

OPINION on position limits on UK Natural Gas contracts

I. Introduction and legal basis

1. On 7 February 2018, the European Securities and Markets Authority (“ESMA”) received a notification from the Financial Conduct Authority (“FCA”) under Article 57(5) of Directive 2014/65/EU on markets in financial instruments¹ (“MiFID II”) regarding the exact position limits the FCA intends to set for the UK Natural Gas commodity futures and options 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: NBP (NBPG)

Name of trading venue: INTERCONTINENTAL EXCHANGE - ICE FUTURES EUROPE

MIC: IFEU

Venue product code: M

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 December 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, p84).

III. Market description

3. Natural gas is a combustible mixture of hydrocarbon gases. While natural gas is formed primarily of methane, it can also include ethane, propane, butane and pentane. The composition of natural gas can vary widely. Natural gas is considered 'dry' when it is almost pure methane, having had most of the other commonly associated hydrocarbons removed. When other hydrocarbons are present, the natural gas is 'wet'.
4. Found in reservoirs underneath the earth, natural gas is often associated with oil deposits. Natural gas is refined to remove impurities such as water, other gases, sand, and other compounds. After refining, the clean natural gas is transmitted through a network of pipelines and it is delivered to its point of use. Natural gas may be transported in its original form through pipelines or converted into liquefied natural gas (LNG) to enable easier, non-pressurised refrigerated transportation and storage. Often LNG is transported via tanker to regasification plants to convert it back to its original state. In its liquid form, natural gas takes less space and is therefore an attractive option for transportation.
5. The largest gas reserves in 2015 were held by Russia, Iran and Qatar⁴. The UK currently produces enough gas from the North Sea and the East Irish Sea to meet almost half of its needs (45%). 38% of the gas used is imported via pipelines from Europe and Norway. The remaining 17% comes in to the UK by tankers in the form of Liquefied Natural Gas (LNG).
6. 80% of UK's 25 million homes are powered by gas and around a quarter of the country's electricity is generated by gas-fired power stations. Gas plants are one of the most flexible ways to generate electricity, as they can rapidly provide power during periods of high demand. This means gas, along with other energy sources like wind, solar and nuclear, plays a key role in the UK energy mix⁵.
7. The National Balancing Point (NBP) operated by National Grid is a virtual location where ownership rights of gas already available on the UK gas grid are exchanged. The NBP is the second most liquid gas trading hub in Europe after the Dutch TTF. The Office of Gas and Electricity Markets⁶ (Ofgem) considers the UK gas market to be highly liquid.
8. The NBP is the pricing and delivery point for the ICE Futures Europe natural gas futures and options contracts. Contracts are for physical delivery through the transfer of rights in respect of Natural Gas at the NBP Virtual Trading Point. Whilst gas is said to be delivered into the NBP, it is physically delivered to (or removed from) the UK's network of gas pipelines. As such, all gas injected at various entry points contributes to the UK natural gas physical supply. Therefore, the deliverable supply of the UK natural gas related to NBP includes the entire supply at the various entry points of the UK grid.

⁴ BP Statistical Review of World Energy 2016

⁵ British Gas

⁶ The government regulator for the electricity and downstream natural gas markets in Great Britain.

9. Delivery takes place in kilowatt-hours (29.3071 kilowatt hours equals 1 therm) and is made equally each day throughout the delivery period.
10. Up to 83 consecutive month contracts are listed for trading. Monthly contracts are listed in parallel to quarterly, semi-annually and yearly contracts. All contracts are booked as monthly strips regardless of their contractual length. Therefore, quarters are strips of three individual and consecutive contract months. Seasons are strips of six individual and consecutive contract months. Years are strips of twelve individual and consecutive contract months.
11. The units of trading are 1,000 therms per day per delivery period. There are specified delivery periods and quantities for this contract: Feb (non leap year): 28,000 therms; Feb (leap year): 29,000 therms, Jan, Mar, May, Jul, Aug, Oct, Dec: 31,000 therms, Apr, Jun, Sep, Nov: 30,000 therms.
12. ICE also offers trading in the UK Natural Gas Options. On expiry day, options automatically exercise into the futures contract at the exercise price, i.e. at the “strike price” if the option is “in the money”.
13. ICE Futures Europe is currently the only venue in Europe trading this specific contract, although a similar contract is traded on NYMEX. The FCA does not consider the volumes traded on NYMEX to be significant enough to affect the deliverable supply for the ICE Futures Europe Contract. The FCA will take into account any significant changes in volumes traded on NYMEX when reviewing the deliverable supply for this contract.
14. Weather and seasonality in addition to political factors can affect the trading behaviour in gas futures and supply of the underlying.

IV. Proposed limit and rationale by the competent authority

Spot month position limit

Deliverable supply

15. Deliverable supply amounts to 262,555 lots. A lot is equivalent to 1,000 therms per day of the relevant delivery period. This varies depending on the number of days in the month.
16. UK Natural Gas supplied to the NBP can come from local UK gas production and imports taking into consideration as well the average withdrawal rate from the stocks held in the UK. Therefore, deliverable supply has been calculated adding gas production⁷, imports⁸ (both by pipeline and in the form of LNG) and the average storage facility withdrawal rate⁹.

⁷ Source: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nrg_103m&lang=en

⁸ Source: http://www.entsog.eu/public/uploads/files/maps/systemdevelopment/ENTSOG-GIE_SYSDEV_MAP2015-2016.pdf

⁹ Source : Gas Interconnection Europe: <http://www.gie.eu/index.php/maps-data/gse-storage-map>

17. The data sources used to calculate deliverable supply are in different units of measurement. For this reason, it has been necessary to convert supply figures such as terajoule (TJ), million cubic metres (Mcm) and kilowatt-hours per day (kWh/d) to therms, in order to match the open interest units. The conversion rate from MW to therms is: 1 MW = 34.12 therms¹⁰.

18. The table below shows the deliverable supply components converted into therms:

	TJ	Vol. Mcm	Vol. GWh	Vol GWh	Vol. MWh	Vol. Therms
UK Gas production capacity (2016 Eurostat data)	1,664,304	41,606		462,307	462,306,667	15,773,903,478
Imports & transmission capacity			2,796	1,020,540	1,020,540,000	34,820,824,800
Storage facilities (withdrawal rate 2016 data)			1,691	617,234	617,234,345	21,060,035,851
LNG Terminals (based on 2016 ENT SOG data)			1,836	670,140	670,140,000	22,865,176,800
Total			6,323	2,770,221	2,770,221,012	94,519,940,929

19. The total deliverable supply has been calculated by dividing the annual volume of therms (94,519,940,929) by 12 to obtain a monthly volume of 7,876,661,744 therms. This monthly volume is then divided by 30,000 (based on an average 30-day month and 1,000 therms per day lot size), as contracts are booked always as monthly strips, to provide a monthly deliverable supply of 262,555 lots.

Spot month position limit

20. The spot month limit is set at 60,350 lots, which represents 23% of deliverable supply. The limit applies to UK Natural Gas futures and to UK Natural Gas options.

Spot month position limit rationale

21. The baseline for the spot month limit has been set at 25% of deliverable supply as required by Article 9(1) of RTS 21.

22. No restrictions on delivery that would justify an adjustment to position limits have been identified under Article 17 of RTS 21.

23. Considering the very large amount of open interest in the contract (687,707 lots), the FCA has made a downward adjustment of 2 percentage points for the spot month limit, under Article 18(1) of RTS 21.

24. No other adjustments have been judged as necessary to be made in the spot month. 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. In considering the volatility in

¹⁰ ICE contract specifications: <https://www.theice.com/products/20755783/UK-Natural-Gas-EUR-MWh-Future>

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

25. This provides a figure of 60,388 lots which has been rounded down to a figure of 60,350 lots. This equates to a final limit of 23% as a percentage of deliverable supply.

Other months' position limit

Open interest

26. Open interest amounts to 687,707 lots. The open interest figure has been calculated based on figures reported by the trading venue considering the daily average over a one-year period (2017) of the number of open contracts, which have not been closed out or expired.

Other months' position limit

27. The other months' limit is set at 147,850 lots, which represents 21.5 % of open interest. The other months' limit applies to UK Natural Gas Future and Option contracts.

Other months' position limit rationale

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

29. Considering the large amount of daily average open interest in the contract (687,707 lots) compared with similar commodity derivatives traded in the UK, the FCA has made a downward adjustment of 2 percentage points for the other months' limit in accordance with Article 18(1) of RTS 21.

30. Furthermore considering that the open interest is significantly larger than deliverable supply (262%) a downward adjustment of 1.5 percentage points has been made in accordance with Article 18(2) of RTS 21.

31. 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. 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 FCA has not found evidence that this is excessive or that lower position limits would reduce volatility.

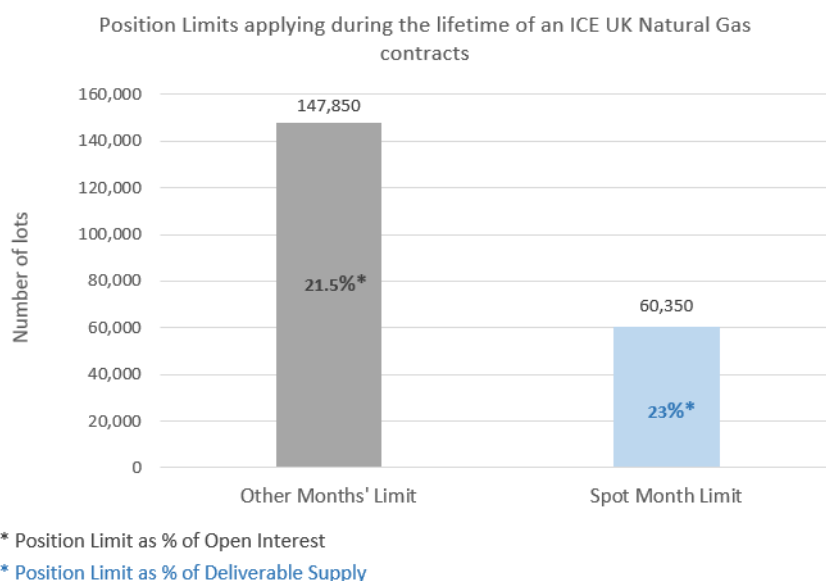
32. Overall, for the other months' limit, a total downward adjustment of 3.5 percentage points was made to the baseline of 25%. This provides a figure in lots of 147,857, which has been rounded down to a figure of 147,850 lots. This equates to a final limit as a percentage of deliverable supply of 21.5%.

V. ESMA's Assessment

33. This Opinion concerns positions held in UK Natural Gas Futures and Option contracts.
34. ESMA has performed the assessment based on the information provided by the FCA.
35. 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

36. The FCA has set a position limit for the spot month and another position limit for other months'.



Spot month position limit

37. The estimation of deliverable supply for Natural Gas is calculated by aggregating the UK gas production capacity in 2016, the imports and transmission capacity in 2016, the withdrawal rate from storage facilities for 2016, and data from LNG UK terminals, based on 2016 figures.
38. 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".

39. ESMA agrees that due to the low open interest of the UK Natural Gas Futures and Option contracts traded on NYMEX, it is not necessary to reduce the deliverable supply of the underlying commodity.
40. ESMA considers that a downward adjustment to the baseline under Article 18(1) of RTS 21 seems appropriate given the large open interest in this contract.

Other months' position limits

41. The open interest was calculated as the daily average over 2017 of the number of open contracts that have not been closed out or expired. ESMA considers such an approach suitable in this case 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.
42. Furthermore ESMA agrees that a downward adjustment from the baseline limit, is justified by the large amount of open interest in the contract (687,707 lots) and the fact that open interest is larger than deliverable supply (262%). For such reasons the adjustments are in line with the provisions of Article 18 of RTS 21.
43. 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

44. 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) of MiFID II.
45. ESMA considers that these position limits have been set in accordance with the above-mentioned objectives and are suitable for the current market conditions.
46. 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 ICE Natural Gas contracts are not hampered.

VI. Conclusion

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



Steven Maijoor

Chair

For the Board of Supervisors