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**Ensuring well-functioning gas markets
Report by the Gas Market Task Force (“GMTF”)**

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EXECUTIVE SUMMARY

- (1) The Gas Market Task Force (GMTF) was created in February 2025, in the context of the Clean Industrial Deal ⁽¹⁾ and the action plan for affordable energy (APAE) ⁽²⁾. Its members are drawn from Commission departments and EU agencies with regulatory or oversight powers in relation to gas and gas derivatives markets. Specifically, these are: the Directorate-General for Competition (DG COMP), Energy (DG ENER), Financial Stability, Financial Services and Capital Markets Union (DG FISMA), Climate Action (DG CLIMA), and the Agency for the Cooperation of Energy Regulators (ACER) and the European Securities and Markets Authority (ESMA).
- (2) The GMTF was tasked with comprehensively scrutinising the EU natural gas markets and identifying possible shortcomings in their functioning, bearing in mind the Commission’s commitment to simplification and burden reduction. With this aim, analytical work was carried out in several workstreams to assess the performance of EU gas markets in order to recognise possible inefficiencies or shortcomings. The analytical work provided the basis for this report’s final findings, which identify actions that could further improve both the functioning of gas markets and the monitoring and regulatory oversight of them.
- (3) Before presenting the GMTF’s main area of analysis, this report contains a succinct descriptive section highlighting how European gas markets have undergone significant shifts from 2022 to 2025. These shifts are driven mainly by geopolitical events, increasing dependence on LNG and evolving market fundamentals. The EU gas landscape shifted dramatically following Russia’s invasion of Ukraine, resulting in reduced Russian pipeline imports, down from 42% of EU supply in 2021 to 12% by Q3 2025, amid political and contractual disruptions. A short overview is finally given to the developments following the Gulf crisis in 2026 and some of the initial impacts on European gas markets. The report also describes expected trends in EU gas markets, in particular the EU’s pivot towards renewable energy and the boost in LNG regasification capacity.
- (4) The report also provides the legal and policy context, including recommendations made in the Draghi report.
- (5) As far as the analytical work is concerned, the GMTF has focused its efforts on the key workstreams listed below.
- (6) **Mapping of the gas supply and derivatives markets and concentration levels in gas trading:** the GMTF has carried out a structural mapping of the

⁽¹⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, The Clean Industrial Deal: A joint roadmap for competitiveness and decarbonisation, COM(2025) 85 final.

⁽²⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Action Plan for Affordable Energy – Unlocking the true value of our Energy Union to secure affordable, efficient and clean energy for all Europeans, COM(2025) 79 final.

EU upstream and downstream wholesale gas supply markets. The GMTF analysis showed that, during the period analysed, both markets exhibited characteristics of markets with low levels of concentration. More specifically:

- (a) the **EU upstream wholesale gas supply market** features many market participants, with the top three players accounting for a combined market share of approximately [40-50]% and the remainder of the market being very fragmented;
 - (b) the **EU downstream wholesale gas supply market** is very fragmented, featuring several thousand market participants. Only two participants hold market shares within the [5-20]% range.
- (7) The GMTF also conducted an analysis of the concentration of Title Transfer Facility (TTF) derivatives trading on EU venues and concluded that the degree of concentration in positions, including during the crisis period, did not and still does not raise any concerns as regards the orderly functioning of the gas derivatives markets.
- (8) **Algorithmic trading:** In view of the widespread use of algorithms in commodity trading, including in gas and gas derivatives markets, the GMTF gathered publicly available knowledge about the potential impact of algorithmic trading on these markets' functioning. The risks discussed include: (i) potential facilitation of collusive outcomes among market participants; (ii) a potential disconnection between fundamental market information and algorithm-driven trading behaviour; (iii) lower transparency; and (iv) potential new patterns of manipulation. Attention was also paid to how algorithmic trading is associated with increased liquidity and efficiency of price discovery. While the discussion was not conclusive, these risks warrant continued monitoring.
- (9) **REMIT implementation:** The GMTF assessed how far Member States have taken all necessary measures to ensure effective enforcement of Regulation (EU) No 1227/2011 (the 'REMIT' Regulation). REMIT plays an important role in ensuring the orderly functioning of wholesale energy markets through market surveillance and the detection of – and enforcement against – market manipulation. The GMTF analysis found that some national regulatory authorities⁽³⁾ are not fully equipped with all the necessary and legally required means for investigating and taking enforcement action against market abuse. Moreover, most Member States have not aligned their penalty framework with the REMIT legislation. Finally, some national regulatory authorities face challenges over human and financial resources, posing a risk to effective enforcement against market abuse. The GMTF also noted that the Commission adopted on 30

⁽³⁾ National regulatory authorities are designated in accordance with Article 57(1) of Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity or Article 76(1) of Directive (EU) 2024/1788 of the European Parliament and of the Council of 13 June 2024 on common rules for the internal markets for renewable gas, natural gas and hydrogen, amending Directive (EU) 2023/1791 and repealing Directive 2009/73/EC (recast).

January 2026 Commission Implementing Regulation (EU) 2026/256⁽⁴⁾ (the ‘revised REMIT Implementing Regulation’), which introduced implementing measures to put into practice the expanded scope of the reporting obligations, which resulted from the recent revision of REMIT legislation.

- (10) **FISMA/ENER public consultation:** On 26 February 2025, the Commission launched a targeted consultation to cover the topics referred to in the review mandate under Article 90(5) of Directive 2014/65/EU (MiFID), as well as certain topics relating to the functioning of spot energy markets. This consultation covered a wide range of topics, including the ancillary activity exemption, position limits and position management controls, and data and reporting matters, bearing in mind the need to reduce burdens on market participants. The consultation also sought stakeholders’ views on certain proposals for changes in the regulatory framework for commodity derivatives and spot markets as set out in the Draghi report. On derivatives and the spot market, the outcome of the consultation was as set out below.

Derivatives market aspects

- (11) The overall feedback from the stakeholders, including regulators, was that the current rules on the trading of commodity derivatives are generally considered fit for purpose by respondents from the industry and public authorities. Stakeholders did, however, also mention a number of areas for improvement, which would further enhance the efficiency of supervision and reduce the burden on market participants.
- (12) Several stakeholders considered that the position management control powers of trading venues should be improved to allow them to request additional position information on a wider range of over-the-counter (OTC) contracts. This would apply when positions in such contracts can influence the price of contracts traded on their venue, and in specific circumstances, such as during periods of market stress or heightened risk. Public authorities also advocated strongly for closing the reporting gap on positions held by third-country market participants. This would better enforce position limits and increase the visibility of third-country market participants’ positions. Lastly, some stakeholders highlighted that the procedure for granting hedging or liquidity provision exemptions from position limits could be made more agile. This could be achieved by transferring the granting of such exemptions from national competent authorities⁽⁵⁾ to trading venues.

⁽⁴⁾ Commission Implementing Regulation (EU) 2026/245 of 30 January 2026 on data reporting implementing Article 7c(2), Article 8(1a), Article 8(2) and Article 8(6) of Regulation (EU) No 1227/2011 of the European Parliament and of the Council on wholesale energy market integrity and transparency and repealing Commission Implementing Regulation (EU) No 1348/2014.

⁽⁵⁾ National competent authorities are the authorities designated by each Member State to carry out each of the duties provided for under the different provisions of Regulation (EU) No 600/2014 (MiFIR) and Directive 2014/65/EU (MiFID).

Spot market aspects

- (13) The vast majority of respondents, including regulators, expressed the view that the currently applicable legal framework, at both EU level (i.e. REMIT) and national level, ensures the proper functioning of spot markets. Any imposition of additional regulatory requirements, such as position limits and circuit breakers, could affect market participants' ability to meet real-world demand, market liquidity and ultimately the affordability of energy prices. On the basis of similar reasoning, there was strong opposition to the imposition of additional organisational and operational requirements on trading venues and market participants.
- (14) The GMTF also analysed the specific impact of implementing gas storage obligations on the functioning of gas derivatives markets. The analysis has shown that implementing storage obligations in the absence of sufficient hedging strategies risks amplifying price pressure on gas market, as it creates a missing correspondence of supply in derivatives markets. This highlights the need to consider these market interactions in any future reviews of EU/national gas storage provisions and their implementation.
- (15) On the basis of its analysis, the GMTF concluded its work with the following findings:

Finding 1: It is important that the Commission, together with EU and national authorities with regulatory and oversight powers for gas and gas derivatives markets, continues to actively monitor, as a matter of priority, the market developments at all levels of the natural gas supply chain.

Finding 2: It would be valuable for the Commission to work closely with ACER to develop new data-screening tools leveraging the REMIT database.

Finding 3: It would be beneficial for the Commission to engage with ACER, ESMA and the relevant national authorities in a structured dialogue and data exchanges, with a focus on the use of algorithmic trading tools, including AI-based algorithms and their impact on trading activity and, in particular, on the price formation of gas and gas derivatives.

Finding 4: It is essential that market participants take the necessary measures to be ready for timely compliance with the obligations in the revised REMIT Implementing Regulation.

Finding 5: It is essential that Member States ensure effective and timely implementation of REMIT.

Finding 6: It is important that Member States ensure that their national regulatory authorities are equipped with all the necessary human and financial resources to carry out REMIT tasks.

Finding 7: It would be valuable to increase the effectiveness of MiFID position reporting by giving national competent authorities access to end-position holders.

Finding 8: It would be valuable for trading venues to have access to a broader set of OTC derivative data for position management control purposes.

Finding 9: It is valuable to ensure a level playing field in position limits by clarifying the scope of position limit reporting.

Finding 10: The procedure for granting hedging or liquidity provision exemptions could be made more agile.

Finding 11: The Commission could consider setting up a one-off notification for entities trading under the ancillary activity exemption (AAE).

Finding 12: It would be valuable for Member States to ensure storage obligations that they implement have a minimal impact on the functioning of derivatives markets.

Finding 13: It would be valuable for ACER and ESMA to create a workstream to ensure more efficient data use and improve the data-sharing framework across entities and regulations.

Finding 14: Market supervision could be enhanced by improving ACER/ESMA cooperation.

INTRODUCTION AND MARKET CONTEXT

- (1) The Gas Market Task Force (GMTF) was created in February 2025, in the context of the Clean Industrial Deal ⁽⁶⁾ and action plan for affordable energy (APAE) ⁽⁷⁾. As mentioned in the APAE, ‘the importance of gas markets for our economy makes it essential to ensure an optimal functioning of those markets. Full regulatory oversight and close cooperation between energy and financial regulators is required to prevent market manipulation and to close any possible loopholes related to any lack of transparency, asymmetry of information and risk of market concentration.’ It was against that backdrop that the Commission set up the GMTF.
- (2) The GMTF comprises members from Commission departments and EU agencies with regulatory or oversight powers in relation to gas and gas derivatives markets. Specifically, these are: the Directorates-General for Competition (DG COMP), Energy (DG ENER), Financial Stability, Financial Services and Capital Markets Union (DG FISMA) and Climate Action (DG CLIMA), and the Agency for the Cooperation of Energy Regulators (ACER) and the European Securities and Markets Authority (ESMA).
- (3) The GMTF was tasked with comprehensively scrutinising the EU natural gas markets and identifying possible shortcomings in their functioning and identifying actions that could address the issues identified, and making proposals aiming to reduce the administrative burden imposed on market participants.

Development of market fundamentals in European gas markets (pre- and post-crisis landscape: role of LNG, gas demand, dependency on Russia and other countries, interconnectivity, etc.)

- (4) In 2023, natural gas accounted for about 20.4% of the EU’s gross available energy ⁽⁸⁾, making it the second-largest single source after petroleum and petroleum products. Electricity generation data show that in 2023 gas contributed approximately 17% of the EU’s electricity mix, ranking below renewables but above coal. By March 2026, the share of gas in EU electricity generation had slightly decreased further: natural gas contributed about 16.7% of the net electricity generated, while combined renewables (overall 47.3% with wind at 17.7% and solar (13.0%), and nuclear (23%) had larger shares.⁽⁹⁾

⁽⁶⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, The Clean Industrial Deal: A joint roadmap for competitiveness and decarbonisation, COM(2025) 85 final.

⁽⁷⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Action Plan for Affordable Energy – Unlocking the true value of our Energy Union to secure affordable, efficient and clean energy for all Europeans, COM(2025) 79 final.

⁽⁸⁾ Shedding light on energy in Europe – 2025 edition, available at: <https://ec.europa.eu/eurostat/web/interactive-publications/energy-2025>.

⁽⁹⁾ DG ENER own calculation based on Eurostat.

Gas supply fundamentals and flows

- (5) The European Union is heavily dependent on gas imports (around 88% in 2024 ⁽¹⁰⁾). Gas supplies reach the EU through four main pipeline corridors from different supply origins ⁽¹¹⁾, alongside multiple LNG import terminals. While the relative importance of each gas supply origin varies from region to region, flows are well balanced through a highly interconnected gas network that aids both market integration and security of supply. The EU network's ability to withstand a range of demand and supply scenarios is assessed twice a year by ENTSOG ⁽¹²⁾.
- (6) Historically, Russian supplies have accounted for the largest share of EU gas imports. However, since 2022, and following Russia's invasion of Ukraine, EU gas supplies have undergone a major shift. Pipeline imports from Russia have fallen sharply as a result of contract terminations and the weaponisation of gas supply. Russian supply share had declined from 42% of EU total supply in 2021 to just 12% by Q3 2025 (now split roughly evenly between LNG and pipeline deliveries ⁽¹³⁾). The reduction of Russian pipeline supply has been offset by lower consumption and a substantial increase in LNG imports, which in 2025 accounted for around 40% of final EU gas supply. Following significant production growth in the past couple of years, LNG supply from the United States has accounted for more than half of EU LNG imports since 2023, and 29% circa of overall gas imports, surpassed only by pipeline imports from Norway (31%).

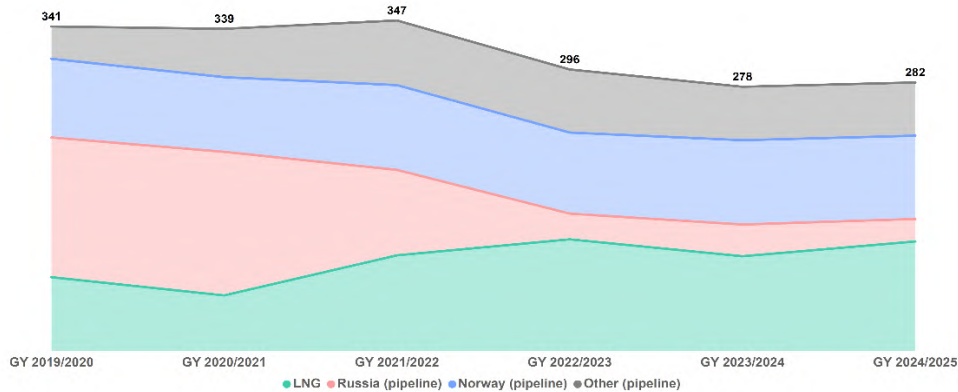
⁽¹⁰⁾ In turn, EU domestic natural gas production accounts a gradually decreasing share of consumption (approximately 12% in 2024). Biomethane output reached 6 bcm in 2024 and the target is for it to increase significantly under the REPowerEU plan to 35 bcm by 2030. If that target is met, the growth should help offset the fall in domestic production and reduce reliance on external suppliers.

⁽¹¹⁾ Eastern corridors comprise gas sourcing routes from Russia across Belarus, Türkiye and Ukraine; North Sea corridors comprise import routes from Norway and the United Kingdom; southern corridors enable supplies from the Caspian Sea, off the coast of Azerbaijan; and North African corridors include gas sourcing infrastructure from Algeria, Libya and Tunisia.

⁽¹²⁾ The recent Winter Supply Outlook 2025/2026 identifies no supply risks under the reference case, even assuming a complete disruption of Russian pipeline deliveries. In its recent opinions, ACER recommends strengthening this analysis by complementing ENTSOG's infrastructure assessments with an evaluation of gas supply adequacy.

⁽¹³⁾ Russian flows have historically reached Europe through four major interconnectors and routes: Nord Stream (across the Baltic Sea and into Germany), Yamal (across Belarus and via Poland), Ukraine transit routes and TurkStream (via Türkiye). Since gas transits across Ukraine ceased in January 2025, only the last route is operational at present, with 16-17 bcm projected until the end of 2025. In 2024 the EU imported 20 bcm of Russian LNG, while by the end of September 2025 it had imported 14 bcm.

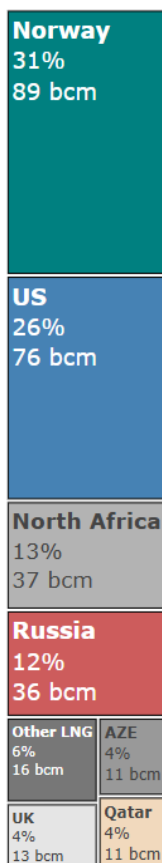
Figure 1: EU gas imports per main supply source – GY 2019/2020 to GY 2024/2025 (bcm)



Source: ACER based on ENTSOG and GIE data.

Note: The aggregated figure represents total EU gas imports for six gas years running from 1 October to 30 September. When added to domestic production and the net change in storage stocks, it equals final consumption.

2025



Total: 289 bcm

(7) Since the onset of the 2022 energy crisis, imports of LNG from non-Russian suppliers rose from around 60 bcm in 2021 to more than 100 bcm per year by 2023. LNG of non-Russian origin now represents at least 30% of EU imports, double its share before the crisis.

(8) Looking ahead, LNG imports expected to continue to play an important role in satisfying internal gas demand in the EU. The EU remained the world’s largest importer of LNG, with a 23% share in global imports, and 31 bcm of LNG imported in the first quarter of 2025 alone ⁽¹⁴⁾.

(9) On the upstream side, nearly 270 bcm of new global LNG export capacity from projects already approved is projected to enter the market each year between 2025 and 2030., An additional 33 bcm of liquefaction capacity came online in 2025 alone, with expectations set for over 50 bcm

Figure 2. 2025 Natural gas import in EU per source

Source: European Commission based on ENTSO-G and Refinitiv

⁽¹⁴⁾ Market Observatory for Energy, DG Energy, ‘Quarterly report on European gas markets’, Volume 18.

in 2026, nearly 70 bcm in 2027 and another 50 bcm in 2028 ⁽¹⁵⁾. With the additional liquefaction capacity to be brought into the market by 2028, the domestic regasification capacity in the EU will enable LNG imports for roughly five times the volume of Russian gas once imported by the EU ⁽¹⁶⁾. Additional global capacity will increase the availability of LNG for global buyers.

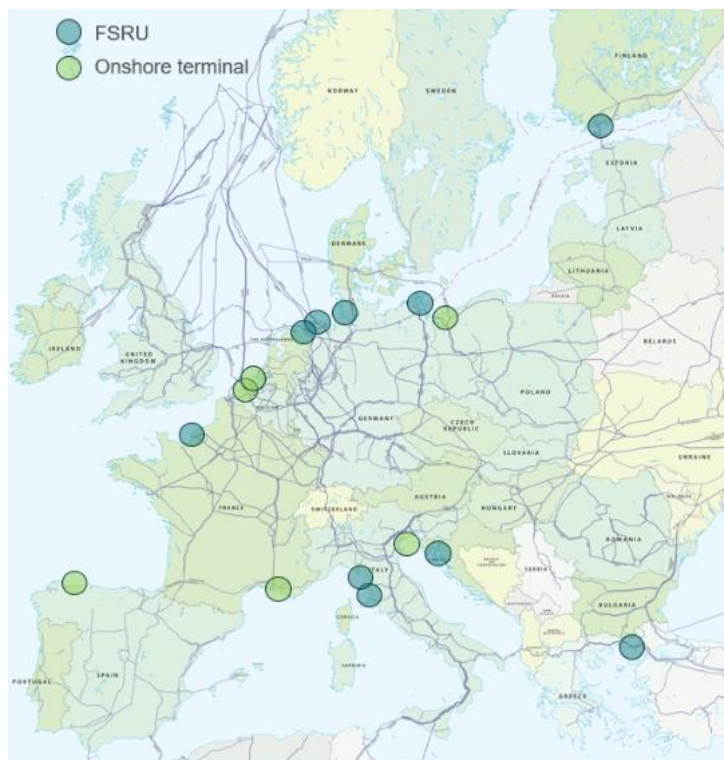


Figure 3: Location of new LNG regasification capacities in the EU since 2022

Source: DG ENER based on ENTSOG

- (10) In 2024, EU gas demand was approximately 17% below the EU 2017-2021 average. At EU level, the reduction in demand has been spread relatively evenly between industry, gas-fired power generation and households/commerce. However, this is not always mirrored at Member State level ⁽¹⁷⁾.
- (11) The loss of Russian pipeline flows, combined with the lower demand and the greater reliance on LNG, has reconfigured EU gas flows. Westward cross-border flows, which historically carried Russian gas from the eastern borders

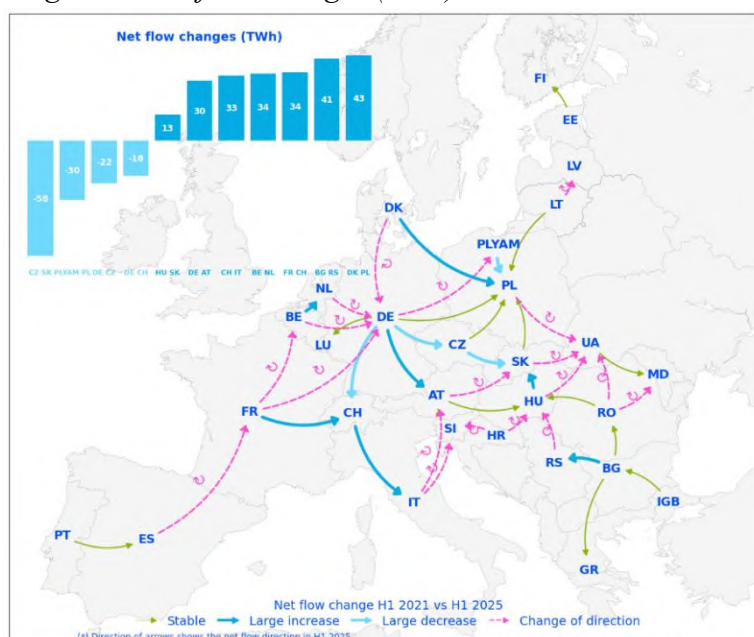
⁽¹⁵⁾ These estimates preceded the evolution of the 2026 Gulf crisis. Following military strikes on the Ras Laffan complex in March 2026, QatarEnergy announced a force majeure declaration, bringing all LNG output to a halt amid the deepening Middle East crisis. The company also warned that the launch of its North Field East expansion, previously expected by the end of 2026, would almost certainly be postponed, though the exact timeline for the delay was still undetermined by mid-March and would depend on how the conflict unfolded.

⁽¹⁶⁾ IEA (January 2025), ‘Gas Market Report, Q1-2025’.

⁽¹⁷⁾ The exact breakdown of gas consumption per sector highlights the diverse dynamics of gas in the various national markets. Key influencing factors at national level include overall economic growth and weather fluctuations, while more structural factors relate to households’ heating needs, industrial activity and the market electricity mix.

into central and western Europe, have been disrupted. In their place, west-to-east and south-to-north flows have intensified, alongside direct LNG imports. The figure below shows the largest cross-border gas flow changes between 2021 and the first half of 2025.

Figure 4: Net flow changes (TWh)



Source: ACER capacity use market monitoring report, based on JRC and ENTSOG.

Note: A change in flow direction since the first half of 2021 is shown in pink. Net flows that have continued in the same direction are represented by blue or green arrows: dark blue indicates a large increase in net flows (of greater than 10 TWh/year), light blue a large decrease in net flows (of greater than 10 TWh/year) and green indicates a stable net flow (change of less than 10 TWh/year).

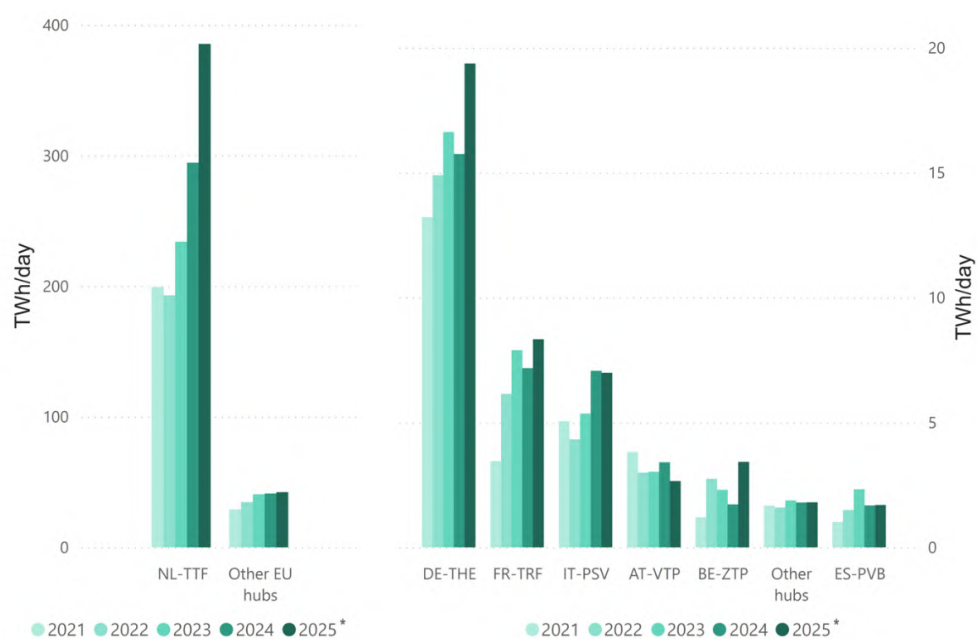
Gas prices, drivers and development

- (12) Over the past decade, European gas pricing under long-term supply contracts has shifted decisively from predominantly oil-indexed pipeline contracts to market-based, hub-referenced pricing. This transition has been expedited by market liberalisation, infrastructure buildout and the reconfiguration of physical flows following the 2022 energy crisis .
- (13) This structural change is also reflected in the rapid rise in the importance and liquidity of traded hubs, led by the Title Transfer Facility (TTF) in the Netherlands.
- (14) The TTF has consolidated its position as the primary gas pricing hub in Europe, serving as the price reference for both physical and financial gas transactions across the continent. It is now increasingly referred to as a global benchmark for natural gas prices, beyond EU borders. Its high liquidity, liquid derivatives markets (futures and options) and wide participation by market actors make it the key benchmark for short- and medium-term gas prices. Traded volumes have increased sharply in recent years, and the TTF has evolved into a mature

and highly liquid risk management hub, serving not only the Dutch market, but also the broader European gas system and beyond. It now functions as a key pricing reference for LNG cargoes delivered into north-western Europe, reinforcing its role as the benchmark for regional gas trading. Its prominence is underscored by its substantial trading volumes and liquidity. In 2025, the TTF's traded volumes were projected to approximately double those in 2022, reflecting a broader recovery in European gas trading volumes.

- (15) Figure 5 shows a comparison of natural gas volumes traded in the TTF and other EU virtual trading points (VTPs) between 2021 and 2025.

Figure 5: Comparison of natural gas traded volumes



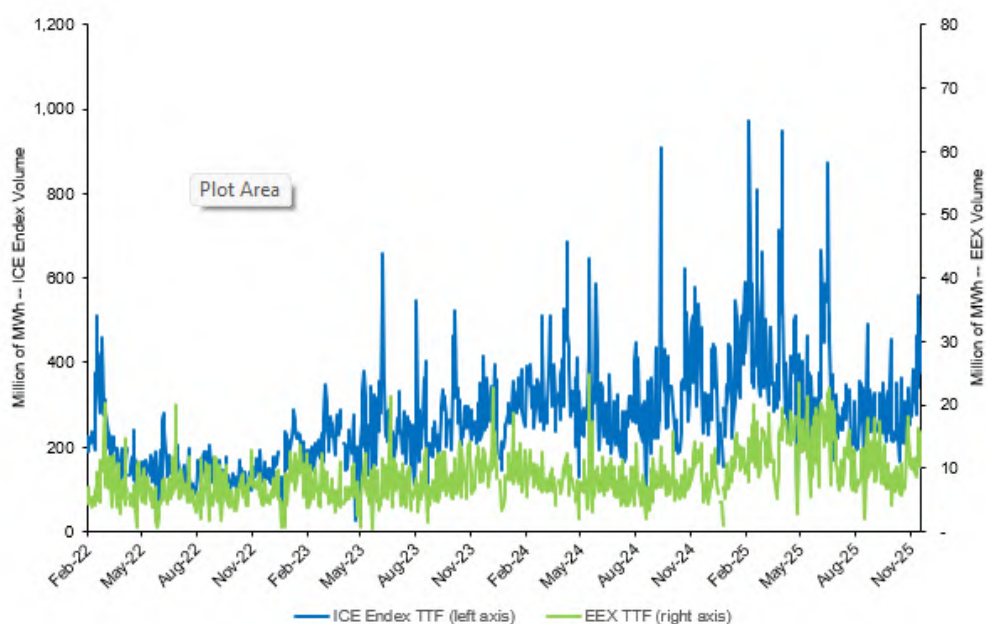
Source: ACER, based on REMIT data ⁽¹⁸⁾

Note: The analysis considers volumes traded via exchanges or brokers; options and swaps are not included. 'TTF' stands for Title Transfer Facility, the virtual gas trading point in the Netherlands. 'VTPs' stands for virtual trading points.

- (16) Figure 6 shows how TTF derivatives trading volumes have evolved since January 2022, on the two main European venues, ICE Exend and EEX.
- (17) The decrease of TTF prices was accompanied in 2025 by a material increase in trading volumes on both trading venues.

⁽¹⁸⁾ Disclaimer: The accuracy of any analysis based on REMIT data, as well as any conclusions or opinions drawn from that analysis, is not the responsibility of ACER. The REMIT data used may not be complete, fully accurate or reported in a timely manner. ACER cannot be held liable for any improper or incorrect use of the data. This disclaimer applies to all figures, analyses and forms of information throughout this report that make use of REMIT data.

Figure 6: Development of TTF derivatives trading volumes between January 2022 and November 2025, on ICE Endex and EEX.



Source: Refinitiv EIKON, ESMA

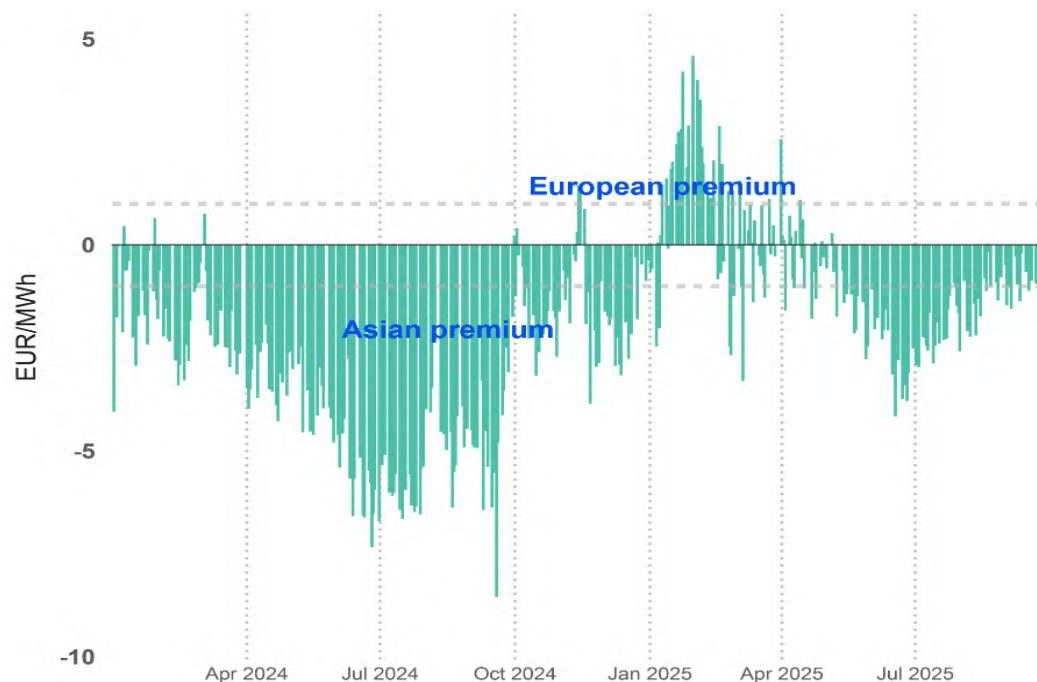
Note: Daily total volumes, in millions of MWh, for TTF natural gas futures traded on ICE Endex (left axis) and EEX (right axis), all maturities combined.

- (18) TTF prices are used to set contract values for a substantial share of gas supply in north-western Europe and increasingly influence pricing in other European markets through cross-border trade and arbitrage.
- (19) Wholesale natural gas prices in the European Union have experienced dramatic fluctuations over the past three years. In 2022, the Russian invasion of Ukraine triggered a sharp supply disruption, sending TTF benchmark prices above EUR 300/MWh at their peak, when EU wholesale prices reached record highs to attract additional flows and reduce demand amid intense competition among buyers, rerouting-related congestion and security-of-supply storage needs. In 2023, prices stabilised at more moderate levels as EU countries diversified supply through increased LNG imports, boosted storage levels and reduced demand, with averages falling significantly from the previous year. Throughout 2024 and 2025, the market remained relatively stable, supported by high storage, continued LNG inflows and mild weather, with prices generally fluctuating around EUR 30-40/MWh.
- (20) The increased supply reliance of EU gas demand on the global LNG market has also contributed to the change of gas price dynamics in Europe. The volume and share of LNG in EU imports has risen sharply since 2022, a structural shift that made European prices more exposed to the global LNG market. As LNG cargoes are globally fungible and can be redirected to the highest-value market, the past few years have recorded an increased alignment between European hub prices and global LNG benchmarks (for example, the Japan Korea Marker – JKM), particularly when shipping, regasification capacity and global supply are ample. Empirical measures show a high correlation between the TTF and the JKM in recent years (the correlation was

at approx. 0.9 in 2024 and reached record highs of around 0.95 in the first half of 2025), indicating growing market integration, in particular when compared with pre-crisis levels, when LNG prices consistently traded at a premium over the TTF, with a differential of more than 50% between the two prices.

- (21) However, important episodes of divergence have occurred over recent years, in particular in periods of regional stress (pipeline outages, extreme weather, regasification bottlenecks). In 2022, the sudden loss or, in some cases, curtailment of pipeline flows into Europe produced scarcity and volatility: the TTF spiked to high levels (the 2022 crisis saw front-month TTF peaks that far outstripped typical global LNG prices), and basis risk between the JKM and the TTF widened sharply, with the average JKM/TTF spread in 2022 amounting to about –EUR 25/MWh, even reaching at some point about –EUR 85/MWh. This showed times when Europe paid significantly more (or less) than Asian buyers, depending on regional tightness, infrastructure bottlenecks and seasonal demand. This became evident as the 2026 Gulf crisis evolves, where impacts on a significant share of LNG supply destined to Asia have led Asian market to reach historically high premiums compared to European markets. While this revealed Asia’s structural dependence on Gulf hydrocarbons, European markets shown exposure to global shocks as the price-gaps are likely to develop in a cross-basin competition between Asian and European markets for flexible LNG cargoes.

Figure 7: Comparison of TTF and Asian spot LNG month-ahead prices, 2024–Q3 2025 (EUR/MWh)

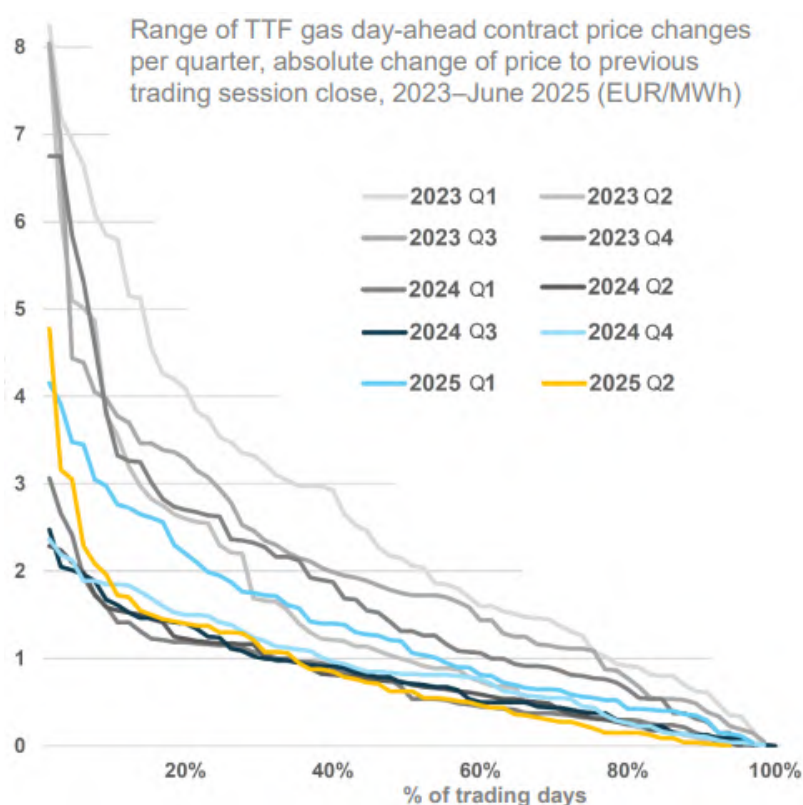


Source: ACER based on ICIS and S&P global data.

- (22) Conversely, when global LNG supply is abundant, the TTF tends to trade closer to global-hub levels as arbitrage via seaborne cargoes relinks prices.
- (23) Before 2022, European wholesale gas (notably in the TTF) traded at relatively low and stable levels (typical front-month/spot ranges in ‘normal’ years were often between EUR 20 and EUR 30/MWh) with modest realised volatility as

markets were largely supported by steady pipeline flows and long-term contracts that dampened short-term swings. Following the 2022 crisis, natural gas derivatives prices have substantially declined (across maturities) and remained well below the levels seen in 2022, where the extreme volatility of prices was associated with a sharp deterioration in market liquidity. After 2022, the market remained rather volatile amid intensifying geopolitical pressures and limited supply flexibility to meet episodes of high demand. This became evident in late winter 2024/2025, for example, when prices surged due to low storage levels and weak renewable output, prompting the EU to attract international LNG. While LNG markets have proved able to cushion demand fluctuations in the EU gas market, the increased reliance on the global LNG market exposes the EU to shocks occurring in other regions of the world (the LNG share in the EU mix has doubled since the 2022 crisis, from about 20% to 40%).

Figure 8: Range of TTF gas day-ahead price changes per quarter, absolute change of price to previous trading session close, from 2023 to June 2025 (EUR/MWh)



Source: ACER based on ICIS data

- (24) Since July 2025, and until February 2026, European gas prices have experienced considerably lower levels of volatility, the lowest since the 2022 crisis, with gas being traded in a narrow price range of from EUR 30.995/MWh to EUR 35.595/MWh. Steady fundamentals, EU clean energy diversification efforts and the absence of significant geopolitical shocks saw prices in the third quarter of 2025 drop to the lowest level since 2020 ⁽¹⁹⁾.

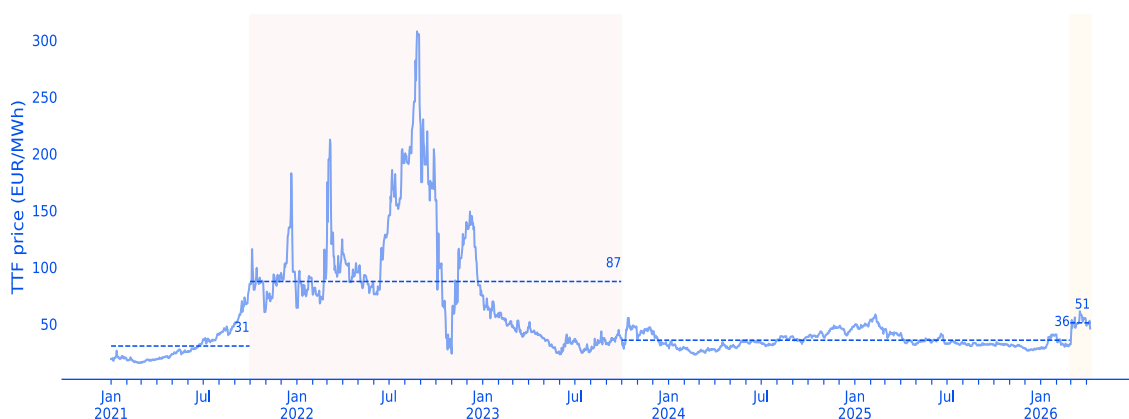
⁽¹⁹⁾ ACER, *Key developments in European gas wholesale markets – Q3 2025, 2025 Monitoring Report*.

- (25) The 2026 Gulf crisis led to the de facto closure of the Strait of Hormuz, a critical transit route through which roughly 20% of global oil and LNG flows normally transit. The escalation led also to damages to infrastructure and delayed expansions in Qatari's LNG production and export. Following the disruption of global supply logistics, the impact on European gas markets has been primarily price-driven rather than linked to immediate supply shortages. Alternative supply routes and reserves prevented immediate supply collapse, but market currently sits on structurally high and very volatile price, driven by the strong uncertainties on both the supply capacity of Gulf's exporters, notably Qatar, as well as the duration of the reestablishment of normal supply routes.
- (26) In response to rising energy costs and the escalating Middle East conflict, the Commission put forward on 22 April 2026 the AccelerateEU strategy. AccelerateEU includes a comprehensive plan of actions and measures to bring immediate and more structural relief measures to European citizens and businesses by accelerating the transition to homegrown, clean, affordable and abundant energy and reducing dependency on fossil fuels ⁽²⁰⁾, thereby giving us energy independence and security.
- (27) While the latest analysis confirms that there are no immediate critical concerns on the EU supply security ⁽²¹⁾, the combined effects of the crisis determine a return to market tightness, as the global competition on LNG supply with Asia will likely rise. TTF gas prices went up to 42% since start of conflict, due to reduced LNG availability (notably from Qatar) and heightened market uncertainty. Prices are set to remain structurally high and very volatile with no quick return to pre-crisis oversupplied LNG markets in 2026 and beyond given the damages to infrastructure and delayed Qatari's expansions. The 2026 Gulf crisis underscores Europe's structural exposure to global LNG trade disruptions, where even partial supply dislocations translate rapidly into price volatility and tighter global competition for cargoes.

⁽²⁰⁾ COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS AccelerateEU - Energy Union Affordable and Secure Energy through Accelerated Action ((EU/2026/370), available at [AccelerateEU to strengthen EU energy resilience - Energy](#).

⁽²¹⁾ Based on DG ENER internal analysis and scenarios included in ENTSOG, *SUMMER SUPPLY OUTLOOK 2026*. See also: [Gas Coordination Group confirms EU preparedness for the upcoming summer season - Energy](#)

Figure 9: Natural gas price turnout (TTF), day-ahead– from July 2021 to April 2026 (EUR/MWh)

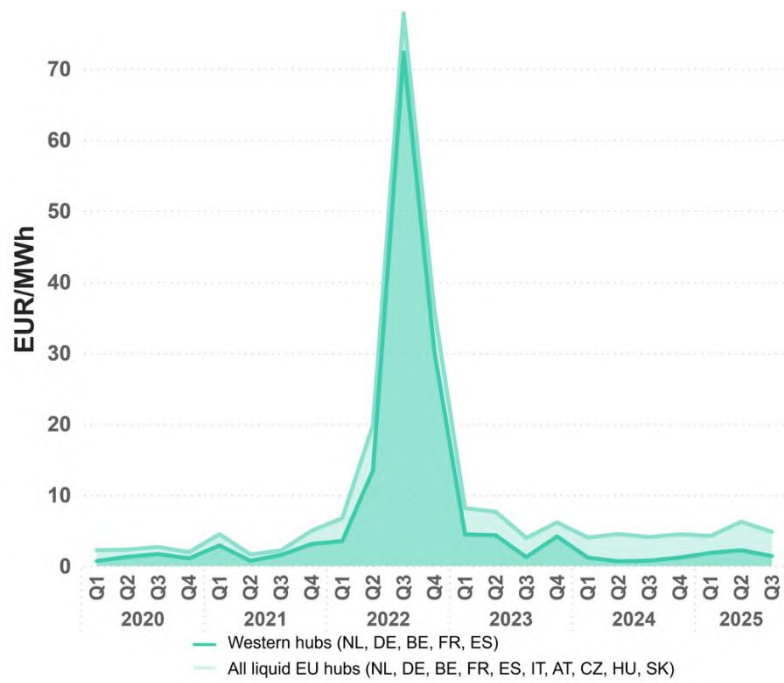


Source: ACER based on ICIS Heren.

- (28) Regarding hub convergence, the spreads between the TTF and other major European hubs, such as the Central European Gas Hub (CEGH VTP) in Austria, the Punto Scambio Virtuale (PSV) in Italy the Trading Hub Europe (THE) in Germany, have shown varying patterns. While there was a brief increase in spreads during Q4 2023, these differentials fell back again in early 2024, suggesting a return to pre-2022 convergence levels. The correlation coefficients between these hubs and the TTF indicate a high degree of integration, with near-perfect correlation observed between the three large north-western European LNG importers, namely Belgium, France and the Netherlands.
- (29) The narrowing of spreads between hubs can be attributed to several factors, including improved transmission infrastructure, increased LNG imports and enhanced market integration. However, some regional disparities persist due to differences in supply sources, storage capacities and demand profiles⁽²²⁾. Following the 2026 Gulf crisis, EU hub prices have further converged since March 2026, likely due to the shared global LNG shock and synchronized risk premia.

⁽²²⁾ ACER, *Key developments in European gas wholesale markets – Q2 2025, 2025 Monitoring Report*: EU gas wholesale markets in the second quarter of 2025. In the second quarter of 2025, regional gas spot price differentials widened, indicating stronger market signals to attract cross-border flows and LNG deliveries as the gas injection season commenced in the EU and Ukraine. Following the end of the storage-filling season, the hub spread started to decrease in Q3 2025.

Figure 10: Average daily price spread of day-ahead gas contracts between assessed EU virtual trading points



- (30) Finally, the interplay between gas and electricity markets will remain a defining feature of the EU energy sector.

- (31) As renewable power generation expands ⁽²³⁾, electricity markets are reducing their traditional reliance on gas, in terms of both the falling share of gas-fired power generation (13.6% in 2024 vs 18% in 2020) and the gradually decreasing influence of gas on marginal pricing in power markets, particularly in shorter-term time frames ⁽²⁴⁾. However, electricity price volatility persists across European markets whenever fossil fuels are required. Gas-fired power plays a more significant role in generation during peak hours (when gas plants operated at a 52% load factor in 2024) than in baseload generation (with a 20% load factor in 2024, as the share of generation from renewable energy sources (RESs) is rapidly growing there). Gas provides peak supply flexibility in that setting. It is revealing that electricity and gas price correlation is gradually decreasing in short-term markets, reducing prices for consumers and reflecting EU renewable growth and its greater importance in short-term price formation.

Overview of trends in European (wholesale and retail) gas markets

Wholesale gas markets

- (32) As the EU energy sector shifts towards increased clean energy-based electrification as the main driver to achieve its decarbonisation, natural gas demand is expected to further decline. However, in a few national markets, the phasing-out of coal-fired power generation and its replacement with gas could offset part of the drop. The scale and trajectory of the decline in demand vary significantly across scenarios, as it remains closely tied to the pace of decarbonisation. Available projections suggest that gas demand in 2030 could vary between 270 bcm (Fit for 55) and 190 bcm (Climate Target 2040) depending on the scenario ⁽²⁵⁾.
- (33) Supply will need to adapt to gradually decreasing demand, while remaining sufficiently flexible to accommodate different levels of demand so as to reflect the actual decarbonisation trajectory. Domestic decarbonised gas options, such as biomethane and hydrogen, will be also called on to play a gradually increasing role. In that context, various factors are of relevance. The EU's reliance on Russian gas is set to be phased out by the end of September 2027 at the earliest, as per the recently adopted Regulation (EU) 2026/261 on, inter alia, phasing out Russian natural gas imports ⁽²⁶⁾. This will increase the EU's relative dependence on LNG, although future needs will ultimately hinge on

⁽²³⁾ The EU's REPowerEU initiative sets a binding target of 42.5% renewable energy in overall consumption by 2030, equivalent to 69% of electricity generation coming from RESs, according to its modelling. This requires a significant increase in installed capacity. There are specific gigawatt targets for subsectors, such as nearly 600 GW of solar PV and a total wind capacity of more than 500 GW by 2030.

⁽²⁴⁾ As *ACER's Key developments in European electricity and gas markets – 2025 Monitoring Report* shows, the percentage of hours when day-ahead electricity prices were equal to or above costs of producing electricity from gas has fallen from 72% in 2020 to 39.5% in 2024.

⁽²⁵⁾ 2040 Climate Target impact assessment, SWD(2024) 63 final, [EUR-Lex - 52024SC0063 - EN - EUR-Lex](#).

⁽²⁶⁾ Regulation (EU) 2026/261 of the European Parliament and of the Council of 26 January 2026 on phasing out Russian natural gas imports and preparing the phase-out of Russian oil imports, improving monitoring of potential energy dependencies and amending Regulation (EU) 2017/1938 (OJ L, 2026/261, 2.2.2026, ELI: <http://data.europa.eu/eli/reg/2026/261/oj>).

the speed of development of electrolysis-based hydrogen and biomethane, along with demand trends. Indeed, LNG imports are expected to be the key bridge between EU supply and demand, making the balance between security of supply and cost optimisation a strategic challenge. In 2024, for example, the EU purchased around 30 bcm of LNG on the spot market – more than any other major importer and twice as much as China – alongside around 80 bcm under long-term portfolio contracts.

- (34) The interplay between gas and electricity markets is expected to continue to evolve. Gas provides peak-hour flexibility, even in the context of expanding renewable generation and gas-fired plants’ decreasing contribution to overall electricity production and their influence on short-term marginal price formation. Nevertheless, the growth of renewable generation is resulting in a gradually declining correlation in short-term electricity–gas price even as volatility persists when fossil fuels are needed.
- (35) Currently, gas storage is expected to remain a crucial backstop for the EU energy markets, with impacts and relevance throughout both the electricity and gas sectors. As long as alternative solutions are not used on a large scale, underground gas storage facilities are critical assets helping to manage seasonal energy demand swings and shorter-term supply flexibility. That is why the storage regulation and filling targets are an important part of the overall setting, as will be discussed in Section 4.
- (36) The EU’s historical reliance on external suppliers and greater exposure to global LNG competition is resulting, as stated above, in more volatile price dynamics. Furthermore, there are other noteworthy trends, such as the fact that, in the past few years, algorithmic trading has become the prevalent form of trading in key gas benchmarks.
- (37) The growing use of algorithmic trading during recent years has increased the complexity of gas supply and derivatives markets. Algorithmic trading is widely used by most (if not all) market participants in spot gas and gas derivatives markets in the EU. The Dutch competition and energy authority (ACM) has recently published, in collaboration with the Dutch financial authority (AFM), a report on an exploratory study focused on algorithmic trading in wholesale energy markets. The study found that there are both advantages and risks associated with the use of algorithmic trading. It pointed to the fact that market participants view algorithms as having a positive impact on energy markets, in particular in terms of increased liquidity and efficiency of price discovery. However, it also cautioned that, according to stakeholders, the use of algorithmic trading could lead to a disconnection between fundamental market information and algorithm-driven trading behaviour, the inexplicability of complex algorithms, and potential new patterns in terms of market manipulation. The report also underlined the importance of compliance and internal checks and balances when using algorithmic trading ⁽²⁷⁾.

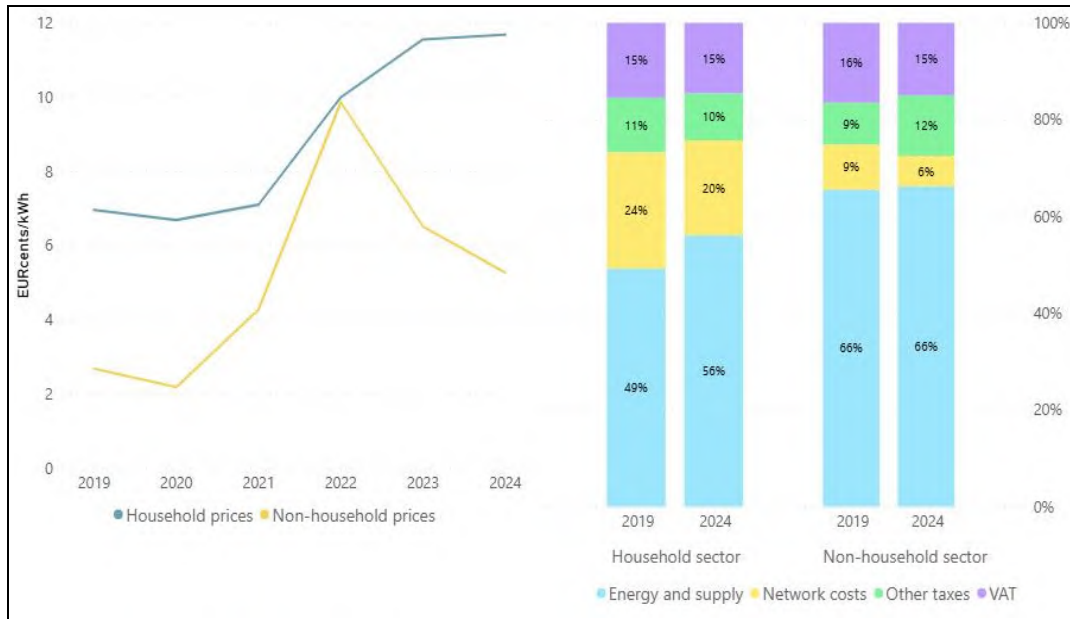
⁽²⁷⁾ See, for example, the findings of the study on algorithmic trading in wholesale energy markets carried out by the Dutch competition authority (ACM) in collaboration with the Dutch financial markets authority (AFM): https://www.acm.nl/system/files/documents/rapport-marktstudie-algoritmische-handel-energiemarkt-public_0.pdf.

- (38) It is worth noting that the EU legislation already acknowledges the existence of risks linked to algorithmic trading. This is why MiFID and, more recently, REMIT contain provisions that ensure that those practices are subject to rules and oversight by energy and financial market supervisors.
- (39) Gas derivative products form a significant part of the market for natural gas, thus connecting energy and financial markets. Gas derivatives are key instruments for market participants to hedge their exposure in the underlying physical markets. The importance of gas derivatives markets to the real economy is reflected in the fact that the main participants in those markets are non-financial entities. Those entities mostly include physical commodity producers, utilities companies, large energy-intensive corporations and physical gas traders that are dependent on commodity derivatives markets to mitigate the risks entailed in their commercial activity. The proper functioning of gas derivatives markets therefore plays an important role in the stability and prosperity of the EU economy and in the affordability of energy in the EU. On the other hand, financial entities also play a fundamental role in providing liquidity to those derivatives markets and contributing to price discovery. The Commission's APAE, adopted in February 2025, acknowledges the importance of adequately functioning gas markets and of market-based price information in those markets, in particular in periods of high volatility.

Retail gas markets

- (40) While the wholesale segment of natural gas markets is the prominent focus of this report, retail segments play an equally important role in price formation for final users, thereby contributing to the efficient functioning of gas markets.
- (41) As the figure below shows, household and industrial gas prices – like retail electricity prices – surged in 2022 in line with the prices formed in the respective wholesale markets. However, retail gas prices, and particularly household ones, have not normalised as fast as wholesale prices did, and still remain well above pre-crisis levels in real terms.

Figure 11: Industrial and household final natural gas prices, and price components – 2019-2024 (EUR cent/kWh)



Source: Eurostat and ACER data based on Vassa ETT

- (42) The gap between household and wholesale gas prices stems from several factors, mainly linked to price stability and limited flexibility. Unlike electricity, gas contracts rarely include flexible or dynamic pricing, since wholesale gas markets lack hourly signals. Although monthly price-adjusted offers are starting to emerge in some markets, household gas prices are typically fixed for several months or even full years.
- (43) On the other hand, industrial consumers often purchase gas in large volumes under short-term contracts or flexible hub-indexed contracts that are closely linked to market hubs such as the TTF in Europe, making their prices sensitive to changes in supply, demand and global LNG flows. This means that industrial players have direct exposure to wholesale market fluctuations. The fact that they are subject to more dynamic pricing means that they could play a greater role in adjusting demand and ultimately easing the pressure during peak periods.
- (44) Retail gas prices, by contrast, are usually regulated or subject to longer-term fixed tariffs designed to smooth cost fluctuations for households. Retail prices often incorporate hedging, seasonal averaging and regulatory interventions, which protect end consumers from the full volatility of wholesale markets. As a result, while industrial gas prices can respond almost immediately to events such as supply disruptions, extreme weather or LNG cargo diversions, residential gas prices adjust more slowly and in smaller increments. Figure 11 also shows that, for gas households, the energy component represents about 54% of the final gas price (50% for electricity in 2024), with 20% stemming from network charges and the rest from taxes and VAT, although the exact shares vary across Member States. Network charges in electricity are expected to continue to rise over time, as generation costs gradually decrease, but grid system reinforcements are needed. In the case of gas, transport tariffs have also

been rising in recent years, causing network costs and final total prices to rise, due to lower demand and changed flow patterns, as described in Section 1, although at a lower rate than the gas commodity itself. It remains to be seen what the pace of gas infrastructure decommissioning should be, given its impact on network costs, and hence final prices for consumers.

- (45) In the long term, the European Union is favouring a shift towards the electrification of its energy system while aiming to significantly reduce natural gas use.
- (46) In the household sector, energy efficiency offers the greatest potential to reduce gas demand. Buildings account for over one third of EU final energy use, and gas boilers remain the dominant heating technology. Electrification will focus on expanding the use of heat pumps, with conventional fossil fuels expected to be phased out in heating by 2040. Renewable and low-carbon gases will play a complementary role.
- (47) In industry, substitution will rely on electrification of processes and on electricity-based fuels, particularly hydrogen for high-temperature applications. However, certain industrial sectors and parts of transport will remain hard to fully electrify.
- (48) Both price competitiveness and contractual dynamics will be important to achieve these objectives.

Presentation of the legal and policy context

Legislative framework

EU legislation in the field of energy (REMIT)

- (49) Regulation (EU) No 1227/2011 on wholesale energy market integrity and transparency (REMIT I) ⁽²⁸⁾ is a key piece of Union (EU) legislation aimed at ensuring the integrity and transparency of wholesale energy markets by creating a framework for the prevention and detection of market abuse. More specifically, REMIT I laid down rules prohibiting abusive practices affecting wholesale energy markets which are consistent with the rules applicable in financial markets and with the proper functioning of those wholesale energy markets, while taking into account their specific characteristics. REMIT I also provided for the monitoring of wholesale energy markets by ACER in close collaboration with national regulatory authorities. For such monitoring, REMIT ensured that ACER receives transactional data as well as structural data on the capacity and use of facilities for production, storage, consumption or transmission of energy.

⁽²⁸⁾ Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency, as amended by Regulation (EU) 2024/1106 of the European Parliament and of the Council of 11 April 2024 amending Regulations (EU) No 1227/2011 and (EU) 2019/942 as regards improving the Union's protection against market manipulation on the wholesale energy market (OJ L, 2024/1106, 17.4.2024, ELI: <http://data.europa.eu/eli/reg/2024/1106/oj>).

- (50) For some years, EU energy markets have been facing significant challenges, including increasing price volatility and complex conditions for ensuring supplies following international conflicts and crises, all of which have created an urgent need for a more robust and effective regulatory framework to ensure the integrity and transparency of wholesale energy markets. In this context, the revision of REMIT in 2024 by Regulation (EU) 2024/1106 (REMIT II) was needed to respond to these challenges.
- (51) Furthermore, the rise of new trading technologies, such as algorithmic trading, and the expansion of global energy markets and increased coupling of markets have created new challenges for market monitoring and supervision, which the 2024 REMIT revision aimed to address by enhancing transparency, improving the market surveillance framework and strengthening enforcement mechanisms.
- (52) The main amendments brought about through REMIT II will be summarised in the paragraphs below.
- (53) *First*, REMIT II made a number of significant amendments, including further consistency with the rules applicable in financial markets and obligations on broader cooperation, information exchanges and mechanisms for sharing data between the Commission, ACER, national energy, financial and competition authorities and other relevant authorities in the EU. That information exchange framework aims to ensure that enforcement is more effective and that the information that ACER receives through the reporting requirements under REMIT can be used for the tasks of the other regulators referred to above.
- (54) *Second*, REMIT II also entrusted ACER with a significant role in cross-border investigations, including powers to conduct on-site inspections, send requests for information, take statements and issue periodic penalty payments to market participants not complying with ACER's decisions linked to inspections and requests for information.
- (55) *Third*, REMIT II reflected the imperative need to set out a stronger, more uniform framework to prevent market manipulation in wholesale energy markets. To that end, REMIT I was amended to draw up a specific list of administrative fines and other measures which should be available to national regulatory authorities when enforcing REMIT breaches. In addition, REMIT II introduced a framework for the minimum harmonisation of administrative fines by determining how maximum administrative fines should be set at national level ⁽²⁹⁾. These amendments aimed to ensure that each Member State has in place a fining framework that is effective, dissuasive and proportionate.
- (56) *Fourth*, in order to strengthen the market surveillance framework and increase market integrity and the transparency of wholesale energy markets, REMIT II broadened the scope of reporting obligations, as follows:

⁽²⁹⁾ In particular, the actual amount of administrative fines to be imposed in a specific case may reach the maximum level provided for in REMIT II, or the higher level provided for in national law.

- Market participants are required to report their exposure to ACER ⁽³⁰⁾.
 - In addition to the reporting of transactions for the supply and transportation of electricity and natural gas, market participants now also need to report transactions linked to both the storage of electricity and natural gas and the supply, transportation and storage of hydrogen ⁽³¹⁾.
 - The reporting framework for balancing transactions became more complete and coherent.
 - Market participants are obliged to report to ACER and the relevant national regulatory authorities on their use of algorithms when carrying out their trading activity.
- (57) In order to set out how the additional reporting obligations included in REMIT II are to be implemented by market participants, the Commission adopted Commission Implementing Regulation (EU) 2026/256, which amended Commission Implementing Regulation (EU) No 1348/2014 ⁽³²⁾. By way of background, Commission Implementing Regulation (EU) No 1348/2014 set out the general principles underlying the reporting of wholesale energy market data to ACER, as well as the relevant details that are to be reported to ACER.
- (58) *Fifth*, REMIT II also increased LNG market transparency, as its scope was broadened to include the LNG market data-reporting framework set out in Emergency Regulation (EU) 2022/2576 ⁽³³⁾. This allowed ACER to continue collecting, on a permanent basis, all the LNG market data necessary to draw up a comprehensive and representative assessment of the price of LNG deliveries to the EU as well as an LNG benchmark.
- (59) In practice, the objectives of REMIT I and REMIT II (together ‘REMIT’) are pursued through the reporting of transactional and other data ⁽³⁴⁾ from market participants to ACER as regards energy physical and derivatives trading. The information reported to ACER is also shared with the national regulatory authorities. That information is assessed by ACER and the national regulatory authorities, while enforcement lies with the latter on the basis of the applicable national legislation and in line with the principles and provisions set out in REMIT.

⁽³⁰⁾ Article 8(1) of Regulation (EU) No 1227/2011.

⁽³¹⁾ Article 2(4) of Regulation (EU) No 1227/2011.

⁽³²⁾ Commission Implementing Regulation (EU) No 1348/2014 of 17 December 2014 on data reporting implementing Article 8(2) and Article 8(6) of Regulation (EU) No 1227/2011 of the European Parliament and of the Council on wholesale energy market integrity and transparency (OJ L 363, 18.12.2014, p. 121, ELI: http://data.europa.eu/eli/reg_impl/2014/1348/oj).

⁽³³⁾ Council Regulation (EU) 2022/2576 of 19 December 2022 enhancing solidarity through better coordination of gas purchases, reliable price benchmarks and exchanges of gas across borders (OJ L 335, 29.12.2022, p. 1, ELI: <http://data.europa.eu/eli/reg/2022/2576/oj>).

⁽³⁴⁾ Transactional data is complemented by fundamental data related to the capacity and use of facilities for production, consumption, transmission and storage of electricity and natural gas, as well as planned and unplanned unavailability of those facilities, inside information data, and information about registered market participants, delivery points or zones, LNG terminals, etc.

- (60) As explained below, reporting of transactions and positions linked to energy commodity derivatives trading is also subject to EU financial legislation, and in particular to three main pieces of legislation relating to transparency and reporting, namely Directive 2014/65/EU (MiFID) ⁽³⁵⁾, Regulation (EU) No 600/2014 (MiFIR) ⁽³⁶⁾ and Regulation (EU) No 648/2012 (EMIR) ⁽³⁷⁾.
- (61) To avoid of double reporting, REMIT contains provisions stipulating that the reporting obligations under REMIT are considered fulfilled when the relevant derivative transactions have been reported under MiFIR or EMIR by market participants, third parties acting on behalf of a market participant, trade reporting systems or organised marketplaces, trade-matching systems or other persons professionally arranging or executing transactions. The provisions in REMIT also state that information relating to such relevant derivative transactions which have been reported under MiFIR or EMIR should be provided to ACER by trade repositories, national competent authorities or ESMA, for example.
- (62) Finally, as stated above, the enforcement of the applicable rules in situations of an allegedly market abusive conduct related to energy commodity derivative trading is also subject to EU financial legislation, and more specifically to Regulation (EU) No 596/2014 (MAR) ⁽³⁸⁾. REMIT II sets out that competence for enforcing the applicable rules on alleged market abuse related to energy commodity derivative trading lies with both national energy and financial regulators, who apply the respective relevant rule books (REMIT and MAR). The competent energy (national regulatory) authority and national financial authority are then expected to coordinate and decide which authority is better placed to take the necessary enforcement measures against the conduct in question.

EU legislation in the field of financial markets (MAR, MiFID, MiFIR, EMIR)

- (63) Trading in gas derivatives is subject to a comprehensive legislative framework in the EU. The legislative framework includes rules applicable to all financial instruments and a set of rules that cater for the specific nature of those instruments and their relevance to the EU economy. Physically settled gas derivatives traded on an organised trading facility (OTF) do not, however, qualify as financial instruments under MiFID or fall within the scope of the financial regulation described below. Given the importance of the rule book

⁽³⁵⁾ Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU (OJ L 173, 12.6.2014, p. 349, ELI: <http://data.europa.eu/eli/dir/2014/65/oj>).

⁽³⁶⁾ Regulation (EU) No 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No 648/2012 (OJ L 173, 12.6.2014, p. 84, ELI: <http://data.europa.eu/eli/reg/2014/600/oj>).

⁽³⁷⁾ Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (OJ L 201, 27.7.2012, p. 1, ELI: <http://data.europa.eu/eli/reg/2012/648/oj>).

⁽³⁸⁾ Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (market abuse regulation) and repealing Directive 2003/6/EC of the European Parliament and of the Council and Commission Directives 2003/124/EC, 2003/125/EC and 2004/72/EC (OJ L 173, 12.6.2014, p. 1, ELI: <http://data.europa.eu/eli/reg/2014/596/oj>).

applicable to gas derivatives, the Commission has consulted a wide range of stakeholders on the functioning of those rules, with a view to identifying potential areas of improvement ⁽³⁹⁾.

(64) As financial instruments, gas derivatives are subject to the following cross-cutting pieces of legislation:

- The **Market Abuse Regulation** (Regulation (EU) No 596/2014, MAR) ⁽⁴⁰⁾, which aims to ensure market integrity by introducing a framework for the prohibition and prevention of market abuse in financial instruments. In particular, MAR prohibits insider dealing, unlawful disclosure of inside information and market manipulation and imposes a number of ancillary obligations on market participants. MAR provides for national competent authorities to monitor markets in financial instruments, including gas derivatives markets. In this context, MAR sets up a structured surveillance system across several lines of surveillance. These include investment firms and trading venues, which are required to detect and report market abuse or any attempt at such abuse to national competent authorities. They also cover market monitoring by national competent authorities. National competent authorities are responsible for investigating and enforcing breaches of MAR, drawing on a wide range of data, including transaction reporting, position reporting and order book data. At the same time, ESMA plays a key role by promoting supervisory convergence and facilitating cooperation and exchange of information between national competent authorities, especially in cross-border cases. Lastly, as noted above, gas derivatives are subject to the simultaneous application of MAR and REMIT as regards market abuse rules, as they qualify as both financial instruments under MiFID and wholesale energy products under REMIT.
- The **Markets in Financial Instruments Directive** (Directive 2014/65/EU, MiFID) ⁽⁴¹⁾, which lays down the requirements for robust, orderly and efficient financial markets, including gas derivatives markets. MiFID provisions govern, in particular, the requirements for access to trading venues by members and participants, the organisational requirements to be met by investment firms or market operators operating a trading venue or providing other investment services (e.g. execution of orders, reception and transmission of orders) and investor protection rules. Of particular relevance to orderly gas derivatives trading are the provisions on trading halts, the algorithmic testing requirements applying to investment firms and trading venues and the obligations on direct electronic providers. The provisions under MiFID are complemented by a substantial number of delegated acts. ESMA contributes to the convergent application of MiFID and other relevant regulations by

⁽³⁹⁾ [Targeted consultation on the review of the functioning of commodity derivatives markets and certain aspects relating to spot energy markets, 2025 – Finance.](#)

⁽⁴⁰⁾ Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (market abuse regulation) and repealing Directive 2003/6/EC of the European Parliament and of the Council and Commission Directives 2003/124/EC, 2003/125/EC and 2004/72/EC (OJ L 173, 12.6.2014, p. 1, ELI: <http://data.europa.eu/eli/reg/2014/596/oj>).

⁽⁴¹⁾ Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU (OJ L 173, 12.6.2014, p. 349, ELI: <http://data.europa.eu/eli/dir/2014/65/oj>).

issuing guidance and facilitating discussions between national competent authorities on supervisory cases.

- **The Markets in Financial Instruments Regulation** (Regulation (EU) No 600/2014, MiFIR)⁽⁴²⁾, which sets out the conditions under which information on bids and offers (pre-trade transparency) as well as on executed transactions (post-trade transparency) in financial instruments, including gas derivatives, is made publicly available to provide an efficient price discovery mechanism. All transactions in gas exchange-traded derivatives (ETDs) are made post-trade transparent, while pre-trade transparency applies to order book and auction trading in gas ETDs. MiFIR also lays down the scope of transaction reporting to national competent authorities, which includes all gas ETDs and, more broadly, all on-venue transactions in gas derivatives.
- **Regulation (EU) No 648/2012** on OTC derivatives, central counterparties and trade repositories (EMIR)⁽⁴³⁾ includes important rules helping to ensure financial stability. EMIR's overarching objective is to mitigate systemic risk across OTC and ETD derivatives markets, including gas derivatives markets, through a range of measures. EMIR sets out rules on the reporting of transactions in derivatives, including OTC transactions, and provides an additional level of information on these markets, including gas derivatives markets, across financial and non-financial counterparties. EMIR also lays down a comprehensive set of rules for central counterparties (CCPs) clearing financial instruments, including commodity instruments. These standards help provide resilient (authorised) EU CCPs and (recognised) third-country CCPs that can safely handle the large volumes cleared in the EU derivatives market. A large portion of EU energy derivatives are cleared in the EU and in the UK, with all ETDs being centrally cleared. When OTC derivatives are not cleared, then these financial and non-financial counterparties are subject to the exchange of collateral for these uncleared contracts, reducing counterparty risk between them. The requirement to exchange collateral, also known as the bilateral margining requirement, is part of a broader range of risk mitigation techniques set in EMIR (including requirements such as confirmation, valuation and reconciliation) for the trading of uncleared OTC derivatives, including gas derivatives.

(65) In addition to the above cross-cutting rules, owing to the specific nature of commodity derivatives markets, MiFID II contains a number of rules that apply specifically to persons trading commodity derivatives and to trading venues offering trading in commodity derivatives (including gas derivatives):

- The **ancillary activity exemption** ('AAE') allows non-financial entities to trade commodity derivatives for non-hedging purposes without being authorised as an investment firm, if such activity remains below certain thresholds compared to their main business. However, **entities** trading under the AAE remain subject to basic rules

⁽⁴²⁾ Regulation (EU) No 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No 648/2012 (OJ L 173, 12.6.2014, p. 84, ELI: <http://data.europa.eu/eli/reg/2014/600/oj>).

⁽⁴³⁾ Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (OJ L 201, 27.7.2012, p. 1, ELI: <http://data.europa.eu/eli/reg/2012/648/oj>).

applicable to commodity derivatives traders, such as position limits and market abuse rules.

- **Position limits** are a fundamental feature of the rules governing commodity derivatives trading in the EU. They constrain the size of a net position which a person can hold at all times in certain commodity derivatives contracts, with a double objective of: (i) ensuring orderly trading and settlement, and (ii) preventing market manipulation. As regards energy derivatives, position limits apply to derivative contracts traded on a trading venue with an open interest above 300 000 lots and to economically equivalent over-the-counter (EOTC) contracts. The TTF contract, traded on ICE Endex and on EEX (Europe Energy Exchange), and the EEX THE gas contract are currently the two gas derivative contracts reaching the thresholds for being subject to a position limit. The EEX German Power Base contract is also subject to position limits. Position limits do not apply to positions entered into for hedging purposes, or for liquidity provision purposes. Position limits are set by the national competent authority for the trading venue where the derivative contract is traded and ESMA issues an opinion on the position limits proposed by the national competent authority.
- Position limits are complemented by **position management controls** (PMCs), which require trading venues to have arrangements in place to monitor open positions of market participants and ensure orderly trading on their venue. The requirement to set up PMCs has a broader scope and applies to all positions in commodity derivatives, irrespective of whether the contract is subject to a position limit. It comprises all types of position, including those entered into for hedging purposes. The objective of PMCs is to enable trading venues to identify the build-up of large, concentrated positions that could result in price distortion, market manipulation or other abusive trading practices. In accordance with Article 57(8) of MiFID II, controls should include at least the powers to: (i) monitor open interest; (ii) obtain comprehensive information about the positions entered into, including, but not limited to, the size and purpose of building the position; (iii) terminate or reduce the position; (iv) require the position holder to inject liquidity back into the market in certain situations. Furthermore, for contracts that can be physically settled, Commission Delegated Regulation (EU) 2022/1299 supplementing MiFID II introduces the obligation to set accountability levels, whose purpose is to trigger dialogue with the position holder if certain qualitative or quantitative thresholds are crossed. Trading venues are required to communicate all the details of their PMCs to their national competent authority, including the number of instances where accountability levels have been reached.

Legislation relating to gas storage

- (66) The security of gas supply framework in the European Union is created under Regulation (EU) 2017/1938 (the Gas SOS Regulation)⁽⁴⁴⁾, which sets common rules to safeguard gas supply and ensure preparedness for potential disruptions. Solidarity mechanisms oblige Member States to assist each other

⁽⁴⁴⁾ Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010 (OJ L 280, 28.10.2017, p. 1, ELI: <http://data.europa.eu/eli/reg/2017/1938/oj>).

in the event of severe shortages, prioritising the protection of households, essential social services and district heating. The framework thus seeks to enhance resilience, coordination and solidarity across the EU in order to guarantee security of gas supply. Since 2022 the Regulation has also recognised the role that gas storage plays in both preparedness and solidarity by securing volumes that can be drawn on in times of stress and by facilitating the sharing of resources across Member States. By requiring the coordinated filling of storage facilities and their effective use, the framework ensures that storage functions are a common safeguard for consumers and essential services, thereby reinforcing the resilience of the internal energy market.

- (67) Regulation (EU) 2025/1733 ⁽⁴⁵⁾ amending the Gas SOS Regulation as regards the role of gas storage for securing gas supplies ahead of the winter season (the 2025 amending Regulation), was adopted on 18 July 2025 and entered into force on 11 September 2025. The 2025 amending Regulation extends the storage provisions in the Gas SOS Regulation until the end of 2027 and makes some changes to the previous framework.
- (68) *First*, the mandatory 90% filling target (limited to 35% of annual consumption when storage capacities are larger), previously set to 1 November of each year, can now be met at any point between 1 October and 1 December.
- (69) *Second*, the filling trajectories, i.e. the rate at which storage facilities are filled, are now indicative. They continue to be set annually by the Member States but meeting them is no longer mandatory. However, the 2025 amending Regulation allows Member States to make them binding, in particular when their national legislation requires missed targets as a condition to trigger storage-filling measures. Filling trajectories remain important to monitor storage injection and withdrawals and ensure that the mandatory filling target is achieved and to enable measures to be taken promptly if there are security-of-supply risks.
- (70) The 2025 amending Regulation further introduces a number of additional flexibilities which allow Member States to deviate from their filling target in the event of difficult conditions, such as indications of trading activities hindering cost-effective storage filling, low seasonal price spread, high price environment, storage levels below the trajectory at Member State level or unforeseen technical circumstances that would make storage injection difficult and costly. Member States are allowed to further deviate from the mandatory filling target under certain conditions, such as domestic production exceeding demand or large storage with slow injection capacities. In addition, in the event of persistent unfavourable market conditions, the Commission can be empowered to adopt a delegated act further increasing the level of deviation from the filling target by up to an additional 5%.

⁽⁴⁵⁾ Regulation (EU) 2025/1733 of the European Parliament and of the Council of 18 July 2025 amending Regulation (EU) 2017/1938 as regards the role of gas storage for securing gas supplies ahead of the winter season (OJ L, 2025/1733, 10.9.2025, ELI: <http://data.europa.eu/eli/reg/2025/1733/oj>).

- (71) The Commission is in the process of reviewing its overall energy security framework. The assessment of past performance and the impact of potential future storage provisions is taking place in that context. The legislative proposal is expected to be adopted by the beginning of Q2 2026.

The Draghi report

- (72) The energy crisis referred to above was also discussed in the report by Mario Draghi on ‘The future of European competitiveness’, published in September 2024 (‘the Draghi report’) ⁽⁴⁶⁾. The Draghi report includes a number of recommendations linked to the functioning of energy spot and derivatives markets, as a means of ensuring the European industry access to affordable energy and enhancing its competitiveness.
- (73) More specifically, the Draghi report recommended that gas markets should be further regulated under a single EU trading rule book. Reference was made to financial position limits, dynamic caps, the ancillary activity exemption, transparency and the obligation to trade in the EU. Furthermore, the Draghi report recommended that the EU should further integrate the regulatory and supervision framework for financial markets for energy. The Draghi report also pointed to better information exchanges, coordination and cooperation between energy and financial regulators.
- (74) Reference was also made to the fact that alleged structural and behavioural aspects of gas markets (e.g. concentration, algorithmic trading) could, especially in combination with tighter market conditions as had occurred in previous years in the EU, exacerbate volatility and amplify the impact of demand and supply shocks, or at least of perceived shocks. It also mentioned that the gas derivatives market is characterised by a high degree of concentration, with a few non-financial corporates accounting for most derivatives trading activity ⁽⁴⁷⁾. Those statements also warranted adequate scrutiny by the GMTF.
- (75) The statements and recommendations as regards gas spot and derivatives trading have been analysed in detail by the GMTF, including through analytical work on the concentration levels of the gas derivatives markets and through the analysis of responses to the targeted consultation referred to in Section 4.3. below.

⁽⁴⁶⁾ Available here: [The Draghi report on EU competitiveness](#).

⁽⁴⁷⁾ The Draghi report (page 43) makes reference to an ESMA report of 12 May 2023 on trends, risks and vulnerabilities (‘TRV Risk Analysis’), which finds that the top five companies hold around 60% of positions in some trading venues and their short positions increased considerably, by almost 200%, between February and November 2022 (see pages 14 and 15). As explained on page 8 of the ESMA report, due to data limitations, data about non-EU counterparties with exposure to EU natural gas derivatives through non-EU entities are not included, even though non-EU entities can play a significant role in EU markets. The report is available at: https://www.esma.europa.eu/sites/default/files/2023-05/ESMA50-165-2483_TRV-EU_natural_gas_derivatives_markets.pdf.

IDENTIFIED AREAS OF WORK FOR THE GAS MARKET TASK FORCE

- (76) Since its establishment in February 2025, the GMTF has focused its work on the following key workstreams.
- (77) **Mapping of the gas supply and derivatives markets.** Amid claims of high levels of market concentration put forward in the Draghi report⁽⁴⁸⁾, in particular in relation to gas trading markets, the GMTF has, on the basis of available information, sought to identify the number and type of market participants active at various levels of the gas supply chain that are key to the price formation in gas markets.
- (78) **Concentration in gas trading.** As part of the exercise of mapping the gas supply and derivatives markets, the GMTF has analysed the extent to which trading activity in gas markets is concentrated, both in terms of such activity itself and in terms of net positions.
- (79) **Algorithmic trading.** In view of the widespread use of algorithms in commodity trading, including in gas and gas derivatives markets, the GMTF gathered publicly available knowledge about the potential impact of algorithmic trading on the functioning of these markets that could provide information for future Commission work.
- (80) **REMIT implementation.** As stated above, REMIT is crucial in ensuring robust wholesale energy markets, where transactions are monitored by ACER and the national regulatory authorities to detect and prevent market abuse.
- (81) In order to have a direct discussion with Member States as regards REMIT implementation, on 19 June 2025 the Commission organised a webinar with national regulatory authorities and representatives from ministries of the Member States. During the webinar, the Commission presented in detail the applicable REMIT rules (including amendments brought about by REMIT II) on: (i) powers of national regulatory authorities; (ii) cooperation between relevant authorities and information sharing; (iii) cross-border investigations; and (iv) penalties for REMIT breaches.
- (82) In order to assess how Member States are implementing the REMIT rules, on 11 July 2025 the Commission sent, as a follow-up to the webinar of 19 June 2025, a questionnaire to all invited participants requesting information about the national provisions on all four of the agenda items referred to above. The Commission received 22 replies. Five Member States did not submit responses to the questionnaire. The findings of this exercise are presented in Section 4 below.
- (83) The GMTF notes that the Commission recently adopted the revised REMIT Implementing Regulation which contains the measures to operationalise the additional reporting obligations introduced in REMIT II (see paragraph 56

⁽⁴⁸⁾ See note 42, page 30.

above) in order to make the market surveillance framework more robust and increase the market integrity and transparency of wholesale energy markets.

- (84) **FISMA/ENER public consultation.** On 26 February 2025, the Commission launched a targeted consultation, which was triggered by Article 90(5) of MiFID, as amended in February 2024. Article 90(5) of MiFID requires the Commission, after consulting ESMA, the European Banking Authority (EBA) and ACER, to present a report to the European Parliament and the Council with a comprehensive assessment of the markets for, among other things, commodity derivatives. The targeted consultation also aimed to cover the aspects referred to in the recommendations set out in the Draghi report. It was launched in conjunction with the APAE. The consultation was instrumental to the GMTF's analysis of the various items, verification of the conjectures and design of the task force's findings as set out later in the report.
- (85) The outcome of the above **consultation on the functioning of commodity derivatives markets and certain aspects of spot energy markets**, whose scope extended beyond gas derivatives to include other commodities (in particular, agricultural derivatives) and EU emission allowances, has been analysed by the GMTF to the extent that it is relevant for gas markets. The outcome of that consultation is presented in Section 4.3 of this report. The consultation covered a wide range of topics, including the ancillary activity exemption, position limits and position management controls, data and reporting matters, bearing in mind the need to reduce burdens on market participants. In addition, the consultation also sought stakeholders' views on certain proposals for changes in the regulatory framework for commodity derivatives markets set out in the Draghi report. The outcome of the analysis of the stakeholders' views, to the extent that the feedback is relevant for gas markets, is also presented in this report.
- (86) The GMTF has also analysed the specific **impact of gas storage obligations** on the functioning of gas markets and explored the extent to which upcoming reflections on the EU regulatory framework linked to energy security could include measures to mitigate the impact on the orderly functioning of gas derivatives markets.

Competitive landscape of gas markets

Analysis of concentration in gas and gas derivatives markets

- (87) Amid claims of high levels of concentration in gas trading markets put forward in the Draghi report, the GMTF has carried out a structural mapping of the upstream and downstream EU wholesale gas supply markets ⁽⁴⁹⁾. The outcome of the GMTF analysis shows that both markets exhibit characteristics of markets with low levels of concentration.
- (88) Regarding the overall **upstream EU wholesale gas supply market** ⁽⁵⁰⁾, the GMTF analysis, based on net short (sell) positions ⁽⁵¹⁾, has shown that there is competition in the market, with the top three players accounting for a combined market share of approximately [40-50]% and the remainder of the market being very fragmented. Moreover, the upstream wholesale gas supply market (like all other levels of the gas supply chain) has been exposed to high volatility in recent years. For completeness, the GMTF carried out a similar assessment of the LNG and piped natural gas (PNG) segments of the upstream wholesale market, which led to conclusions consistent with those for the overall market. The LNG segment features numerous market participants, with the largest three accounting for slightly over [50-60]% of the market, while the PNG segment features many market participants and the three largest players account for around [60-70%] of the market.
- (89) Regarding the **downstream EU wholesale gas supply market** ⁽⁵²⁾, which is characterised by high trading volumes across various EU gas exchanges, assessed on the basis of the sum of buy and sell trades, the market is very fragmented, featuring thousands of different market participants. Only two participants hold market shares within the [5-20]% range. An alternative assessment based on net long (buy) positions on EU trading venues mirrors this conclusion: the market comprises many participants, with only two holding market shares above [5-10]%.

⁽⁴⁹⁾ The market mapping is based on all gas and gas derivatives transactions across the EU with a delivery date in 2024.

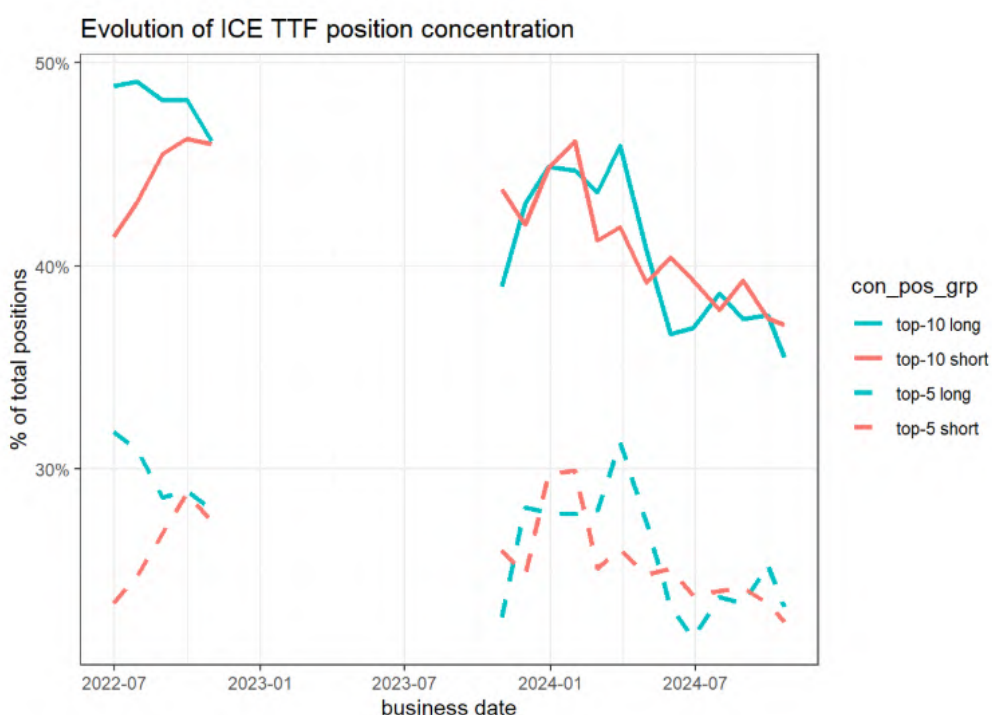
⁽⁵⁰⁾ The upstream wholesale gas supply level concerns the first sale of natural gas in a given market area.

⁽⁵¹⁾ Any volumes purchased by an undertaking on the market have been subtracted from its sales volumes. This has been done with the understanding that the resulting net sales correspond to the volumes belonging to entities having made the first commercial sale of natural gas in the EU, and thus to the upstream wholesale gas supply market, be it through imports or production. For the purposes of this calculation, we have focused on the undertakings that have the commercial rights to sell the gas produced.

⁽⁵²⁾ At the downstream wholesale level, wholesalers supply natural gas to other wholesalers or retail suppliers. Such downstream transactions occur predominantly on gas exchanges and, to a lesser extent, through bilateral contracts and brokers. It should be noted that the downstream level does not cover LNG, as LNG sold on the upstream wholesale market is most often regasified (and thus converted into PNG) before entering the downstream wholesale market.

- (90) The GMTF also conducted an analysis of the concentration of TTF derivatives trading on EU venues. The analysis was based on the following datasets:
- anonymised end-of-month position data collected from the most liquid venue for TTF futures;
 - the dataset compiles data for all maturities; and
 - the dataset covers two periods: (i) over July-November 2022 (i.e. during the 2022 energy crisis), and (ii) the year between October 2023 and October 2024 (a proxy for a quieter period).
- (91) The following figure presents the outcome of this concentration analysis:

Figure 12: Development of TTF position concentration on ICE Endex, based on the above-described dataset.



Source: Commission

- (92) Drawing on the above analysis, the GMTF has concluded that the degree of concentration in positions, including during crisis periods, did not and still does not raise any concerns. For instance, in November 2022, concentration levels were around 25% for the top five position holders and 50% for the top 10 position holders.
- (93) In addition, overall trends tend to show a gradual decrease in concentration, in particular when comparing the summer 2022 figures with later figures. This is probably due to the fact that the decrease in prices, and the associated decrease in margin requirements, facilitated the return of market participants in the months following the energy crisis.

Algorithmic trading

- (94) Algorithms contribute to market liquidity and make the trading process more efficient, reliable and responsive to real-time market conditions. These features are particularly relevant in gas trading markets, which are highly dynamic and volatile, requiring market participants to regularly adapt their trading strategies in order to manage risks and exposures. At the same time, the improper use of algorithmic tools by market participants, especially high-frequency trading (HFT) and artificial intelligence (AI)-based algorithms, may create the risk of market distortions in specific circumstances and thus has the potential to create new challenges for market surveillance.
- (95) On the basis of the available literature⁽⁵³⁾, the potential risks associated with the improper use of algorithms can be grouped into three categories: (i) the facilitation of explicit collusion, where algorithms are used to support or implement a pre-existing collusive arrangement; (ii) the use of common algorithmic systems by multiple market participants, which can give rise to ‘hub and spoke’-type coordination; and (iii) autonomous tacit collusion, where AI-based algorithms independently learn to coordinate outcomes without any direct communication or data sharing between market participants. The literature reviewed also highlights additional risks, such as the potential disconnection between fundamental market information and algorithm-driven trading behaviour, reduced transparency and potential new patterns of market manipulation. These risks warrant continued monitoring. As explained above (Section 2.3), MiFID and REMIT already contain safeguards on the use of algorithmic trading by entities active in energy markets. In particular, those entities must have in place effective systems and controls that ensure that the trading systems are used in conformity with the rules relating to the prevention and prohibition of market abuse⁽⁵⁴⁾. Those provisions are subject to ongoing supervision by national competent authorities and national regulatory authorities.

(53) See, for instance: the Netherlands Authority for Consumers and Markets (ACM) and Dutch Authority for the Financial Markets (AFM) (2024), *Algorithmic Trading in Wholesale Energy Markets – Key findings of an exploratory market study*; ACB (Autorité de la Concurrence) and Bundeskartellamt (2019), *Algorithms and Competition*; Autoridade da Concorrência (2019), *Digital Ecosystems, Big Data and Algorithms – Issue Paper*, July 2019; Azzutti, A., Ringe, W.-G. and Stiehl, H. S. (2021), *Machine Learning, Market Manipulation and Collusion on Capital Markets – Why the ‘Black Box’ Matters*, European Banking Institute Working Paper Series, No 84; Azzutti, A., Ringe, W.-G. and Stiehl, H. S. (2022), *The Regulation of AI Trading from an AI Life Cycle Perspective*, European Banking Institute Working Paper Series, No 130; Cartea, Á., Chang, P. and Penalva, J. (2022), *Algorithms and Supracompetitive Prices in Electronic Markets: The Impact of Tick Size*, SSRN; Cartea, Á., Chang, P. and Graumans, R. (2025), *Anonymity, Signaling, and Collusion in Limit Order Books*, SSRN; International Monetary Fund (IMF) (2024), *Global Financial Stability Report*, October 2024, Chapter 3; OECD (2024), *Artificial Intelligence, Machine Learning and Big Data in Finance – Opportunities, Challenges and Implications for Policy Makers*.

(54) Those systems should also, in general, be suitable for the business those entities operate so as to ensure that their trading systems are resilient and have sufficient capacity, are subject to appropriate trading thresholds and limits and prevent the sending of erroneous orders to trade or otherwise function in a way that may create or contribute to a disorderly market.

REMIT II implementation

- (96) REMIT introduced a decentralised system of enforcement according to which enforcement takes place at national level and Member States must have in place national frameworks ensuring a leading role for national regulatory authorities. The more significant parts of the REMIT enforcement framework can be summarised as follows:
- **Powers of national regulatory authorities:** national regulatory authorities must have all the powers to investigate all the acts carried out on their national wholesale energy markets and enforce REMIT ⁽⁵⁵⁾, irrespective of where the market participant carrying out those acts is registered or under an obligation to register pursuant to Article 9(1) of REMIT I. National regulatory authorities must have the necessary investigatory and enforcement powers set out in Article 13(2) of REMIT I, namely the powers to: (a) have access to any relevant document in any form, and to receive a copy of it; (b) demand information from any relevant person, including those who are successively involved in the transmission of orders or conduct of the operations concerned, as well as their principals, and, if necessary, the right to summon and hear any such person or principal; (c) carry out on-site inspections; (d) request existing telephone and existing data traffic records; (e) request the cessation of any practice that is contrary to REMIT or any delegated or implementing acts adopted on that basis; (f) request a court to freeze or sequester assets; and (g) request a court or any competent authority to impose a temporary prohibition of professional activity.
 - **Human and financial resources of national regulatory authorities:** **REMIT II** stressed that ‘In order to fulfil their tasks, it is necessary that the national regulatory authorities be provided with the appropriate resources.’ This means that national regulatory authorities should have the necessary expertise, personnel and financial resources to ensure effective enforcement of REMIT breaches.
 - **National regulatory authorities should be able to assist ACER conduct cross-border investigations.** Where required by national law, ACER should entrust national regulatory authorities with all the necessary rights and obligations to support it in cross-border investigations. No measures in national law should prevent national regulatory authorities from assisting ACER.
- (97) **Member States must lay down the rules on penalties applicable to infringements of REMIT and take all measures necessary to ensure that they are implemented.** More specifically, Member States must ensure that national regulatory authorities have the power to impose at least the following administrative fines and other administrative measures with regard to breaches of REMIT: (a) require the breach to be brought to an end; (b) order the disgorgement of the profits gained or losses avoided due to the breaches insofar as they can be determined; (c) issue public warnings or notices; (d) impose periodic penalty payments; and (e) impose administrative fines. Member States

⁽⁵⁵⁾ Article 3 (Prohibition of insider trading), Article 4 (Obligation to publish inside information), Article 5 (Prohibition of market manipulation), Article 7c (Provision of LNG market data to ACER), Article 8 (Data collection), Article 9 (Registration of market participants) and Article 15 (Obligations of persons professionally arranging or executing transactions) of REMIT II.

should also ensure that their national regulatory authorities should be in a position to impose fines at levels that are in line with the minimum harmonisation framework set out in Article 18(4) and (5) of REMIT II for natural persons and legal persons respectively.

- (98) Lastly, given that the EU legislators have decided that market manipulation is to be enforced nationally, in accordance with the framework and in line with the principles set out in the REMIT legislation, **no national measures should impede the effectiveness of REMIT enforcement.**
- (99) As stated above in Section 3, the Commission sent a questionnaire to all Member States to obtain a detailed understanding of how Member States have implemented REMIT. Of the 27 Member States, 22 responded to the questionnaire. Those responses demonstrated that a significant number of Member States have not put in place the necessary national framework for their national regulatory authorities to enforce REMIT rules. In some Member States, national regulatory authorities do not have the necessary investigatory and/or enforcement powers. In others, national regulatory authorities are not equipped with sufficient personnel or lack the necessary expertise to enforce market abuse cases. Many Member States stated that they were in the process of updating their national legislation so as to become REMIT-compliant by 2026.
- (100) The responses of the 22 Member States can be summarised as follows:
- (101) **Powers of national regulatory authorities:** In the vast majority of the Member States that responded to the Commission's questionnaire, there is a national framework that awards national regulatory authorities investigative or enforcement powers. However, as explained above, national regulatory authorities should be awarded both investigative and enforcement powers as regards potential REMIT breaches. More specifically, in some Member States national regulatory authorities lack investigative powers, such as the power to carry out on-site inspections. In others, national regulatory authorities do not have the power to impose administrative penalties or other administrative measures. In at least one Member State, the national regulatory authority's assessment needs to be reviewed by a non-expert administrative body, which then decides whether any enforcement steps need to be taken.
- (102) **Human and financial resources of national regulatory authorities:** The Commission understands that there are national regulatory authorities without any employees handling REMIT-related cases. Some national regulatory authorities have assigned personnel to REMIT-related cases, but such personnel lack the necessary expertise. A small number of national regulatory authorities reportedly cannot afford to assign employees full-time to REMIT-related cases, so instead they assign a small number of employees to be partially responsible for enforcing REMIT.
- (103) **Cross-border investigations:** Most Member States have frameworks in place that enable cooperation between their national regulatory authorities, ministries and other competent authorities to ensure effective enforcement of

REMIT. Such cooperation is often enhanced through memoranda of understanding entered into by energy and financial regulators. Some Member States have entered into bilateral or multilateral agreements, while others cooperate on the basis of national law provisions. As regards the ability of national regulatory authorities to assist ACER conduct cross-border investigations, the responses submitted by Member States vary. In some Member States, the national legislature has included in the national framework specific provisions empowering national regulatory authorities to assist ACER in cross-border investigations, while others responded that there was no such need and that their national regulatory authorities can rely directly on the REMIT legislative framework to provide all the necessary assistance to ACER.

- (104) **Penalties for REMIT breaches:** Most Member States have not aligned their penalty framework with the REMIT legislation, as amended by Article 18 of REMIT II. Some of them mentioned, though, that they are in the process of amending their legislation accordingly.
- (105) **Finally**, the analytical work of the GMTF demonstrated that some Member States have adopted national measures that impede the effectiveness of REMIT enforcement. By way of example, the limitation period, i.e. the maximum time that national law permits the competent authorities to initiate legal proceedings or to file a claim after an alleged REMIT breach has occurred, is not sufficiently long to allow for effective enforcement. When setting the limitation periods for REMIT breaches, national legislators should account for the complex nature of those breaches and allow a sufficiently long period for the competent authorities to take enforcement action. This follows from the *effet utile* of EU law: limitation periods that are too short for the national regulatory authorities to take action render the enforcement of REMIT breaches ineffective.

Targeted consultation

- (106) The European Commission consulted market participants through a targeted consultation which was open for eight weeks from February to April 2025 ⁽⁵⁶⁾. Overall, 94 responses were received, including 12 from public authorities and market regulators. The consultation covered spot and derivatives energy market aspects, including gas market-related aspects, as well as cross-cutting data-related matters.

Data-related aspects

Background

- (107) The current regulatory framework, as described in Section 2.3, results in multiple reporting channels, but with data access limited to specific regulators. For example, ACER and national regulatory authorities receive data on wholesale energy products reported under REMIT (including data on some wholesale energy products that also qualify as financial instruments, in

⁽⁵⁶⁾ [Targeted consultation on the review of the functioning of commodity derivatives markets and certain aspects relating to spot energy markets, 2025 – Finance.](#)

particular by accessing EMIR trade repositories data), while ESMA and national competent authorities receive data related to commodity derivatives that are deemed to be financial instruments reported under financial legislation. This separation means that the data available to energy supervisors is not always easily available to financial regulators, and vice versa, creating data gaps that can hinder cross-market supervision.

- (108) REMIT includes an obligation on ACER to set up mechanisms for sharing data between various regulators and authorities. In order to enhance data sharing, and following the 2024 revision, REMIT II expanded that obligation, which now includes the European Commission, ESMA, Eurofisc, national regulatory authorities, national competent authorities, national competition authorities⁽⁵⁷⁾ and other relevant authorities in the EU. That data collection and exchange framework under REMIT aims to ensure that the information that is centrally reported to ACER is used not only for the agency's surveillance and monitoring activities, but also for the tasks of the other regulators and authorities referred to above. Similarly, EMIR requires trade repositories to provide direct access and make the necessary information available to ACER and some other public authorities to enable them to fulfil their responsibilities and mandates. EMIR also provides for the exchange of information between competent authorities, ESMA and other relevant authorities for the purposes of carrying out their duties.
- (109) The stakeholder consultation dealt with multiple data-related aspects. In particular, the consultation explored whether there are areas where data sharing and access to it by the relevant energy and financial regulators could be improved or streamlined and/or whether the reporting could be better harmonised across both the financial and energy rule books.

Feedback from stakeholders

- (110) On the harmonisation of reporting, more than half of the respondents agreed that reporting, for example of transactions and positions, under REMIT II, MiFID II, MiFIR and EMIR should be streamlined, and that double reporting should be eliminated. They nonetheless emphasised that each of the financial and energy reporting frameworks serves different purposes and has unique characteristics and cautioned against immediate changes to the respective reporting regimes, partly because of the implementation costs such changes may result in.
- (111) Moreover, stakeholders showed some scepticism about the creation of a single reporting mechanism, as this could challenge the established reporting channels and lead to significant implementation costs for market participants that should be avoided.

⁽⁵⁷⁾ National competition authorities are the designated authorities in each EU Member State with the legal powers to enforce national competition rules as well as Articles 101 and 102 of the Treaty on the Functioning of the European Union, alongside the European Commission; see Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty (Text with EEA relevance) (OJ L 1, 4.1.2003, p. 1, ELI: <http://data.europa.eu/eli/reg/2003/1/oj>).

- (112) As a more cost-efficient solution, stakeholders suggested mirroring the existing REMIT provisions (see Section 2.3 above) in the financial rule book so as to create in both legislations a specific framework for extensive cooperation and mechanisms for exchanging information between different regulators, allowing for efficient data flows between them. Stakeholders thereby showed more openness towards improving data sharing between regulators, as opposed to implementing an entirely new reporting mechanism. Ensuring the interoperability of datasets (e.g. through the use of common identifiers) appears, however, to be a prerequisite for efficient data sharing.
- (113) In conclusion, the feedback received from the consultation indicated that short-term measures could be explored to facilitate data sharing between energy and financial authorities and to improve the interoperability of their respective datasets. This could include the institutionalisation of data exchanges between financial and energy regulators, with unique identifier formats and systematic and continuous access granted to respective supervisory data, without the need for ad hoc access requests.

Derivatives market aspects

- (114) The consultation touched on many aspects of the commodity derivatives trading regime. Overall, the feedback gathered during the consultation, including from public authorities, did not indicate any discernible need to amend the framework applicable to the trading of commodity derivatives. Stakeholders underlined that the current framework allows market participants to adequately meet their hedging needs, supported by an increasingly liquid and dynamic market. The current rules applicable to the trading of commodity derivatives are generally considered by respondents from the industry and public authorities to be fit for purpose.
- (115) This section focuses on the areas of the consultation that the GMTF has identified for further consideration as part of its findings.

Background

- (116) The commodity derivatives market is governed by a number of rules specifically applicable to that asset class that ensure its integrity. As noted in Section 2.3, position management controls (PMCs) are a fundamental part of that framework. They require trading venues to have arrangements in place to monitor open positions of market participants, and to ensure orderly trading on their venue and the orderly settlement of transactions.
- (117) Under the existing regulatory framework, market participants are required to submit to the venues they trade on the details of their positions held in the contracts traded on that venue. That information is then reported by trading venues to the relevant national competent authorities.
- (118) The consultation specifically identified two limitations that affect the position management controls and position-reporting framework.

- (119) Firstly, trading venues are empowered, among other things, to ask market participants trading on their venue to share, through their members, information on their positions in economically equivalent OTC contracts, and in contracts that are based on the same underlying and that share the same characteristics traded on other trading venues. However, this power does not extend to OTC contracts that are not economically equivalent, but that are related (e.g. same underlying) to a contract traded on their venue, the trading of which could influence the price and orderly settlement of contracts traded on that venue.
- (120) Secondly, when it comes to third-country market participants, the current position-reporting framework does not allow for full visibility of the end-position holder, as the reporting chain stops at the first entity located in a third country. This affects the capacity of national competent authorities to have a fully accurate view of positions held by third-country market participants and their clients.

Feedback from stakeholders

- (121) As regards position management controls, all but one respondent expressed concerns over possible obligations for market participants to systematically report OTC positions to trading venues in order to support the position management control of trading venues. However, several of those stakeholders, opposing systematic reporting of OTC positions to trading venues, considered that trading venues should have the ability to request additional position information on a wider range of OTC contracts, when positions in such contracts can influence the price of contracts traded on the same venue, and only in specific circumstances, such as during periods of market stress or heightened risk (as opposed to systematic reporting). In the view of the respondents, that possibility could enhance the capacity of trading venues to perform their position management controls and help monitor orderly trading and, potentially, protect markets against financial stability risks, while reducing implementation costs compared to systematic reporting of OTC positions to trading venues.
- (122) Public authorities were strongly in favour of closing the reporting gap relating to positions held by third-country market participants, with a view to better enforcing position limits and increasing visibility of third-country market participants' positions. Those stakeholders therefore suggested strengthening the framework so as to ensure that market participants always report, as part of the existing position-reporting requirements, the end-position holder, even where a market participant is a third-country entity.
- (123) Feedback from market participants highlighted the burdensome procedures for applying for and granting hedging or liquidity provision exemptions from position limits, with 57% of respondents suggesting that the task could be transferred from national competent authorities to trading venues and included in their position management control powers, as in other jurisdictions. Those market participants pointed out that the process of granting hedging or liquidity provision exemptions could therefore be made more agile by delegating certain

tasks, such as the processing of applications and validation of requests for exemptions, to trading venues.

- (124) Lastly, feedback from stakeholders, including regulators, consistently pointed to the importance of the ancillary activity exemption (AAE) to allow predominantly non-financial players to continue to participate in commodities markets. Stakeholders argued that this was necessary not only for those entities to adequately hedge their commercial exposure and plan their operations in an efficient way, but also to preserve the depth of commodity derivatives markets in the EU. Respondents also pointed to the added value of non-hedging trading activity, including by non-financial firms benefiting from the AAE, in contributing to market depth and liquidity, reduced concentration, and price formation by bringing expert insight to the market. Overall, the stakeholder consultation indicated that a tightening of the AAE would have far-reaching consequences on the operation of firms that currently benefit from the AAE. More specifically, this would mean that energy companies, for example, would face significantly higher costs – linked to capital, liquidity and collateralisation requirements and extensive compliance costs – when undertaking their activities, potentially leading some of them to ultimately leave the market, thereby lowering trading volumes and liquidity, increasing concentration, etc. This view was largely shared by industry representatives and regulators, with only one stakeholder calling for a review of the AAE. Some stakeholders, however, indicated that a one-off notification to national competent authorities, when starting and ceasing operations, could improve supervisors’ overview of the identity of entities active on commodity derivatives markets.

Spot market aspects

- (125) As stated above, the targeted consultation also included specific questions on spot energy markets. Those questions aimed to explore whether additional regulatory requirements should be imposed on spot trading, both at the level of trading venues and on market participants.
- (126) The feedback received from the vast majority of respondents, including from regulators, pointed to the fact that the currently applicable legal framework, at both EU and national level, ensures the proper functioning of spot markets. The imposition of additional regulatory requirements, such as position limits, would affect their ability to divest their positions and meet real-world demand, and ultimately impact on the affordability of energy prices. The imposition of position limits could also reduce market liquidity.
- (127) The vast majority of respondents, including regulators, opposed the potential imposition of circuit breakers in spot markets or on products regulated purely by REMIT. In the respondents’ views, circuit breakers could disrupt the efficient functioning of spot markets, by artificially constraining price movements, thereby distorting pricing and even introducing systemic risk.
- (128) Moreover, in response to the question as to whether additional organisational and operational requirements similar to the ones currently applicable under the

EU financial rule book⁽⁵⁸⁾ should be introduced on spot trading venues and market participants, the feedback from the vast majority of respondents, including regulators, was negative. In their view, similar requirements are already imposed on market participants through national frameworks. In addition, any further organisational or operational requirements on market participants would be costly, create regulatory overlaps and, most importantly, reduce market liquidity and potentially increase energy prices. Similar arguments were raised as regards the imposition of additional organisational and operational requirements on spot trading venues.

- (129) Finally, the vast majority of respondents, including regulators, expressed the view that the application of rules similar to the ones included in MiFID to spot energy market participants would not have prevented certain atypical trading behaviour (e.g. lack of forward hedging, trading on weekends) as observed during the energy crisis. The rationale behind this was that any such ‘atypical’ behaviour was the ‘expected’ – and to some extent necessary – response from market participants to the drastic shifts in market fundamentals during the crisis, e.g. restricted supply of Russian gas and the need to ensure new supplies. In the respondents’ view, the imposition of these additional requirements in spot markets would have had an even more devastating impact on energy prices and security of supply in those extreme circumstances, by preventing the spot markets from reacting promptly to the abrupt changes.
- (130) Considering the regulatory requirements in the existing EU and national legislation for spot gas markets, the feedback to the Commission’s targeted consultation and the fact that spot markets differ significantly from derivatives markets, in that in the former the physical / real-world element is more prominent because physical delivery is to take place imminently, the GMTF did not include any finding pertaining to additional requirements on spot gas markets.

Relationship between gas storage obligations and derivatives markets

- (131) In response to the 2022 energy crisis and informed by the relatively low storage injections in summer 2021, the EU introduced measures to safeguard energy security, including mandatory gas storage obligations for Member States. These obligations, enforced by entities (in many cases, transmission system operators) responsible for meeting storage targets, have provided valuable insights into the interaction between spot and derivatives market dynamics, and into the transmission of price signals between the two markets.
- (132) While correlation does not imply causality, derivatives price curves suggest that the design of some national storage policies and the implementation by some Member States of their storage obligations may have influenced price signals and derivatives market dynamics.

⁽⁵⁸⁾ For a brief overview of the organisational requirements under MiFID, please see Sections 6.3.1 and 6.3.2 of the EC Targeted Consultation document, available here: [Targeted consultation on the review of the functioning of commodity derivatives markets and certain aspects relating to spot energy markets](#).

- (133) For example, the figure below illustrates the development of the summer/winter spread on 18 February 2025. Over that day, a news source published a draft of the Clean Industrial Deal communication, stating that the Commission would work together with Member States on storage filling ‘in the context of the gas storage regulation extension’ and that ‘the new approach to gas storage filling would include “dynamic” targets to help support summer preparedness’ (News 1), which was then corrected (News 2). Large intraday variations in the summer/winter spread and trading activity were observed – possibly due to rumours regarding the future rules. However, other drivers continued to influence the summer/winter spread over that day, leading the spread to continue to climb and leaving the overall trend unchanged.

Figure 13: Illustration of the development of the summer/winter spread on 18 February 2025



Source: private source

- (134) As noted above, although correlations should not be conflated with causation, and bearing in mind the extreme tightness of market conditions in that period due to several other factors (supply scarcity, end of Ukraine gas transit), the observed trading patterns suggest that market participants may have reacted and immediately corrected. Press reports referred on that day to an unstable context with ‘traders stressing continued price sensitivity to shifting weather patterns, as well as geopolitical and regulatory developments’¹. The latter could have included the national measures for the implementation of storage targets. This immediate reaction underscores the significance of carefully calibrated national implementation measures for gas storage targets to avoid unintended price distortions. In that regard, as stated in Section 2.3, it is important to note that the recent amendments to the EU emergency framework on gas storage have already inserted further elements of flexibility in its design.
- (135) Beyond the targets themselves, it is the strategies that Member States employ to meet these obligations that can shape derivatives market dynamics. In particular, the effectiveness of hedging strategies carried out by storage entities

directly influences the pricing of derivatives. If these entities fail to hedge future sales, the absence of corresponding supply in derivatives markets amplifies price pressure, as demand driven by storage procurement is not offset by future sales in the derivatives market. In particular, policies for purchasing significant volumes on the spot market without forward selling could have amplified price impacts. Therefore, appropriate hedging strategies could help mitigate possible distorting effects of announcements or implementation of measures related to gas storage targets.

- (136) While current regulations (such as the Gas SOS as amended by the 2025 amending Regulation) already include certain safeguards to prevent market distortions from storage target implementation, the interlinkages between spot and derivatives markets revealed by recent national implementation dynamics highlight the need to continue to consider these market interactions in any future reviews of EU/national gas storage provisions.
- (137) The 2025 amending Gas Storage Regulation pays special attention to the considerable improvement of the gas market fundamentals since 2022-2023. The new framework was designed with the aim of ensuring that energy security objectives are preserved while restoring market-based signals and incentives for storing gas. In particular, by making the filling trajectories indicative, the revised framework limits the risk of price spikes that could have been related to mandatory filling trajectories. Since the adoption of the Regulation, the negative summer-winter price spread has not materialised, prices have been relatively stable and storage reached a historically low maximum of 83% in 2025 (excluding 2021), continuing to set negative records that require constant monitoring of the security-of-supply situation.

FINDINGS OF THE GAS MARKET TASK FORCE

Finding 1: Enhanced cooperation for the purposes of continued monitoring and law enforcement in the gas sector as a matter of priority

- (138) Recognising that energy prices, particularly those of gas, play a decisive role in ensuring the competitiveness of European businesses and protecting the welfare of consumers, the GMTF underscores the critical importance of ensuring that gas markets at all levels of the supply chain operate fairly, transparently and in full compliance with the applicable laws and regulations, including the energy *acquis* and the competition rules.
- (139) The GMTF finds it important that the Commission, together with EU and national authorities with regulatory and oversight powers for gas and gas derivatives markets (in particular, national competition authorities, as well as national energy and financial regulators), continues to actively monitor, as a matter of priority, the market developments at all levels of the natural gas supply chain, including gas production, wholesale gas supply, gas transportation and storage, gas and gas derivatives trading and retail gas supply to final customers, with a view to identifying and addressing as swiftly as possible any market distortions that may arise. For this purpose, it is also important that competent authorities continue cooperating closely to ensure

that any such distortions are addressed in the most effective and efficient manner.

- (140) To inform their work, the relevant authorities could draw on discussions and conclusions from the relevant existing EU-level coordination groups, insofar as the applicable confidentiality safeguards are respected and the necessary prior approvals of the relevant coordination groups are in place. This includes: (i) the European Competition Network, which brings together the Commission's DG COMP and national competition authorities with a view to exchanging information relevant to – and coordinating enforcement action for – the application of competition law in all areas of the economy, including the energy sector; (ii) the European Gas Regulatory Forum; and (iii) the Energy Trading Enforcement Forum, which brings together ACER, ESMA, national energy and financial regulators.

Finding 2: Strengthening EU competition law monitoring and enforcement activities in the gas sector through the development of new data-screening tools

- (141) As well-functioning gas and gas derivatives markets are crucial for the formation of market-based energy prices, it is essential for competition law enforcement authorities to be able to swiftly identify potential areas of risk and to intervene, where appropriate, to address any such risks. For this purpose, the GMTF considers it useful that the Commission develops and implements, in close cooperation with ACER, new data-screening tools for gas and gas derivatives markets on the basis of the REMIT database.
- (142) Building on the experience gained during the structural mapping of the EU upstream and downstream wholesale gas supply markets carried out for the purposes of this report, the GMTF considers it valuable to strengthen monitoring activities in gas and gas derivatives markets through the use of additional data-screening tools, with a view to ensuring effective competition enforcement in gas and gas derivatives markets. To this end, the GMTF considers that the Commission could exploit the extensive database that ACER is compiling in the ordinary course of business under REMIT and related provisions, ensuring full complementarity between regulatory oversight and EU competition law enforcement).
- (143) The GMTF finds that it would be beneficial for the Commission to develop, in close cooperation with ACER and on the basis of ACER's REMIT database, additional data-screening tools combining the Commission's expertise in EU competition law enforcement and ACER's regulatory expertise to identify gas and gas derivatives markets exhibiting characteristics that indicate a higher risk of competition distortions. The objective of such additional data-screening tools would be to allow for a continuous assessment of market concentration on the basis of established metrics, such as market shares and the Herfindahl–Hirschman Index (HHI)⁽⁵⁹⁾, with a view to identifying markets requiring

⁽⁵⁹⁾ The Herfindahl–Hirschman Index (HHI) is a common measure of market concentration in an industry and is used to provide an indication of market competitiveness. It is calculated by squaring the market share of each competing firm in the industry and then summing the resulting numbers, where the market shares are expressed

closer scrutiny and possibly a more in-depth competition analysis. Enhanced cooperation between the Commission and ACER to develop and implement such data-screening tools would also benefit from enhanced forms of data sharing as referred to in Finding 13.

Finding 3: Enhanced cooperation with regard to the monitoring of the impact of (in particular, AI-based) algorithmic tools, including high-frequency trading, on gas and gas derivatives trading markets

- (144) While fully recognising the benefits of algorithmic trading, the GMTF considers it important that the competent authorities (including the Commission, ACER, ESMA, national competent authorities, national regulatory authorities) monitor, in close cooperation between themselves, how algorithmic tools are affecting the functioning of commodity and commodity derivatives markets, and in particular gas trading markets, so as to allow for swift intervention through regulatory or enforcement measures, where warranted, to ensure the proper functioning of these markets.
- (145) Although algorithmic trading has become a widespread phenomenon in commodity and commodity derivatives markets, including gas markets, which is subject to regulatory oversight under the REMIT and MiFID II frameworks, it is a highly dynamic market feature, the use of which is constantly evolving. To be able to ensure effective oversight of gas and gas derivatives markets, in which algorithmic tools are used, it is therefore of crucial importance for competent authorities to keep up with these developments and ensure that their toolbox remains adequate. This applies particularly to two aspects of algorithmic trading that change at a particularly fast pace – high-frequency trading (HFT) and AI-based trading tools – which may present risks in terms of collusion, a disconnect from market fundamentals and lower transparency.

- (146) To anticipate future challenges in the use of algorithmic tools in gas and gas derivatives markets, the GMTF notes that it would be beneficial if the Commission, together with ACER, ESMA and the relevant national authorities, were to engage in a structured dialogue and data exchanges, with a focus on the use of algorithmic trading tools, including AI-based algorithms and their impact on trading activity and, in particular, on the price formation of gas and gas derivatives. This structured dialogue and data exchange could form part of the strengthened cooperation on market monitoring, with a view to further ensuring that gas and gas derivatives markets remain fair and transparent.

Finding 4: Timely compliance with the obligations in the revised REMIT Implementing Regulation

- (147) REMIT II expanded the scope of the reporting obligations for market participants to make the surveillance framework more robust and further enhance integrity and transparency in wholesale energy markets. These

as points. The HHI ranges from close to zero (in an atomistic market) to 10 000 (in the case of a pure monopoly). In other words, increases in the HHI index generally indicate a decrease in competition and an increase of market power, whereas decreases indicate the opposite.

additional obligations were made operational by the Commission in the revised REMIT Implementing Regulation.

(148) Given the revised REMIT Implementing Regulation plays a very significant role in further strengthening regulatory oversight and further enhancing the work of national regulatory authorities to eliminate potential significant market distortions or manipulations in wholesale energy markets, it is essential that market participants take the necessary measures to be ready for timely compliance with the obligations set out in that Regulation.

Finding 5: Effective and timely implementation of REMIT

(149) The analytical work performed by the GMTF demonstrated that the way in which enforcement of REMIT-related breaches is carried out varies significantly among Member States. The pivotal principle of REMIT enforcement, according to which national regulatory authorities should be given the lead role in enforcing REMIT breaches, through a wide array of investigatory and enforcement powers, is not respected by all Member States. As explained in Section 4, some Member States have not entrusted their national regulatory authorities with the power of imposing administrative fines or other administrative measures as required by Article 18 of REMIT II. Others have not given their national regulatory authorities the investigatory powers set out in Article 13(2) of REMIT I.

(150) Given that REMIT is based on decentralised enforcement, according to which REMIT breaches are enforced nationally, any non-compliance with the REMIT investigatory and enforcement framework would pose serious risks to the unveiling of market distortions in wholesale energy markets.

(151) With a view to eliminating potential significant market distortions or manipulations in wholesale energy markets, all Member States should ensure effective and timely implementation of Regulation (EU) No 1227/2011 (REMIT), in particular as regards powers of national regulatory authorities, mechanisms for cooperation between supervisors and the imposition of fines by the end of Q2 2026.

(152) The GMTF therefore considers it valuable that the Commission takes all necessary enforcement actions against those Member States whose national framework is not in line with REMIT.

Finding 6: Human and financial resources of national regulatory authorities to carry out REMIT tasks

(153) The analytical work performed by the GMTF demonstrated that – independently of the investigatory and enforcement framework that all Member States have in place for their respective national regulatory authorities, which was the subject matter of Finding 2 – national regulatory authorities do not always have the necessary resources to perform their tasks set out in REMIT. As explained in the points in Section 4, some national regulatory authorities lack personnel in general, while others lack experts.

(154) With a view to achieving effective enforcement against significant market distortions or manipulations, it is essential that all Member States ensure that their national regulatory authorities are equipped with all the necessary human and financial resources to carry out their tasks pursuant to Regulation (EU) No 1227/2011 (REMIT). Each national regulatory authority should have expert personnel dedicated to market oversight and processing REMIT-related matters.

Finding 7: Enhancing the effectiveness of MiFID position reporting

- (155) Under MiFID II ⁽⁶⁰⁾, members or participants of trading venues are required to report to the trading venue, at least on a daily basis, the details of their own positions in commodity derivatives ⁽⁶¹⁾ traded on that trading venue, as well as those of their clients and the clients of those clients until the end client is reached ⁽⁶²⁾. The trading venue then provides the information received to the competent authority.
- (156) Due to the MiFID definition of a client ⁽⁶³⁾, a third-country broker would have to report all the positions held on its own account and on behalf of third parties but has no legal obligations to provide the disaggregated positions held on behalf of its clients. The same limitation applies when a member or participant of a trading venue is not an EU investment firm.
- (157) The lack of information on the identity of the end-position holder, whose positions will appear as positions held by a third-country broker, i.e. by a financial counterparty, may also affect the accuracy of weekly position reports on each category of market participants.

(158) The GMTF considers that it would be valuable for position reporting to national competent authorities to be able to be extended so as to ensure that the relevant national competent authority has access to the identity of the end-position holder, including when the client of an EU investment firm is a third-country broker or where a member or participant of a trading venue is not an EU investment firm.

- (159) Position reporting plays a fundamental role in the commodity derivatives regulatory framework. Where the energy derivative contract is subject to position limits, the daily reporting of positions held in on-venue and economically equivalent OTC contracts aims to provide the relevant national competent authority with the information necessary to ensure that no person exceeds those limits.

⁽⁶⁰⁾ Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU (OJ L 173, 12.6.2014, p. 349, ELI: <http://data.europa.eu/eli/dir/2014/65/oj>).

⁽⁶¹⁾ ‘Commodity derivatives’ is to be read as including derivatives of emission allowances.

⁽⁶²⁾ Article 58(3) of MiFID.

⁽⁶³⁾ Article 4(1)(9) of MiFID.

- (160) Position reporting, which applies to all commodity derivatives traded on a trading venue, serves multiple purposes beyond the enforcement of position limits. Combined with other data sources, position-reporting data is an additional source of information that allows national competent authorities to better identify – and penalise – potential market manipulation. The data on positions held in commodity derivatives also provides national competent authorities with more insights into the composition of the market and the activities of the various types of market participants, including financial and non-financial counterparties, and may also be used to support policy developments and supervisory processes.
- (161) The mandatory identification of the end-position holder in position reports would be a significant improvement towards more straightforward enforcement of position limits and assessment of the potential build-up of positions through third-country brokers. In addition to providing national competent authorities with a more complete picture of energy derivatives markets, the identification of end-position holders would also help increase the accuracy of the weekly position reports published by trading venues for each category of market participants.

Finding 8: Access by trading venues to a broader set of OTC derivative data for position management control purposes

- (162) Position management controls are a specific feature of trading venues trading commodity derivatives. As part of their position management controls under Article 57(8)(b) of MiFID II, trading venues have the power to request information from market participants on: (i) positions held on other trading venues for contracts that are based on the same underlying and that share the same characteristics; and (ii) positions held OTC for contracts that are considered economically equivalent to a commodity derivative traded on a venue.
- (163) Past events in the commodity derivatives markets, such as the 2022 LME nickel incident⁽⁶⁴⁾, have, however, highlighted that large positions held in OTC derivatives that may not be economically equivalent also have the potential to affect price formation and create disorderly trading conditions.

(164) The GMTF considers that it would be valuable for trading venues to be granted adequate powers to request, on an ad hoc basis, information on the positions held in a broader set of OTC contracts related to the commodity derivatives they offer for trading and related assets and liabilities in the underlying commodity. This power would cover all OTC contracts which have the ability to influence the pricing or settlement conditions of the relevant on-venue contract in the EU. The GMTF also acknowledges the importance of clarifying that the information collected by trading venues

⁽⁶⁴⁾ In March 2022, prices of nickel derivatives on the London Metal Exchange (LME) surged over three trading days. The extreme price moves led the LME to halt trading and to cancel trades in nickel contracts. The surge in prices was related to a ‘short squeeze’ as some market participants holding large short positions, including OTC, on nickel derivatives faced margin calls, resulting in the short covering of those trades to reduce risks, which further contributed to the price increase.

about market participants' activity outside their markets may be used only for position management control purposes. The scope of the OTC data that could be requested by trading venues, as well as the conditions under which this information could be requested, would be further defined in a delegated act.

- (165) The power to request information on a broader set of OTC contracts related to the commodity derivatives offered for trading would improve trading venues' overview of the positions held by market participants trading on such venues. As a result, trading venues would be able to better understand the impact of any abrupt price change on individual members' overall positions. This would allow them to take appropriate and timely actions to mitigate the risks arising from large OTC positions, improving their ability to maintain orderly trading.
- (166) This would also align with the conclusions drawn by the International Organization of Securities Commissions (IOSCO) in a recent report on the regulation and supervision of commodity derivatives markets⁽⁶⁵⁾, where it recommended that further work should be done to improve the ability of exchanges to obtain information about market participants' positions in related OTC commodity derivatives and in the underlying physical commodity markets.

Finding 9: Ensuring a level playing field in position limits with third-country venues

- (167) The current MiFID position limits regime is subject to legal uncertainty as regards positions taken by EU investment firms and their clients on third-country venues offering trading in economically equivalent commodity derivative contracts and the extent to which such positions should be reported and count towards position limits – where such contracts are subject to such limits in the EU.
- (168) This uncertainty might have been further exacerbated by the application of a new definition of OTC derivatives introduced under the MiFIR review, and its interaction with MiFID II. It could also contribute to an unlevel playing field between third-country venues and create potential incentives to trade in economically equivalent derivatives on third-country venues rather than on EU venues.

(169) The GMTF considers that it would be valuable to clarify that positions held by EU investment firms and their clients in economically equivalent contracts traded outside an EU trading venue count towards the position limits, and are therefore subject to the same treatment as positions in contracts traded on EU venues. This includes bilaterally traded economically equivalent contracts, or economically equivalent contracts traded on a non-EU trading venue.

- (170) This clarification is aligned with the policy objectives of strategic autonomy and EU competitiveness highlighted in the Draghi report, creating a level playing field for all third-country venues, removing unintended incentives for trading outside the EU and preventing circumvention of EU rules. It also

⁽⁶⁵⁾ Available at: <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD781.pdf>.

further ensures legal certainty for market participants, reducing the costs associated with legal uncertainty.

Finding 10: Making the procedure for granting hedging or liquidity provision exemptions more agile

- (171) Currently, hedging and liquidity provision exemptions from position limits are granted by national competent authorities. Market participants are required to submit a request to the national competent authority. The national competent authorities then have to assess the request, in particular regarding its compliance with the relevant conditions set out in MiFID II and relevant measures under delegated legislation.
- (172) Respondents to the targeted consultation noted that this process could sometimes imply cumbersome and lengthy procedures for applicants. On the other hand, the proximity of trading venues to the market could potentially allow venues to deal with those applications more expeditiously, alleviating the overall procedure, while continuing to ensure full compliance with the legal requirements set out in MiFID II. In performing this function, trading venues could, in particular, build on their existing role in managing positions. Consequently, trading venues could be well positioned to accurately determine whether or not market participants are trading for hedging purposes, potentially limiting the number of exchanges with applicants and alleviating the overall procedure.
- (173) In light of the input received from market participants to the targeted consultation, the GMTF assessed how the framework governing the granting of hedging and liquidity provision exemptions from position limits could be made more agile and, in particular, how trading venues could contribute to that objective.
- (174) To that end, a new procedure could be considered where market participants, or brokers on their behalf, would apply directly to a trading venue. The trading venue would review the application and grant the exemption when the application complies with the relevant legal conditions.
- (175) For derivatives that are traded on multiple trading venues, market participants, or brokers on their behalf, could prioritise sending their applications to the venue trading with the highest liquidity in a given derivative or, should they not be active on that venue, to the venue on which they *are* active.
- (176) Other jurisdictions have already acknowledged the benefits of such a solution, and have transferred, or are considering transferring, the powers to grant the hedging and liquidity provision exemptions to trading venues.
- (177) This solution would be fully aligned with the Draghi report's recommendation to ensure agile, competitive and attractive energy markets, as this would help make EU gas derivatives markets more flexible and less costly for market participants to navigate. Safeguards, such as systematic (yet targeted) reporting to and regular reviews by national competent authorities, would need to be put

in place to avoid any conflicts of interest and to allow supervisors to have a consolidated view of the existing exemptions.

Finding 11: Setting up a one-off notification for entities trading under the AAE

(178) In 2021, the Capital Markets Recovery Package (CMRP) introduced several changes to reduce some of the administrative burden that experienced investors face in their business-to-business relationships, and to provide opportunities for nascent commodities markets to further develop, deepen and improve their liquidity. These included removing the obligation for market participants to notify their fulfilment of the AAE criteria every year and replacing it with the possibility for national competent authorities to request information on an ad hoc basis.

(179) In order to give supervisors a clearer view of the identity of market participants active in commodity derivatives markets, the GMTF considers that it could be valuable to set up a one-off notification to national competent authorities, when starting and ceasing operations, to be provided by all entities operating under the AAE that are active on commodity derivatives markets, while ensuring the lightest possible regulatory burden for entities and taking into account existing reporting obligations and mechanisms.

Finding 12: Ensuring that storage obligations have minimal impact on the functioning of derivatives markets

(180) Drawing on the experience gained of implementing recent gas storage obligations, the GMTF has identified that, due to the interconnections between gas spot and derivatives markets, the implementation of national storage obligations can potentially influence derivatives market dynamics and trading patterns.

(181) The GMTF therefore considers that it could be valuable for Member States to ensure that the implementation of gas storage obligations includes appropriate consultation and coordination of energy and financial regulators, as well as coordination with other Member States, so as to minimise the market impact of large, storage-related purchases and avoid unintended market distortions.

(182) In addition, the GMTF has concluded that Member States could ensure that entities in charge of implementing the storage-related purchases could be invited to consider potential distortive effects on derivatives markets, and therefore the need to implement appropriate hedging strategies. Member States could therefore also ensure that entities with storage-filling obligations have the relevant capabilities to undertake actions consistent with the normal functioning of markets (e.g. have access to futures markets). Such appropriate hedging strategies could also, in turn, help mitigate price pressure by providing (selling) price signals in the futures market.

Finding 13: For a more efficient data use and for improving the data-sharing framework across entities and regulations

(183) The GMTF acknowledges the views expressed by stakeholders in the Commission's consultation conducted in accordance with Article 90(5) of MiFID II, as well as the need to reduce the administrative burden on market participants. Accordingly, the task force does not see a need to strengthen market supervision through immediate extensive changes to the current reporting mechanisms that could impose additional administrative burdens and costs on market participants, undermining the objective of promoting the competitiveness of the European industry. Instead, the GMTF sees added value in strengthening the EU regulatory and supervisory framework for gas markets through enhanced data sharing between authorities, institutions, including the Commission, and regulators and improved interoperability of data while minimising the impact on reporting by market participants.

(184) The GMTF considers it valuable that ACER and ESMA create a workstream dedicated to data, which could:

- map the data fields that can ensure interoperability between different datasets;
- draw up a road map towards a more interoperable and streamlined reporting framework focused on increasing the use of existing data;
- identify the necessary legislative changes where relevant;
- consider possible improvements to existing data-sharing frameworks as regards data sharing between authorities, institutions, including the Commission, and regulators.

(185) The goal of the workstream would be to ensure the development of a comprehensive data-reporting framework that promotes synergies across sectors and integration, where it adds clear value given costs, ultimately enabling better data comparability to support broader policy objectives, such as transparency and market integrity.

(186) In order to improve the interoperability of data, a thorough review of all the relevant datasets (orders, transactions, positions and exposures) stemming from the relevant reporting regimes would be necessary. The various items of information contained within each dataset would need to be mapped, in order to identify both misalignments in labelling/terminology and potential areas for harmonisation. Such a review requires expertise from both financial and energy markets, and it should therefore be undertaken by ACER and ESMA jointly. Where misalignments in terminology, reporting guidance or other discrepancies in reported data are identified, a deeper analysis is needed in order to ensure that what is collected fulfils the purpose and is useful for the mandates of the various authorities and regulators. The GMTF also sees added value in this exercise, including with regard to the master data or reference data collected and maintained under the various regimes, as well as technical standards and formats. On the basis of the mapping exercise, ACER and ESMA could jointly draw up a road map towards a more interoperable and

streamlined reporting framework that builds on internationally recognised industrial standards and identifiers. The result of the mapping exercise and the road map would be submitted to the Commission in the form of a report.

- (187) Building on the principles of simplification and burden reduction, the GMTF believes that the focus should be on leveraging existing reporting flows and infrastructures rather than creating new requirements, institutionalising and operationalising the exchange of data as appropriate, although the outcome of that exercise may point to the need to implement certain legislative changes. For example, in both financial and energy legislation, many of the technical details for reporting are already set out in secondary legislation, which might therefore have to be revised. Once such a review has been undertaken and changes to reporting standards and formats have been identified, it would be valuable to ensure that the review cycles of the energy and financial secondary legislative acts on transaction reporting are aligned. Otherwise, any efforts at harmonisation might be undone by future changes.
- (188) Such an exercise cannot be performed solely by comparing legal texts or technical specifications. It requires ACER and ESMA to analyse – at least – sample data in accordance with their mandates, from the complete datasets stemming from the relevant reporting regimes. Because of this, the GMTF is also of the view that ACER and ESMA could consider what possible improvements could be made to the existing data-sharing frameworks, to ensure transparent and fair access to and processing of data, as well as the continued improvement of data quality and interoperability. In particular, aspects of information security requirements, data-sharing tools and services for the pooling, processing and sharing of data may be explored.

Finding 14: Enhancing market supervision by improving ACER/ESMA cooperation

- (189) The GMTF considers that ACER and ESMA could work together to identify areas for improved cooperation, through the existing ACER-ESMA Task Force. ACER and ESMA are encouraged to consider initiatives and propose recommendations to develop cooperation between energy and financial regulators that can help further integrate supervision of spot and derivatives markets and simplify compliance by market participants with REMIT, MAR and MiFID II/MiFIR.
- (190) In particular, ACER and ESMA could consider:
- issuing joint public guidance in areas of shared responsibility;
 - exploring the possibility of single notifications, whenever possible; and
 - examining the need to develop the existing cooperation framework into a more institutionalised framework comprising a joint committee.

- (191) Assess the need for a legal framework for issuing joint guidance – ACER and ESMA could assess the need for a legal framework that would help publish joint guidance setting out the high-level principles for case allocation in areas of overlapping competence. This would help clarify the scope of MAR and REMIT, outlining procedures for coordination and information sharing. By providing a transparent and harmonised interpretative framework, this joint guidance could enhance legal certainty, promote consistent enforcement across jurisdictions and help both market participants and regulators effectively apply the two regimes. Enhanced cooperation between ACER and ESMA could also help address the complex regulatory and legal uncertainties currently faced by market participants.
- (192) Single notification system – With no centralised notification process currently in place, ACER and ESMA could explore whether there would be any merit in single notifications of wholesale energy products that are also financial instruments for persons professionally arranging or executing orders or transactions (PPAETs), algorithmic traders and direct electronic access providers (DEAs). This assessment should take into consideration the views of the notifying parties.
- (193) A shared and centralised notification system could be considered to facilitate systematic collection, sharing and coordination of notifications between all relevant authorities, where wholesale energy products that are financial instruments are involved. This approach would allow information to be exchanged in real time and reduce duplication and inconsistencies.
- (194) Consider setting up a joint committee – Given the areas for improved cooperation identified above, a model for strengthened coordination between ACER and ESMA could build on the existing cooperation structures, such as the joint task force and the Energy Trading Enforcement Forum (ETEF). ACER and ESMA are invited to consider whether the current joint task force could benefit from being institutionalised as a joint committee reporting directly to the directors of ACER and ESMA. This committee would be supported by a legal framework that would allow it to take responsibility for issuing joint guidance in areas of shared responsibility (without disrupting the current governance balance between energy and financial regulation).