

Energy Community Secretariat

SEEGAS Report 2026: A Baseline for Measuring Gas Market Developments & Integration

Progress in Gas Trading, Challenges in Market Integration.

Tracking market developments, price relationships and remaining barriers to cross-border gas trade.

October 2026

SEEGAS Report 2026

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1 Background

The SEEGAS initiative supports the development of a more integrated, competitive and liquid gas market in South-Eastern and Eastern Europe by facilitating cooperation between the Energy Community Secretariat, transmission system operators, gas exchanges and other market stakeholders.

The regional gas landscape has changed considerably in recent years, with greater diversity of supply sources and routes and the development of organised gas trading across several markets. However, differences in market liquidity, regulatory frameworks, access arrangements and trading conditions continue to affect the ability of gas to move and be traded efficiently across borders.

This report provides a data-driven assessment of gas market development and regional integration across the SEEGAS region. Building on the previous SEEGAS reports, it examines the development of organised gas markets and the conditions affecting cross-border trading, while establishing a common analytical baseline for monitoring future market developments.

The analysis shows that progress remains uneven across the region. While trading activity and market participation have developed in several markets, differences in liquidity, market depth and regulatory and operational arrangements remain. Further regional cooperation and implementation of market rules are therefore important for improving cross-border trading and supporting the development of more integrated regional gas markets.

1.1 SEEGAS Context

The SEEGAS initiative was established in year 2021. It brings together the Energy Community Secretariat, transmission system operators, gas exchanges and other relevant stakeholders with the objective of supporting regional gas market integration and cross-border trading.

The initiative aims to support the development of a competitive, liquid and integrated gas market based on transparent market-based pricing, efficient cross-border transmission, interoperability and greater use of organised gas trading platforms. The Energy Community Secretariat supports

this process through regulatory advice, technical assistance and the exchange of data and information.

SEEGAS complements the Central and South-Eastern Europe Energy Connectivity (CESEC) initiative. While CESEC provides a broader political and strategic framework for regional energy connectivity, SEEGAS focuses particularly on the practical, regulatory and commercial aspects of gas market integration. Operating as an informal and flexible platform, SEEGAS facilitates cooperation between stakeholders, the identification of market barriers, the exchange of good practices and the development of practical solutions to support regional integration.

The development of organised gas markets is closely linked to the functioning of the underlying gas systems. Liquid and accessible trading platforms require gas to move efficiently between transmission systems and market areas. This depends on effective and non-discriminatory access to transmission capacity and virtual trading points, interoperable operational arrangements, functioning balancing regimes and market-entry requirements that facilitate rather than unnecessarily restrict cross-border participation. Addressing remaining regulatory, commercial and operational barriers is therefore essential for translating available infrastructure and trading platforms into effective regional gas trading.

1.2 Evolution of the SEEGAS Reports

The 2022 SEEGAS Report on Regional Transmission Routes focused primarily on the infrastructure dimension of regional integration. Against the background of the energy crisis and the need to diversify gas supplies, it assessed alternative regional supply routes, available transmission capacity and infrastructure developments. It also identified regulatory, commercial and technical barriers limiting the efficient use of existing infrastructure and cross-border gas flows.

The 2023 SEEGAS Report – Initiative Update and Post-Crisis Development Analysis broadened the focus from infrastructure towards the functioning and development of regional gas markets. It reviewed developments in wholesale markets and gas exchanges across the SEEGAS region during 2022 and 2023, including exchange trading, market organisation, clearing arrangements, infrastructure and regulatory frameworks. It also presented progress under the SEEGAS initiative, including the regional clearing initiative and cooperation triggered by the energy crisis.

The present report builds on these two assessments by shifting the focus further towards measuring market development and regional integration through a common set of indicators and exchange data.

1.3 Purpose of this Report

The purpose of this report is to provide an updated and data-driven picture of how gas markets across the SEEGAS region have evolved and to assess progress towards regional market integration.

The report establishes a common data baseline for monitoring market development and integration across the region. It brings together indicators covering market liquidity, competition, cross-border integration and exchange-based trading. Where possible, developments are compared across markets and over time. Particular attention is given to organised gas trading, traded volumes, prices and market participation.

The assessment also considers the regulatory, commercial and operational conditions underlying these developments. Infrastructure availability and the establishment of gas exchanges do not, by themselves, result in liquid and integrated markets. Effective regional trading also depends on the ability of market participants to access transmission systems and trading points, move gas across borders and participate in neighbouring markets without unnecessary barriers.

The report therefore combines quantitative market analysis with an assessment of the conditions affecting regional gas trading. In doing so, it provides a common evidence base for future SEEGAS work, allowing market developments to be tracked over time and helping to identify remaining barriers and areas where coordinated regional action could support further market integration.

2 Overview of Gas Market Performance

2.1 Exchanges Data and Methodology

The analysis of gas exchange activity in the region is based on data provided directly by the respective gas exchanges. The datasets cover the period from 1 January 2025 to 30 June 2026, subject to data availability, and include information on traded volumes, prices, products, trading activity and market participation.

The scope, structure and granularity of the data provided differ across exchanges. Depending on the market, the available data include daily or monthly traded volumes, day-ahead and within-day prices and volumes, forward or futures trading, OTC or pre-agreed transactions, number of transactions, active and registered market participants, and other market-specific indicators. Consequently, not all indicators can be calculated consistently for every exchange.

The analysis works with the information made available by each exchange. No attempt has been made to reconstruct unavailable observations or to impose assumptions where the source data do not provide the necessary information.

Traded volume alone is not treated as a sufficient measure of market liquidity. A market may record substantial volumes through a limited number of large transactions while offering relatively limited opportunities for continuous short-term trading. Conversely, lower aggregate volumes may coexist with frequent transactions and trading activity on most days.

The analysis therefore follows a common analytical framework rather than imposing an identical set of indicators on datasets of different granularity. Where sufficiently detailed data are available, the assessment considers several dimensions of market development:

- Market size, measured primarily through traded volumes;
- Trading continuity, assessed through the frequency of active trading days;
- Market depth, including average volumes per active trading day and, where available, transaction frequency and transaction size;

- Product development, including the relative importance of day-ahead, within-day, forward and futures products;
- Price formation, including price dispersion and spreads between short-term products where comparable price observations are available;
- Concentration of trading activity, including the extent to which traded volumes are concentrated in a limited number of trading days or market participants;
- Market participation, assessed through the development of active and registered exchange members where such information is available; and
- OTC or pre-agreed trading, where reported, to provide additional context on the role of organised exchange trading.

Attention is given to year-on-year comparison between H1 2025 and H1 2026. Comparing equivalent six-month periods provides a more consistent basis for identifying changes in liquidity, trading frequency, product use and market participation.

This report represents a pilot exercise for this type of regional market analysis. The purpose is also to test stakeholder interest in such an analysis and assess the extent to which it can provide a meaningful contribution to the regional market discussion.

Subject to stakeholder interest and data availability, future editions could extend the analysis to full calendar years. As data for 2025 are already available, a possible next edition, if done, would compare the full years 2025 and 2026, providing a more comprehensive basis for assessing market developments and regional trends.

The indicators should nevertheless be interpreted with regard to the characteristics of each market and dataset. Exchange-traded volumes, OTC transactions and VTP nominations represent different dimensions of market activity and are not treated as directly interchangeable. Similarly, differences in product definitions, reporting methodologies and data granularity may limit direct comparisons between exchanges.

The analysis is therefore intended primarily to identify market developments and structural trends within individual markets, while enabling cross-market comparison where the underlying indicators are sufficiently comparable. It establishes a baseline against which the development of organised gas trading, short-term liquidity and regional market integration can be monitored in future editions of the SEEGAS Report.

2.2 Interpretation of Indicators

Average spread represents the arithmetic average of the daily price difference between two markets or products over the matched observation period.

Median spread represents the middle daily spread after all observed spreads are ordered from lowest to highest. Half of the observations are below the median and half are above it. The median is less affected by a limited number of extreme observations than the arithmetic average.

Mean absolute spread disregards whether the price difference is positive or negative and measures the typical absolute distance between two prices. A lower mean absolute spread indicates closer price alignment but should not by itself be interpreted as proof of market integration.

Price correlation measures the degree to which prices in two markets move together:

- 1 indicates a very strong positive linear relationship,
- 0 indicates little or no linear relationship, and
- −1.0 indicates a very strong inverse linear relationship.

Price correlation and price convergence measure different characteristics. Two markets may display high correlation while maintaining a persistent price differential.

2.3 EU Gas Context

The development of organised gas markets in the SEEGAS region should also be considered in the context of the broader European gas market. EU gas trading is characterised by highly developed virtual trading points, with traded volumes reaching record levels in early 2026. While TTF remains the dominant European gas benchmark, trading activity has also increased at other EU hubs. This illustrates that liquidity can develop beyond the main European benchmark and provides relevant context for assessing the development of organised markets in the SEEGAS region.

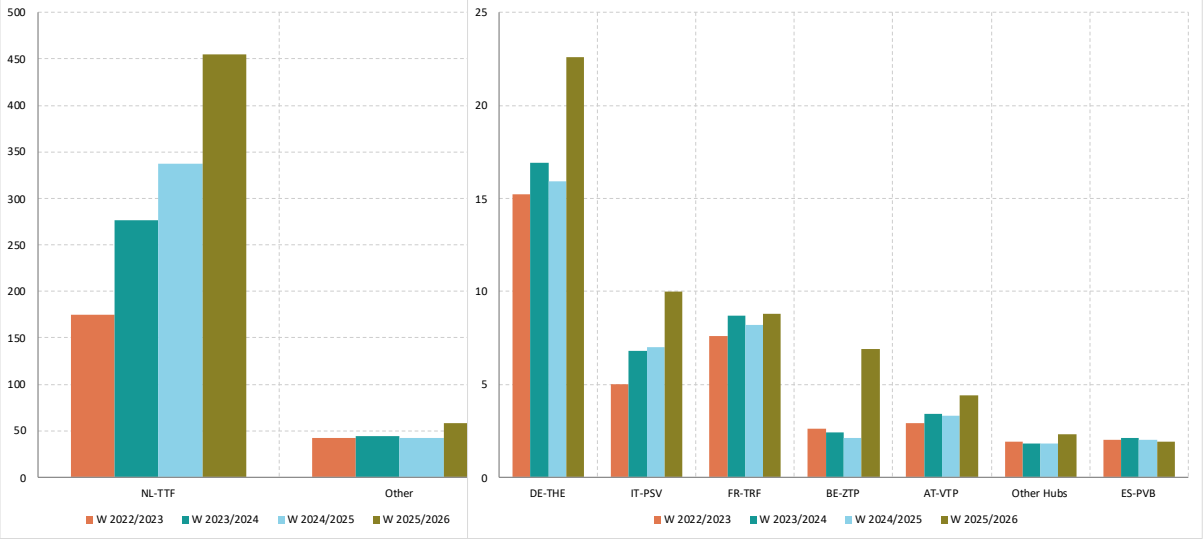


Figure 1: TTF and other EU VTPs traded volumes, winter period 2021-2025 (TWh/day)

Source: ACER based on REMIT data

2.4 National Gas Market Context

2.4.1 Moldova

Moldova is entirely dependent on natural gas imports and does not have domestic underground gas storage facilities. Gas demand is strongly seasonal, reflecting the important role of natural gas in heating and electricity generation, while the gas system and supply situation in the Transnistrian region remain a specific feature of the Moldovan market. Moldova has strengthened its security of supply through diversification, cross-border infrastructure and the establishment of security and commercial gas stocks abroad. At the same time, the Moldovan gas market is undergoing gradual liberalisation. Following ANRE's decision to phase out regulated prices, large non-household consumers, representing around 55% of national gas demand, moved to market-based supply on 1 April 2026. Medium-sized non-household consumers, representing around 6% of the market, are expected to follow by April 2027.

2.4.2 Romania

Romania differs from most markets in the region because a majority of its gas demand is covered by domestic production, reducing its dependence on imports. It also has domestic underground storage, connections with neighbouring markets, facilitates gas flows from Bulgaria

towards Hungary and has an important position on the Trans-Balkan route. Its regional role is expected to increase further with the development of Black Sea production, particularly Neptun Deep, which is expected to add significant volumes. Romania can therefore increasingly play a dual role as a sizeable domestic gas market and a potential source and transit country.

2.4.3 Greece

Greece is dependent on imported natural gas but has developed a relatively diversified supply structure. Gas can enter the Greek system through pipeline connections with Bulgaria and Türkiye, through TAP, and through LNG infrastructure, including the Revithoussa LNG terminal and the Alexandroupolis FSRU. This combination of pipeline and LNG infrastructure gives Greece an important role as an entry point for gas supplies into South-Eastern Europe and for northbound flows towards Bulgaria and the wider region.

2.4.4 Austria

Austria remains strongly dependent on natural gas imports, while domestic production covers only a relatively small share of consumption. Its supply structure changed significantly following the end of Russian gas transit through Ukraine. Imports now come mainly from the west through Germany, complemented by flows from Italy. Austria also has very large underground gas storage capacity, exceeding annual domestic consumption.

2.4.5 Ukraine

Ukraine has a large domestic gas market, significant domestic production, an extensive transmission system and the largest underground gas storage capacity in the region. The war has, however, fundamentally affected the operation of the gas sector. Repeated attacks on production, transmission and storage infrastructure have increased security risks and the need for imports. At the same time, Ukraine's transmission connections and storage facilities remain strategically important for regional security of supply and cross-border gas trade.

3 Gas Exchanges Overview

3.1 BRM EST

BRM EST (Romanian Commodities Exchange East) was established in 2021 in the Republic of Moldova, with the Romanian Commodities Exchange (BRM) as its shareholder. In March 2022, the National Agency for Energy Regulation (ANRE) approved BRM EST as an operator of a natural gas trading platform in Moldova. The exchange provides an organised marketplace for natural gas trading in Moldova.

BRM EST displayed a marked change in the structure of short-term trading between H1 2025 and H1 2026. SPOT traded volume declined from approximately 203.3 GWh to 57.0 GWh, a decrease of around 72%. At the same time, the number of reported SPOT transactions increased from 87 to 245, or by approximately 182%.

Trading activity also became substantially more continuous. The trading-day ratio increased from approximately 48.4% in H1 2025 to 73.8% in H1 2026, as shown in Figure 2.

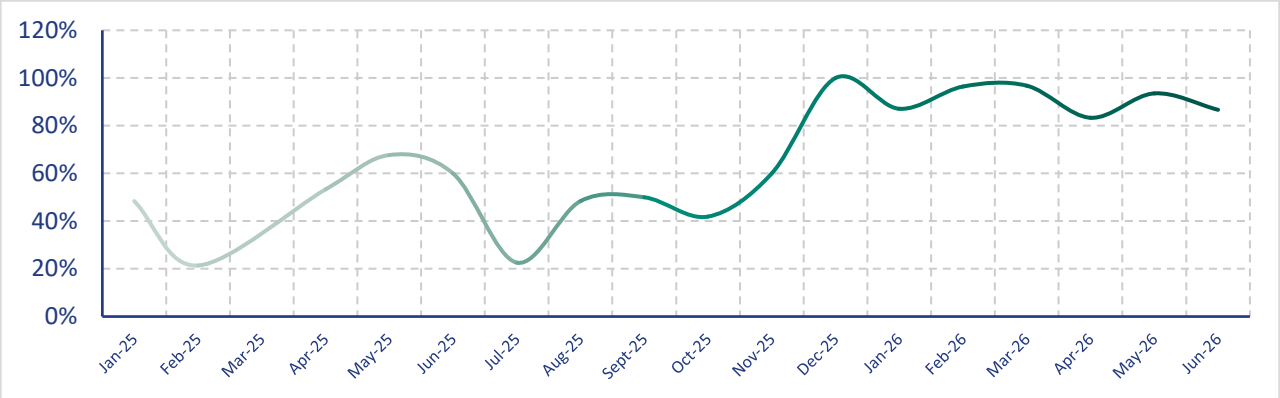


Figure 2: BRM EST days with trading

At the same time, the average transaction size decreased from approximately 2,337 MWh to 233 MWh, indicating a substantial shift from relatively infrequent large-volume transactions towards smaller and more frequent short-term trades.

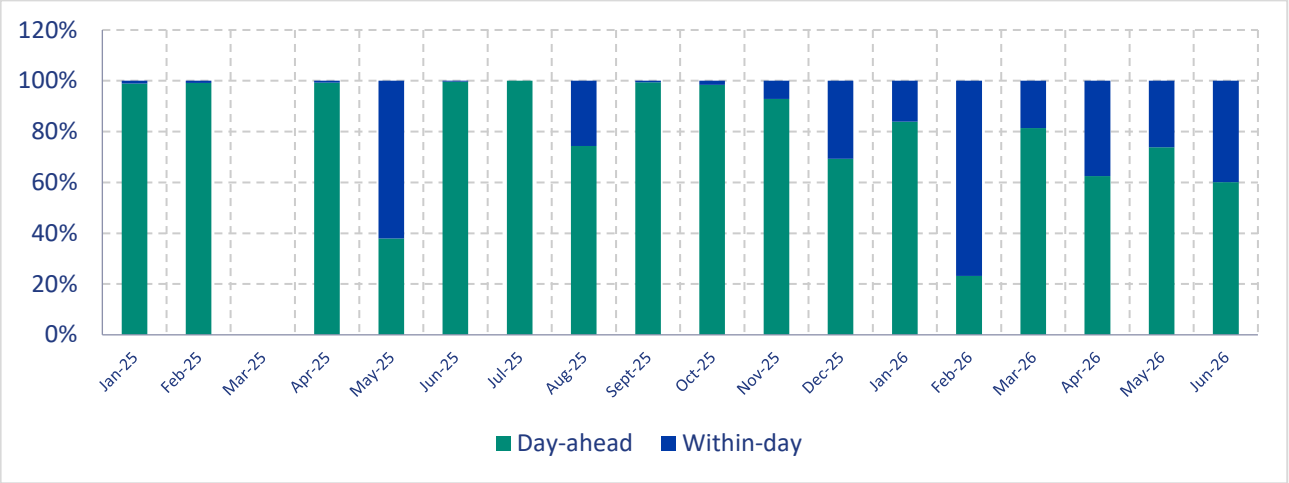


Figure 3: BRM EST share of monthly SPOT volume (%)

The development of within-day trading was also notable. The monthly product data indicate a substantially greater role for within-day products in H1 2026 than in H1 2025, as shown in Figure 3.

Trading activity also became significantly less concentrated. The five largest trading days accounted for approximately 76.3% of H1 2025 SPOT volume, compared with 30.6% in H1 2026. The ten largest trading days accounted for approximately 96.0% in H1 2025, compared with 40.0% in H1 2026, as shown in Figure 4.

The results point to two parallel developments: a considerably more frequent and more continuously accessible short-term market, but substantially lower aggregate SPOT volumes and much smaller average transactions. Forward-market activity also declined sharply: reported GASFWD volume decreased from approximately 549.4 GWh in H1 2025 to 10.6 GWh in H1 2026.

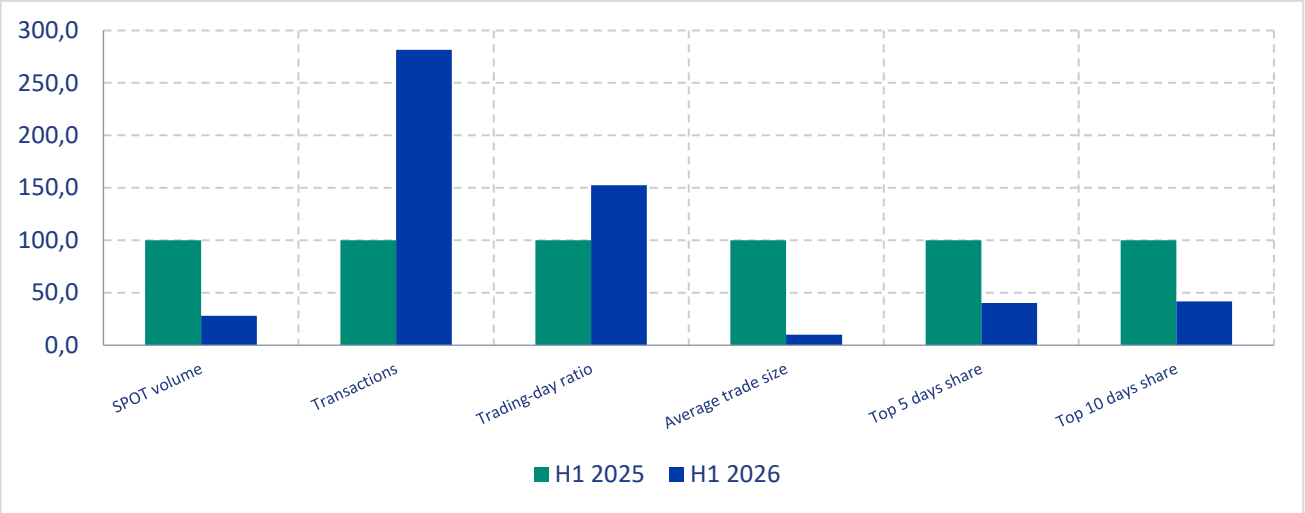


Figure 4: BRM EST summary index (H1 2025 = 100)

3.2 BRM Romania

The Romanian Commodities Exchange (BRM) is a privately owned market operator established in 1992 and has operated organised natural gas market since 2014. BRM provides several natural gas trading segments, including spot, forward and balancing products. With a relatively broad participant base and established trading activity, BRM represents an organised marketplace for natural gas in Romania.

For BRM Romania, the dataset provided for this analysis covers H1 2026 and therefore does not support the same H1 2025–H1 2026 year-on-year comparison used for the other exchanges.

In H1 2026, BRM Romania recorded approximately 10,732.6 GWh of spot/short-term trading and 10,154.1 GWh of futures trading, resulting in combined exchange turnover of approximately 20,886.6 GWh. Spot products represented approximately 51.4% of combined turnover.

Spot trading was reported on all 181 calendar days of H1 2026, corresponding to a trading-day ratio of 100%. Average spot volume per active trading day was approximately 59.3 GWh, while median daily spot volume was approximately 54.9 GWh. The H1 spot VWAP was approximately €42.17/MWh.

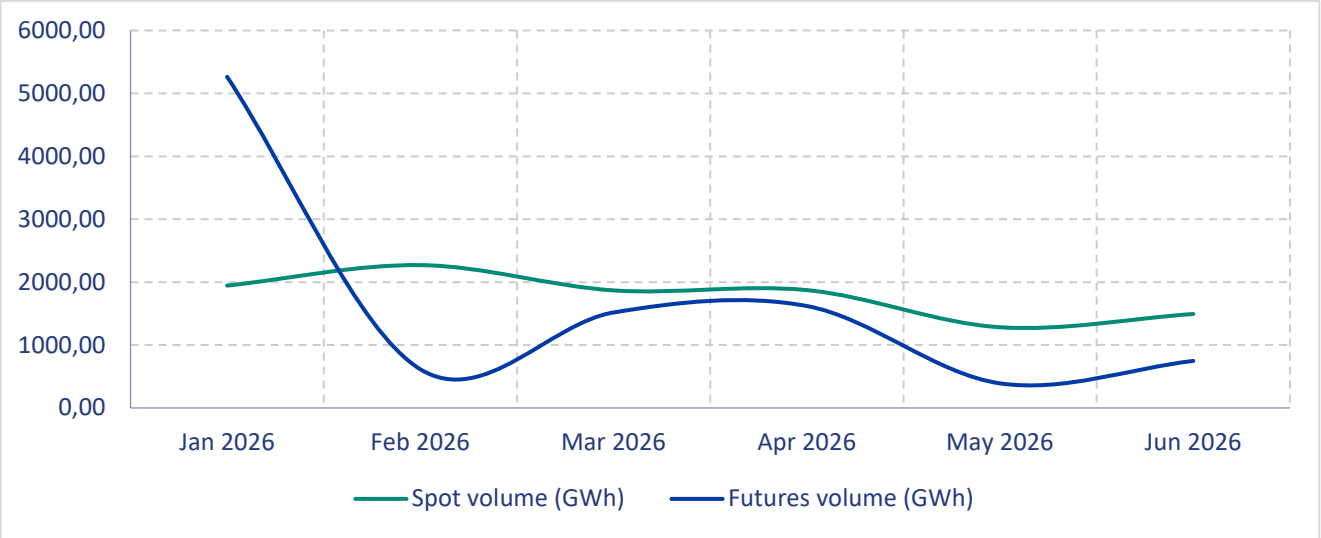


Figure 5: BRM Romania monthly spot and futures volume

The three largest sell-side participants accounted for approximately 68.0% of spot volume, indicating a relatively high degree of concentration on the sell side.

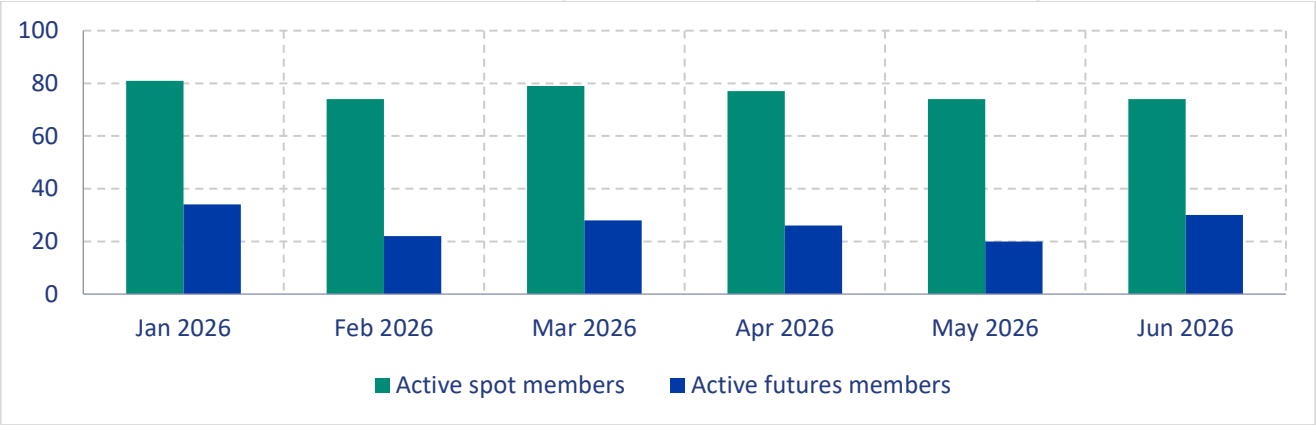


Figure 6: BRM Romania active spot and futures members

Only three comparable observations were available for Summer–Winter prices. All three indicated a Winter premium, averaging approximately €3.15/MWh. Given the very small number of observations, however, no robust conclusion on seasonal price formation can be drawn.

3.3 CEGH

The Central European Gas Hub (CEGH), based in Austria, operates one of the main organised gas trading platforms in Central and Eastern Europe. CEGH provides spot and futures trading and serves as an important marketplace and price reference for gas trading in the region.

CEGH continued to represent a large regional gas hub in H1 2026. Total CEGH VTP nominations, including ECC nominations, increased from approximately 262.3 TWh in H1 2025 to 294.8 TWh in H1 2026, a increase of around 12.4%.

CEGH VTP OTC nominations increased more moderately, from approximately 212.1 TWh to 245.5 TWh, or by around 15.8%. As a result, OTC nominations represented approximately 83.3% of total VTP nominations in H1 2026, compared with 80.9% in H1 2025.

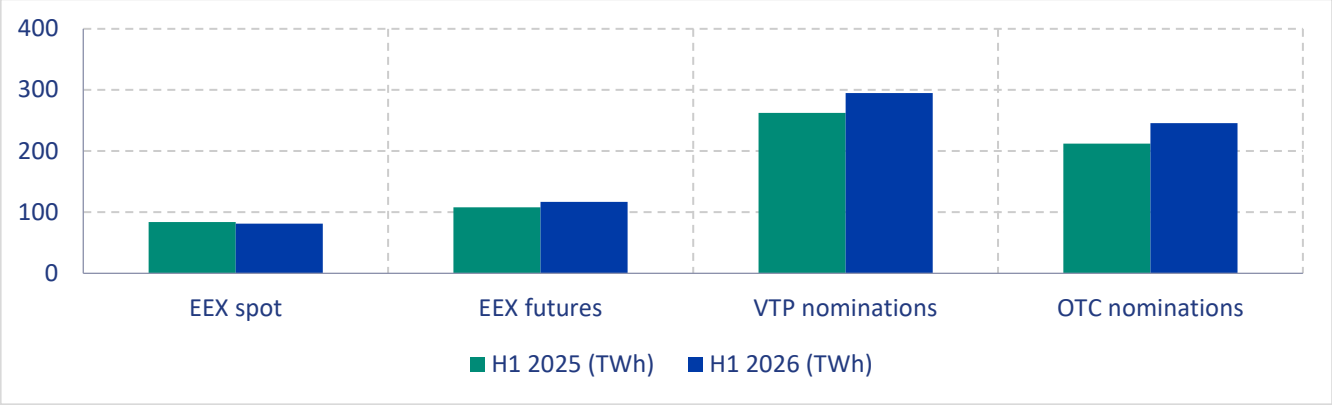


Figure 7: CEGH H1 activity remained strong, with moderate growth

The CEGH VTP nomination data and EEX CEGH trading data measure different dimensions of market activity and are therefore analysed separately. VTP nominations represent nominated/title-transfer activity at the hub, while EEX volumes represent exchange trading turnover.

Exchange-traded activity on EEX CEGH showed mixed developments in H1 2026. Spot traded volume decreased from approximately 84.1 TWh in H1 2025 to 81.5 TWh in H1 2026, a decrease

of 3.1%. Futures volume increased from approximately 108 TWh to 117.0 TWh, or by 8.3%, as shown in Figure 7.

Consequently, total reported EEX CEGH spot and futures turnover increased from approximately 192 TWh in H1 2025 to 198.4 TWh in H1 2026, an increase of around 3.3%. Because spot trading declined while futures trading increased, the spot share of total EEX CEGH turnover decreased from approximately 43.8% to 41.1%, while the futures share increased correspondingly from approximately 56.2% to 58.9%.

The CEGH VTP participant base remained large. The end-period number of VTP members increased from 368 in H1 2025 to 376 in H1 2026, an increase of eight members, or approximately 2.2%, as shown in Figure 8.

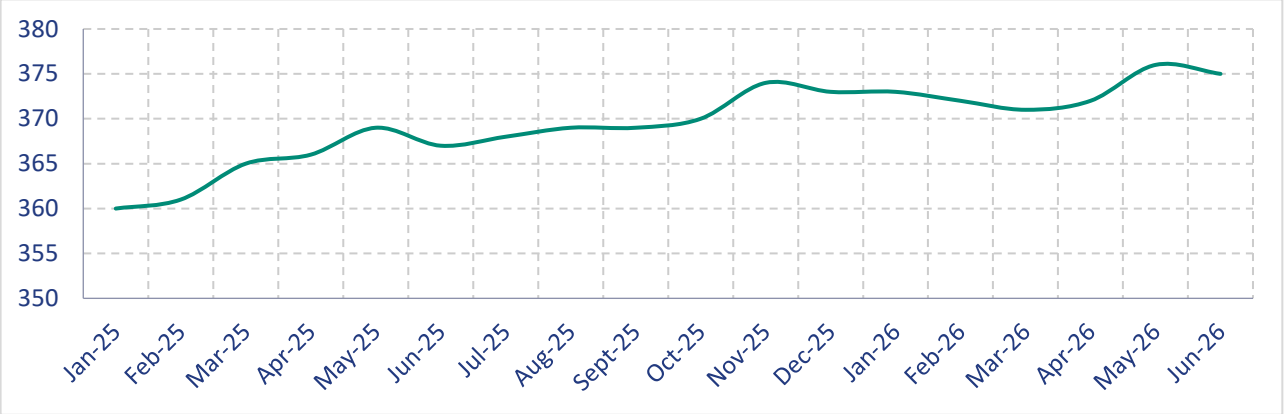


Figure 8: CEGH VTP membership continued to expand

Overall, the data portray CEGH as a large hub with substantial VTP, OTC, spot and futures activity. H1 2026 recorded higher VTP nominations and higher exchange turnover than H1 2025, while the number of VTP members increased.

3.4 EnExGroup

EnExGroup consists of the Hellenic Energy Exchange (HEnEx) and EnExClear. Since March 2022, HEnEx has operated the natural gas trading platform in Greece, while EnExClear provides clearing

and settlement services for transactions concluded on the platform. The platform provides an organised marketplace for natural gas trading.

EnExGroup displayed a high degree of short-term trading continuity throughout the period under review. Spot trading took place on approximately 99.4% of calendar days in H1 2025 and on all calendar days in H1 2026. In H1 2026, spot traded volume reached approximately 3.39 TWh, increasing by around 12.5% compared with 3.01 TWh in H1 2025. Average volume per active trading day also increased from approximately 16.73 GWh to 18.72 GWh, an increase of around 11.9%.

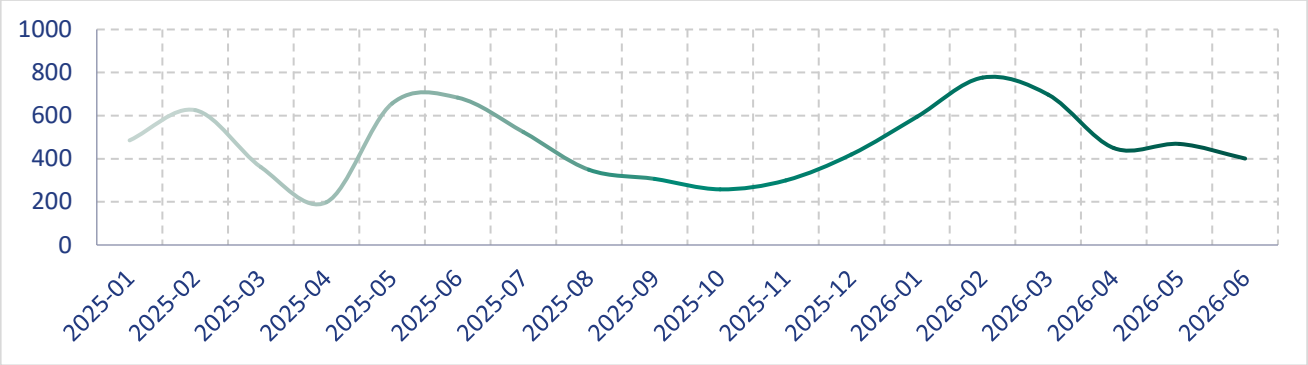


Figure 9: ENEX Monthly spot volume GWh

Liquidity was broadly distributed across trading days. The ten largest trading days accounted for only around 5.75% of total spot volume over the full period, indicating that market activity was not dependent on a small number of isolated high-volume sessions. The three largest trading participants accounted for approximately 33,1% of reported traded volume.

Day-ahead and within-day prices remained closely linked. The mean absolute spread between the HEnEx Gas Spot Index Day Ahead and Within Day decreased from approximately €1.17/MWh in H1 2025 to €0.93/MWh in H1 2026, suggesting somewhat tighter alignment between day-ahead and within-day price formation.

Reported pre-agreed trading declined from approximately 93.35 GWh in H1 2025 to 55.1 GWh in H1 2026, a decrease of around 41%. Its share of spot trading consequently declined from approximately 3.1% to 1.6%.

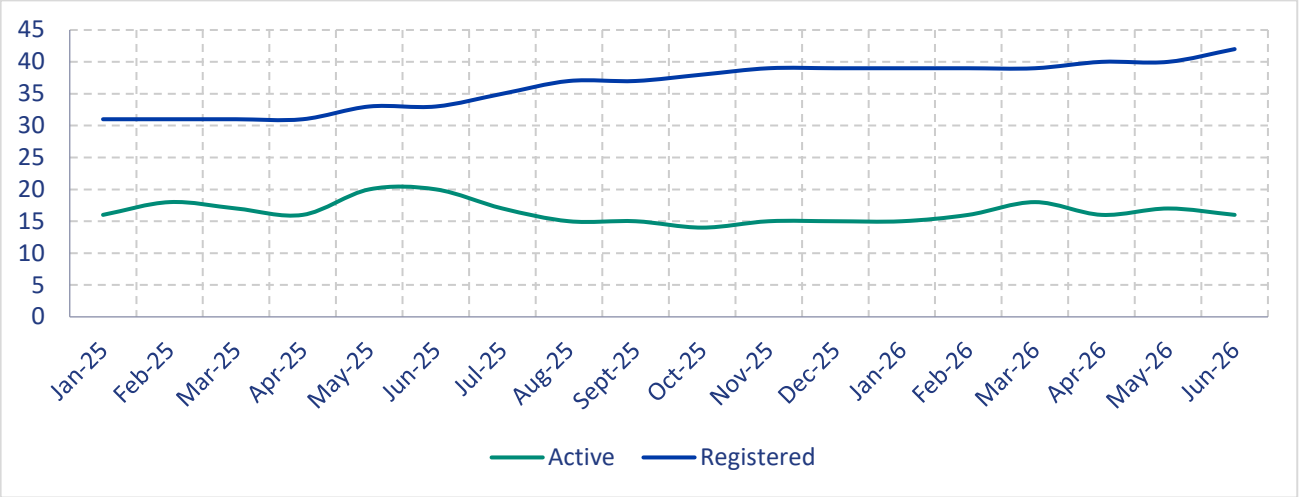


Figure 10: ENEX Registration grew faster than active participation

At the same time, the registered participant base increased, while participation indicators weakened, as shown in Figure 10. The active-member share declined from approximately 56.2% in H1 2025 to 41.0% in H1 2026. This suggests that growth in the registered participant base did not translate proportionally into a larger active trading community.

Overall, the data indicates a continuously accessible short-term market characterised by high trading-day coverage, substantial daily traded volumes and relatively broad distribution of liquidity across trading days.

3.5 UEEX

The Ukrainian Energy Exchange (UEEX), established in 2010, is the main organised commodity exchange for energy trading in Ukraine. It operates markets for several energy products, including natural gas, and provides both short-term and medium- and long-term natural gas trading. UEEX supports price formation through organised trading and publishes exchange quotations and price indicators based on market transactions.

The data show a substantial strengthening of short-term trading activity. Total short-term traded volume increased from 59.3 GWh in H1 2025 to 658.3 GWh in H1 2026, an increase of

approximately ten times. At the same time, the trading-day ratio increased from 69.6% to 97.2%, while average short-term volume per active trading day rose from 0.47 GWh to 2.86 GWh.

The development is therefore not limited to an increase in aggregate traded volumes but indicates a shift towards a considerably more continuously available short-term market.

In terms of product composition, short-term trading in H1 2026 remained strongly concentrated in within-day products. Within-day trading accounted for approximately 96.0% of H1 2026 short-term volume, while day-ahead trading accounted for approximately 4.0%. This indicates a clear improvement in short-term market activity, while also showing that day-ahead liquidity remains limited.

There were 33 days in H1 2026 for which both WD and DA prices were available. The mean absolute WD–DA spread was approximately €0.11/MWh. This suggests that where both products were traded, their prices were closely aligned, although in relatively limited number of matched observations.

At the same time, middle-term traded volume decreased from approximately 4,926.7 GWh in H1 2025 to 1,997.3 GWh in H1 2026, a decrease of approximately 59.5%. Combined short- and middle-term volume therefore declined from approximately 4,986.1 GWh to 2,655.6 GWh, or by 46.7%.

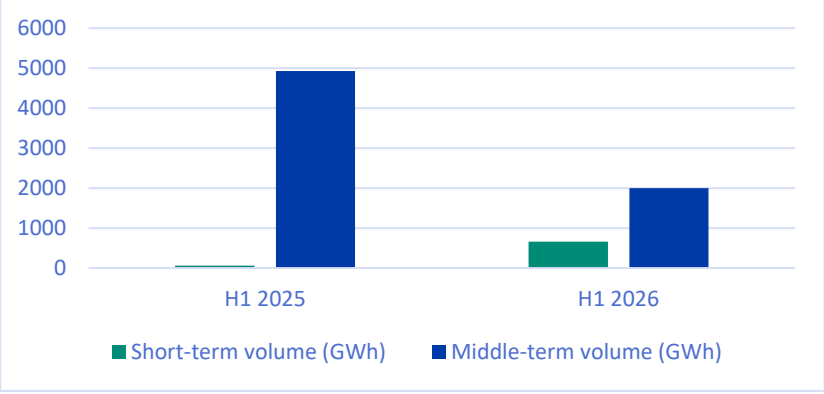


Figure 11: UEEX Short-term trading grew while middle-term trading fell

The structure of trading consequently shifted significantly towards short-term products. Short-term trading represented approximately 1.2% of combined short- and middle-term volume in H1 2025, compared with 24.8% in H1 2026.

Participation also broadened in terms of companies concluding deals. The average number of active companies increased from approximately 25.3 in H1 2025 to 34.3 in H1 2026, as shown in Figure 12.

The data therefore pointed to a substantial deepening of short-term market activity, reflected both in higher volumes and significantly greater trading continuity. At the same time, liquidity remains strongly concentrated in within-day products, while middle-term trading declined substantially.

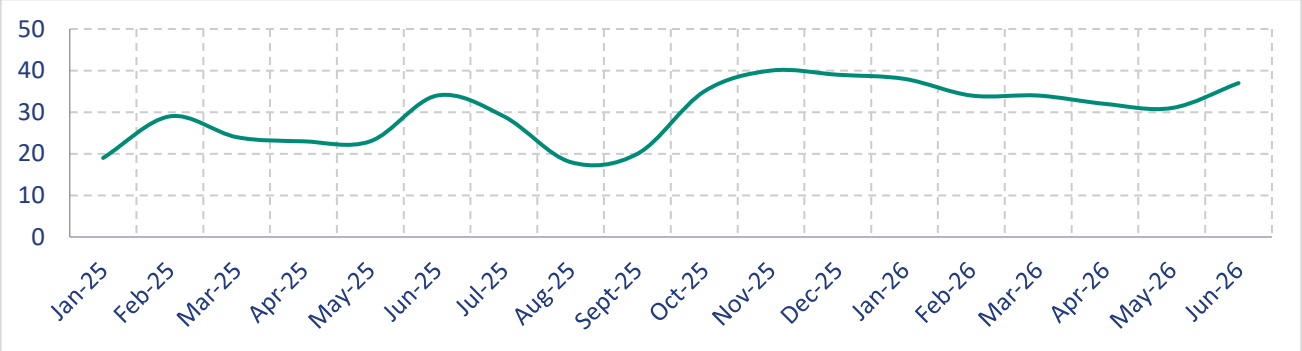


Figure 12: UEEX Active participation increased

3.6 Cross-Market Comparison of Exchange Trading Activity

The data sets provided by the exchanges allow comparison of several dimensions of market development, although differences in data granularity, reporting methodology and product definitions prevent a fully harmonised assessment across all markets. The comparison therefore uses only indicators that can reasonably be compared and does not treat unavailable indicators as zero or attempt to reconstruct missing information.

The results show markets with materially different trading structures and levels of activity.

CEGH stands out through the scale of its VTP activity, participant base and developed spot and futures segments. Both VTP nominations and EEX exchange turnover increased in H1 2026 compared with H1 2025, while the number of VTP members increased.

EnExGroup exhibits a highly continuous short-term market. Trading occurred on virtually every calendar day, average volume per active trading day increased, and trading activity was relatively evenly distributed across the period.

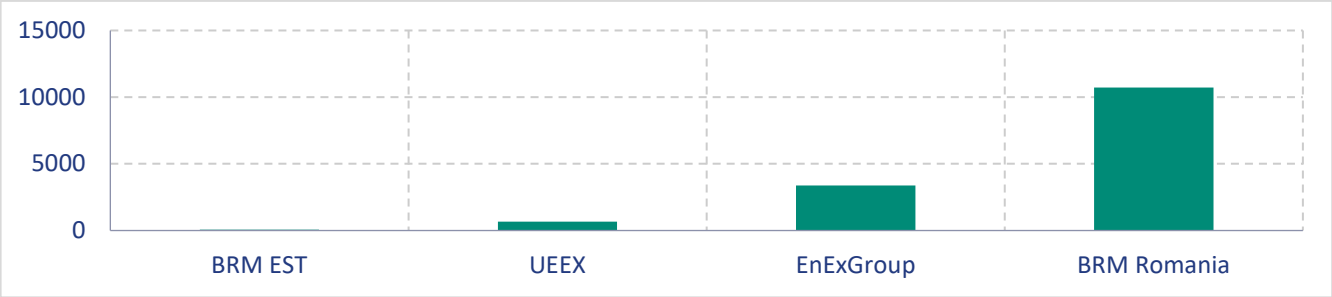


Figure 13: H1 2026 short-term market scale in GWh

BRM EST illustrates why liquidity cannot be assessed through aggregate volume alone. Despite substantially lower SPOT volume, trading became more frequent, more continuous and considerably less concentrated across individual trading days.

UEEX recorded a particularly strong increase in short-term activity from a comparatively low starting point. Short-term volume increased more than tenfold and trading expanded to approximately 97% of calendar days, although activity remained predominantly concentrated in within-day products.

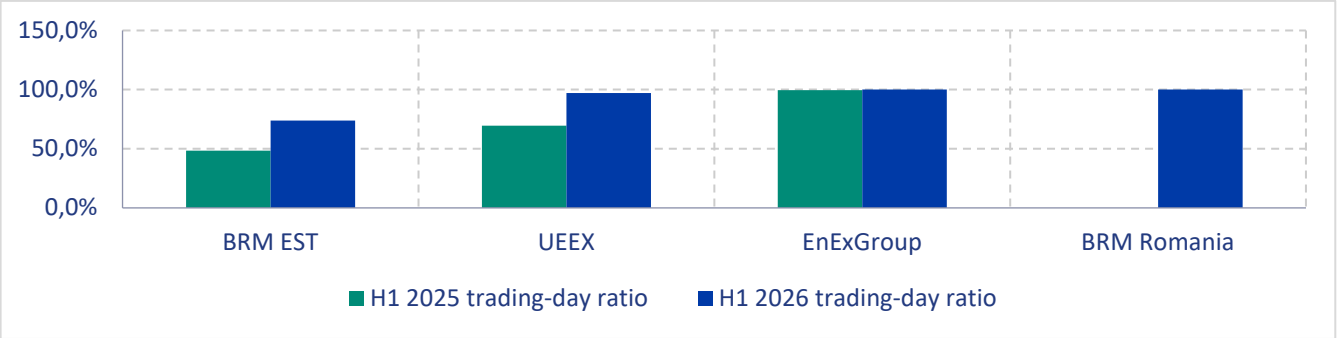


Figure 14: Trading continuity

BRM Romania recorded substantial spot and futures turnover and continuous spot trading throughout H1 2026. However, because the supplied dataset does not provide an equivalent H1 2025 comparison, its development over time cannot be assessed on the same basis as the other exchanges.

The comparison consequently supports the use of a combination of indicators rather than traded volume alone when assessing regional gas market development. Market size, trading continuity, daily market depth, product diversity, transaction frequency, concentration and participant activity provide complementary information on the functioning and development of organised gas markets.

4 Spot Price Correlation and Price Spreads

The comparison of spot prices provides an additional perspective on market interconnection. While trading volumes and participation indicators describe liquidity at individual exchanges, price relationships indicate the extent to which markets are exposed to common price signals. The analysis considers correlations and price spreads between BRM EST, EnExGroup and UEEX, separately for day-ahead and within-day products.

4.1 Price Correlation

BRM EST and EnExGroup show a particularly strong relationship. Based on daily observations from January 2025 to June 2026, the correlation coefficient was approximately 0.86 for both DA and WD prices. Using monthly averages, the correlation increased to approximately 0.94 for DA and 0.96 for WD. The two markets generally followed the same broader price movements, including the decline during 2025 and the subsequent increase in spring 2026.

UEEX shows a more differentiated pattern. For DA products, its correlation with BRM EST and EnExGroup was relatively strong, at approximately 0.79 and 0.85, respectively. For WD products, the correlations were substantially weaker, at approximately 0.34 with BRM EST and 0.23 with EnExGroup, suggesting a more distinct short-term price formation process at UEEX.

Price Correlation	BRM EST vs EnExGroup	BRM EST vs UEEX	EnExGroup vs UEEX
Day-Ahead	0,862	0,792	0,85
Within-Day	0,862	0,337	0,231

Table 1: Price Correlations between selected gas exchanges

4.2 Price Spreads

Despite their strong correlation, BRM EST and EnExGroup displayed a persistent price differential. BRM EST traded on average approximately EUR 5.01/MWh above EnExGroup for DA and EUR 5.12/MWh above it for WD. BRM EST prices were higher on approximately 91% of comparable DA trading days and 94% of comparable WD trading days. The average absolute difference was approximately EUR 5.69/MWh for DA and EUR 5.63/MWh for WD.

Compared with UEEX, BRM EST traded on average approximately EUR 3.95/MWh higher for DA and EUR 4.86/MWh higher for WD, although the WD differential varied considerably over time.

The results indicate strong price co-movement between BRM EST and EnExGroup, but not full convergence of price levels. UEEX, particularly in the WD, shows weaker correlations and greater price differentiation. These findings should be interpreted cautiously, correlation does not

establish market integration or causality, while spreads may reflect transportation costs, cross-border capacity constraints, product design, and country-specific supply and demand conditions.

Product	Price Spread	Common days	Average spread (EUR/MWh)
Day-Ahead	BRM EST – EnExGroup	300	5.01
Day-Ahead	BRM EST – UEEX	38	3.95
Day-Ahead	EnExGroup – UEEX	42	-2.62
Within-day	BRM EST – EnExGroup	149	5.12
Within-day	BRM EST – UEEX	144	4.86
Within-day	EnExGroup – UEEX	445	-1.12

Spread = first exchange price minus second exchange price. Positive values mean the first exchange was more expensive.

Table 2: Price spreads between selected gas exchanges

4.3 Data Limitations

The results presented above reflect the data made available by the respective exchanges. The Secretariat did not receive an identical dataset from each market and therefore could not calculate every indicator for every exchange. Where an indicator or a value is absent, this should not be interpreted as evidence that the relevant market characteristic or product does not exist. It means that the available dataset did not allow the indicator to be calculated on a sufficiently consistent basis, or the necessary data were not been provided.

Similarly, the figures should be interpreted according to the terminology and reporting methodology of the exchange that supplied them. In particular, OTC transactions reported by an exchange, OTC VTP nominations, exchange-traded turnover, and clearing-related nominations are not necessarily equivalent measures and should not be aggregated or directly compared without considering their respective definitions.

The analysis therefore aims to make maximum use of the information received while maintaining comparability where possible and explicitly recognising the limitations where the underlying datasets differ.

5 Remaining Barriers to Regional Market Integration

5.1 Network Codes Implementation

According to Article 70 of Regulation (EU) 2024/1789, several national regulatory authorities have requested derogations from the application of Commission Regulation (EU) 2017/459, CAM NC and Regulation (EC) No 715/2009, Annex I, CMP GLs at entry and exit points with third countries. These requests mainly concern Chapter IV of the CAM NC, in particular the bundling of standard capacity products. In some cases, they also concern the use of a joint capacity booking platform and the contractual congestion management tools.

The European Commission has decided on these derogation requests. The majority of the requested derogations were either not granted or were granted only to a limited extent. As a result, a significant majority of the requirements under the relevant network codes and guidelines will apply from gas year 2027/2028. For the Energy Community, the requests concerned several important interconnection points at the EU–Energy Community borders: Kalotina/Dimitrovgrad and Kireevo/Zaychar between Bulgaria and Serbia, Kyustendil/Zhidilovo between Bulgaria and North Macedonia, Kiskundorozsma-1 and Kiskundorozsma-2 between Hungary and Serbia, and Budince and Veľké Kapušany between Slovakia and Ukraine.

The requests were based on specific circumstances and obstacles in the respective countries. Even where these reasons justified a temporary derogation, the underlying problems should be actively addressed and, where possible, removed.

From a regional perspective, CAM NC standardised bundled capacity products and the use of joint capacity booking platforms are important for market integration and efficient gas flows across the region. Common capacity products and allocation procedures make it easier for market participants to access neighbouring markets and reduce differences in capacity booking arrangements across borders. CMP GLs complement these rules by addressing contractual

congestion. Where capacity is booked but not used, congestion management mechanisms can make this capacity available to other market participants. This is particularly important where physical capacity exists but new entrants cannot access it because it is contractually booked. Effective implementation of CAM NC and CMP GLs can therefore facilitate market entry, improve the use of existing interconnection capacity and allow gas to move in response to price differences between neighbouring markets.

Efficient cross-border gas flows are also important for effective market-based balancing. BAL NC supports this by placing responsibility for balancing primarily on network users and creating incentives for them to manage their positions through short-term trading.

This can support demand for day-ahead and within-day products and contribute to the development of more liquid short-term markets.

The network codes should therefore be implemented in an effective way and should not be used as a tool to protect or isolate national markets. Physical interconnection alone is not sufficient for market integration if capacity cannot be accessed efficiently or market participants face different arrangements on either side of a border. Effective implementation of CAM NC, CMP GLs and BAL NC helps translate existing infrastructure into effective market access and cross-border competition.

5.2 Market Liquidity and Balancing

Limited liquidity may be reflected in low exchange-traded volumes, a small number of active traders, trading taking place only on a limited number of days, or a high concentration of transactions among a few participants. In such markets, price signals may be less representative and market participants may have fewer possibilities to adjust their positions through short-term trading. This is important for the development of market-based balancing in line with the Energy Community Acquis.

Functioning gas exchanges, effective market access, sufficient cross-border capacity, efficient capacity allocation, market-based balancing allows for gas and liquidity to move more freely between neighbouring markets.

5.3 Other Regulatory/Operational Barriers

The development of integrated regional gas markets continues to require the removal of regulatory barriers that limit cross-border trade and discourage new market entrants. Existing licensing regimes across the Energy Community remain fragmented, creating administrative and financial burdens for suppliers seeking to operate across multiple jurisdictions. Differences in licensing requirements, application procedures, fees and local establishment obligations continue to increase compliance costs and may hinder competition and market liquidity.

Objectives traditionally pursued through wholesale licensing, such as market oversight, financial reliability and regulatory enforcement, can often be achieved through alternative mechanisms that impose a lower burden on market participants at the gas transmission level. In wholesale markets, credit risk is primarily managed through bilateral contractual arrangements, clearing systems and balancing frameworks, while market surveillance and enforcement can be ensured through regulatory powers that apply directly to market participants regardless of licensing status. Consequently, the gradual replacement of licensing requirements for wholesale supply activities with simple registration systems could facilitate market entry and cross-border trading while preserving regulatory oversight.

Local establishment requirements remain in place in several contracting parties. Requirements to establish a local branch, subsidiary or permanent presence before being allowed to conduct transmission and VTP title transfer activities represent a significant barrier to market integration and can discourage participation by market participants.

For retail supply activities, customer protection and security of supply remain key considerations. While licensing requirements may continue to play a role in this segment, greater harmonisation of minimum requirements at the transmission level could bring benefits.

Enhanced cooperation between national regulatory authorities, including the exchange of information, coordinated enforcement activities could support the market integration. Future implementation of common market monitoring frameworks, including REMIT-based registration and surveillance arrangements, could further strengthen regulatory oversight while reducing administrative barriers for market participants.

6 Gas Markets and the Energy Transition

The ongoing energy transition is changing the role of natural gas in the power sector. As more renewable electricity from wind and solar enters the system, gas-fired power plants are increasingly used to provide flexibility and balancing services rather than continuous baseload generation. Gas-fired plants are being used more frequently but for shorter periods to respond to fluctuations in renewable generation and changes in electricity demand.

Gas demand for power generation becomes less predictable, with lower average consumption but larger day-to-day variations. At the same time, gas-fired power plants are adapting their operations to provide response and short-term balancing services.

This document indicates that some of the regional markets already provide important elements of the short-term trading environment needed to support this changing role of gas. Regular spot trading, high trading-day ratios in the more liquid markets, significant volumes traded through short-term products, and the availability and use of both day-ahead and within-day products show that market participants can increasingly adjust their gas positions closer to the time of physical delivery. This is relevant as gas-fired generation responds more frequently to changes in wind and solar output and therefore requires greater flexibility in gas procurement.

At the same time, the results show that this capacity is not equally developed across the region. Differences in trading frequency, traded volumes, the number of active market participants and the concentration of trading among the largest participants point to different levels of market depth and liquidity. In some markets, limited within-day activity or relatively concentrated trading may reduce the ability to make larger short-notice adjustments without affecting prices. The results therefore suggest that further development of liquid short-term markets, broader participation and active day-ahead and within-day trading could strengthen the ability of regional gas markets to support increasingly flexible gas-fired power generation.

6.1 Emerging Low-Carbon Gases

There is already increasing activity on the CEGH GreenGas Platform, which provides a marketplace for biomethane and green hydrogen. Biomethane trading activity continues to

develop, as shown in Figure 15, while green hydrogen trading functionalities were introduced in January 2025, allowing market participants to publish hydrogen offers and requests.

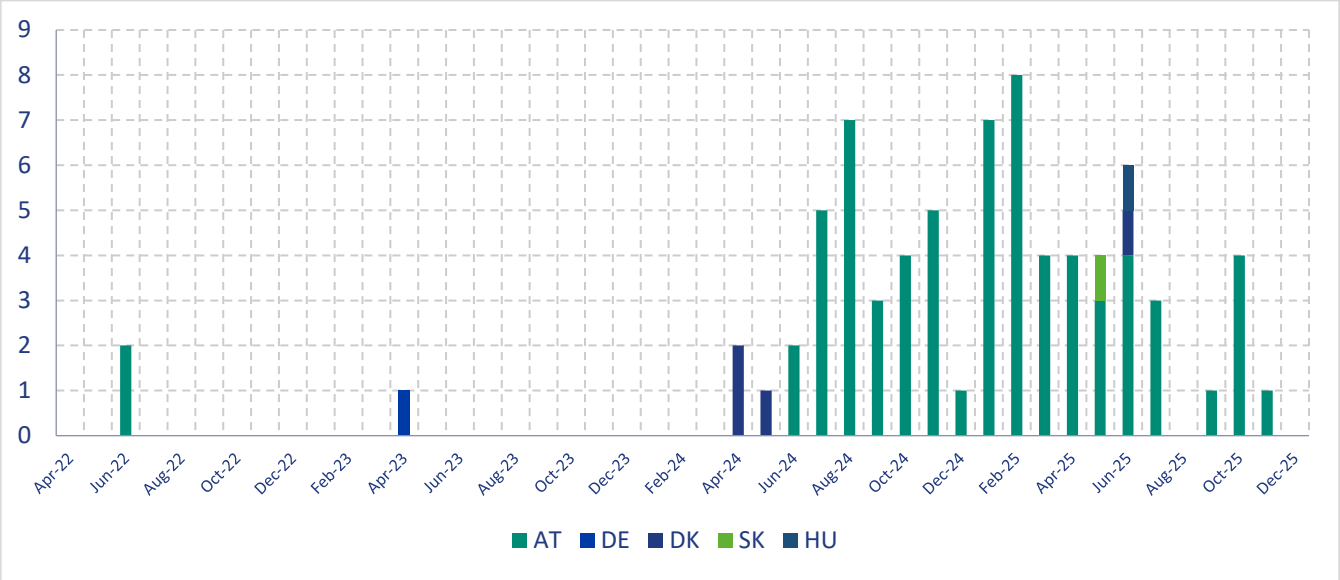
Market transparency will be particularly important as renewable gas markets develop. Transparent information on transactions, offers and requests can contribute to the emergence of price references and provide market participants with stronger signals for investment and trading decisions.

The development of such trading arrangements is particularly relevant for countries with significant but still largely untapped renewable gas potential. Ukraine represents an important example. Supported by agricultural resources, extensive gas infrastructure and growing policy support, Ukraine is positioning itself to become a significant supplier of sustainable biomethane to the European market.

Ukraine possesses one of the largest biomethane resource bases in Europe. Existing assessments estimate the country's overall biomethane production potential at approximately 242 TWh annually. The Ukrainian Government has set ambitious but phased development targets. The biomethane roadmap foresees the establishment of the necessary regulatory framework and alignment with EU legislation during 2026–2027, followed by investment mobilisation and capacity expansion up to 2030, and a subsequent phase of market maturity and export growth until 2035. Biomethane production is expected to exceed 11 TWh annually by 2030 and reach approximately 23 TWh annually by 2035. Key priorities include the development of guarantees of origin, integration with the EU Union Database, expansion of production facilities, increased utilisation of agricultural residues and improved access to export markets.

The next step will be to connect production with functioning markets. Ukraine's existing gas infrastructure, cross-border connections and trading arrangements provide a basis for injecting biomethane into the gas network and bringing increasing volumes to a broader range of buyers. The availability of renewable gas trading platforms demonstrates that market structures capable of facilitating such transactions are already beginning to emerge in Europe.

For Ukraine and other markets in the region, the development of biomethane trading could therefore become a further dimension of regional gas market integration.



Source: CEGH

Figure 15: Number of offers per country of origin at CEGH

7 Key Findings

Gas market development remains uneven across the region, with significant differences in liquidity, trading frequency, participant numbers and product availability. Short-term trading activity is improving in several markets. UEEX recorded strong growth in short-term volumes and trading frequency, while BRM EST recorded more frequent trading despite lower aggregate volumes. EnExGroup shows high trading continuity, while BRM Romania shows continuous short-term trading, substantial traded volumes and a developed combination of spot and futures activity. CEGH remains the largest hub covered by the analysis in terms of VTP and exchange activity. Smaller markets continue to have limited liquidity, trading products and few active participants.

7.1 Main Regional Trends

Trading continuity is improving in several developing markets, although market depth remains uneven. Regional gas prices generally show common movements, but persistent price differentials remain, indicating incomplete price convergence. Physical interconnection alone is not sufficient for market integration and needs to be supported by effective capacity allocation, market access and market-based balancing.

7.2 Key Risks and Challenges

The main challenges are fragmented market rules, incomplete implementation of network codes, low liquidity and limited numbers of active traders in several smaller markets. In some markets, liquidity also remains concentrated in a limited number of products or participants. Article 70 derogations may affect the implementation of bundled capacity and common capacity-booking arrangements at certain borders for gas year 2026/2027. Persistent price differences and uneven market development continue to limit regional integration.

7.3 Priority Recommendations

Priority should be given to effective implementation of the network codes, particularly congestion management, capacity allocation and market-based balancing requirements. Cross-border capacity access, bundling as foreseen by the CAM NC and booking arrangements should be further improved. Smaller markets require deeper day-ahead, within-day and forward liquidity and broader participation. Stronger links between national markets should support the development of regional rather than isolated national liquidity. More harmonised collection of trading, participation, concentration and price data would also allow more consistent monitoring of regional market development.

8 Conclusions

The analysis shows significant differences in the development of organised gas markets across the SEEGAS region. CEGH remains the largest hub covered by the analysis, while EnExGroup and BRM Romania recorded continuous or nearly continuous short-term trading. UEEX showed strong growth in short-term volumes and trading frequency between H1 2025 and H1 2026, while

BRM EST recorded more frequent and less concentrated trading despite lower aggregate volumes.

The results also show that traded volume alone does not provide a complete picture of market development. Trading frequency, volume per active trading day, product composition, market participation and concentration provide additional information on the depth and continuity of organised trading. The available data also show considerable differences in the development of day-ahead, within-day and forward or futures markets across the exchanges analysed.

Regional market integration continues to depend on the conditions for cross-border trade. Differences in network code implementation, capacity allocation, balancing arrangements and licensing requirements remain relevant barriers to market participation and the movement of gas and liquidity between neighbouring markets.

This pilot report establishes an initial baseline for monitoring these developments. Future editions could expand the number of participating exchanges and, subject to data availability, compare full calendar years. More consistent data collection across exchanges would also improve the comparability of the markets.

9 List of Contributors

The preparation of this report benefited from the cooperation and contributions of gas exchanges [redacted]llowing organisations for providing data, responding to requests for clarification and contributing their expertise to the interpretation of market development and trading activity:

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- EnExGroup: https://www.enexgroup.gr/web/guest/gas-official-list
- UEEX: https://www.ueex.com.ua/eng/