

OPINION on position limits on ICE Endex Dutch TTF Gas contracts

I. Introduction and legal basis

1. On 1 June 2021, the European Securities and Markets Authority (“ESMA”) considered that sufficient information was received to assess a notification received from the Netherlands Authority for the Financial Markets (AFM) under Article 57(5) of Directive 2014/65/EU on markets in financial instruments¹ (“MiFID II”). The notification is regarding the exact position limits the AFM intends to set for the ICE Endex Dutch Title Transfer Facility (TTF) Gas futures and options commodity contracts in accordance with the methodology for calculation established in Commission Delegated Regulation (EU) 2017/591 supplementing Directive 2014/65/EU of the European Parliament and of the Council with regard to regulatory technical standards for the application of position limits in commodity derivatives² (“RTS 21”) and taking into account the factors referred to in Article 57(3) of MiFID II.
2. ESMA’s competence to deliver an opinion is based on Article 57(5) of MiFID II. In accordance with Article 44(1) of Regulation (EU) 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority)³ (“ESMA Regulation”), the Board of Supervisors has adopted this opinion.
3. On 24 January 2020, ESMA issued an Opinion regarding the exact position limits the AFM intended to set for the ICE Endex Dutch TTF Gas futures and options commodity contracts. The position limits considered by the AFM was 52,466,250 MWh for the spot month limit and 188,074,620 MWh for the other months’ limit. In this opinion, ESMA concluded that the position limits considered by the AFM complied with the methodology established in RTS 21 and were consistent with the objectives of Article 57 of MiFID II.
4. According to Article 57(4) of MiFID II, a competent authority shall review position limits where there is a significant change on the market, based on its determination of deliverable supply and open interest and reset the position limit. The AFM has calculated again the open interest in March 2021 based on position reporting data. The AFM considered that there had been an increase in the open interest compared to its initial submission and that that the position limits for both the spot month and the other months had therefore to be reconsidered. ESMA

¹ 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).

² Commission Delegated Regulation (EU) 2017/591 of 1.12.2016 supplementing Directive 2014/65/EU of the European Parliament and of the Council with regard to regulatory technical standards for the application of position limits commodity derivatives (OJ L 87, 31.3.2017, p. 479).

³ Regulation (EU) 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC (OJ L 331, 15. 12.2010, p. 84).



understands that the new position limits apply since 15 October 2019 and are replacing the previous position limits as determined by the AFM. In the opinion herewith, ESMA is assessing whether the new position limits the AFM has set for the ICE Endex Dutch TTF Gas futures and options commodity contracts comply with the methodology established in RTS 21 and are consistent with the objectives of Article 57 of MiFID II.

II. Contract classification

Commodity base product: energy (NRGY)

Commodity sub product: natural gas (NGAS)

Commodity further sub product: TTF (TTFG)

Name of trading venue: ICE ENDEX DERIVATIVES B.V.

MIC: NDEX

Venue product codes: TFM, TFE⁴

III. Market description

5. Natural gas is a hydrocarbon gas mixture consisting largely of methane and other hydrocarbons, occurring naturally underground (often in association with petroleum). It is used as a source of energy for heating, cooking, electricity generation, fuel for vehicles and chemical feedstock in the manufacture of plastics and other organic chemicals.
6. Natural gas is usually processed to remove impurities and meet the specifications of marketable natural gas. The resulting by-products include ethane, propane, butanes, pentanes, and higher molecular weight hydrocarbons, hydrogen sulphide, carbon dioxide, water vapour, and sometimes helium and nitrogen.
7. The fundamentals of the gas markets are based on the supply and demand of gas in Europe. On the supply side, the key drivers are the availability of gas production (especially those from Norway, the Netherlands, Russia, North Africa and Middle East), transportation and storage (pipelines maintenances or outages). On the demand side, the consumption is mainly driven by the weather (heating needs).
8. The Dutch wholesale market for natural gas is also known as the Title Transfer Facility or TTF. It is a virtual market place operated by Gasunie Transport Services (GTS). The TTF was established in 2003 to promote the trading of natural gas thereby enhancing the liquidity of

⁴ This is the primary venue product code (VPC) for this contract, however, the position limits set apply to other associated VPCs as well. For a complete and updated list of VPCs to which the same limit applies, please check the AFM website (<https://www.afm.nl/en/professionals/onderwerpen/mifid-2/grondstofderivaten-emissierechten-positielimieten>)

the Dutch natural gas market. Since then gas trading on the TTF has increased significantly to around 2,000 terawatt hours (TWh) per month, making the Dutch hub the largest natural gas market in continental Europe. Today, 157 companies are registered for trading on TTF with 53 active participants.

9. The physical gas market in the Netherlands is relatively small as compared to the traded market. Although the Netherlands has witnessed a drop-in production of natural gas during the last few years, it continues to be a major producer and exporter of natural gas to Germany, Belgium, Italy, UK and France. The reduction of the domestic gas production has been compensated by increased imports which now almost make up 25% of the total supply. The domestic consumption of natural gas has steadily declined over the last 2 decades and has levelled off at around 40 billion cubic meters per year. These trends are expected to continue in the years to come as a result of further production cuts and the onset of renewable energy.
10. Because of the high volume of domestic consumption, exports as well as the seasonal consumption pattern of natural gas, the Dutch transmission system is large and well connected to those of adjacent network operators in Germany, Belgium and the UK, thereby amplifying the role of the TTF as the benchmark hub for Europe. Being the second largest gas producer in Europe, the electricity market in the Netherlands has been dominated by gas-fired generation. This means that developments in the functioning of the wholesale market for natural gas can have a trickle-down effect on the Dutch electricity market.
11. ICE futures contracts are for physical delivery through the transfer of rights in respect of TTF. Trading will cease, at the close of business, two business days prior to the first calendar day of the delivery month, quarter, season, or calendar. Delivery is made equally each hour throughout the delivery period.
12. The TTF futures contract is available for trading in different amounts of monthly strips, up to eight consecutive years. One futures contract sharing the same Venue Product Code TFM (Dutch TTF Gas Futures) has 107 monthly, 11 quarters, 11 seasons and up to 8 consecutive years listed for trading. ICE also offers trading in options on these futures contracts, also booked as monthly strips.
13. The Dutch TTF Gas Base Load TAS5 has maturities of up to 3 consecutive months contracts. The Dutch TTF Gas Daily Futures are composed of daily strips (day ahead, balance of week, weekend, Saturday, Sunday, working days next week and balance of month (“balmo”) contracts). Up to 92 consecutive days and up to two months contracts can be traded.

⁵ Trading at Settlement, which allows a trader to enter an order to buy or sell an eligible ICE Endex TTF Gas Futures contract during the course of the trading day at a price that will be equal to the settlement price for a specific contract month.

14. A balmo is a future contract taken out on any day of the spot month and is settled on the last trading day of that month. The balmo shares contract specifications with the whole month contract (the principal) and is priced off the same underlying.
15. The position limits apply to the Dutch TTF Gas commodity contracts based on monthly strips as well as to those contracts based on daily strips. Those contracts are based on identical core (underlying) contractual specifications, terms and conditions.

IV. Proposed limit and rationale

Spot month position limit

16. Deliverable supply amounts to 219,735,000 MWh.
17. Deliverable supply is expressed in megawatt hours (MWh) as the contracts available for trading, and covered by this limit, have different lot sizes.
18. Deliverable supply is calculated by adding the Netherlands' own gas production capacity, imports (including LNG), as well as gas storage, taking into account the relevant withdrawal rates. The calculation takes into account the following sources:
 - 1) Internal production (2019) = 1,061 GWh/d⁶ ;
 - 2) Storage facilities (2018) = 3,728.5 GWh/d (2790,85 GWh/d Dutch gas storages⁷ and 937,65 GWh/d German gas storages⁸)
 - 3) Interconnectors- entry pipeline capacity (2020) = 1,154 GWh/d⁹
 - 4) Imports (2020) = 1,381 GWh/d¹⁰ (LNG=418 GWh/d and 963 GWh/d imports from Norway)
19. The above sum to 7,324.5 GWh/d. Deliverable supply is expressed in MWh and calculated per month. Therefore, considering that 1 month is in average 720 hours (24hr x 30 days), the total deliverable supply in MWh is: $(7.324,500/24)*1000 = 305.187.5 \text{ MW} \times 720 \text{ hours} = 219.735.000 \text{ MWh}$.

Spot month limit

⁶Eurostat: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nrg_103m&lang=en

⁷ Source : Gas Interconnection Europe: <http://www.gie.eu/index.php/maps-data/gse-storage-map>

⁸ Source: <https://www.gie.eu/index.php/gie-publications/databases/storage-database>

⁹ Source: https://www.entsog.eu/sites/default/files/2021-01/ENTSOG_GIE_SYSDEV_2019-2020_1600x1200_FULL_047.pdf

¹⁰ Source: https://www.entsog.eu/sites/default/files/2021-01/ENTSOG_GIE_SYSDEV_2019-2020_1600x1200_FULL_047.pdf

20. The spot month limit is set at 54,933,660 MWh, which represents 25% of deliverable supply. This limit applies to Dutch TTF Gas Base Load TAS, Dutch TTF Gas Daily Futures, Dutch TTF Gas Futures and Dutch TTF Gas Options.

Spot month limit rationale

21. As the daily average open interest is larger than 14,400,000 MWh (20,000 lots * 720 MWh), Dutch Natural gas is classified as a liquid market, with a baseline limit of 25% and a standard range of the limit between 5% and 35%. However, given that there are no investment firms acting as market makers, according to Article 19 of RTS 21, the relevant range for position limits is between 5% and 50%.

22. The AFM has considered the following factors for adjusting the limit upwards from the baseline:

23. The TTF Gas futures contracts are all physically settled and thereby result in an actual physical flow of gas. Market participants active in the physical gas market who operate facilities with substantial generation/storage capacity or large demand assets, can have a natural relatively large position in the gas derivatives market. On the other hand, only a few utility firms act as liquidity provider. This needs to be taken into account under Article 20 of RTS 21, including 2(c) in relation to the structure, organisation and the operation of the market, and 2(d) in relation to the composition and role of market participants on the underlying commodities.

24. The AFM also took into account the following factors for adjusting the limit downwards from the baseline:

- Gas delivered in the Dutch market area as underlying is also used to some extent as the deliverable supply for other commodity derivatives in the EU such as on EEX (Article 17 of RTS 21).

25. All other factors have been considered and were not regarded as material or relevant to require additional adjustments, either up or down, from the baseline.

26. In considering the volatility in the contract, as required by Article 21 of RTS 21, there has been some variation in the price of the commodity derivative, but the AFM has not found evidence that this is excessive or that lower position limit would reduce volatility.

27. Overall, taking into account the upward and downward adjustment factors, the AFM has set the spot month limit at 25% of deliverable supply which provides a figure of 54,933,660 MWh.

Other months' position limit

Open interest



28. The daily average open interest over the period March 2020- March 2021 for the Dutch TTF aggregated Gas contracts is 1,249,351,480 MWh.
29. In the Dutch Natural Gas market there are related contracts with identical settlement and delivery terms (Dutch TTF Gas Base Load TAS, Dutch TTF Gas Daily Futures, Dutch TTF Gas Futures and Dutch TTF Gas Options) which are aggregated for the purpose of this limit. The open interest of options has been delta adjusted for the open interest calculation.
30. Daily average open interest figures are extracted from the AFM position reporting system. The daily average open interest is calculated adding the open interest from each identified related contract that can be aggregated, obtaining the daily open interest of the relevant contract for the selected publication date. The AFM performed a daily overview of the contract open interest, repeating the aggregation process for each publication date from the March 2020 until the March 2021. The daily average over one year was then calculated, as detailed in RTS 21 and the ESMA Questions and Answers on MiFID II and MiFIR commodity derivatives topics.

Other months' position limit

31. The other months limit is set at 312,337,870 MWh, which represents 25% of the open interest. This limit applies to Dutch TTF Gas Base Load TAS, Dutch TTF Gas Daily Futures, Dutch TTF Gas Futures and Dutch TTF Gas Options.

Other months' position limit rationale

32. The AFM has taken into consideration the following factors for adjusting the limit upwards from the baseline:
- According to Article 16(2) of RTS 21, where the commodity derivative has a large number of separate expiries, competent authorities shall adjust the position limit upwards. TTF has a large number of separate expiries, including amongst others 107 separate expiries of monthly futures contracts and 92 separate expiries of daily futures contracts.
 - The TTF Gas futures contracts are all physically settled and thereby result in an actual physical flow of gas. Market participants active in the physical gas market who operate facilities with substantial generation/storage capacity or large demand assets, can have a natural relatively large position in the gas derivatives market. On the other hand, only a few utility firms act as liquidity provider. This needs to be taken into account under Article 20 of RTS 21, including 2(c) in relation to the structure, organisation and the operation of the market, and 2(d) in relation to the composition and role of market participants on the underlying commodities.
33. The AFM has taken into consideration the following factors for adjusting the limit downwards from the baseline:

- Gas delivered in the Dutch market area as underlying is also used to some extent as the deliverable supply for other commodity derivatives in the EU such as on EEX (Article 17 of RTS 21).

- In accordance with Article 18(2) of RTS 21, when the open interest is significantly higher than the deliverable (more than 5,7 times the deliverable supply in the present case) competent authorities shall adjust the other months' limit downwards.

34. In considering the volatility in the contract, as required by Article 21 of RTS 21, there has been some variation in the price of the commodity derivative, but the AFM has not found evidence that this is excessive or that lower position limits would reduce volatility.

35. All other potential adjustment factors set out in RTS 21 have been considered and were not regarded as material or relevant to require additional adjustments, either up or down, from the baseline.

36. Overall, taking into account the upward and downward adjustment factors, the AFM has set the other months' limit at 25% of open interest, which provides a figure of 312,337,870 MWh.

V. ESMA's Assessment

37. This Opinion concerns positions held in Dutch TTF Gas Base Load TAS, Dutch TTF Gas Daily Futures, Dutch TTF Gas Futures and Dutch TTF Gas Options.

38. ESMA has performed the assessment based on the information provided by the AFM.

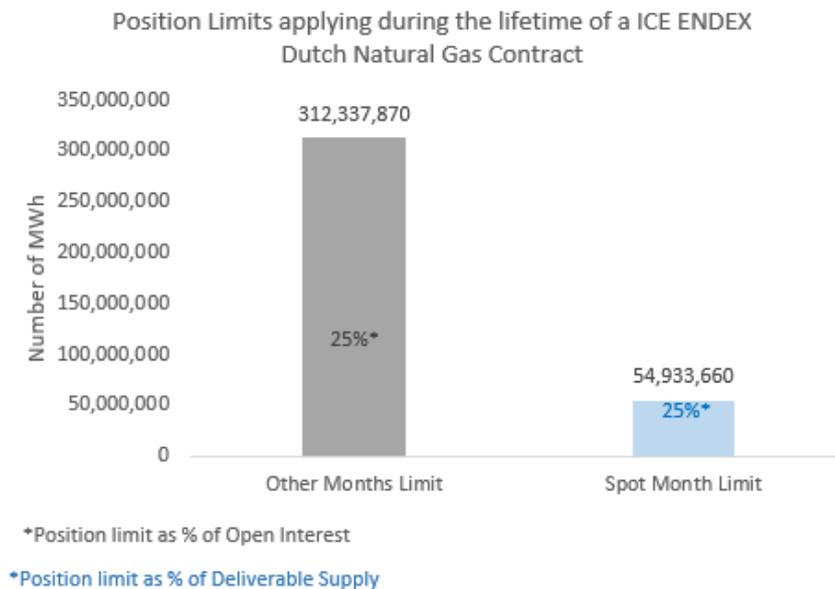
39. The overall open interest in the Dutch TTF gas contracts for the contract amounts to 1,249,351,480 MWh, which translates into 1,735,210 lots. Since the level of open interest is above 20,000 lots, the spot month and the other months' limits can be set between 5% and 35% of the reference amount in accordance with Article 14 of RTS 21.

40. For the purposes of this Opinion, ESMA has assessed the compatibility of the new position limits the AFM intends to set according to Article 57(4) of MiFID II with the objectives of Article 57(1) of MiFID II and with the methodology for calculation of position limits established in RTS 21, in accordance with Article 57(3) of MiFID II.

41. When performing this assessment, ESMA also took into account the need to ensure that the methodology set out in RTS 21 promotes a consistent application of position limits across competent authorities including when commodity derivatives are based on the same underlying such as TTF gas in this case.

Compatibility with the methodology for calculation of position limits established in RTS 21 in accordance with Article 57(3) of MiFID II

42. The AFM has set one position limit for the spot month and one position limit for the other months.



Spot month position limit

43. The estimation of deliverable supply for natural gas is calculated by aggregating Dutch gas local production, the imports and transmission capacity from neighbouring countries, LNG imports and the average withdrawal rate from storage facilities.
44. ESMA notices that the calculation of available gas in storage includes the withdrawal rate from storages located in Germany that are directly and solely connected to the Dutch grid. ESMA agrees that adding to total storage capacity the withdrawal rates figures from German storages provides an adequate representation of natural gas in storage. Furthermore, ESMA agrees with using a figure that corresponds to the minimum between German storage withdrawal rate and border interconnector capacity, to take into account both restrictions.
45. ESMA considers that the deliverable supply calculation's methodology is consistent with Article 10(2) of RTS 21 that sets out that "Competent authorities shall determine the deliverable supply (...) by reference to the average monthly amount of the underlying commodity available for delivery over the one-year period immediately preceding the determination".

46. ESMA considers that it is a reasonable approach to have adjusted the spot month limit upwards to take into consideration the composition and role of market participants in the underlying market in accordance with Article 20 (2)(d) of RTS 21.
47. ESMA also agrees that a downward adjustment is justified under Article 17 of RTS 21 due to the fact that the deliverable supply is also used as deliverable supply for other commodity derivatives.

Other months' position limit

48. The open interest has been calculated by the AFM extracting figures from the position reporting system. The daily average open interest has been calculated adding the open interest from each identified related contract that can be aggregated. ESMA considers such aggregation sensible, as the contracts will be covered by the same limits. The daily average open interest has been calculated over one year, from March 2020 until March 2021. ESMA considers that such calculation of open interest by the competent authority provides the most accurate and reliable figure and promotes convergence in the setting of position limits by competent authorities. ESMA also considers such approach consistent with Article 12 of RTS 21.
49. ESMA agrees with the upward adjustment factors used in accordance with Article 20(2)(d) of RTS 21 in relation to the composition and role of market participants and in accordance with Article 16(2) of RTS 21 considering the large number of separate expiries.
50. ESMA also agrees with the downward adjustment factors used in accordance with Article 18(2) of RTS 21 as the open interest is significantly higher than deliverable supply and in accordance with Article 17 of RTS 21 as that the deliverable supply in the underlying commodity is also used as deliverable supply for other commodity derivatives.
51. Consequently, these position limits have been set following the methodology established by RTS 21.

Compatibility with the objectives of Article 57(1) of MiFID II

52. ESMA has found no evidence indicating that the proposed position limits are not consistent with the objectives of preventing market abuse and supporting orderly pricing and settlement conditions established in Article 57(1) MiFID II.
53. Overall, the position limits set for the spot month and the other months appear to achieve a reasonable balance between the need to prevent market abuse and to ensure an orderly market and orderly settlement, while ensuring that the development of commercial activities in the underlying market and the liquidity of the Dutch TTF Gas commodity contracts are not hampered.



VI. Conclusion

54. Based on all the considerations and analysis presented above, it is ESMA's opinion that the spot month position limit complies with the methodology established in RTS 21 and is consistent with the objectives of Article 57 of MiFID II. The other months' position limit also complies with the methodology established in RTS 21 and is consistent with the objectives of Article 57 of MiFID II.

Done at Paris, 24 June 2021

Anneli Tuominen

Interim Chair

For the Board of Supervisors