I. Introduction and legal basis

1. On 9 March 2018, the European Securities and Markets Authority (ESMA) received a notification from the Federal Financial Supervisory Authority (BaFin) under Article 57(5) of Directive 2014/65/EU on markets in financial instruments ("MiFID II") regarding the exact position limits BaFin intends to set for Dutch Power Baseload Futures 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 derivatives ("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) ("ESMA Regulation"), the Board of Supervisors has adopted this opinion.

II. Contract classification

Commodity base product: energy (NRGY)

Commodity sub product: electricity (ELEC)

Commodity further sub product: baseload (BSLD)

Name of trading venue: EUROPEAN ENERGY EXCHANGE

MIC: XEEE

Venue product code: Q0B

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III. Market description

3. The Dutch Power Baseload Futures contract is a derivatives contract referring to the average power spot market price of future delivery periods of the Dutch market area. Futures on Dutch Power are also offered at ICE Endex. The contracts are traded in lots for which one lot equals 1 MW. Days, weekend, week, months, quarters and years are listed in parallel. The contract is cash-settled but participants have the option of arranging the physical delivery of power on the spot market.

4. Electricity is a grid-bound commodity, where delivery takes place through meshed transmission system grids. This means that market participants have no control over the actual destination of the generated power. Electricity can only be stored to a very minimal extent, i.e. by means of battery storage. In fact, electricity is still widely considered as a non-storable commodity.

5. There are also some seasonal effects in the electricity market. Due to heating demand in winter or higher demand in summer due to air-conditioning, electricity generation tends to be higher in times of climatic extremes.

6. Following the liberalisation of the energy market after 1998, the Dutch power generation market is today moderately concentrated, with four major players: Essent/RWE, Nuon/Vattenfall, E.ON and Electrabel/GDF Suez with Essent/RWE as the biggest Dutch energy supplier. The market is supplemented by around 40 small players who are only regionally engaged.

7. The consumer side was gradually liberated, allowing households since 2004 to choose their energy or gas supplier without legal restrictions.

8. The electricity market in the Netherlands has been dominated by gas-fired generation (61%). The Netherlands still has one of the most carbon-intensive electricity generation mixes in Europe. However, changing conditions in the Dutch power and gas markets along with policy changes implemented by the government means that most new capacity will be coal-fired (15%) or wind generation (13%). The Netherlands continues to back additional renewable energy resulting in an increase in renewable capacity of 1.5GW for 2016, and this trend is expected to continue in the coming years mainly with the roll-out of offshore wind energy.

9. The power generation from hard coal plants decreased because of the closure and the decommissioning of several coal plants. The generation from gas-fired power plants increased significantly, partly to replace the generation from the decommissioned coal plants but more importantly due to the significant increase in margins for electricity generation with gas-fired plants. The share of wind generation increased by about 30% from 2015 to 2016. Demand has been in slight decline over the last few years, partially as a result of high electricity prices and milder winters, but is expected to be increasing again with the economic growth and the expected move from fossil fuels to renewable energies.
10. The Dutch market tends to import German wind and solar generation and Norwegian hydro. The grid currently has interconnectors to four countries. There is the 700MW NorNed link to Norway, the 1GW BritNed cable to the UK, two interconnectors to Belgium totalling 2.7GW and three interconnectors to Germany totalling 3GW. Additionally, an interconnector to Denmark is expected to be in operation in early 2019. However, spot prices have been higher than their German equivalents.

11. The Netherlands have opted for a system of full ownership unbundling, which is designed to completely split power generators from network owners. TenneT is the single national electricity TSO. It is controlled and owned by the state.

IV. Proposed limit and rationale

Spot month position limit

Deliverable supply

12. Deliverable supply amounts to 25,892,492 MWh.

13. The deliverable supply was estimated based on statistics provided by ENTSO-E (European Network of Transmission System Operators for Electricity). It is composed of the domestic Net Generating Capacity (NGC) of the Netherlands as displayed in the Statistical Factsheet of ENTSO-E for the year 2016⁴ and its average yearly import capacities in relation to neighbouring countries as displayed on the ENTSO-E transparency website for forecasted transfer capacities in 2017⁵. The NGC data of ENTSO-E for the year 2017 was not taken into account as the data for the Netherlands was not available yet.

14. These values of ENTSO-E have been converted from MW to MWh per year (35,469*24*365=310,709,900 MWh). The overall value was then divided by the factor of 12 in order to align the deliverable supply to the time frame of one calendar month for the spot month period.

Spot month position limit

15. The spot month limit has been set at 4,660,649 MWh, which represent 18% of the deliverable supply. It includes daily contracts, weekend contracts, weekly contracts and monthly contract.

Spot month position limit rationale

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⁵ https://transparency.entsoe.eu/transmission-domain/nctYear/show?name=&defaultValue=false&viewType=TABLE&areaType=BORDER_BZN&atch=false&dateTime.dateTime=01.01.2017+00:00|UTC|YEAR&border.values=CTY|10YNL------L/BZN_BZN|10YNL------L_BZN_BZN|10YBE------2&direction.values=Export&direction.values=Import
16. Since the Dutch Power Baseload Futures contract is not a food contract, its baseline figure for the spot month, which is based on deliverable supply, was calculated as 25% of the estimated deliverable supply, i.e. 25% * 25,892,492 MWh = 6,473,123 MWh. The Dutch Power Baseload Futures contract is a "less liquid" contract according to Article 15 (1) (b) of RTS 21 as the open interest is below 20,000 lots. The Competent Authority is thus entitled to set a limit between 5% and 40% of deliverable supply.

17. BaFin considered the following factors for adjusting the limit downwards:
   - Article 18(3) of RTS 21: The deliverable supply is significantly higher than the open interest. Based on the rationale of Article 18(3) of RTS 21 it is therefore legitimate to adjust the spot limit downwards.
   - Article 20 of RTS 21: Price of MWh for end users is higher than in neighbouring Germany though power is imported from Germany; moreover, power market in the Netherlands is still concentrated, though on a moderate level.

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

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

20. In sum, applying 18% as limit seems adequate. However, a further downward adjustment is not considered justified since both the market of the underlying and the futures market are in sum not particularly prone to market abuse.

**Other months’ position limit**

**Open interest**

21. Open interest amounts to 8,794,591 MWh. Open interest value was provided by the exchange. It was calculated by aggregating all contracts across all maturities and converting them to MWh. The number provided is the average size of daily open interest throughout three consecutive months (October, November and December 2017) since the open interest of the Dutch Power Baseload Futures contract has been constantly rising, rendering it liquid recently. The most recent quarter is therefore considered the most meaningful time period.

**Other month’s position limit**

22. The open interest amounts to 8,794,591 MWh. The baseline figure for the other months limit amounts to 25% of open interest, i.e. 2,198,648 MWh. According to Article 15 (1) (b) of RTS 21, the limit is to be set in the range between 5% and 40% as the open interest is below
20,000 lots. In sum, the Dutch Power Baseload Futures contract is still a relatively new contract with low liquidity.

23. The other months limit has been set at 3,078,107 MWh, which represent 35% of open interest. It includes quarterly and yearly contracts.

Other months’ position limit rationale

24. BaFin considered the following factors as relevant for adjusting the baseline upwards:

- Article 16 of RTS 21: There is a large number (65) of separate expiries.
- Article 18(3) of RTS 21: the overall open interest is significantly lower than the deliverable supply.

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

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

27. In sum, applying 35% as limit seems adequate because the deliverable supply is significantly higher than the open interest and the contract is a less liquid one. However, the maximum of 40% is not being applied as the power market is at least moderately concentrated with four major market participants.

28. Other months limit amounts to 3,078,107 MWh.

V. ESMA’s Assessment

29. This Opinion concerns positions held in the Dutch Power Baseload Futures contract.

30. ESMA has performed the assessment based on the information provided by BaFin.

31. 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

32. BaFin has set one position limit for the spot month and another position limit for the other months.
Spot month position limit

33. The calculation of the deliverable supply is based on ENTSO-e figures for 2017. ESMA agrees with using data from ENTSO-e to calculate deliverable supply, as this ensures publicly available figures consistent at the European level. ESMA also considers appropriate to including both domestic generation and imports into the Netherlands based on the capacity of the interconnectors of the Netherlands to neighbouring countries, as this energy would also be available for delivery.

34. This approach 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”.

35. The monthly deliverable supply figure has been calculated by converting the capacity (expressed in MW) to MWh per month. Given the characteristics of the contract (i.e. delivery of electricity 24 hours per day during every day of the delivery period), this conversion is performed as follows: monthly deliverable supply (in MWh) = total capacity (in MW) x 24 hours x 365 days / 12 months.

36. ESMA agrees with the downward adjustment made by BaFin to the spot month limit under Article 18(3) of RTS 21 because the deliverable is significantly higher than the open interest.

37. ESMA also agrees with the downward adjustment made by BaFin based on the characteristics of the Dutch power market.
Other months’ position limit

38. The open interest was calculated by aggregating all contracts across all maturities and converting them to MWh. The number provided is the average size of daily open interest throughout three consecutive months. ESMA considers such an approach sensible 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.

39. ESMA considers that the adjustment made under Article 16 of RTS 21 is appropriate given the large number of separate expiries.

40. The other months’ limit has been adjusted upwards to take into consideration the fact that the amount of open interest is one third of deliverable supply. This is consistent with Article 18(3) of RTS 21.

41. 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

42. 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.

43. Overall, the position limits set for the spot month and for the other months 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 power market and the liquidity of the Dutch Power Baseload Futures contract are not hampered.

44. However, to help ensure that the risk of not achieving the objectives set out in Article 57(1) of MiFID II does not materialise, ESMA considers that trading patterns in Dutch Power Baseload Futures contracts should be carefully monitored by the competent authority and that the limits should be reviewed on a timely basis.

VI. Conclusion

45. 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.

Done at Paris, 15 April 2019
Steven Maijoor

ESMA Chair