



ECRB Market Monitoring Report

Gas Wholesale Markets in the Energy Community

Reporting period: 2022

December 2023

Contents

INTRODUCTION.....	3
1. About ECRB	3
2. Background.....	3
3. Scope.....	3
4. Methodology	3
ANALYSIS	4
1. 2022 rise in wholesale prices and crisis response	4
1.1 Wholesale prices.....	4
1.2 Crisis measures	6
2. Market and system overview.....	7
2.1 Networks and System Operators	7
2.2 Gas demand and imports	8
2.3 Physical flows and transmission capacity bookings.....	9
2.3 Shippers	11
2.4 Wholesale market dominance.....	11
2.5 Balancing Network Code implementation	12
2.6 Storages	13
3. Transmission tariffs.....	13
3.1 Tariff Network Code implementation	13
Conclusions.....	15

INTRODUCTION

1. About ECRB

The Energy Community Regulatory Board (ECRB) operates based on the Energy Community Treaty. As an institution of the Energy Community¹, 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. 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, harmonizing regulatory rules across borders and sharing regulatory knowledge and experience. ECRB also has a number of legal responsibilities such as issuing opinions on draft certification decisions of Contracting Parties' regulatory authorities or monitoring the implementation of Network Code Regulations.²

2. Background

Market monitoring is a core element of regulatory responsibilities. Only in-depth knowledge of market performance, stakeholder activities and development trends allow regulators to create an effective market framework that balances the needs of market players and is able to promote competition, customer protection, energy efficiency, investments and security of supply at the same time. The relevance of regulatory market monitoring is not only recognized by the Energy Community *acquis communautaire* ('acquis') but is also since years a central ECRB activity.

3. Scope

The present report covers the Energy Community Contracting Parties ('Contracting Parties') with functioning gas markets: **Georgia, Moldova, North Macedonia, Serbia and Ukraine**. The information for **Bosnia and Herzegovina** was **not provided**. It describes the status quo of gas markets on wholesale level with the aim to identify potential barriers and discuss recommendations on potential improvements.

Additionally, two observer countries to the Energy Community, namely **Türkiye** and **Armenia**, are included in the report, where applicable.

Data presented in this report refers to year **2022**.

4. Methodology

Data and analysis displayed in this report is based on information provided by the regulatory authorities of the analyzed markets.

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 For more information on ECRB visit <https://www.energy-community.org/aboutus/institutions/ECRB.html>.

ANALYSIS

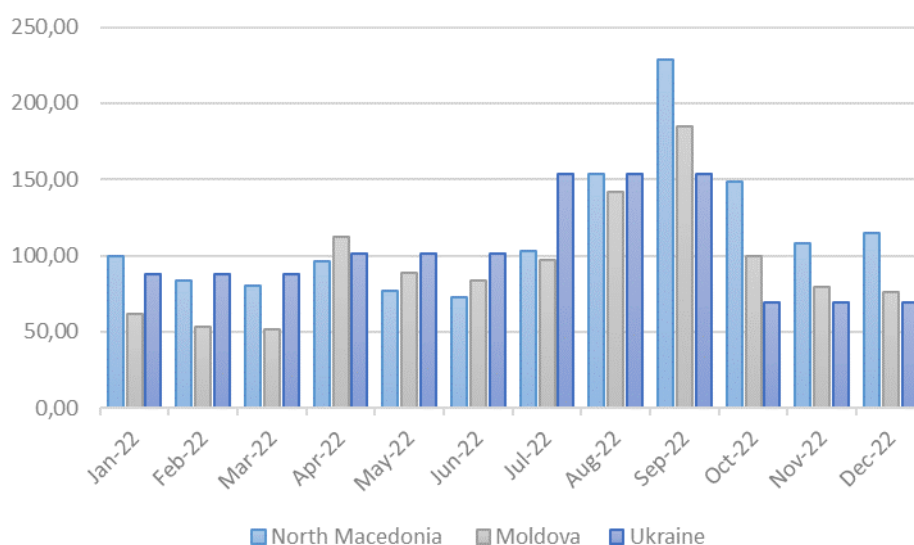
1. 2022 rise in wholesale prices and crisis response

1.1 Wholesale prices

Over the year 2022, the gas wholesale markets of the Energy Community Contracting Parties faced significant challenges, marked by volatile prices, supply disruptions, and growing concerns over security of supply. The drop in Russian pipeline gas supplies primarily drove the surge in global gas prices that characterises 2022³, which also reverberated across the markets in the Contracting Parties. In addition to the immediate impact on supply and prices, the Russian invasion of Ukraine has raised concerns over long-term energy security in the region. The reliance on Russian gas prompted countries to actively explore ways to diversify their energy sources and reduce their vulnerability and reliance on Russian gas. Additionally, the Contracting Parties implemented crisis measures, mostly of temporary nature, to respond to changes in the markets. Crisis measures are outlined in section 1.2 of this report.

As displayed in Figure 1 below, **weighted average import prices** were particularly high in the summer months of 2022, with the highest price being recorded in North Macedonia in September, amounting to 228,369 EUR/GWh. The levels of import prices in Georgia and Serbia are predominantly based on long-term contracts and confidential.

Figure 1 Weighted average import price in the Contracting Parties (in EUR/MWh)



³ ACER 2023 Market Monitoring Report, October 2023(https://www.acer.europa.eu/Publications/ACER_MMR_2023_Gas_market_trends_price_drivers.pdf)

In Armenia, the weighted average import price from Russia fluctuated between 15,277 EUR/GWh and 16,223 EUR/GWh in 2022⁴. Armenia also import gas from Iran, via the framework exchange deal gas-electricity, by which for imported 1m³ of gas, 3 kWh of electricity is returned to Iran.

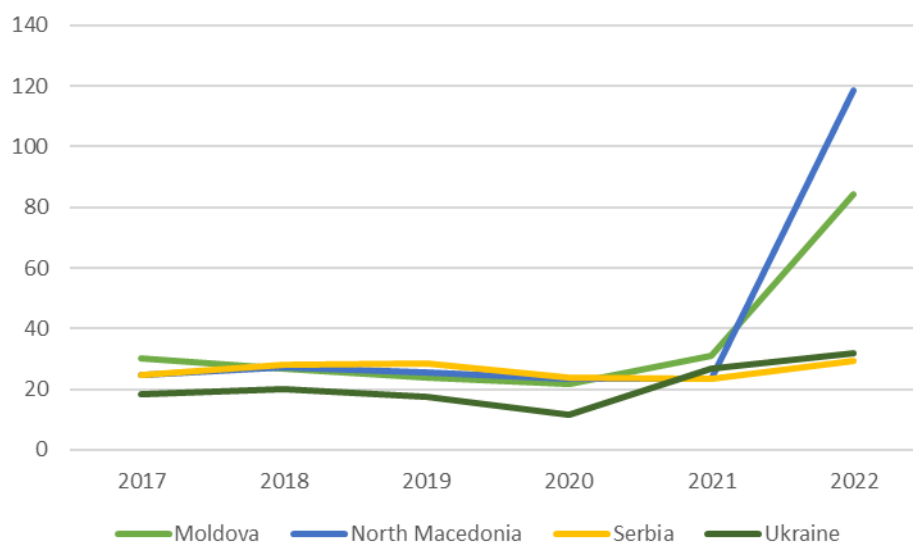
Table 1, as well as Figures 2 and 3 clearly display the rise in **average yearly gas wholesale sell prices** that occurred in 2022. Moldova again was significantly impacted, with the highest percentage change in the sell price in 2022, amounting to 254% when compared with 2019 pre-Covid prices, and 172% when compared with 2021 prices.

A significant price increase was also registered in Ukraine, where prices increased by 79% when compared to 2019, and by 18% when compared to 2021 levels.

Table 1 Average yearly gas wholesale sell prices in the Contracting Parties (EUR/MWh)

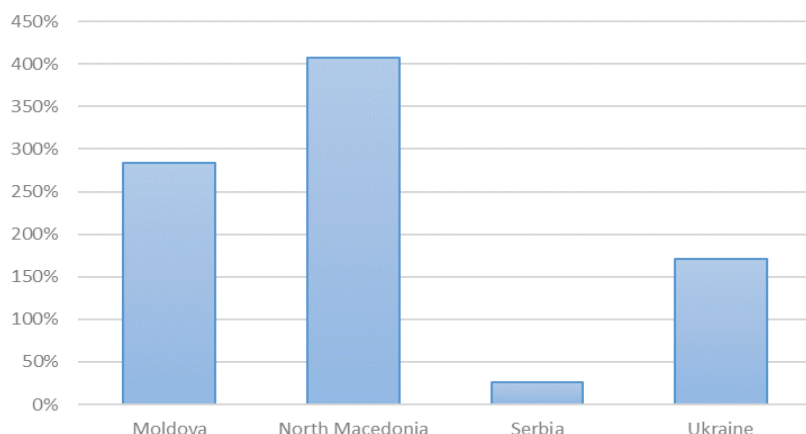
	2017	2018	2019	2020	2021	2022
MD	30.09	26.68	23.76	21.91	30.95	84.17
MK	24.60	27.04	25.36	23.97	NA	118.52
RS	24.51	28.03	28.53	23.97	23.46	29.29
UA	18.2	20.08	17.70	21.91	26.88	31.69

Figure 2 Average yearly gas wholesale sell prices in the Contracting Parties (EUR/MWh)



⁴ The contract price for import of natural gas from Russia to Armenia until April 1, 2022 was set at 165 USD/thousand m3, and from April 1, 2022, the mechanism for adjusting the import price by actual calories began to be applied, as a result of which, in the calculations of tariffs, as of April 1, 2022 175.21 USD/thousand cubic meter was included as import price of gas.

Figure 3 Change in average yearly gas wholesale sell prices in the Contracting Parties (year 2020-2022), in %



1.2 Crisis measures

- Moldova** has implemented a comprehensive set of crisis measures at both the wholesale and retail level. At the wholesale level, the Government approved a plan of measures to prevent and mitigate the impact of energy crisis, including the reduction of gas consumption and the creation of mandatory security stocks. Additionally, the Parliament ratified a loan agreement with the EBRD for the accumulation of strategic stocks. Diversification of gas supply was initiated, with Moldova obtaining gas from sources in Romania, Greece, and Bulgaria. At the retail level, the creation of a fund for reducing energy vulnerability has allowed for monthly compensations for natural gas, electric energy, and thermal energy consumption for vulnerable households. The National Regulatory Agency (ANRE) has also adjusted regulated gas prices to ensure the financial viability of suppliers with public service obligations. Moreover, public informational campaigns and specific actions outlined in Government decisions aimed to encourage energy savings and address potential gas supply limitations.
- Serbia** has implemented crisis measures at the wholesale level, by which the difference between the import price for gas or the price of gas produced in the country and the price at which this gas is sold to retail suppliers was temporarily covered from the state budget. In that way, the increase of end user gas prices was limited. There were no measures introduced on retail level.
- In **Ukraine**, crisis measures have been introduced at both the wholesale and retail level. At the wholesale level, the Cabinet of Ministers implemented a Public Service Obligation (PSO), governing gas trade to suppliers for the needs of heat and electricity producers, budget institutions, households, and consumers supporting defence efforts. This PSO is time-limited for specific categories. On the retail level, similar PSO measures were in place for different consumer groups. The beneficiaries of the PSO scheme on the retail level are suppliers, producers, households, and consumers deemed crucial for national defence.
- Türkiye** concentrated efforts in the diversification of supply through the Dörtyol, Etki and Saros Fsrü LNG Storage Facilities, as well as through natural gas imports with spot pipeline gas and long-term gas contracts. Additionally, Türkiye implemented storage obligations for underground natural gas storage facilities for import companies and wholesale companies.

2. Market and system overview

2.1 Networks and System Operators

Ukrainian single transmission system operator operates 33,088 km of network transmission network. The company *Gas Transmission System Operator of Ukraine* ('GTSOU') is a 100% state-owned limited liability company certified as an independent system operator. On distribution level, Ukraine operates 269,618 km of networks⁵. Out of 45 distribution system operators, one is entirely publicly owned, while 44 are of mixed ownership. Only six distribution system operators have less than 100,000 customers and both are unbundled from the supply activities.

Serbia has three transmission system operators managing 3,028 km of networks, whose total length increased by 489 km since 2020.

Table 2 Transmission system operators in Serbia

	Transportgas Srbija	Gastrans	Yugorosgaz
Network shares of the TSOs (in %)	83	13	4
Volume shares of the TSOs (in %)	30	69	1
Ownership structure of the TSO(s)	100% public	51% private 49% public	100% private

Only one of the Serbian transmission system operators- *Gastrans*, has been certified so far under the model of an independent transmission system operator.

In the distribution segment, there are 31 distribution system operators in Serbia, with 22,172 km of networks in 2022. Since 2020, 2,289 km of gas distribution pipelines was built. The great majority of distribution companies, 30 out of 31, has less than 100,000 customers. 21 distribution company is publicly owned, while 10 are in private ownership.

The transmission network of **Georgia** is 1,950 km long and is operated by one publicly owned transmission system operator that is still not certified⁶. There are 20 distribution system operators, predominantly privately owned, with 17 serving fewer than 100,000 customers, and none of them is legally unbundled. Between 2020 and 2022, Georgian gas distribution network increased by 1,200 km.

In 2022, **Moldovan** 1,683 km long transmission network was operated by two transmission system operators, both in private ownership ('*Moldovatransgaz*' and '*Vestmoldtransgaz*'). Only one of the transmission system operators, namely *Vestmoldtransgaz*, is certified. Moldova has 20 privately owned distribution system operators, out of which 17 are legally unbundled.

In **North Macedonia**, 210 km of transmission network is in operation, while the distribution companies operate only 71 km of gas pipelines. The transmission system operator *Nomagaz* is still not certified. All three distribution system operators are publicly owned and unbundled, each catering to less than 100,000 customers.

In **Türkiye**, transmission networks (17,423 km, without TANAP/TAP) are fully operated by a single publicly owned transmission system operator. Accounting and functional unbundling is implemented for the transmission system operator. Distribution networks (180,200 Km) are operated by 72 distribution

⁵ The number does not include the occupied territories of the country.

⁶ The plan is however to have it certified as an independent system operator.

system operators, all legally unbundled. Only one of the distribution system operators is in public ownership, the others are privately owned. In the period 2020-2022, around 23,033 km of distribution network was built.

In **Armenia**, transmission network (1,683 km) is fully owned by a single privately owned transmission system operator. On the distribution level, the networks are also operated by one distribution system operator in private ownership. The distribution network length in Armenia increased by 1,857 km between 2020 and 2022 to reach currently available 19,414 km of pipelines.

2.2 Gas demand and imports

Gas demand in the Contracting Parties and Observers, expressed as **Gross Inland Consumption**⁷, generally displays a downward trend in 2022, with figures decreasing significantly in all included countries except Georgia (+18% in a year). As displayed in Table 3 and Figure 4, a reduction of more than 30% occurred in North Macedonia and Ukraine, while Moldova registered a year-to-year decrease of 17% compared to the previous year. A less radical but nonetheless significant decrease also occurred in Serbia, with a 4.5% reduction.

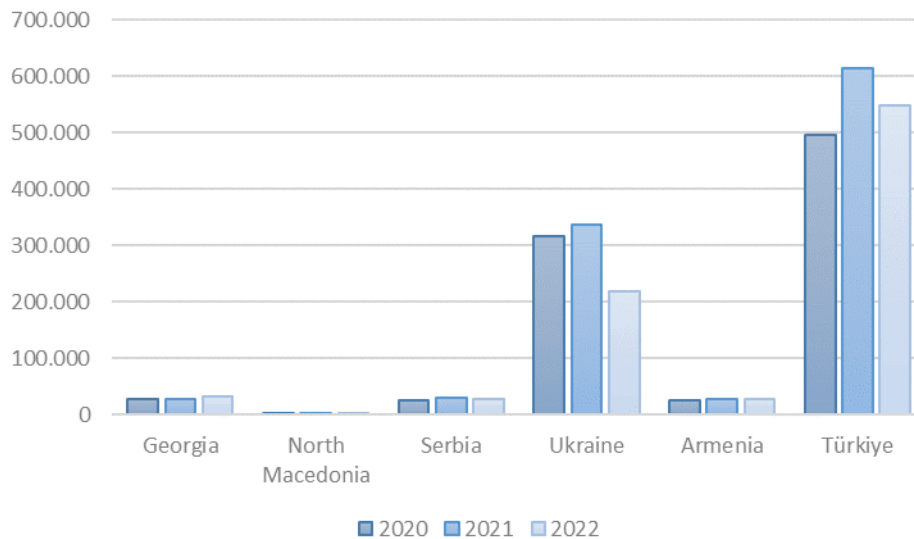
Table 3 Gross Inland Consumption in the Contracting Parties and Observers (MWh)

	2020	2021	2022	Δ 2021-2022
Georgia	28,173	28,383	33,553	+ 18%
North Macedonia	3,566	4,493	3,011	- 33%
Moldova	10,053	12,016	9,983	-17%
Serbia	25,748	29,576	28,203	- 4.5%
Ukraine	316,105	338,035	220,164	- 35%
Armenia	25,440	27,508	28,860	+5%
Türkiye	495,273	614,242	549,250	-11%

⁷ Gross Inland Consumption = Production + Imports - Exports + Storage variations.

Storage variation reflect the difference between opening stock level at the first day of the year and closing stock level at the last day of the year of stocks held on national territory. Indigenous Production reflects all dry marketable production within national boundaries, including offshore production. Production is measured after purification and extraction of NGLs and sulphur. The measurement excludes extraction losses and quantities reinjected, vented or flared. Production includes own consumption of a producer.

Figure 4 Gross Inland Consumption 2021-2022 (MWh)



Among the Contracting Parties, Moldova and North Macedonia rely entirely on **imports** to meet their natural gas demand⁸. Also Georgia is highly import dependant, with 99.5% of gas consumption being imported, with the majority (82.7%) coming from Azerbaijan, followed by 16.8% from Russia. Transited volumes were 28,348 GWh in the previous year. In Serbia, 92.7% of gas consumption was imported, with domestic production contributing to 7.3% of demand, a slight decrease from 10.6% in 2020. Serbia's annual pipeline import quantity was 32,916 GWh, 85% of which from IP Zaječar (BG-RS), and the remainder from the IP Horgoš (HU-RS). During 2022, Serbia transited 55,040 GWh of gas. Ukraine stands apart from other Contracting Parties, relying predominantly on domestic production, whose share in total demand increased significantly from 66.3% in 2020 to 87% in 2022. Pipeline import quantity decreased by 83% to 16,210 GWh, and transit quantities dropped by 62% to 19,871,892 GWh compared to 2020's 51,957,631 GWh.

In Türkiye, only 0.75% of the demand was covered by domestic production. The rest was imported from Russia (40%), Iran (17%), Azerbaijan (16%) and Algeria (10%). In Armenia, 100% of gas demand was covered by imports, of which 87.5% from Russia and 12.5% from Iran.

2.3 Physical flows and transmission capacity bookings

Table 4 below outlines the **physical flows** of natural gas at interconnection points (IPs) in 2022 for which the regulatory authorities provided the information. The Ukrainian regulator could not provide the summarized information due to martial law application, however the transparency platform of the GTSOU provides information on flows and capacity bookings per IP and year (<https://tsoua.com/en/transparency/test-transparency-platform>).

⁸ Bosnia and Herzegovina is also 100% import dependent, however this report does not include data on this Contracting Party.

Table 4 Physical flows of gas in 2022 (in GWh)

Contracting Party	IP	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Georgia	Azerbaijan	2,968	2,589	2,845	780	482	274	385	654	860	736	997	1,817
	South-Caucasus Pipeline	1,164	1,012	909	1,075	976	872	723	690	867	1,134	1,568	1,509
	Russia	4,522	3,604	4,233	1,870	1,641	1,633	1,517	1,563	1,648	1,793	4,088	5,880
Moldova	Alexeevca - entry	1,650	1,367	1,282	405	372	249	329	354	200	624	411	424
	Grebeniki - entry	4,099	3,620	4,193	1,891	1,282	1,340	1,429	1,422	1,444	1,161	1,219	1,256
	Tohatin - entry	0	0	0	0	0	0	0	4	0	0	0	443
	Căușeni - entry	0	0	0	0	0	0	0	0	0	0	0	732
	Limanscoe - exit	0	0	0	0	0	12	21	17	10	0	0	0
	Căușeni - exit	1,728	1,561	1,837	160	52	3	80	64	52	73	148	0
	Tohatin - exit	0	137	81	0	0	0	0	4	0	0	0	0
	Grebeniki - exit	0	0	0	0	0	0	0	0	0	0	0	45
	Zidlovo- entry	402	424	479	78	41	34	136	248	342	59	368	412
Norh Macedonia	Horgoš- entry	2,010	823	495	447	30	0	0	0	0	0	477	455
	Zvornik- exit	417	331	347	222	118	81	107	106	120	168	266	304
	Zaječar-entry	6,062	6,147	5,812	5,489	6,468	4,491	7,437	7,857	8,237	8,258	6,383	7,989
	Kiskundorozma- exit	3,265	3,286	3,455	3,352	4,531	3,234	5,543	6,179	6,495	5,716	3,120	4,276

In the Contracting Parties, capacity allocation was 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 Ukraine, Moldova and Serbia. However it has to be noted that, in Ukraine, 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 neighbouring transmission system operators. Such agreements were not in place in 2022. In Moldova, allocation of unbundled capacity on the Hungarian booking platform started in November 2022, while Serbian transmission system operator *Gastrans* used the same platform for allocation of non-exempted short-term capacity.

At all Serbian IPs, all capacities were booked as firm capacity. At IP Horgoš, capacities were mainly booked as daily products, with the exception of January, November and December 2022, when also monthly products were booked. On IPs Zvornik and Zaječar, mainly yearly products were booked, with occasional monthly products in selected months. In IP Kiškundorožma, capacities were booked through yearly and monthly products, with daily capacities being booked only in from September to December 2022. More details may be found in Annex I of this report.

Ukraine is the only Contracting Party that reported the existence of two Virtual Interconnection Points (VIPs), being VIP-Bereg (HU-UA) and GCP GAS SYSTEM/UA TSO (PL-UA).

2.3 Shippers

The number of **shippers** active at IPs in 2022 varies substantially among the Contracting Parties. Table 5 gives a detailed overview of their presence and distribution.

Table 5 Shippers at IPs of the Contracting Parties

Contracting Party	Shippers per IP
Georgia	Azerbaijan-SCP: 1
	Azerbaijan: 1
	Russia: 1
Moldova	Alexeevca (ACB): 4
	Grebeniki (ATI, RI, SDKRI): 5
	Căușeni (ATI, RI, SDKRI): 5
	Limanscoe (TO 3): 1
	Tohatin: 3
Serbia	Horgoš: 1
	Zvornik: 2
	Zaječar: 6
	Kiskundorozma 2: 6
Ukraine	All IPs: 52 ⁹

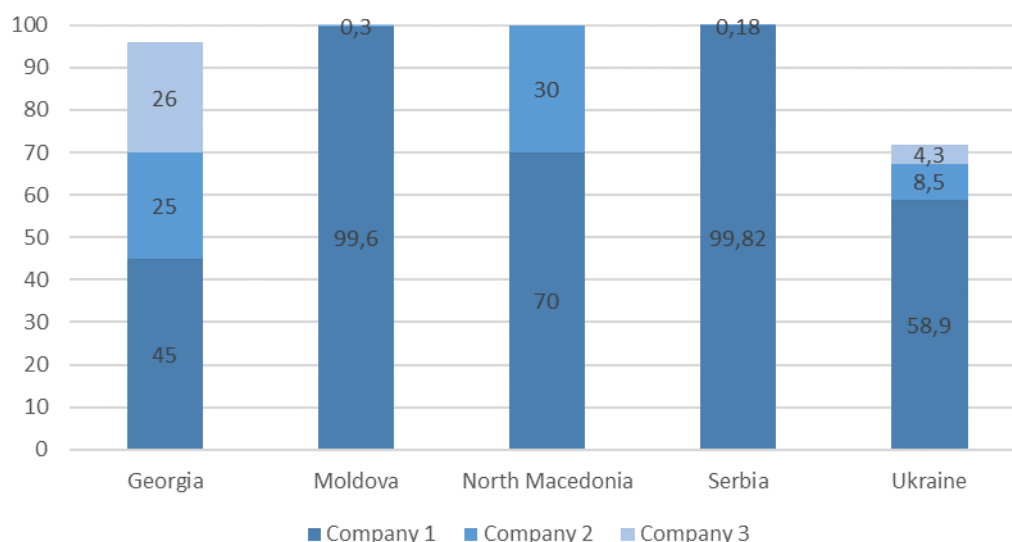
2.4 Wholesale market dominance

Gas markets in the Contracted Parties are highly concentrated. Georgia has the highest number of companies selling at least 5% of available gas, namely three (45%, 26%, 25%). In Ukraine and North Macedonia, two companies sell more than 5% of available gas. In North Macedonia, the biggest company manages 70% of sales, with the second company controls the remaining 30%. In Ukraine, the major company manages almost 60% of the sales of available gas, with the rest of the market shares lower than 10% per company. In Moldova and Serbia, a single company controls over 99% of market share.

Figure 6 below, representing the share of three biggest companies by available gas, gives an overview of market concentration in the Contracting Parties.

⁹ Drop of 36 shippers in comparison to 2021.

Table 6 Share of three biggest companies by available gas (in %)



2.5 Balancing Network Code implementation

The Regulation (EU) 312/2014 establishing a network code on gas balancing of transmission networks ('BAL NC')¹⁰ is not fully implemented in any of the Contracting Parties.

In Georgia and North Macedonia, the level of implementation is the lowest.

Serbia informs network users about imbalances and operates with a daily cash out regime. However, it has yet to establish a trading platform for the procurement of short-term standardized products. Notably, Serbia employs three distinct tolerance levels for managing imbalances.

Ukraine emerges as the Contracting Party demonstrating the highest level of implementation of the BAL NC, although full compliance is yet to be achieved. Noteworthy features include comprehensive information dissemination to network users about their imbalances, the existence of a trading platform for the procurement of short-term standardized products, and active involvement of the transmission system operator in procuring such products on the trading platform. Ukraine employs a daily balancing regime, culminating in the aggregation of positive and negative imbalances at the end of each month, with corresponding invoicing for daily imbalances. Monthly neutrality charge has been published on the transmission system operator's website since March 2020, however it is still not applied in practice. Interim measures, specifically tolerance, are in use. Tolerance levels underwent a revision from November 2021, when they have been set to 5%. But after the introduction of daily balancing regime in 2019, the tolerance was reduced from 10 % a few times. Notably, there is no interim imbalance charge. However, as of the reporting period, Ukraine has not prepared the annual report on interim measures, and neither the regulatory authority has published a motivated decision on the implementation of interim measures.

Türkiye does keep users informed about imbalances. It has a trading platform for procurement of short-term standardised products (procured by the TSO) and has a daily cash out regime in place. The transmission system operator automatically buys or sells gas every day according to the previously set reference stock level without getting any profit or incurring any loss bases on the legislation. No tolerance levels are in use.

¹⁰ https://www.energy-community.org/dam/jcr:0c739eda-a10f-4e0e-bfb6-aa2c0ba7a0b2/Regulation_312_2014_NC_B.pdf

2.6 Storages

Ukraine is equipped with a significant amount of gas storages and storage users, with the only other Contracting Party equipped with one storage facility being Serbia. Third Party Access ('TPA') is regulated in Ukraine and negotiated in Serbia. Table 4 summarizes salient information on storages, including the type of ownership, mixed in Serbia and State-owned in Ukraine, capacities and working volumes.

Table 7 Storages in the Contracting Parties

	Serbia	Ukraine
Number of storages	1	12
Ownership	Mixed, public-private	State ownership
TPA	Negotiated	Regulated
Storage working gas volume (GWh)	4,618	326,832
Max. withdrawal capacity (MWh/hour)	2,138	114,444
Max. injection capacity (MWh/hour)	1,154	111,038
Number of storage users	2	453

In Türkiye, 6 storages are in place, with a total working gas volume of 10,262 GWh, maximum withdrawal capacity of 47,206 MWh/hour and maximum injection capacity of 17,103 MWh/hour.

Armenia has one storage owned by the transmission system operator, with a single storage user.

3. Transmission tariffs

3.1 Tariff Network Code implementation

In 2022, the Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas ('TAR NC') was still not implemented by majority of the Contracting Parties. The exceptions are Ukraine and Moldova. Ukraine applied most of the Tariff Network Code provisions before the expiry of implementation deadlines, establishing transmission tariffs for the regulatory period 2020-2024, however the cost allocation assessment envisaged by Article 5 and the consultation requirements of Chapter VII were not performed. Moldova implemented the Tariff Network Code in June 2023 and the ECRB conducted a thorough analysis of the tariff consultation document submitted by the National Regulatory Authority for Energy (ANRE) of Moldova.

Ukraine utilizes a capacity-weighted distance as its reference price methodology, with varying multipliers for different booking periods. For IPs, the multiplier applied ranged from 1.45 for day-ahead bookings to 1.2 for monthly capacity bookings and 1.1 for quarterly bookings. In the case of domestic points, specific multipliers were implemented from March 2020 onward for day-ahead (1.1 conditional units), monthly (1.04 conditional units), and quarterly (1.02 conditional units) capacity bookings. Additionally, discounted coefficients were applied to short-haul tariffs in Ukraine for conditional product bookings linked with storage use.

The transmission tariffs are calculated for individual entries and exits in Serbia, while North Macedonia and Georgia still employ a post stamp methodology.

The levels of transmission tariffs applied in the Contracting Parties in 2022 are presented in the table below.

Table 7 - Gas transmission charges at cross- border IPs in 2022 (in EUR per MWh)

Contracting Party	IP name	Border/direction	Flow direction	EUR/MWh/h/year	
Moldova	Grebeniki Causeni Alexeevka	Group of entry points (Grebeniki) (Moldovatrangaz)	Entry	4,441.95	
		Group of exit points to other TSO's networks and neighbouring (Moldovatrangaz)	Exit	3,003.03	
	Domestic points	Group of exit points to DSO's networks (Moldovatrangaz)	Entry	5,458.08	
		Group of exit points to consumers (Moldovatrangaz)	Exit	3,108.62	
	Ungheni	Group of entry points (Vestmoldtrangaz)	Entry	8,204.20	
		Group of exit points to other TSO's networks and neighbouring (Vestmoldtrangaz)	Exit	8,220.74	
		Group of exit points to DSO's networks (Vestmoldtrangaz)	Exit	8,146.71	
	Serbia		Hungary-Serbia	Entry	113,39 EUR/MWh/day
			Serbia-Bosnia and Herzegovina	Exit	245,93 EUR/MWh/day + 0,43 EUR/MWh
Ukraine	Virtual or physical IPs with Poland (Hermanowice, Drozdovychi, Ustylug)	PL-UA	Entry	3,110	
		UA-PL	Exit	6,310	
	Virtual or physical IPs with Slovakia (Budince, Uzhgorod – Velke Kapusany)	SK-UA	Entry	3,110	
		UA-SK	Exit	6,760	
	Virtual or physical IPs with Hungary (Beregdarots, Beregove)	HU-UA	Entry	3,110	
		UA-HU	Exit	6,460	
	Ananyiv	UA-MD	Exit	5,710	
	Grebeniki	UA-MD	Exit	5,710	
	Kaushany	UA-MD	Exit	790	
	Limanskoe	UA-MD	Exit	5,710	
		MD-UA	entry	3,110	
	Oleksiivka	UA-MD	Exit	6,780	
	Virtual point with Moldova	UA-MD	Exit	390	
	Isaccea/Orlovka	UA-RO	Exit	790	
		RO-UA	Entry	3,110	
	Sokhranovka	RU-UA	Entry	11,180	
	Tekove/Mediesu Aurit	RO-UA	Entry	3,110	
UA-RO		Exit	6,130		

Conclusions

The gas wholesale markets of the Energy Community Contracting Parties, as those in the European Union, faced significant challenges in 2022. In addition to the surge in global gas prices, the concerns over security of supply also impacted the economies of these markets. The reliance on Russian gas prompted some of them to actively explore ways to diversify their energy sources and reduce vulnerability and reliance on Russian gas. Additionally, the Contracting Parties implemented crisis measures, mostly of temporary nature, to respond to changes in the markets.

Substantial **gas price** increases were recorded in Moldova and North Macedonia, with the peak of 228 EUR/MWh recorded in North Macedonia in September 2022. The prices in Contracting Parties and Observers with predominantly long-term contracts- Georgia, Armenia and Serbia, saw limited increases over the same period. Also in Ukraine, being the only country that relies predominantly on domestic production, price increase was not that high- 18% on year-to-year basis.

Following the price surge, gas **demand** in the Contracting Parties and Observers also displayed a downward trend in 2022, with figures decreasing significantly in all of them except Georgia, that registered increase of 18%. The reduction of more than 30% occurred in North Macedonia and Ukraine, while Moldova registered a year-to-year decrease of 17% compared to the previous year. A less radical decrease occurred in Serbia- 4.5%.

Gas markets in the Contracted Parties are still **highly concentrated**. In North Macedonia, the biggest company manages 70% of sales and in Ukraine 60%. In Moldova and Serbia, a single company has over 99% of market share.

Allocation of transmission capacity was performed based on **CAM NC** in Ukraine, Moldova and Serbia. However, it has to be noted that, in Ukraine, the allocated capacity is not bundled at IPs. The Ukrainian transmission network code stipulates rules for bundling of capacity at these points, according to which bundling is subject to agreement of neighbouring transmission system operators. Such agreements were not in place in 2022. In Moldova, allocation of unbundled capacity on the Hungarian booking platform started in November 2022, while Serbian transmission system operator Gastrans used the same platform for allocation of non-exempted short-term capacity. Ukraine is the only Contracting Party that reported the existence of two Virtual Interconnection Points (VIPs), being those on the borders with Hungary and Poland.

The network code on gas **balancing** of transmission networks is not fully implemented in any of the Contracting Parties. In Georgia and North Macedonia, the level of implementation is the lowest. Ukraine emerges as the Contracting Party demonstrating the highest level of implementation, although full compliance is yet to be achieved.

In 2022, **TAR NC** was still not implemented in majority of the Contracting Parties. The exceptions are Ukraine and Moldova. Ukraine applied most of the Tariff Network Code provisions before the expiry of implementation deadlines, establishing transmission tariffs for the regulatory period 2020-2024. Moldova implemented the Tariff Network Code in June 2023 and the ECRB conducted an analysis of the tariff consultation document submitted by the National Regulatory Authority for Energy (ANRE) of Moldova. The transmission tariffs are calculated for individual entries and exits in Serbia, while North Macedonia and Georgia still employ a post stamp methodology.

Taking into account the gas market developments of 2022 and their implications on the Contracting Parties, but also the overall commitment of the Energy Community to decarbonize its economies, the **ECRB recommends that efforts are increased towards demand reduction and more efficiency, avoiding the excessive usage of gas supply cost subsidies. In parallel, further diversification of supply sources and better market integration, achieved through full implementation of gas network codes, would reduce the risks of gas supply disruptions and extreme price increases.**

Annex I Capacity bookings in 2022 in Serbia, per IP

Horgoš	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
IP capacity (MWh/day)	141.977,00	141.977,00	141.977,00	141.977,00	141.977,00	141.977,00	141.977,00	141.977,00	141.977,00	141.977,00	141.977,00	141.977,00
Average used capacity (MWh/day), only for 2022	64.839,84	29.385,98	15.970,70	14.911,23	975,27	0,00	0,00	0,00	0,00	0,00	15.909,64	14.666,93
Average firm booked capacity (MWh/day)	13.931,91	13.931,91	13.931,91	13.931,91	13.931,91	13.931,91	13.931,91	13.931,91	13.931,91	13.931,91	13.931,91	13.931,91
Firm capacity booked as yearly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Firm capacity booked as quarterly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Firm capacity booked as monthly product (MWh/day)	61.560,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	5.280,00	14.570,00
Interruptible capacity booked as yearly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Interruptible capacity booked as quarterly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Interruptible capacity booked as monthly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Number of booked firm daily capacity products	19,00	28,00	30,00	30,00	3,00	0,00	0,00	0,00	0,00	0,00	23,00	11,00
Total booked firm daily capacity (MWh/day)	341.658,00	816.696,00	499.918,00	448.156,00	30.472,00	0,00	0,00	0,00	0,00	0,00	318.891,00	90.098,00
Number of booked interruptible daily capacity products	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total booked interruptible daily capacity (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Number of booked firm within day capacity products	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total booked firm within day capacity (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Number of booked interruptible within day capacity products	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total booked interruptible within day capacity (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Kiskundorožma												
IP capacity (MWh/day)	245.766,00	245.766,00	245.766,00	245.766,00	245.766,00	245.766,00	245.766,00	245.766,00	245.766,00	245.766,00	245.766,00	245.766,00
Average used capacity (MWh/day), only for 2020	105.321,19	117.368,61	111.481,97	111.728,20	146.160,39	107.805,03	178.794,77	199.336,45	216.508,30	184.403,71	103.990,40	137.950,94
Average firm booked capacity (MWh/day)	224.120,48	224.120,48	224.120,48	224.120,48	224.120,48	224.120,48	224.120,48	224.120,48	224.120,48	224.120,48	224.120,48	224.120,48
Firm capacity booked as yearly product (MWh/day)	221.189,02	221.189,02	221.189,02	221.189,02	221.189,02	221.189,02	221.189,02	221.189,02	221.189,02	221.189,02	221.189,02	221.189,02
Firm capacity booked as quarterly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Firm capacity booked as monthly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	24.183,34	1.680,00	2.880,00	6.120,00
Interruptible capacity booked as yearly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Interruptible capacity booked as quarterly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Interruptible capacity booked as monthly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Number of booked firm daily capacity products	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	15,00	1,00	1,00	2,00
Total booked firm daily capacity (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	4.704,02	1.920,00	2.400,00	480,00
Number of booked interruptible daily capacity products	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total booked interruptible daily capacity (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Number of booked firm within day capacity products	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total booked firm within day capacity (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Number of booked interruptible within day capacity products	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total booked interruptible within day capacity (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Annex I Capacity bookings in 2022 in Moldova, per IP

IP UNGHENI/IP TOHATIN	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
IP capacity (MWh/day)	55.374,64	55.374,64	55.374,64	55.374,64	55.374,64	55.374,64	55.374,64	55.374,64	55.374,64	55.374,64	55.374,64	55.374,64	55.374,64	55.374,64	55.374,64
Average used capacity (MWh/day), only for 2022 %	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	8,00	0,94	4,14	0,02
Average firm booked capacity (MWh/day)															
Firm capacity booked as yearly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Firm capacity booked as quarterly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Firm capacity booked as monthly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Interruptible capacity booked as yearly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Interruptible capacity booked as quarterly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Interruptible capacity booked as monthly product (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Number of booked firm daily capacity products	0,00	0,00	1,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,00	1,00	1,00	1,00	4,00
Total booked firm daily capacity (MWh/day)	0,00	0,00	1,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,00	442.836,50	52.224,00	229.192,00	1.062,00
Number of booked interruptible daily capacity products	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total booked interruptible daily capacity (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Number of booked firm within day capacity products	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total booked firm within day capacity (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Number of booked interruptible within day capacity products	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total booked interruptible within day capacity (MWh/day)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Please copy this table below for all IPs and insert the name of the IP in the title row	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
ENTRY															
Alexevca (ACB)															
IP capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	83.740,00	83.740,00	83.740,00	83.740,00	83.740,00

Average used capacity (MWh/day), only for 2022	-	-	-	-	-	-	-	-	-	-	-	6.269,084	6.582,600	-	-	-
Average firm booked capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	6.269,084	6.582,600	6.715,789	4.012,768	3.896,316
Firm capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm daily capacity products	-	-	-	-	-	-	-	-	-	-	-	1,000	1,000	4,000	4,000	5,000
Total booked firm daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	12.538,168	13.165,200	423.094,484	345.094,349	335.082,854
Number of booked interruptible daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm within day capacity products	-	-	-	-	-	-	-	-	-	-	-	1,000	1,000	4,000	4,000	5,000
Total booked firm within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	12.538,168	13.165,200	423.094,484	345.098,484	335.082,854
Number of booked interruptible within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Grebeniki (ATI, RI, SDKRI)																
IP capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	381.600,000	381.600,000	381.600,000	381.600,000	381.600,000
Average used capacity (MWh/day), only for 2022	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	-	-	-
Average firm booked capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	11.775,869	5.454,675	5.894,289
Firm capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000

Interruptible capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	4,000	2,000	2,000
Total booked firm daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	753.655,548	169.094,994	35.032,092
Number of booked interruptible daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	4,000	2,000	2,000
Total booked firm within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	753.655,548	169.094,994	35.032,092
Number of booked interruptible within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Limanscoe (TO 3)																
IP capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Average used capacity (MWh/day), only for 2022	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	-	-	-
Average firm booked capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked firm daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked interruptible daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked firm within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000

Number of booked interruptible within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Tohatin																
IP capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	51.834,000	51.834,000	51.834,000	51.834,000	51.834,000
Average used capacity (MWh/day), only for 2022	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	-	-	-
Average firm booked capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	3.478,210	8.272,219	39,273
Firm capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	1,000	1,000	4,000
Total booked firm daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	52.173,200	231.621,978	1.099,527
Number of booked interruptible daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	1,000	1,000	4,000
Total booked firm within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	52.173,200	231.621,978	1.099,527
Number of booked interruptible within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Ananiev (ACB)																
IP capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	83.740,000	83.740,000	83.740,000	83.740,000	83.740,000
Average used capacity (MWh/day), only for 2022	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	-	-	-
Average firm booked capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000

Firm capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm daily capacity products	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked firm daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked interruptible daily capacity products	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm within day capacity products	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked firm within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked interruptible within day capacity products	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000

Căușeni (RI, SDKRI)															
IP capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	127.200,000	127.200,000	127.200,000	127.200,000	127.200,000
Average used capacity (MWh/day), only for 2022	-	-	-	-	-	-	-	-	-	-	0,000	36.034,700	-	-	-
Average firm booked capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	36.034,700	24,380	22.929,602	0,000
Firm capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm daily capacity products	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000

Total booked firm daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked interruptible daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	1,000	1,000	2,000	0,000
Total booked interruptible daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	72.069,40	0	24,380	481.521,6
Number of booked firm within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked firm within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked interruptible within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	1,000	1,000	2,000	0,000
Total booked interruptible within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	72.069,40	0	24,380	481.521,6

EXIT																
Alexeevca (ACB)																
IP capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	127.200,00	127.200,00	127.200,00	127.200,00	127.200,00
Average used capacity (MWh/day), only for 2022	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	-	-	-
Average firm booked capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked firm daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked interruptible daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked firm within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked interruptible within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000

Limanscoe (TO 3)															
IP capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Average used capacity (MWh/day), only for 2022	-	-	-	-	-	-	-	-	-	-	0,000	0,000	-	-	-
Average firm booked capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm daily capacity products	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked firm daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked interruptible daily capacity products	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm within day capacity products	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked firm within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked interruptible within day capacity products	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000

Căușeni (ATI, RI, SDKRI)															
IP capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	381.600,00	381.600,00	381.600,00	381.600,00	381.600,00
Average used capacity (MWh/day), only for 2022	-	-	-	-	-	-	-	-	-	-	0,000	0,000	-	-	-
Average firm booked capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	4.554,799	5.516,049	4.270,984
Firm capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000

Interruptible capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	2,000	1,000	1,000
Total booked firm daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	150.308,307	154.449,388	132.400,561
Number of booked interruptible daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	2,000	1,000	1,000
Total booked firm within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	150.308,307	154.449,388	132.400,561
Number of booked interruptible within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000

Tohatin																
IP capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	26.500,000	26.500,000	26.500,000	26.500,000	26.500,000
Average used capacity (MWh/day), only for 2022	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	-	-	-
Average firm booked capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked firm daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked interruptible daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000

Number of booked firm within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked firm within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked interruptible within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked interruptible within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000

Greibeniki (RI, SDKRI)																
IP capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	41.976,00	41.976,00	41.976,00	41.976,00	41.976,00
Average used capacity (MWh/day), only for 2022	-	-	-	-	-	-	-	-	-	-	-	0,000	6.911,200	-	-	-
Average firm booked capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	6.911,200	24,380	10.590,88	4
Firm capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Firm capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as yearly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as quarterly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Interruptible capacity booked as monthly product (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked firm daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked firm daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked interruptible daily capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	1,000	1,000	1,000	0,000
Total booked interruptible daily capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	13.822,40	24,380	137.681,4	92
Number of booked firm within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Total booked firm within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	0,000	0,000	0,000	0,000
Number of booked interruptible within day capacity products	-	-	-	-	-	-	-	-	-	-	-	0,000	1,000	1,000	1,000	0,000
Total booked interruptible within day capacity (MWh/day)	-	-	-	-	-	-	-	-	-	-	-	0,000	13.822,40	24,380	137.681,4	92