

OPINION on position limits on ICE Endex Dutch TTF Gas contracts

I. Introduction and legal basis

1. On 27 June 2018, the European Securities and Markets Authority (“ESMA”) received a notification 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”) regarding the exact position limits the AFM intends to set for the 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.

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, TFE

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).

III. Market description

3. 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.
4. 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.
5. 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).
6. 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 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, more than 150 companies are registered for trading on TTF.
7. The physical gas market in the Netherlands is relatively small as compared to the derivatives 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 e.g. to Germany, Belgium, and the UK. The reduction of the domestic gas production has been compensated by increased imports which now make up to almost 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.
8. 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 one of the 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.
9. 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.

10. 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.
11. The Dutch TTF Gas Base Load TAS⁴ 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.
12. 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.
13. 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

Deliverable supply calculation methodology

14. Deliverable supply amounts to 182,976,030 MWh.
15. Deliverable supply is expressed in megawatt hours (MWh) as the contracts available for trading, and covered by this limit, have different lot sizes.
16. Deliverable supply is calculated by adding the Netherland’s own gas production capacity, imports (including LNG), as well as gas storages, taking into account the relevant withdrawal rates.
17. The internal production of natural gas for the Netherlands⁵ was 1,281 GWh per day, in 2016. Imports from connected neighbouring areas⁶ were 889 GWh per day. Additionally LNG

⁴ 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.

⁵ Eurostat: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nrg_103m&lang=en

⁶ ENTSOG: http://www.entsog.eu/public/uploads/files/maps/systemdevelopment/ENTSOG-GIE_SYSDEV_MAP2015-2016.pdf

imports⁷ were 399 GWh per day. The supply of gas from storage facilities, at an average withdrawal rate⁸, added another 3,530 GWh per day, which provides a total deliverable supply of 6,099.201 GWh per day.

18. Deliverable Supply is expressed in MWh and calculated per standard month (30 days). Therefore, to obtain the capacity in MWh per day, the previous is multiplied by 1,000 obtaining 6,099,201 MWh per day. To obtain the monthly capacity, the capacity in MWh per day needs to be multiplied by 30 days. The figure obtained as total deliverable supply per month is 182,976,030 MWh.

Spot month position limit

19. The spot month limit is set at 45,744,008 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. The spot month refers to the next to deliver month.

Spot month position limit rationale

20. 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%.

21. The AFM has considered the following reason for adjusting the limit upwards from the baseline:

- 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.

22. The AFM has also taken into account the following reason for adjusting the limit downwards from the baseline:

⁷ Ibidem

⁸ Source : Gas Interconnection Europe: <http://www.gie.eu/index.php/maps-data/gse-storage-map>

- Article 16(1) of RTS 21 states that if the commodity derivative has a short maturity, competent authorities shall adjust the position limit downwards. TTF has a daily futures contract, which could be considered to be a relatively short maturity.

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

24. 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.

25. Overall taking into account all of the upwards and downwards adjustment factors, the spot month limit is set at 25% of deliverable supply which provides a figure of 45,744,008 MWh.

Other months' position limit

Open interest calculation methodology

26. The daily average open interest over 2016 for the Dutch TTF aggregated Gas contracts is 547,907,987 MWh.

27. 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 purposes of this limit. Therefore, the daily average open interest is calculated by adding the open interest from each identified related contract that can be aggregated. The open interest for options has been delta adjusted for the open interest calculation.

28. Open Interest figures are published on the ICE Endex website Report Center⁹. An average was calculated resulting in the 2016 daily open interest figure.

Other months' position limit

29. The other months limit is set at 164,372,396 MWh which represents 30% of 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

30. The baseline for the other months limit has been set at 25% as required by Article 9(1) of RTS 21.

⁹ <https://www.theice.com/marketdata/reports/159>

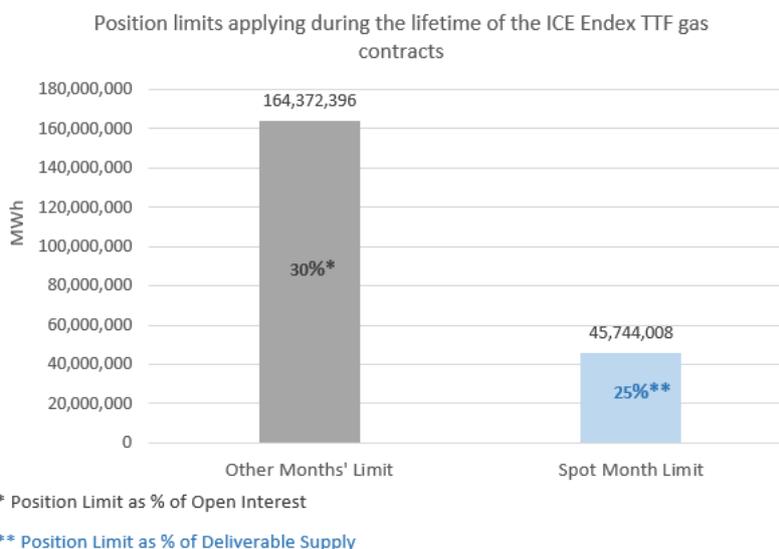
31. There AFM has taken into consideration the following factors for adjusting the limit upwards from the baseline:
- According to Article 16(2) of RTS 21, where the commodity derivative has a large number of separate expiries, competent authorities shall adjust the position limit upwards. TTF has a 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.
32. 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.
33. All the other potential adjustment factors set out in RTS 21 have been considered and are not regarded as material or relevant to require additional adjustments, either up or down, from the baseline.

V. ESMA's Assessment

34. 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.
35. ESMA has performed the assessment based on the information provided by the AFM.
36. For the purposes of this Opinion, ESMA has assessed the compatibility of the intended position limits 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.

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

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



Spot month position limit

38. 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.
39. 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.
40. 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".
41. ESMA agrees that the spot month limit set by the competent authority is appropriate.

Other months' position limits

42. The open interest was calculated as the daily average over 2016 of the number of open contracts that have not been closed out or expired. ESMA considers such an approach suitable as an average for a period of time gives a more stable measure of open interest and considers such approach consistent with Article 12 of RTS 21.



43. The open interest calculation includes the open interest in the contracts that fit the aggregation criteria. ESMA considers sensible such aggregation as the contracts will be covered by the same limits.
44. ESMA is of the opinion that, in accordance with Article 18(1), the large volume of open interest needs to be taken into account and would in principle merit a downward adjustment of the other months limit. Another downward adjustment would seem appropriate also under Article 18(2) as open interest is more than three times deliverable supply.
45. ESMA agrees that an upward adjustment from the baseline should be considered given the large number of separate expiries according to Article 16(2), and the particular characteristics of producers in a physically delivered commodity according to Article 20(2)(d) of RTS 21.
46. ESMA considers that overall, the 5% upwards adjustment is in line with the provisions of RTS 21. 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

47. 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.
48. 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

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

Done at Paris, 18 January 2019

Steven Maijoor

Chair

For the Board of Supervisors