogaz subsidiary) and major private producers (DTEK Naftogas, Burisma, Ukrnaftoburinnya, Geo Alliance Group, Smart Energy, KUB-Gas and Poltava Petroleum Company).

Currently, Ukrtransgas creates no significant barriers to imports and wholesale gas trade inside the country so after new TSO company will become operational it will impact on gas traders with the procedures on GTS access that are quite developed at the moment. Hence, if MGU will follow **'business-as-usual'** behaviour it would already sufficient for free gas trade at wholesale segment including re-entering the wholesale market by Russian Gazprom as it will be completely liberalized¹⁷.

Separation of a new TSO may also stimulate the new Government to finally **get rid of regulated prices on natural gas for direct supplies for population and district heating companies** that supply heat to population under so-called PSO (public service obligations regime). As Naftogaz will remain without its traditional gas transit 'milch cow' it may have gone bankrupt within a few months after separation of GAS TSO LLC branch. Plus, the forthcoming pressure from the IMF that has been demanding Ukraine to eliminate regulated prices in retail segment of gas market and open it for competition starting from 01 January 2020 may also stimulate PSO elimination and transferring to targeted housing and utilities subsidies instead to support vulnerable population (from 01 May 2020 PSO is going to be cancelled according to the letter of intent sent to the IMF in December 2018).

3.1.3 Domestic transportation

The more serious threat for a new TSO and domestic gas transportation segment comes from a loophole in GTS Network Code that legally allow for regional distribution gas companies not to pay to Ukrtransgas for balancing services and gas used for this purpose. Currently, being a part of Naftogaz, TSO operator could cope with the situation just accumulating the debts which over the last 3 years reached more than UAH 40 bn (USD 1.5 bn) leading to a crisis financial situation to Ukrtransgaz.

Being separated from Naftogaz parental company and having questionable long-term prospective for Russian transit volumes new TSO will have quite gloomy projections for entering loss-making zone in domestic transportation segment struggling with (a) politically motivated loophole for oblgazes to save balancing payments to TSO and make unauthorized gas withdrawal from GTS system¹⁸, and (b) artificially low domestic gas transportation tariffs that at least do not take into account needs to invest in maintenance and modernisation of domestic gas transmission pipelines.

3.1.4 Distribution and supply chains

The need in making new TSO viable in long-term and change of political landscape this year may **motivate the Government to finalise the unbundling reform of regional gas distribution companies** (split by supply company and DSO operator) known in Ukraine as oblgazes. Unbundling process, similar to the one with Naftogaz, has started in 2015 and resulted in legal unbundling between distribution and supply activities for 38 out of total 44 oblgazes in the country. However, de-facto, attempts to fully separate these companies in terms of operational control were failing due to political intervention as the majority of oblgazes (20) belong to Ukrainian oligarch Dmytro Firtash RGK (Regionalna Gazova Kompaniya) Company with non-transparent corporate structure. Until this year Firtash has had good political connections with ruling coalition and managed to block any attempts of the regulator and Government to complete unbundling process.

¹⁷ However, political background for such a decision remain unclear. From one side, it may be an element of gas transit deal, another considerations may be related to getting as cheapest gas imports as possible or setting some kind of import duties on Russian supplies if they would be non-welcomed by domestic public opinion.

¹⁸ Oblgazes, however, have been claiming that due to low distribution tariffs set by a regulator they have to do this for not being loss-making.

Apart of structural problems, new TSO separation may cause the long-awaited **changes to GTS Network code** that will make DSOs functioning more transparent:

- Eliminate a possibility to oblgazes to withdraw gas from GTS on free-of-charge mode;
- Oblige each oblgaz to have confirmed gas supplier,
- Enable separate financial accounts for oblgazes to make them more transparent and accountable in use of tariff revenue,
- Create a single data hub that will ensure the normal functioning of the retail gas market - a single base of gas subscribers, transparent accounting of gas consumption and control over housing and utilities subsidies, mechanism for residential consumers to freely choose a retail supplier etc.

Distribution tariffs have already been increased significantly¹⁹ this month starting from 01 November 2019 reflecting the fact that new GTS TSO will be a separate undertaken and as a chance for oblgazes to receive financial support for required investments into gas distribution grids.

3.2 Consequences for signing of new gas transit contract with Russia after 2020 and perspectives of revival of gas imports from Russia

Effective Naftogaz unbundling and appearance of independent TSO of Ukrainian GTS is considered as extremely important prerequisite for successful negotiation with Russia over continuation of Russian gas transit over Ukrainian route after 2020 when acting transit contract will terminate. Also, a 'real' independent TSO would be highly beneficial for Ukraine in terms of netter interconnection with EU gas markets and, thus, netter security of gas supply, especially against the background of uneven results of gas transit talks as of 01 January 2020.

3.2.1 Russian gas transit to Europe (new contract after 2020) and perspectives of imports from Russia

The first round of gas negotiations in Brussels on end-September resulted in joint understanding that all the parties (EU, Ukraine and Russia) will be in favour to develop new contractual framework with new Ukrainian TSO under standard EU rules. Therefore, firm intention of Ukrainian Government to finalise Naftogaz unbundling prior to the end-2019 has already had positive impact on negotiations in meaning that it already strengthened Ukrainian bargaining position and would mitigate the chances for extreme scenarios where the parties will have no contract after 01 January 2020 at all and interrupted Russian gas supply to European consumers.

Further development of negotiations will, inter alia, depend on the pace of new TSO certification and readiness of the parties to discuss other than very long-term transit contractual solutions. However, even when MGU will not be certified in time temporary solutions will be possible like a 1-year prolongation of current gas transit contract or application of temporary regimes like 'winter packages' sample to 2014-2015 heating season arrangements.

¹⁹ The range is from 15% to 3.8 times depending on a specific oblgaz. Oblgazes have regulated 2.5% margin inside the distribution tariff that (as claimed) not sufficient for modernization of gas distribution networks.

However, more realistic option would be signing of a kind of mid-term contract between a new Ukrainian TSO as one signing party and Russian Gazprom – as another for a timeframe of 3-5 years, namely the period needed for Russia to completely accomplish and put into full operation its two new gas transit pipeline to EU markets – Nord Stream 2 and the 2nd string of TurkStream pipeline. It may be expected that Gazprom would book around 40 – 60 bcm/a of Ukrainian GTS capacities signing an (a) interconnection agreement with MGU, and (b) gas transit contract under EU rules that may contain some firm and flexible part.

Additional strengthening of Ukrainian position to opt for higher transit volumes have recently arisen from the General Court of EU decision to remain acting EU 3rd Energy Package limitation on OPAL – an onshore pipeline that is interconnecting Nord Stream 1 with its markets in CEE and Southern Europe. If extended to a ‘twin’ EUGAL pipeline this decision may opt for additional need for Gazprom to use Ukrainian GST at up to 30 bcm/a.

Any long-term contract solutions with Russia look not likely due to its clear strategy to use bypassing gas transmission infrastructure, thus, making the latest EC proposal to conclude a 10-year contract highly non-realistic.

Another open related question is revival of gas imports from Russia. At one hand, this option may be optional to trade-off with Russians on bigger gas transit volumes in long-term, at another – any kind of ‘package’ agreements with Russia are quite risky due to often violations in the past. However, new TSO will have no technical and legal limitations to start importing Russian gas, probably, formally fulfilling decision of the Stockholm arbitrage to buy at least 4.5 bcm of gas from Russia until the end of 2019.

3.2.2 Cross-border trade with the EU countries (reverse flows and peak demand balancing) and integration of new TSO into ENTSOG

Successful regulation and functioning of a new TSO operator could also positively contribute to better interoperability of Ukrainian and neighboring EU countries by developing necessary interconnection infrastructure as a result of financial and operational independence of new TSO, and, as a result, contribute to better security of gas supply to Ukraine and development of Ukraine as regional gas trade hub in CEE region given its large underground gas storage that are always demanded during winter peak consumption seasons. To large extent, successful integration of new Ukrainian TSO into system of European gas transmission networks (ENTSOG) will be optional to a long-term financial sustainability of MGU, effective prevention of government interference into tariff and investment decisions of the operator as well as its ability to guarantee transparent and non-discriminatory access to GTS facilities to European gas companies.

3.2.3 Imports of US LNG via Poland

Ability of new TSO to be effectively interconnected with the European gas transmission and LNG infrastructure will be crucial for getting an access to alternative sources of gas supply like the US LNG that may come from LNG terminals in Poland, Lithuania or Croatia. The main prospective transit route of US LNG is seen from Poland LNG terminal Świnoujściu having enabled political back-up from the US and Poland to grant an access to Ukraine to additional LNG volumes. However, for getting bigger volumes of LNG (currently they are limited by ~ 1 bcm to due insufficient available Poland GTS capacities) MGU jointly with its Poland counterpart GAZ-SYSTEM S.A. has to eliminate this limitation and build sufficient Poland-Ukraine interconnector.

Annex I Detailed overview of Naftogaz unbundling progress, 2014 – 2019

The process of separation of the Ukrainian gas transportation system (GTS) operator (currently, Ukrtransgaz JSC) from production and supply branches of national oil and gas company 'Naftogaz of Ukraine' NJSC ('unbundling' in legal terms) has been initiated almost 9 years ago. In February 2011 Ukraine joined the Energy Community Treaty committing itself to implement its provisions (specific EU regulations), inter alia, to ensure that all integrated gas companies should separate its businesses on gas transmission networks from other activities using three possible models:

1. **Ownership Unbundling (OU)**: an integrated gas company completely sells off its gas transmission networks to a third party company or transmission system operator (TSO) and is not allowed to hold a majority share into TSO and / or interfere in the TSO work at operational level;
2. **Independent System Operator (ISO)**: an integrated gas company may formally keep ownership on own gas transmission network but must leave the entire operations, maintenance and investments etc. related to the networks to a third-party independent TSO.
3. **Independent Transmission System Operator (TSO)**: an integrated gas company may either own and operate the gas transmission network but must do so through a subsidiary TSO that is functionally independent from a parent company and supervised by an energy regulator.

Specific legally binding provisions for the gas market reform, including framework ones for unbundling, were stipulated by the Law On the Natural Gas Market approved in April 2015. Later on, in July 2016, the Cabinet issued a detailed Action Plan of Naftogaz unbundling²⁰ including a step-by-step separation of gas transportation and storage activities from its vertically integrated business according to OU unbundling model and even established of 2 new companies²¹:

- **'Magistralni Gazoprovody Ukrayiny' (MGU or Trunk Pipelines of Ukraine)** – TSO company, and
- **'Pidzemni Gazoshovyshza Ukrayiny' (PGU or Underground Gas Storages (UGS) of Ukraine)** – storage system operator (SSO) company

Unfortunately, implementation of the above-mentioned plan has been stuck for more than 3 years into hostile disputes between the Cabinet of Ministers and Naftogaz management over the practical implementation of the selected OU model in part of execution of ownership rights on GTS assets and operational control over new TSO company. In parallel, Naftogaz initiated internal restructuring of the holding (with a support of PwC consultancy) to accomplish the necessary technical steps for transferring assets, staff and business operations of GTS and UGS from Ukrtransgaz to new separate branches inside the company that could have been separated later into independent operators, particularly:

- **'Transmission system operator (TSO) of Ukraine'** – for the management of GTS assets and business processes related to both of natural gas transit over Ukraine territory and transportation to domestic clients,

²⁰ The Cabinet Resolution No 496 as of 01 July 2016.

²¹ The Cabinet Resolution No 800 as of 09 November 2016.

- 'Storage system operator (SSO) of Ukraine' – centralizing assets, management, information systems and business processes related to 11 UGS facilities across Ukraine.

Between February and June 2019 development of a 'TSO of Ukraine' branch as a proxy of a new TSO company has undergone the final optimizations and expansions stage, namely consolidation of internal departments, establishment of a new management and control system (5 separate branches were transformed into 4 regional centers) - organizational structure and regulatory base were aligned with 'standard' EU practices. On July 01, 2019 after a month of testing 'TSO of Ukraine' has been legally transformed into a 'GAS TSO LLC' company – a 100% subsidiary by Ukrtransgaz JSC – that will be separated from Naftogaz group on 01 January 2020.

In the meantime, the double elections in May – July 2019, change of the ruling party and formation of the new mono-coalition Cabinet of Ministers in Ukraine (CMU) has finally ended the legal deadlock on the ultimate model of Naftogaz unbundling. On September 18, 2019 the Cabinet adopted new 'hybrid' decision²² that designated an ISO model for being implemented imposing quasi-concession ownership for GTS assets by a new TSO with a 15-year transition period to OU-type ownership (see, sub-chapter 'Description of the legal model' for details).

²² The Cabinet Resolution No 840 as of 18 September 2016 repealing Resolution No. 496.

Annex II EU gas market acquis communautaire that has to be implemented in Ukraine

1. **Directive 2009/73/EC** of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC,
2. **Regulation (EC) No 715/2009** of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005,
3. **Council Directive 2004/67/EC** of 26 April 2004 concerning measures to safeguard security of natural gas supply,
4. **Regulation (EU) 2015/703** of 30 April 2015 establishing a network code on interoperability and data exchange rules,
5. **Commission Regulation (EU) 2017/459** of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013, and
6. **Commission Regulation (EU) 2017/460** of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas.