Annual report on contractual congestions at interconnection points of the Energy Community Contracting Parties

January 2023

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INTRODUCTION

1. About ECRB

The Energy Community Regulatory Board (ECRB) operates based on the Energy Community Treaty. As an institution of the Energy Community ECRB advises the Energy Community Ministerial Council and Permanent High Level Group on details of statutory, technical and regulatory rules and makes recommendations in the case of cross-border disputes between regulators. [1] ECRB is the independent regional voice of energy regulators in the Energy Community. ECRB's mission builds on three pillars: providing coordinated regulatory positions to energy policy debates, harmonising regulatory rules across borders and sharing regulatory knowledge and experience.

2. Background

Congestion management procedures in the event of contractual congestion have been included in the *acquis communautaire* (acquis) of the Energy Community, in the form of a Decision of the Permanent High Level Group,[2] on 12 January 2018. The deadline for implementation of this decision was set to October 2018. According to paragraph 2.2.1(2) of the Annex 1 to Regulation (EC) 715/2009 on conditions for access to the natural gas transmission networks, as amended at EU level by Commission Decision (EU) 2012/490 of 24 August 2012 and Commission Decision (EU) 2015/715 of 30 April 2015 [3] (hereafter 'CMP Guidelines'), the ECRB has to publish by 1 June of every year, commencing with the year 2021, a monitoring report on congestion at interconnection points with respect to firm capacity products sold in the previous year, taking into consideration, to the extent possible, capacity trading on secondary market and the use of interruptible capacity.

The present report serves as a basis for implementation of firm-day-ahead use-it-or-lose-it mechanism ('FDA UIOLI'), as prescribed by paragraph 2.2.3 (1) of the CMP Guidelines. Namely, the national regulatory authorities (NRAs; regulators) should

[1] www.energy-community.org. The Energy Community comprises the EU and Albania, Bosnia and Herzegovina, North Macedonia, Georgia, Kosovo*, Moldova, Montenegro, Serbia and Ukraine. Armenia, Turkey and Norway are Observer Countries. Throughout this document the symbol * refers to the following statement: This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Advisory Opinion on the Kosovo declaration of independence.

[2] Decision No 2018/01/PHLG-EnC of the Permanent High Level Group of the Energy Community of 12 January 2018 on amending Annex I to Regulation (EC) No 715/2009 on conditions for access to the natural gas transmission networks, as amended at EU level by Commission Decision (EU) 2012/490 of 24 August 2012 and Commission Decision (EU) 2015/715 of 30 April 2015 (https://www.energy-community.org/dam/jcr:c7dde5f9-a070-48c9-9a9e-a07677e7206f/Decision_2018_01_PHLG.pdf).

[3] ANNEX I to Regulation (EC) NO 715/2009 on conditions for access to the natural gas transmission networks, as amended at EU level by Commission Decision (EU) 2012/490 of 24 August 2012 and Commission Decision (EU) 2015/715 of 30 April 2015 https://www.energy-community.org/dam/jcr:d0f7d046-57cb-479a-a39a-9bce06065155/Regulation_715_2009_GAS.pdf

require transmission system operators (TSOs) to apply FDA UIOLI if, on the basis of this report, it is shown that at interconnection points (IPs) demand exceeded offer at the reserve price when auctions are used in the course of capacity allocation procedures in the year covered by the monitoring report for products for use in either that year or in one of the subsequent two years:

(a) for at least three firm capacity products with a duration of one month or

(b) for at least two firm capacity products with a duration of one quarter or

(c) for at least one firm capacity product with a duration of one year or more or

(d) where no firm capacity product with a duration of one month or more has been offered.

In the following years, if the ECRB report on contractual congestions shows that a situation described above is unlikely to reoccur in the following three years, the NRAs may decide to terminate the FDA UIOLI mechanism.

Due to Russian aggression against Ukraine and the introduction of the martial law, the information on capacity bookings and usage became available at the later stage. Therefore the present report on contractual congestions is published with a delay.

3. Scope and methodology

The concept of contractual congestion is defined in Article 2(21) of the Regulation (EC) 715/2009 as a situation where the level of firm capacity demand exceeds the technical capacity. The procedures set by the CMP Guidelines target reducing contractual congestions, if identified. In the case the transmission capacity is allocated via auctions, it is clear that a contractual congestions exists, if the auction is cleared with an auction premium.

In the Energy Community Contracting Parties (hereafter 'Contracting Parties'), capacity allocation was not performed based on Regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) 984/2013 (hereafter 'CAM NC') in the reporting period, except for Ukraine where the CAM NC is applied since June 2020. Therefore, the information on actual capacity demand was provided by the NRAs of the Contracting Parties to the extent it was available to them. For Ukraine, the information on the results of capacity auctions that were held in 2021 were also provided. In addition to capacity demand, other possible indicators of contractual congestion as well as the implementation of the CMP Guidelines were analyzed.

The present report covers IPs between adjacent entry-exit systems between the Contracting Parties with an operational gas market as well as between the Contracting Parties and neighboring EU Member States, whereby the information on the latter is available only for the Contracting Parties' side of the IP.

The report reflects the status quo with regard to capacity demand in the years 2021, 2022 and 2023. The information on the CMP Guidelines' implementation is related to 2021.

FINDINGS

1. Capacity bookings

In 2021, most of the capacity for the years, 2021, 2022 and 2023 at IPs between the Contracting Parties and between Contracting Parties and EU Member States was allocated based on long - term contracts, except in Ukraine, where all capacity is allocated in accordance with CAM NC.[4] In two Contracting Parties, Serbia and Ukraine, also a capacity of shorter duration was allocated in 2021.

- **In Serbia** the capacity at IPs is allocated based on the Serbian TSO's invitation published on its web page and corresponding applications of network users. In case demand is higher than the available capacity, the allocation is done proportionally to the requests – meaning pro-rata allocation applied in case of congestion). However, the Serbian transmission system operator excluded the entry point Horgos from the "Invitation for contracting annual firm capacity" in 2021. Capacity is offered for the next three gas years.

  Thus, there are four IPs analyzed **in Serbia**, where nearly 90% of technical capacity was booked by yearly products at the IP Kiskundorzma 2 (exit point from Serbia to Hungary), the IP Zajecar (entry point from Bulgaria to Serbia), and around 80% of technical capacity was booked by yearly products at the IP Zvornik (exit point from Serbia to Bosnia and Hercegovina). Four shippers ordered yearly capacity at the IP Zvornik and IP Zajecar and three shippers - at the IP Kiskundorzma 2. At the IP Horgos (entry point in Serbia from Kiskundorzma in Hungary) only daily products were booked by one shipper; the share of booked capacity in technical capacity was not more than 4% in all months except for December when it was 22%.

- **In Ukraine**, starting from 6th of July 2020, all IP capacities have been allocated via auctions in accordance with the CAM NC requirements. At the border with Poland, the GSA capacity allocation platform is used, at the other borders the

[4] Since 06.07.2020, all capacities at IPs are allocated in line with the CAM NC. However, it has to be noted that the allocated capacity is not bundled at IPs, as required by Article 19 of CAM NC. The Ukrainian transmission network code stipulates rules for bundling of capacity at these points, according to which bundling is subject to agreement of neighboring transmission system operators. Such agreements were not in place in 2021.

RBP capacity allocation platform. All types of products (yearly, quarterly, monthly, daily and intra-day) were offered and booked at almost all IPs.

During auctions held in 2021 **in Ukraine** none of the criteria prescribed by paragraph 2.2.3 (1) of the CMP Guidelines were met. Auction premium was in place for 52 daily and 2 monthly auctions. Firm capacity products with a duration of one month were offered at all IPs (where there was a possibility within the requirements of interconnection agreements) and with the duration of one year were offered at some IPs with Moldova. The highest number of participants in the capacity auctions was four, which is twice as low compared to the previous 2020 year.

The information on capacity bookings at IPs in Serbia and Ukraine is to a certain extent available in Annex I of this report. For all other IPs in the Contracting Parties, only information on technical capacity or flows may be found in Annex I.[5] Some information on the Observer Country Armenia is also available in this Annex.

Based on the information on capacity bookings in the Contracting Parties in 2021, it can be concluded that there were no contractual congestions on the analyzed interconnection points.

2. Other possible indicators of contractual congestion

In the absence of the CAM NC implementation in all Contracting Parties, except Ukraine, which would allow using auction results as the main source of data for identification of contractual congestion, another set of indicators was agreed by the ECRB Gas Working Group. These indicators should point out to a demand for capacity exceeding the offer. In this respect, the following aspects were analyzed for the IPs of the Contracting Parties:

- ✓ Whether there was any unsuccessful capacity request;
- ✓ Whether there was any non - offer of capacity;
- ✓ Whether there was any interruptible capacity offer and, if so, whether there was any booking of interruptible capacity; and
- ✓ Whether there was any trade of capacity on secondary market.

The responses reveal that there was no unsuccessful capacity request for the IPs of the Contracting Parties. The transmission system operators of the Contracting Parties did not publish any information on the occurrence of unsuccessful capacity request for firm capacity products.

[5] The NRAs also provided data on monthly physical flows and, in some cases, on daily peaks. This information was used as a support to the analysis, but is not included in the report.

Non- offer of firm capacity could indicate that the firm capacity is fully booked or that a part of capacity is withdrawn from the market, whereby the first indication may point out to an existence of contractual congestion and the second reveals the lack of third party access to the transmission capacity. In the Contracting Parties, there was no indication of the fully reserved capacity.

Booking of interruptible capacity at an IP, other than for backhaul, may also suggest that capacity demand exceeds capacity offer. It is also a requirement of Article 2.2.1 of the CMP Guidelines to take into consideration the use of interruptible capacity when monitoring congestions at IPs.

In Serbia, at the IP between Hungary and Serbia (Horgos) 2,672,802 kWh/day of yearly interruptible capacity was booked in the gas year 2020/2021 out of 153,900,000 kWh/day offered. At the mentioned IP, monthly interruptible capacity of 6,649,229 KWh/day (4% of the offered amount) in April and 2,019,271 KWh/day (1% of the offered amount) in May was booked in 2021. Daily bookings of interruptible capacity took also place at the IP Horgos - 1,584,831 KWh/day or 1% of the offered amount. The reason for using interruptible capacity in Serbia is of procedural nature. Namely, according to the applicable network code, the TSO offers the same amount of firm and interruptible capacity for all capacity products. If network users miss the deadline for requesting firm capacity, they request an interruptible capacity at a later stage, but this does not mean that all firm capacity was already booked.

In Ukraine, capacity at the VIP «GCP Gas-System/UATSO» (entry from Poland), IP Uzgorod (entry from Slovakia), VIP Bereg (entry/exit to/from Hungary), IP Orlovka-Isaccea I (entry from Romania) is offered on interruptible basis, as prescribed by the relevant interconnection agreements. However, according to the regulatory authority of Ukraine, these offers of interruptible capacity do not point towards contractual congestions. Rather, capacity is offered on interruptible basis due to the conditions of Interconnection agreements signed between TSOs.

In the other Contracting Parties, no interruptible capacity was offered.

ECRB investigated whether there was any trading of IP capacities on the secondary market in 2021. Based on the information provided by the NRAs, there was no such a commercial activity in the Contracting Parties.

Finally, in addition to indicators pointing out to the presence of contractual congestions, the analysis of capacity used by network users along with maximal technical availability was conducted. This information complements the figures on bookings and enables the full overview of the IPs' capacity demand.

Likewise, in Serbia at the mostly used IP Zvornik (SRB - BA) the highest share of peak demand in technical capacity was 77% in January 2021. At the IP Horgos – Kiskundoroszma (HU - SRB) it was 22% in January 2021, at the IP Zajecar (BG - SRB) – 39% in October 2021, at the IP Kiskundorzma 2 (SRB – HU) – 28%.

In Ukraine, exit points were much more used in 2021 than entry points. Daily peak of actual gas flow at the IP from Ukraine to Poland reached the level of technical capacities in winter and autumn months. The highest share of peak demand in technical capacity for exit IP to Slovakia was 34% in November, for exit IP to Hungary – 89% in September, for exit IP to Romania – 29% in January and for exit IP to Moldova – 86% in November.

3. Implementation of congestion management procedures

Application of congestion management procedures in the event of contractual congestion is an obligation introduced by the CMP Guidelines. Capacity made available after congestion management procedures has to be offered by transmission system operators in the regular allocation process. For the purpose of this report, the regulators were asked to provide an overview of the congestion management procedures implemented by their respective transmission system operators.

The responses showed that only in Ukraine CMP measures are stipulated in the applicable rules (transmission network code), namely a long-term use-it-or-lose-it mechanism, surrender of contracted capacity and oversubscription and a buy-back scheme. In practice, however, they would be hardly applied, due to the fact that the capacity offered via congestion management procedures should be firm. The transmission system operator, on the other side, concludes gas transmission contracts with network users only for interruptible capacity at the IP Hermanowize and Beregdaroc based on the signed interconnection agreements.

In all other Contracting Parties, none of the congestion management procedures was applied until June 2022.

CONCLUSIONS AND RECOMMENDATIONS

Having in mind that the CAM NC was not used for transmission capacity allocation in the Contracting Parties in 2021, the identification of possible contractual congestions was performed based on the information on actual capacity demand, provided by the NRAs of the Contracting Parties. In addition to capacity demand, other possible indicators of contractual congestion as well as the implementation of CMP Guidelines were analyzed.

Based on the information on capacity bookings in the Contracting Parties in 2021, it can be concluded that there were no contractual congestions on the analyzed interconnection points. Other possible indicators did also not point out to existence of contractual congestions. Therefore, with reference to Articles 2.2.1 and 2.2.3 of CMP Guidelines, **the ECRB concludes that the national regulatory authorities of the Contracting Parties do not have to request transmission system operators to apply firm day- ahead use-it-or-lose-it mechanism.**

On the other side, during this analysis, ECRB identified a number of obstacles stemming from data availability, consistency and reliability and **invites the transmission system operators to comply without delay with transparency related provisions of Regulation (EC) 715/2009 and, in particular, Annex I of that Regulation.**

Finally, **ECRB invites Governments, national regulatory authorities and transmission system operators of the Contracting Parties and, where relevant, neighboring EU Member States, to enable full implementation of the CMP Guidelines and the CAM NC on interconnection points between the Contracting Parties and between the Contracting Parties and EU Members States.**

ANNEX I - TECHNICAL AND BOOKED CAPACITY

Interconnection point	Information on capacity
IP Horgos (from Kiskundoroszma) **Hungary to Serbia**	Technical capacity: 153,870,164 kWh/day 64 daily products were booked in 2021 (January-April, November, December). The highest average daily product capacity was recorded in December- 33,632,942 kWh/day No other products were booked. In 2021, there was no booking of yearly capacity for the gas years 2022/2023 and 2023/2024.
IP Zvornik **Serbia to Bosnia to Herzegovina**	Technical capacity: 20,526,314kWh/day Booked yearly capacity in the 2021: 16,899,287kWh/day for January-March, 1,509,287kWh/day for April-September, 10,224,736kWh/day for October - December; four shippers booked yearly capacity. Three monthly products were booked (July, November, December) and 46 daily products (March, September and November). The highest average daily product capacity was recorded in November- 526,680 kWh/day In 2021, there was no booking of yearly capacity for the gas years 2022/2023 and 2023/2024.

IP Zajecar **Bulgaria- Serbia**	Technical capacity: 366,731,712kWh/day Booked yearly capacity: 330,053,520 kWh/day, three shippers
IP Kiskundorzma 2 **Serbia to Hungary**	Technical capacity: 245,765,592kWh/day Booked yearly capacity: 221,189,016 kWh/day, three shippers
IP Zdilovo – Kuystendil **Bulgaria to North Macedonia**	Technical capacity: 20,820,000 kWh/day
GCP Gaz-System/UA TSO (VIP) **Ukraine to Poland**	Technical capacity: 137,256,000 kWh/day. Yearly, monthly and daily products were booked. The biggest amount of capacity was booked as yearly product – 118,104,000 kWh/day. The biggest number of shippers booked the capacity was 9.
GCP Gaz-System/UA TSO (VIP) **Poland to Ukraine**	Technical capacity: 137,256,000 kWh/day. Monthly and daily products were booked. The biggest amount of capacity was booked as monthly product – 9,760,072 kWh/day. The biggest number of shippers booked the capacity was 2.
IP Budince **Slovakia to Ukraine**	Technical capacity: 287,280,000 kWh Yearly, monthly and daily capacities were booked. The biggest amount of capacity was booked by 6 network users as yearly product – 80,718,243 kWh/day.

IP Uzgorod - Velke Kapushany, Ukraine to Slovakia	Technical capacity: 2,989,840,000 kWh/day Yearly, monthly and daily capacities were booked. The biggest amount of capacity was booked as yearly product – 707,560,000 kWh/day. The biggest number of shippers booked the capacity was 3.
VIP Bereg Hungary to Ukraine	Technical capacity: 1,003,352,000 kWh/day . Quarterly, monthly, daily capacities were booked. The biggest amount of capacity was booked as monthly product – 215,917,520 kWh/day. The biggest number of shippers booked the capacity was 4.
VIP Bereg Ukraine to Hungary	Technical capacity: 519,232,000 kWh/day Yearly, monthly and daily products were booked. The biggest amount of capacity was booked with yearly product – 276,640,000 kWh/day. The biggest number of shippers booked the capacity was 10.
IP Orlovka - Isaccea I Romania to Ukraine	Technical capacity: 122,360,000 kWh/day. Only daily products were booked in three months.
IP Orlovka - Isaccea I Ukraine to Romania	Technical capacity: 203,224,000 kWh/day. Monthly and daily products were booked. The biggest amount of capacity was booked as monthly product – 59,584,000 kWh/day.
IP Oleksiivka Ukraine to Moldova	Technical capacity: 84,056,000 kWh/day. Yearly, monthly and daily products were booked. The biggest amount of capacity was booked as monthly product – 40,432,000 kWh/day.
IP Ananiv Ukraine to Moldova	Technical capacity: 84,056,000 kWh/day Not used in 2021.
IP Lymanske Ukraine- Moldova	Technical capacity: 7,660,800 kWh/day Not used in 2021.

IP Grebenyky **Ukraine to Moldova**	Technical capacity: 383,040,000 kWh/day. Yearly, monthly and daily products were booked. The biggest amount of capacity was booked with as monthly product – 120,657,600 kWh/day.
IP Kaushany **Moldova to Ukraine**	Technical capacity: 383,040,000 kWh/day Yearly, quarterly, monthly and daily products were booked. The biggest amount of capacity was booked with as monthly product – 63,680,400 kWh/day.

ANNEX II- INTERCONNECTION POINTS, CAPACITIES AND FLOWS IN GEORGIA AND ARMENIA

Interconnection point	Information on capacity
Russia- Georgia	Technical capacity: 174,912,000 kWh/day
Azerbaijan- Georgia	Technical capacity: 92,922,000 kWh/day
Armenia- Georgia	Technical capacity: 27,330,000 kWh/day Not used in 2020.
Georgia- Armenia[6]	Booked yearly flow in 2021: 25,836 GWh
Iran- Armenia	Booked yearly flow in 2021: 3,640 GWh

[6] Information on technical capacity for Armenian IPs is not available.