



EUROPEAN COMMISSION  
DG Competition

***Case M.10713 - RWE / NEWCO EEMSHAVEN***

Only the English text is available and authentic.

**REGULATION (EC) No 139/2004  
MERGER PROCEDURE**

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Article 6(1)(b) NON-OPPOSITION  
Date: 21/12/2022

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## EUROPEAN COMMISSION

Brussels, 21.12.2022  
C(2022) 10031 final

### **PUBLIC VERSION**

RWE AG  
RWE Platz 1  
45141 Essen  
Germany

**Subject: Case M.10713 – RWE / NEWCO EEMSHAVEN  
Commission decision pursuant to Article 6(1)(b) of Council Regulation  
No 139/2004<sup>1</sup> and Article 57 of the Agreement on the European Economic  
Area<sup>2</sup>**

Dear Sir or Madam,

- (1) On 17 November 2022, the European Commission received notification of a proposed concentration pursuant to Article 4 of the Merger Regulation by which RWE AG ('RWE', Germany) will acquire within the meaning of Article 3(1)(b) of the Merger Regulation sole control over NewCo Eemshaven B.V. (the 'Target', the Netherlands) by way of purchase of shares (the 'Transaction').<sup>3</sup> RWE is designated hereinafter as the 'Notifying Party' and together with the Target as the 'Parties'.

#### **1. THE PARTIES**

- (2) RWE, a German public company, focusses on: (i) electricity generation from renewable and conventional energy sources (in particular, wind offshore and onshore, solar, hydro, gas, coal, lignite and nuclear), and (ii) energy trading, including energy-related raw materials in both their physical and/or derivative form. Within the EU, RWE is mainly active in Germany, Denmark, Luxembourg, France, the Netherlands, Italy, Belgium, Poland, Spain, Czechia, Sweden and Ireland.

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<sup>1</sup> OJ L 24, 29.1.2004, p. 1 (the 'Merger Regulation'). With effect from 1 December 2009, the Treaty on the Functioning of the European Union ('TFEU') has introduced certain changes, such as the replacement of 'Community' by 'Union' and 'common market' by 'internal market'. The terminology of the TFEU will be used throughout this decision.

<sup>2</sup> OJ L 1, 3.1.1994, p. 3 (the 'EEA Agreement').

<sup>3</sup> Publication in the Official Journal of the European Union No C 446, 24.11.2022, p. 35.

- (3) The Target is an energy company newly established for the purposes of this Transaction and headquartered in Amsterdam. The Target operates a gas-fired power plant ('Magnum'), whose production capacity is composed of three combined cycle gas turbines ('CCGT') with a total capacity of 1,410 megawatts (MW), and an adjacent solar park consisting of around 17,000 solar panels with a production capacity of 5.6 MW, at Eemshaven, in the north of the Netherlands. The Target consists of assets previously owned by Vattenfall N.V. ('Vattenfall').

## **2. THE TRANSACTION**

- (4) The Transaction consists of the acquisition of sole control by RWE over the Target through the acquisition by RWE of 100% of the share capital and voting rights of the Target from its current sole shareholder Vattenfall. The Transaction will be implemented by way of a share and purchase agreement signed on 13 June 2022. It follows that the Transaction is a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.

## **3. UNION DIMENSION**

- (5) The undertakings concerned have a combined aggregate world-wide turnover of more than EUR 5 000 million (RWE: EUR 24 526 million; Target: EUR [...] million)<sup>4</sup>. Each of them has a Union-wide turnover in excess of EUR 250 million (RWE: EUR [...] million; Target: EUR [...] million), but they do not both achieve more than two-thirds of their aggregate Union-wide turnover within one and the same Member State. The notified operation therefore has a Union dimension pursuant to Article 1(2) of the Merger Regulation.

## **4. MARKET DEFINITION**

### **4.1. Introduction**

- (6) The Transaction consists of the acquisition of a single gas-fired power plant and a solar park.<sup>5</sup> The main area of overlap between the Parties consists in activities in the generation and wholesale supply of electricity. Both RWE and the Target also overlap in the supply of balancing and ancillary services and in congestion management. The Commission's assessment has therefore focussed on these three areas of overlap: generation and wholesale supply of electricity; balancing and ancillary services; and congestion management in the Netherlands.<sup>6</sup>

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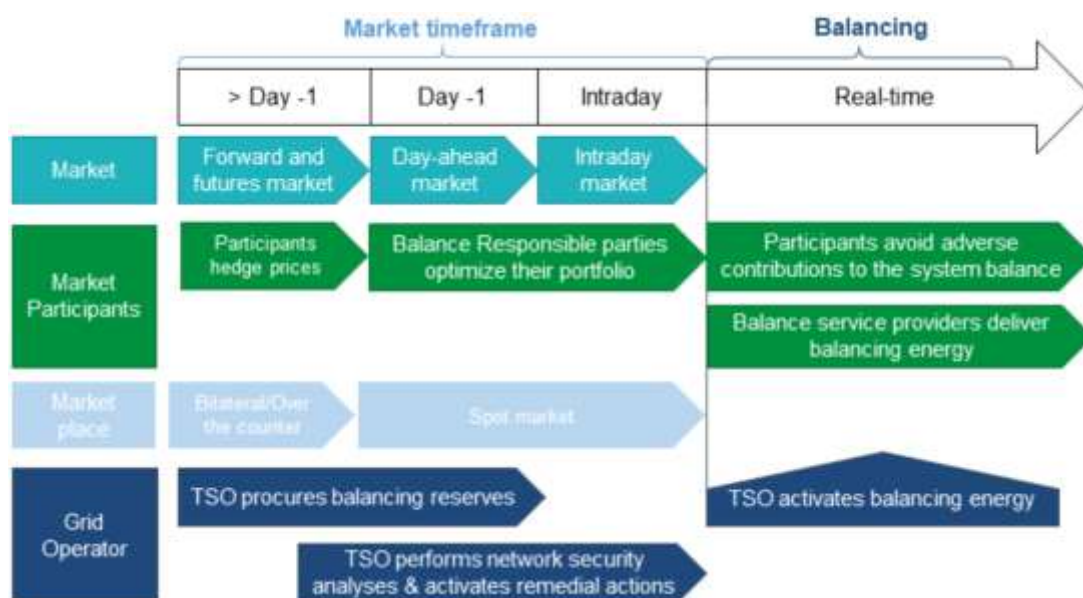
<sup>4</sup> Turnover calculated in accordance with Article 5 of the Merger Regulation.

<sup>5</sup> The solar park generates very small amounts of energy (5.6 MW) and the electricity generated is included in the overall generation and wholesale supply of electricity. If one were to look at a generation and wholesale supply of electricity generated only from renewables, there would be no affected market (Form CO, Table 39). Due to the very limited overlap between the Parties in renewables, this will therefore not be discussed further.

<sup>6</sup> The Transaction also gives rise to two vertical links, due to RWE's downstream activities in the retail supply of electricity to large industrial customers. These are the vertical relationships (i) between the generation and wholesale supply of electricity of the Parties (upstream), on the one hand, and the retail supply of electricity to large industrial customers of RWE (downstream), on the other hand, as well as (ii) the balancing and ancillary services of the Parties (upstream), on the one hand, and the retail supply of electricity to large industrial customers of RWE (downstream), on the other hand. In the downstream market (i.e. retail supply of electricity to large industrial customers, see, e.g., cases

- (7) These markets are depicted in Figure 1 below. The generation and wholesale supply of electricity is the largest market at almost 120 terawatt-hours (TWh). In the Netherlands, electricity is traded either on power exchanges or through bilateral trading (over-the-counter, ‘OTC’). The power exchanges operating in the Netherlands are: EPEX SPOT (for the day-ahead and intraday market, where most volumes are traded); the EEX (futures market) and ICE Endex (futures market).<sup>7</sup>
- (8) TenneT, as the Transmission System Operator (‘TSO’) for the Netherlands, is the grid operator. As part of its responsibilities, and as explained further below in Section 4.3, it maintains the frequency of the electricity grid at 50 Hertz (Hz) at all times, through its balancing activities. Finally, as explained further below in Section 4.4, TenneT has the statutory task of safeguarding the grid security of the entire electricity system in the Netherlands, which includes resolving congestion.

**Figure 1 – Electricity markets in the Netherlands, organised by time and function**



Source: TenneT website, “What kind of markets are there and how do they work?”<sup>8</sup>

## 4.2. Generation and wholesale supply of electricity

### 4.2.1. Product market

#### 4.2.1.1. The Commission’s decisional practice

- (9) The Commission has a consolidated case practice of defining the product market for the generation and wholesale supply of electricity as encompassing both (i) the

M.9587 – *ENGIE / EDP RENOVAVEIS/EDPR OFFSHORE ESPANA*, paragraphs 23-24; M.8660 – *FORTUM / UNIPER*, paragraph 102; M.8855 – *OTARY / ENECO / ELECTRABEL / JV*, paragraphs 27-28; left open in M.10212 – *ANDEL / ENERGI DANMARK*, paragraph 20), the Target is not active and RWE has a market share of less than 10% (Form CO, paragraph 100). In light of the Parties’ market shares set out at Tables 1, 6, 7 and 8 below, these vertical relationships do not give rise to affected markets and will not therefore be discussed further in this decision.

<sup>7</sup> Form CO, paragraph 582.

<sup>8</sup> TenneT website: <https://netztransparenz.tennet.eu/electricity-market/about-the-electricity-market/what-kind-of-markets-are-there-and-how-do-they-work/>.

trading on the wholesale market of the generated electricity within a certain geographic market<sup>9</sup> and (ii) the electricity that is physically imported into this geographic market via interconnectors, irrespective of the source of generated electricity (such as nuclear, lignite, wind, solar, etc.).<sup>10</sup>

#### 4.2.1.2. The Notifying Party's view

- (10) The Notifying Party agrees with this product market definition, and submits that the product market should not be segmented further such as on the basis of (i) peak and off-peak hours<sup>11</sup> and/or (ii) renewable-based and conventional generation.<sup>12</sup>
- (11) Regarding a potential segmentation on the basis of hours of the day (i.e. peak and off-peak hours), the Notifying Party submits that the historical differentiation between peak and off-peak hours has become less relevant with the increasing penetration of intermittent electricity from renewable sources (wind and solar photovoltaic).
- (12) Regarding a potential segmentation on the basis of the source of electricity production (i.e. conventional and renewable sources), the Notifying Party submits that reductions in the cost of renewables due to technological and policy changes over time, and, consequently, the fact that certain renewables nowadays are no longer subsidised, have brought renewable and conventional sources of electricity closer together and made renewables more competitive compared to conventional sources.<sup>13</sup> From a demand-side perspective, electricity as a homogenous product does not allow for differentiation between renewable and conventional electricity at wholesale level. From a supply-side perspective, both renewable and conventional sources compete for the same total amount of electricity dispatched in order to meet demand at a given point in time, as explained at paragraphs (71) et seq. below.

#### 4.2.1.3. The Commission's assessment

- (13) The market investigation confirmed the Commission's previous findings with respect to the existence of a separate market for the generation and wholesale

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<sup>9</sup> For the avoidance of doubt, the trading on the wholesale market of the generated electricity relates to the physical trading of electricity for consumption. The trading on the wholesale market of the generated electricity is to be distinguished from financial trading, i.e. the trade in financial instruments relating to electricity, such as forwards, futures, options, contracts for differences (CfD), or other derivatives; see, e.g. M.8660 – *FORTUM / UNIPER*, paragraphs 37 et seq.

<sup>10</sup> See, e.g., cases M.10387 – *MERIDIAM / ALLIANZ / NEUCONNECT*, paragraph 29; M. 8871 – *RWE / E.ON ASSETS*, paragraphs 13 et seq.; M.8870 – *E.ON / INNOGY*, paragraph 35; M.8660 – *FORTUM / UNIPER*, paragraphs 18 et seq.

<sup>11</sup> The Commission left open whether a distinction needed to be made between peak and off-peak hours in cases M.5467 – *RWE / ESSENT* and M.6225 – *MOLARIS / COMMERZ REAL / RWE / AMPRION*.

<sup>12</sup> Although the *Bundeskartellamt* has considered a separate market for renewable-based generation in Germany (due to the German subsidy regime) (M.10387 – *MERIDIAM / ALLIANZ / NEUCONNECT*, paragraphs 30 et seq.), neither the Commission (M.5467 – *RWE / ESSENT*) nor the Dutch Competition Authority (the 'ACM') has considered there to be a separate market for renewable-based generation in the Netherlands.

<sup>13</sup> Form CO, paragraphs 127-129.

supply of electricity, including trading on the wholesale market in the Netherlands and imports of electricity produced outside of the Netherlands.<sup>14</sup>

- (14) The market investigation also confirmed that a further segmentation (i) by hours of the day or (ii) by the source of electricity generation was not warranted. Regarding a possible segmentation between peak- and off-peak hours, the Commission notes that such possible segmentation has not been retained in recent decisions.<sup>15</sup> Also none of the respondents submitted arguments or evidence supporting such segmentation.<sup>16</sup> Regarding a possible segmentation by generation source, i.e. renewable and conventional sources, the large majority of respondents submitted that the market includes both renewable and conventional generation.<sup>17</sup> Respondents noted that “*both markets would not function individually*” and that electricity from both renewable and conventional sources “*are competing with each other on the same market at the wholesale level*”.<sup>18</sup>
- (15) For the purposes of this decision, and in light of the above, the Commission finds no reason to deviate from its consolidated case practice. The Commission therefore considers that the overall market for generation and wholesale supply of electricity constitutes a separate market encompassing both the trading on the wholesale market of the generated electricity within a certain geographic market and the electricity that is physically imported into this geographic market via interconnectors, irrespective of the source of generated electricity (such as nuclear, lignite, wind, solar, etc.). In any event, the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement regardless of the exact product market definition adopted.

#### 4.2.2. Geographic market

##### 4.2.2.1. The Commission’s decisional practice

- (16) The Commission has previously defined the geographic market for the generation and wholesale supply of electricity as national in scope.<sup>19</sup> However, the Commission has also recognised that the presence of a sufficiently large

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<sup>14</sup> See responses to question B.A.1 of the electronic Request for Information sent to market participants as part of the formal market investigation (‘eRFI’). The large majority of respondents agreed that this definition continues to properly reflect the market conditions and noted, for instance, that they “*see no material difference in [their] perception of the market for generation and wholesale supply of electricity and the definition of the market [retained] by the Commission*” (responses to question B.A.2 of eRFI).

<sup>15</sup> The Commission considered a possible segmentation between peak- and off-peak hours in older cases but ultimately left the definition open due to an inconclusive market investigation in that regard. See, e.g., cases M.5979 – *KGHM / TAURON WYTWARZANIE / JV*, paragraphs 17 et seq.; M.5467 – *RWE / ESSENT*, paragraph 25; and M.4370 – *EBN / COGAS ENERGY*, paragraph 15. In more recent cases, the Commission no longer discussed the possible segmentation between peak- and off-peak hours. See, e.g., cases M.10387 – *MERIDIAN / ALLIANZ / NEUCONNECT*, paragraphs 29 et seq.; M. 8871 – *RWE / E.ON ASSETS*, paragraphs 13 et seq.; M.8870 – *E.ON / INNOGY*, paragraphs 35, 451 et seq., 621 et seq.; M.8660 – *FORTUM / UNIPER*, paragraphs 18 et seq.

<sup>16</sup> See responses to question B.A.2 of eRFI.

<sup>17</sup> See responses to question B.A.3 of eRFI.

<sup>18</sup> See responses to question B.A.4 of eRFI.

<sup>19</sup> See e.g. cases M.10387 – *MERIDIAN / ALLIANZ / NEUCONNECT*, paragraph 35; M.5979 – *KGHM / TAURON WYTWARZANIE / JV*, paragraph 24; M.5711 – *RWE / ENSYS*, paragraph 21; and M.4180 – *GDF / SUEZ*, paragraph 726.

interconnection capacity between Member States may justify a broader geographical scope.<sup>20</sup> This could also be the case if two or more Member States belong to the same bidding zone.<sup>21</sup>

#### 4.2.2.2. The Notifying Party's view

- (17) The Notifying Party does not contest the Commission's previous practice. Indeed, the Notifying Party has conducted a price-equality analysis for the Netherlands and the bidding zones that it is coupled with and submits that the result of the analysis provides no indication that the relevant geographic market is wider than national in scope.<sup>22</sup>
- (18) The Notifying Party further submits that a potential review of the existing bidding zones<sup>23</sup> would have no impact on the scope of the relevant geographic market in the present case.<sup>24</sup> In the Notifying Party's view, a potential bidding zone split in the Netherlands into a northern and a southern bidding zone is highly unlikely, will take at least until 2027 to complete and would have only a transitory impact on market concentration given the decommissioning of coal plants in the Netherlands by 2030. Moreover, the bidding zone review is supposed to take into account liquidity and competition concerns and should, therefore, solve rather than reinforce them, if any.<sup>25</sup>

#### 4.2.2.3. The Commission's assessment

- (19) In line with the Commission's findings in previous cases and the Target's location in and connection with the Dutch electricity transmission system which forms a single bidding zone, the Commission started its assessment on a national basis and investigated whether current market conditions indicate a wider-than-national or a narrower-than-national delineation of the electricity generation and wholesale supply market concerning the Netherlands.
- (20) The majority of respondents to the market investigation consider the geographic scope of the market to be wider than national, including the Netherlands and at least parts of neighbouring countries,<sup>26</sup> primarily due to the interconnection of the Dutch bidding zone with neighbouring bidding zones.<sup>27</sup> In contrast, the Dutch electricity market regulator, the Authority for Consumers and Markets ('ACM')

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<sup>20</sup> See e.g. case M.10387 – *MERIDIAM / ALLIANZ / NEUCONNECT*, paragraph 35.

<sup>21</sup> See e.g. case M.8871 – *RWE / E.ON ASSETS*, paragraph 17. In the case of the Netherlands, the relevant bidding zone corresponds to the national territory of the Netherlands.

<sup>22</sup> Form CO, paragraphs 149 et seq.

<sup>23</sup> The European Union Agency for the Cooperation of Energy Regulators ('ACER') has advised TSOs to conduct a review of existing bidding zones and to recommend whether to keep or amend the existing bidding zones. For the Netherlands, ACER has proposed to consider an alternative configuration consisting of a Northern and a Southern bidding zone within the Netherlands. The recommendations are expected in August 2023, followed by a joint decision of the Member States within six months following the recommendations on whether or not to change the bidding zones accordingly. See, e.g., <https://www.acer.europa.eu/events-and-engagement/news/acer-has-decided-alternative-electricity-bidding-zone-configurations>.

<sup>24</sup> Form CO, paragraphs 132 et seq.

<sup>25</sup> Form CO, paragraphs 133-134.

<sup>26</sup> See responses to question C.A.2 of eRFI.

<sup>27</sup> See responses to question C.A.3 of eRFI.

(which is also the Dutch competition authority), considers the market to be national.<sup>28</sup>

- (21) Indeed, the Netherlands has cross-border electrical interconnections with Germany, Belgium, Denmark, Norway and Great Britain. In 2021, total Dutch electricity imports relative to domestic electricity consumption amounted to 18.4%, while the total Dutch electricity exports amounted to 18.2% relative to electricity consumption in the Netherlands,<sup>29</sup> which represents a non-insignificant share of the total domestic consumption and generation.<sup>30</sup> Interconnector capacity is determined by the TSO as a total figure for all interconnectors between two bidding zones and not individually for each physical interconnection. This is because the available interconnector capacity is a function, not only of the capacities on the tie lines, i.e. the physical circuit connecting two bidding zones, but also determined by restrictions elsewhere in the grid.<sup>31</sup> On this basis, the total available import capacity across the four interconnectors between the Netherlands and Germany is 4.3 GW in 2022.<sup>32</sup> Belgium is connected to the Netherlands via two interconnectors with a total import capacity of 2.4 GW. Denmark, Norway, and Great Britain are each connected via one interconnector with respective import capacities of 0.7 GW for Norway<sup>33</sup> and Denmark<sup>34</sup> each and 1.0 GW for Great Britain.<sup>35</sup> In theory, therefore, the Netherlands' cross-border electrical interconnections with neighbouring bidding zones should allow it to react quickly to domestic price changes, which could indicate a wider-than-national market concerning the Netherlands.
- (22) However, differences in electricity spot prices between two neighbouring bidding zones can be indicative of differences in competitive conditions, for instance due to transmission congestion between those bidding zones. A price-equality analysis carried out by the Notifying Party on the basis of 2021 day-ahead prices shows that of the four bidding zones that the Netherlands is coupled with,<sup>36</sup> the share of (close to) equal prices does not exceed 56%, i.e. in almost half of all hours of a year prices are different, indicating non-homogenous conditions of competition in the different coupled bidding zones.<sup>37</sup> The results and conclusions of the analysis of the Notifying Party are in line with those of a similar price-equality analysis carried out by the German Federal Cartel Office ('FCO') for 2021. Like the Notifying Party for the Dutch market and its coupled neighbouring bidding zones, the FCO found significant price differences throughout the year between Germany and its coupled

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<sup>28</sup> Email from ACM to DG COMP on 09/11/2022.

<sup>29</sup> Form CO, Tables 14 and 15.

<sup>30</sup> Form CO, paragraphs 114-115 and Tables 14 and 15.

<sup>31</sup> Restrictions elsewhere in the grid limit the volumes which can arrive at or be forwarded from the interconnection point.

<sup>32</sup> Interconnection capacity with Germany is expected to increase to 5.0 GW by 2025; see Form CO, paragraph 118, with reference to TenneT NL (2021), *Monitoring Leveringszekerheid 2021*, Tables 3-4.

<sup>33</sup> Norway is currently split into five bidding zones. The Netherlands is connected to the South Norwegian bidding zone "NO2".

<sup>34</sup> Denmark is currently split into two bidding zones. The Netherlands is connected to the West Danish bidding zone "DK1".

<sup>35</sup> Form CO, paragraph 118.

<sup>36</sup> Despite the interconnector between the Netherlands and the UK, the Dutch bidding zone is no longer coupled with the British bidding zone since the UK's exit from the market couple in 2021.

<sup>37</sup> Form CO, paragraph 152. Results do not change materially between peak and off-peak periods.



neighbouring bidding zones and concluded that Germany<sup>38</sup> and its neighbours (including the Netherlands) should be considered separate geographic markets.<sup>39</sup>

- (23) The Commission notes that while interconnection capacity between the Netherlands and neighbouring bidding zones is planned to increase in the coming years,<sup>40</sup> its impact on the geographic scope of the market for generation and wholesale supply of electricity in the Netherlands remains uncertain at this point in time.
- (24) The Commission therefore considers that the relevant geographic market is currently not wider than national with regard to the Netherlands.
- (25) In relation to a potential narrower market, the large majority of respondents to the market investigation as well as the ACM do not consider the market to be narrower than national.<sup>41</sup>
- (26) This is not contradicted by the current review of bidding zones in Europe as recommended by the Agency for the Cooperation of Energy Regulators ('ACER').<sup>42</sup> Indeed, TenneT currently conducts a review of the Dutch bidding zone to establish whether the Netherlands should be split into a northern and a southern bidding zone. A potential bidding zone split of the Netherlands is however highly uncertain, as an amendment of the current bidding zone configuration requires unanimous vote by all affected Member States. Germany, one of the affected Member States, has been consistently vocal in its opposition against a split of the German bidding zone and the position of the Dutch government regarding a potential split of the Dutch zone is currently uncertain.<sup>43</sup> In any case, even if such a split is found appropriate, a potential bidding zone split of the Netherlands would take at least until 2027 to complete (if at all), as stakeholders in the energy sector require time to prepare and adapt their systems to the change.
- (27) The Commission therefore considers that there is currently no justification for a narrower-than-national geographic market in the Netherlands.
- (28) In light of the foregoing, the Commission considers that the appropriate scope of the market for the generation and wholesale supply of electricity regarding the Netherlands is national, corresponding to the Dutch bidding zone, while acknowledging the reality of flows from neighbouring bidding zones.

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<sup>38</sup> The relevant bidding zone for Germany includes Luxembourg.

<sup>39</sup> Bundeskartellamt, "*Wettbewerbsverhältnisse im Bereich der Erzeugung elektrischer Energie 2021*", *Marktmachtbericht* (February 2022), paragraphs 37-43. Dutch TSO TenneT found from a similar price-equality analysis that the day-ahead market price in the Netherlands and in Germany was convergent in 53% of the time in 2021. For the remaining time, prices were higher in Germany more often (27% overall) than in the Netherlands (20% overall); see TenneT, "*Annual Market Update 2021*" (April 2022), slide 34.

<sup>40</sup> Form CO, paragraph 122, with reference to TenneT's "*Ontwerp investeringsplan – Net op land 2022-2031*", section 4.2.3.

<sup>41</sup> See responses to question C.A.2 of eRFI, and email from ACM to DG COMP on 09/11/2022.

<sup>42</sup> ACER, Decision No. 11/2022 of 8 August 2022 on the alternative bidding zone configurations to be considered in the bidding zone review process, available at <https://www.acer.europa.eu/events-and-engagement/news/acer-has-decided-alternative-electricity-bidding-zone-configurations>.

<sup>43</sup> Form CO, paragraph 132.

### 4.3. Balancing and ancillary services

- (29) TenneT has the responsibility of maintaining the frequency of the electricity grid within a very narrow bandwidth (at a frequency of 50 Hz).<sup>44</sup> In order to do so, TenneT procures balancing and ancillary services from generators such as the Parties, by ensuring there is always a balance between electricity production and consumption.<sup>45</sup>
- (30) Upward (positive) reserve (i.e. increase of power output) is required if there is not enough electricity in the grid and the frequency drops below 50 Hz, and downward (negative) reserve (i.e. decrease of power) is required if there is too much electricity in the grid and the frequency exceeds the target frequency of 50 Hz.<sup>46</sup>
- (31) If an imbalance occurs in the Netherlands, TenneT sends a signal to those generators who have decided to act as balance service providers ('BSP') who then activate balancing energy in order to reinstate the system balance. BSPs are required to prequalify to provide balancing services to TenneT.<sup>47</sup> In addition, to avoid imbalances, each supplier or buyer with a connection to the grid carries a balance responsibility and must be connected to a Balance Responsible Party ('BRP'). A BRP is financially responsible for any imbalances that occur in their portfolio grid allocation points.
- (32) There are three main products for balancing and that are provided by BSPs.<sup>48</sup> These are:
- a. Frequency Containment Reserves ('FCR'): The aim of FCR is to stabilise frequency disturbances and it is activated automatically when the frequency deviates. In order to fulfil its international balancing obligation, TenneT procures the amount of FCR established by EU Regulation<sup>49</sup>;
  - b. automatic Frequency Restoration Reserve ('aFRR'): this is one of the two main balancing products used in the Netherlands. BSPs make two bids in a two-step process: (i) a capacity bid for reserved capacity, based on which the BSP is paid to reserve capacity and, if called upon, the BSP will be obliged to make an energy bid; (ii) an energy bid which is a payment to the BSP for activation of reserved capacity and is activated based on the merit order<sup>50</sup> of sorted aFRR energy bids (which includes "free bids" from BSPs without a prior capacity contract from the first step); and
  - c. manual Frequency Restoration Reserve ('mFRR'): this is the other of the two main balancing products used in the Netherlands. Market participants need to have the capacity available and, when needed, TenneT activates the amount manually, without the use of a merit order list.

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<sup>44</sup> Form CO, paragraph 415.

<sup>45</sup> TenneT website: <https://www.tennet.eu/balancing-markets>.

<sup>46</sup> Form CO, paragraph 416.

<sup>47</sup> TenneT website: <https://www.tennet.eu/balancing-service-providers-bsp>.

<sup>48</sup> TenneT website: <https://www.tennet.eu/balancing-markets>.

<sup>49</sup> Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing.

<sup>50</sup> The merit order is a ranking method for electricity generation where the bids are ranked by price.

- (33) As noted above, to avoid imbalances, each supplier or buyer with a connection to the grid carries a balance responsibility BRP.<sup>51</sup> BRPs are able to correct their own imbalance before the imbalance settlement period ends ('ISP'), without facing financial consequences. This can be done, for example, by increasing or decreasing production or by making a trade with another BRP. TenneT also publishes real-time imbalance prices. With this information, BRPs can decide to increase or decrease the imbalance, if it helps the overall system balance. TenneT settles the BRP for this imbalance, according to the imbalance price.
- (34) The Transaction only gives rise to an overlap in aFRR<sup>52</sup>, which is the focus of the Commission's assessment regarding balancing and ancillary services.

#### 4.3.1. *Product market*

##### 4.3.1.1. The Commission's decisional practice

- (35) The Commission has previously taken the view that the provision of balancing and ancillary services is distinct from the market for the generation and wholesale supply of electricity.<sup>53</sup>
- (36) The Commission has previously considered whether balancing and ancillary services should be divided into submarkets for (i) FCR, (ii) aFRR, and (iii) mFRR, based on the order of activation and the magnitude of frequency deviation.<sup>54</sup>
- (37) The Parties' activities only overlap in aFRR. Within aFRR, the Commission has considered the upwards (i.e. increase of power output) and downwards (i.e. decrease of power output) regulation of aFRR.<sup>55</sup>

##### 4.3.1.2. The Notifying Party's view

- (38) The Notifying Party considers that the relevant product market is the market for balancing and ancillary services (without any further segmentations).<sup>56</sup>

##### 4.3.1.3. The Commission's assessment

- (39) All respondents to the Commission's market investigation that expressed a view considered that the provision of balancing and ancillary services is a distinct market from the market for the generation and wholesale supply of electricity. As noted by market participants, the TSO, TenneT is the sole purchaser of balancing and ancillary services in the Netherlands.<sup>57</sup> The market for the generation and

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<sup>51</sup> Pursuant to the Electricity Act and underlying regulations, power plant operators have to appoint a BRP (and a BSP) which have to be recognised as such and registered by TenneT (Form CO paragraph 659). A BRP can be a generator, a large user, an energy supplier or an energy trader, whereas a BSP is a generator.

<sup>52</sup> Form CO, paragraph 460.

<sup>53</sup> See e.g. cases M.9626 – *PKN ORLEN / ENERGA*, paragraph 21 and M.8660 – *FORTUM / UNIPER*, paragraphs 19, 69 et seq.

<sup>54</sup> See e.g. cases M.9626 – *PKN ORLEN / ENERGA*, paragraph 22 and M.8660 – *FORTUM / UNIPER*, paragraph 54, 78.

<sup>55</sup> See e.g. case M. M.8660 – *FORTUM / UNIPER*, paragraph 311.

<sup>56</sup> Form CO, paragraph 454.

<sup>57</sup> See responses to question B.B.1 of eRFI and response to question B.A.1 of Request for Information 1 to TenneT.

wholesale supply of electricity does not have a single purchaser but rather many purchasers (see Section 4.1).

- (40) The vast majority of respondents also indicated that within balancing and ancillary services, there should be separate markets for FCR, aFRR and mFRR.<sup>58</sup> As one participant noted: “*FCR, aFRR and mFRR are distinctly different products for which different types of (production) assets are suited.*”<sup>59</sup> Similarly, TenneT indicated that “*these markets have very distinct technical requirements and are not a substitute for one another.*”<sup>60</sup>
- (41) The market investigation was inconclusive as to whether separate markets exist for (a) upwards regulation of aFRR and (b) downwards regulation of aFRR. In 2021, TenneT started to procure upwards and downwards aFRR capacity separately.<sup>61</sup> In response to the market investigation, a slight majority of respondents indicated that separate markets exist for upwards and downwards regulation, with some indicating that more providers were now active in aFRR since they were able to provide either upwards or downwards regulation (and were not obliged to provide both).<sup>62</sup> Another market participant noted that “*different asset types can deliver upward and downward capacity to TenneT, these assets do not need to be dispatched by the same company. Separating these products leads to a lower net cost of energy.*”<sup>63</sup> On the other hand, a significant minority of market participants noted that the same assets could provide both upwards and downwards regulation of aFRR, although the costs of providing the service may differ according to the asset used, and which may influence the direction of aFRR regulation offered. As explained further by TenneT, “*technical requirements for both are the same, and assets providing aFRR in one direction should also be capable of providing aFRR in the opposite direction, even while, depending on used assets (e.g. power plant, battery, demand side response), different (opportunity) costs could lead to different (cost) prices for provision of balancing capacity in either direction.*”<sup>64</sup>
- (42) In light of the above, the Commission considers that balancing and ancillary services are in a separate product market to the generation and wholesale supply of electricity. Within balancing and ancillary services, the Commission considers that there are separate product markets for the provision of FCR, aFRR and mFRR. The question of whether the product market for the provision of aFRR should be further segmented between upwards and downwards regulation can be left open as the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement regardless of the exact product market definition adopted.

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<sup>58</sup> See responses to question B.B.3 of eRFI.

<sup>59</sup> Response to question B.B.4 of eRFI.

<sup>60</sup> Response to B.A.2 of Request for Information 1 to TenneT.

<sup>61</sup> This follows from Article 32(3) of Commission Regulation (EU) 2017/2195 of 23 November 2017, response to question B.A.3 of Request for Information 1 to TenneT.

<sup>62</sup> See responses to question B.B.5 of eRFI.

<sup>63</sup> Response to question B.B.6 of eRFI.

<sup>64</sup> Response to question B.A.3 of Request for Information 1 to TenneT.

### 4.3.2. Geographic market

#### 4.3.2.1. The Commission's decisional practice

(43) The Commission has previously considered the geographic scope of the market for the provision of balancing and ancillary services to be national in scope<sup>65</sup>, and potentially even limited to the relevant TSO's control area or a bidding zone.<sup>66</sup> The Commission has previously considered the geographic scope of aFRR to be national.<sup>67</sup>

#### 4.3.2.2. The Notifying Party's view

(44) The Notifying Party agrees with the Commission's previous practice.<sup>68</sup>

#### 4.3.2.3. The Commission's assessment

(45) A majority of respondents to the Commission's market investigation considered that the scope of the geographic market was national.<sup>69</sup> This was in particular due to the national scope of the bidding market. As noted by one market participant: "*Offering aFRR to TenneT is possible as long as you are based in the Netherlands and connected to the TenneT grid.*"<sup>70</sup> TenneT noted that while BSPs could be accredited by TSOs in different countries, in order to provide balancing services, and in particular aFRR, it was necessary for pre-qualified assets and grid connections to be located in the Netherlands.<sup>71</sup>

(46) In light of the above, the Commission will for the purpose of this decision conduct the competitive assessment for the provision of aFRR (and for upwards and downwards regulation) at the national level.

## 4.4. Congestion management

(47) Congestion refers to a situation where after the failure of a single network element (such as a transmission line, transformer or generating unit) the network elements remaining in operation would not be capable of accommodating the change of flows in the network caused by that single failure, i.e. there is insufficient redundancy in the network to withstand the failure of a single network element.<sup>72</sup>

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<sup>65</sup> M.5467 – *RWE / ESSENT*, paragraph 21. In this case concerning the Netherlands, the Commission noted that the balancing market was national but, given that there were no overlaps between the Parties in balancing, did not consider the issue in detail.

<sup>66</sup> See e.g. cases M.9626 – *PKN ORLEN / ENERGA*, paragraph 26 and M.8660 – *FORTUM / UNIPER*, paragraph 98.

<sup>67</sup> M.8660 – *FORTUM / UNIPER*, paragraph 98.

<sup>68</sup> Form CO, paragraph 454.

<sup>69</sup> See responses to question C.B.3 of eRFI. Response to question C.A.2.2 of Request for Information 1 to TenneT.

<sup>70</sup> Response to question C.B.4 of eRFI.

<sup>71</sup> Response to question C.A.1.1 of Request for Information 1 to TenneT.

<sup>72</sup> The Notifying Party's response of 21/11/2022 to Request for Information 13 of 16/11/2022. In relation to congestion, the European Network of Transmission Operators for Electricity (ENTSO-E) refers to the N-1 criterion, which it defines as "... a rule according to which elements remaining in operation after failure of a single network element (such as transmission line / transformer or generating unit, or in certain instances a busbar) must be capable of accommodating the change of flows in the network caused by that single failure" (UCTE Operation Handbook – Glossary (final

- (48) The TSO, TenneT, has the statutory task of safeguarding the grid security of the entire electricity system in the Netherlands, which includes resolving congestion. Congestion can be resolved in the short term through a number of different measures:<sup>73</sup>
- a. Switching operations: Switching different network elements (e.g. transmission lines or phase shifting transformers) on or off can change the load of network elements and resolve congestion. This congestion management option relates to the grid assets controlled by the TSO (i.e. it is an operational grid-related measure) and does not concern a market service provided by third parties (such as the Parties), and therefore it will not be discussed further in this decision.
  - b. Countertrading: The TSO buys and sells electricity on the wholesale market to change the flow of electricity between bidding zones to resolve congestion. In the Netherlands, TenneT does not actively use countertrading (it has not used it in the past three years and it has not indicated that it is likely to use it in the coming years)<sup>74</sup> and therefore it will not be discussed further in this decision.
  - c. Redispatch: The TSO asks, using a constant bidding process, consumers and producers to increase/decrease consumption/production compared to their original schedule to change dispatch and load flow patterns to resolve congestion. For TenneT, redispatch always consists of two inter-related transactions – the first with a counterpart that operates an asset (e.g. a power plant) in the congested area, the second in the opposite direction with a counterpart that operates an asset outside of the congested area (which could, but does not have to be, the same counterpart as in the first transaction).
  - d. Capacity restriction agreements: a generator is paid by the TSO for not using (part of) its contracted capacity. TenneT uses bilateral capacity restriction agreements mainly for when it foresees congestion, in particular when maintenance and upgrading projects on specific lines are planned.<sup>75</sup>
- (49) In the medium/long term, congestion can be mitigated against by upgrading or building new transmission lines and transformers.<sup>76</sup>
- (50) In the Netherlands, TenneT uses redispatching more than capacity restriction agreements as part of its congestion management.<sup>77</sup> The differences between these two measures are outlined in paragraphs (51) – (54).
- (51) TenneT organises redispatching by purchasing a regulated product called Reserve Power Other Purposes (*Reservevermogen Overige Doeleinden* or ‘ROD’) from

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v2.2 E, 24.06.2004)). Congestion can be defined as a situation in which N-1 safety of network elements is no longer guaranteed (Form CO, paragraph 498).

<sup>73</sup> Form CO, paragraph 500.

<sup>74</sup> Response from TenneT to Request for Information 1 of 23/11/2022 and Response from the Notifying Party to RFI 13.

<sup>75</sup> Response from TenneT to Request for Information 1 of 23/11/2022.

<sup>76</sup> Form CO, paragraph 501.

<sup>77</sup> Minutes of call between DG COMP and TenneT on 12/12/2022.

market participants, where they state the conditions (minimum duration and price for a specified volume of capacity, whether for an upward or downward adjustment to their production or consumption) under which they are willing to transact with TenneT. As described in the *Netcode Elektriciteit* (Dutch Grid Code), consumers and producers with a connection capacity of over 60 MW are obligated to submit ROD bids to TenneT. Parties with connection capacities below 60 MW can submit bids on a voluntary basis.

- (52) Prices for RODs are determined through a competitive bidding process, and bids are only activated by TenneT in case of congestion. ROD bids are submitted at plant level (or generator level where a plant has more than one generator block feeding into different grid connection points) as the activations largely depend on the location of the power plant in relation to the congestion at hand. Redispatch is temporally organised in quarter hours, i.e. bids are submitted for each of the 96 15-minute blocks per day and when needed TenneT activates redispatch for one 15-minute block or a consecutive block of several 15-minute periods.
- (53) The total redispatch volumes activated amounted to approximately 1.3 TWh in 2021, corresponding to approximately 1% of total power demand in the Netherlands.<sup>78</sup>
- (54) For capacity restriction agreements, TenneT contacts either one or more generators who TenneT considers can resolve the specific foreseen congestion and requests either a capacity restriction of a certain unit or that they have to generate power between a certain minimum and maximum range (a ‘must-run’) from a certain unit for a period that can be for several hours, or one or more days. The generator typically has 2 – 4 days to send their offer to TenneT. In some instances, TenneT provides a reason for the request (e.g. grid maintenance).<sup>79</sup>

#### 4.4.1. *Product market*

##### 4.4.1.1. The Commission’s decisional practice

- (55) The Commission has not defined a separate product market for congestion management services, nor has the ACM done so for the Netherlands.<sup>80</sup> However, in a previous decision, and with reference to the legal situation in Belgium, the Commission referred to congestion management in the context of balancing and ancillary services but, in that decision, it did not define congestion management as being a different market from balancing and ancillary services.<sup>81</sup>

##### 4.4.1.2. The Notifying Party’s view

- (56) The Notifying Party submits that it does not consider congestion management services to be a separate market from the market for balancing and ancillary services.<sup>82</sup> But if considered to be a separate product market, the market for congestion management should at least include both redispatching services and

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<sup>78</sup> Form CO, paragraph 502.

<sup>79</sup> Response dated 13/12/2022 from the Notifying Party to Request for Information 19.

<sup>80</sup> Form CO, paragraph 497.

<sup>81</sup> Case M.4180 – *GAZDE FRANCE / SUEZ*, paragraph 684.

<sup>82</sup> Form CO, paragraphs 497 and 516.

capacity restriction agreements.<sup>83</sup> This view is based on the perception that the services are regarded by TenneT as interchangeable ways to resolve congestion, and on the facts that: (i) TenneT reports the cost for congestion management by combining both redispatch and capacity restriction agreements; (ii) the services are only offered to the same customer, namely TenneT; and (iii) the services are likely offered by the same suppliers.

#### 4.4.1.3. The Commission's assessment

- (57) Although TenneT recognises that generation assets are often capable of providing both congestion management and balancing services, TenneT confirmed that it considers congestion management to be distinct from balancing and ancillary services, noting that from its perspective “*[a]n imbalance problem cannot be solved using congestion management services and vice versa*”, i.e. congestion management services and balancing and ancillary services serve different purposes.<sup>84</sup>
- (58) The majority of respondents to the market investigation also consider the provision of congestion management services to be a distinct market from the provision of balancing and ancillary services.<sup>85</sup> Respondents commented that “*[t]he allocation of demand and supply of congestion management services is organised in a separate segmented market compared to the market for balancing and ancillary services*” and “*[c]ongestion services do not aim to balance the grid but to solve congestion. This is a scheduled activity (unlike ancillary) and also has no indirect impact on imbalance prices*”.<sup>86</sup>
- (59) The Commission considers the market for the provision of congestion management services to be a distinct market, separate from the market for the provision of balancing and ancillary services. Potential congestion and imbalance in the network are different problems for which TenneT is responsible and from the demand-side perspective of TenneT the provision of such services are for different purposes. From a supply-side perspective, there are different bidding processes for each of imbalance and congestion (see above paragraphs (32) and (51) respectively). Furthermore, unlike the situation for imbalances described in paragraph (33) where a BRP is financially responsible for any imbalances that occur in their portfolio grid allocation points, generators are not financially responsible for congestion.
- (60) It can be left open whether the product market for the provision of congestion management services should be segmented between redispatching and the use of capacity restriction agreements as the Transaction does not raise serious doubts as to its compatibility with the internal market and the functioning of the EEA Agreement, regardless of the exact product market definition adopted.

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<sup>83</sup> Response dated 13/12/2022 from the Notifying Party to Request for Information 19.

<sup>84</sup> Response from TenneT to Request for Information 1 of 23/11/2022.

<sup>85</sup> See responses to question B.C.5 of eRFI.

<sup>86</sup> See responses to question B.C.6 of eRFI.



#### 4.4.2. Geographic market

##### 4.4.2.1. The Commission's decisional practice

- (61) As noted in paragraph (55) the Commission has not defined a separate product market for congestion management services before, and therefore it has not previously defined its appropriate geographic scope.

##### 4.4.2.2. The Notifying Party's view

- (62) The Notifying Party submits that providing a general delineation of the geographic market for the provision of congestion management services is not feasible considering the characteristics of this market, noting that the geographic scope of the market may vary depending on the specific congestion.<sup>87</sup> However, the Notifying Party notes that, from a technical perspective, congestion is not normally solved on a zonal basis (e.g. the zone of the northern Netherlands) but applies to the entire area operated by TenneT, i.e. the Netherlands, or even beyond (in case of cross-border redispatch).<sup>88</sup>

##### 4.4.2.3. The Commission's assessment

- (63) TenneT agrees that the geographic scope for a given congestion event “*is highly dependent on the constraint [because] only relevant connections in the right location can usefully contribute to mitigating congestion on a specific grid element.*”<sup>89</sup> In general, however, TenneT confirms that for redispatching, which always consists of two transactions, the geographic scope relates to both the congested area (where generation must be curtailed) and another area (where generation must be ramped up) – and indeed the other, non-congested area could under some circumstances be a cross-border area in a neighbouring country.<sup>90</sup>
- (64) A majority of the respondents to the market investigation consider the geographic scope of the market for congestion management services to be national.<sup>91</sup> However, comments also pointed towards a more local element, relating to the particular type of congestion. For example, one respondent commented that “*[t]here is a national market place for the provision of congestion management services, on which bids in relation to the Netherlands are put. That said, bids may concern very specific locations. As a consequence, the demand can be on a narrower basis than national. It should also be noted that the solution for a local issue may come from abroad the Netherlands.*”<sup>92</sup>
- (65) The Commission considers that the geographic scope of the market for congestion management services in relation to the Netherlands is at least national. While each specific congestion event relates to a specific location, in general generation assets

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<sup>87</sup> Form CO, paragraph 517.

<sup>88</sup> Form CO, paragraph 499. The Notifying Party points to Article 13, sub 1 of the Electricity Regulation (No. 2019/943) which states “*The redispatching of generation and redispatching of demand response shall be ... open to all generation technologies, all energy storage and all demand response, including those located in other Member States unless technically not feasible*”.

<sup>89</sup> Response from TenneT to Request for Information 1 of 23/11/2022.

<sup>90</sup> Form CO, paragraph 517.

<sup>91</sup> See responses to questions CC1 – CC4 of eRFI.

<sup>92</sup> See response to question CC2 of eRFI.

throughout the Netherlands are active on the supply side of congestion management services. TenneT, the only purchaser on the demand side, is also active on a national level. It can be left open whether the geographic scope is wider than national as, based on the conservative assumption of a national market, the Transaction does not lead to serious doubts as to its compatibility with the internal market and the functioning of the EEA Agreement.

#### **4.5. Conclusion on market definition**

- (66) In light of the above, and for the purposes of this decision, the competitive assessment will be based on the following market definitions:
- a. the market for generation and wholesale supply of electricity in the Netherlands;
  - b. the market for aFRR (and its possible sub-segments for upwards and downwards regulation of aFRR) in the Netherlands; and
  - c. congestion management (and its possible sub-segments of redispatching and capacity restriction agreements) in the Netherlands.

### **5. COMPETITIVE ASSESSMENT**

#### **5.1. Analytical framework**

- (67) The legal test for the assessment of horizontal effects of a merger is set out in the Merger Regulation and in the Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings ('Horizontal Merger Guidelines').<sup>93</sup>
- (68) Horizontal effects are those deriving from a concentration where the undertakings concerned are actual or potential competitors of each other in one or more of the relevant markets concerned. The Horizontal Merger Guidelines distinguish between two main ways in which mergers between actual or potential competitors on the same relevant market may significantly impede effective competition, namely non-coordinated and coordinated effects.<sup>94</sup>
- (69) Non-coordinated effects may significantly impede effective competition through the creation or strengthening of the dominant position of a single firm, or through the elimination of important competitive constraints on one or more firms, which consequently would allow those firms to have increased market power without resorting to coordinated behaviour. In that regard, the Horizontal Merger Guidelines consider not only the direct loss of competition between the merging firms, but also the reduction in competitive pressure on non-merging firms in the same market that could be brought about by the merger.<sup>95</sup>
- (70) The Horizontal Merger Guidelines list a number of factors to be taken into consideration when assessing whether significant non-coordinated effects are likely

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<sup>93</sup> OJ C 31, 05.02.2004.

<sup>94</sup> Horizontal Merger Guidelines, paragraph 22.

<sup>95</sup> Horizontal Merger Guidelines, paragraphs 23-24.

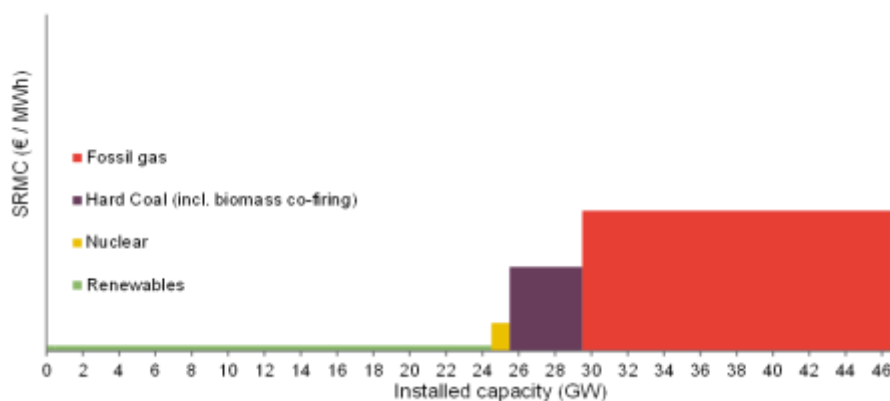
to result from a merger, such as large market shares of the merging firms, the fact that the merging firms are close competitors, the limited possibilities for customers to switch suppliers, or the fact that the merger would eliminate an important competitive force. Not all of these factors need to be present to make non-coordinated effects likely, nor does this constitute an exhaustive list.<sup>96</sup>

## 5.2. Generation and wholesale supply of electricity

### 5.2.1. Introduction

- (71) In wholesale electricity markets, spot market prices<sup>97</sup> are set according to the short-run marginal cost ('SRMC') of the different generation assets in the merit order.<sup>98</sup> Capacity is sold in the order of the production units' SRMC (starting from the lowest) and the overall market price is set by the production unit with the highest SRMC that is required to serve demand. This is the so-called "marginal" unit.<sup>99</sup> Whether a plant is marginal or not can change frequently, depending on the demand and supply of electricity at any given point in time.
- (72) Renewable sources have the lowest SRMC and are prioritised in meeting demand, which means these generation assets are situated to the left of the merit order (so-called "infra-marginal" units).<sup>100</sup> Flexible generation assets, i.e. controllable assets that can be ramped up or down on demand (such as gas-fired, coal-fired, and hydropower plants), have higher SRMC and are situated on the right of renewables in the merit order and can be infra-marginal, marginal or outside of the merit order needed to meet demand, depending on the load of demand. Figure 2 below shows an illustrative merit order for the Netherlands.

**Figure 2 - Illustrative merit order for the Netherlands**



Source: Form CO, Figure 30.

<sup>96</sup> Horizontal Merger Guidelines, paragraphs 26-38.

<sup>97</sup> At wholesale level, electricity can also be sold via bilateral contracts (also called over-the-counter sales, or 'OTC') between electricity generators and customers. OTC contracts can stipulate fixed prices or index their price on the spot market price. Spot market sales via power exchanges and OTC sales are typically linked by arbitrage, which means that no significant price differences are expected between the two sales channels (Form CO, paragraph 583).

<sup>98</sup> The merit order is a ranking method for electricity generation based on the SRMC of each generation asset.

<sup>99</sup> Production units with SRMC below the marginal unit's SRMC, which are therefore dispatched to meet demand, are called "infra-marginal" units.

<sup>100</sup> Infra-marginal production units have been historically referred to as "baseload" capacity.

- (73) In electricity markets, the withholding (either physically or economically)<sup>101</sup> of electricity can shift the merit order curve to the left and trigger a price increase if the newly marginal power plant has higher SRMC than the plant that was marginal prior to the withholding.
- (74) In previous electricity cases, the Commission has typically considered whether the combination of flexible (in this case gas-fired) and non-flexible “baseload” (e.g. nuclear or renewables) electricity production assets was prone to give rise to horizontal non-coordinated effects in the market for generation and wholesale supply of electricity.<sup>102</sup> In particular, the Commission assessed whether the concentration in question was likely to give the combined entity the ability and incentive to physically or economically withhold flexible generation capacity in order to increase the market price of electricity applicable to all production units, thus including baseload production.
- (75) The premise of such a theory of harm is that an increase in flexible generation capacity, i.e. generation assets that can be ramped up or down on demand, may give the combined entity additional “*opportunities to withdraw flexible capacity*”, while a sufficiently large baseload production, i.e. those generation assets that remain in operation to address demand, may enable it to benefit from the resulting higher price with its infra-marginal production units.<sup>103</sup>

#### 5.2.2. *Market shares*

- (76) Whereas market shares provide useful first indications of the market structure and of the competitive importance of the parties to a transaction and their competitors, the Commission notes at the outset that in the market for generation and wholesale supply of electricity, where generators and wholesalers offer electricity on a quarter-hourly basis, market shares are of limited informative value, especially since they are based on an annual average. The Commission has nevertheless taken the Parties’ market share estimates into account for its overall assessment of the Transaction.
- (77) Based on historical generation data, the Parties’ combined market share in the Dutch market for generation and wholesale supply of electricity overall amounts to [20-30]% in 2021, with [10-20]% for RWE and [0-5]% for the Target (and a combined share of around [20-30]% in previous years), as shown in Table 1 below. The market for the generation and wholesale supply of electricity in the Netherlands is therefore horizontally affected by the Transaction.

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<sup>101</sup> Physical withholding entails a reduction in generation output offered in the market, whereas economic withholding entails an increase in unit bid prices while keeping output constant. The outcome is essentially the same, namely that less production is available at the pre-merger competitive price level. Thus, in a situation where generators bid supply functions, i.e. entire supply curves with different prices for different quantities to account for the uncertainty of demand at the time of bidding, physical and economic withholding converge. Hence, the remainder of this Decision refers to withholding in general as encompassing both types of strategies.

<sup>102</sup> See cases M.8871 – *RWE / E.ON ASSETS*; M.8660 – *FORTUM / UNIPER*; M.5224 – *EDF / BRITISH ENERGY*; M.3268 – *SYDKRAFT / GRANINGE*.

<sup>103</sup> See cases M.8871 – *RWE / E.ON ASSETS*, paragraphs 49 et seq.; M.8660 – *FORTUM / UNIPER*, paragraph 173; M.5224 – *EDF / BRITISH ENERGY*, paragraph 25; M.3268 – *SYDKRAFT / GRANINGE*, paragraph 37.

**Table 1 – Historical generation shares of RWE and main competitors in the generation and wholesale supply of electricity (pro-rata) in the Netherlands**

Generators in the Netherlands	2019		2020		2021	
	TWh	Market Share	TWh	Market Share	TWh	Market Share
RWE	[...]	[10-20]%	[...]	[10-20]%	[...]	[10-20]%
Target	[...]	[5-10]%	[...]	[5-10]%	[...]	[0-5]%
<i>RWE (including Target)</i>	[...]	[10-20]%	[...]	[20-30]%	[...]	[20-30]%
Eneco <sup>104</sup>	[...]	[5-10]%	[...]	[5-10]%	[...]	[5-10]%
Vattenfall (excluding Target)	[...]	[10-20]%	[...]	[5-10]%	[...]	[5-10]%
Engie	[...]	[5-10]%	[...]	[5-10]%	[...]	[5-10]%
Uniper	[...]	[0-5]%	[...]	[5-10]%	[...]	[5-10]%
Other	[...]	[40-50]%	[...]	[50-60]%	[...]	[40-50]%
<b>Total Market in the Netherlands</b>	[...]	<b>100%</b>	[...]	<b>100%</b>	[...]	<b>100%</b>

Source: Form CO, Table 30. TWh is a terawatt-hour.

- (78) For the sake of completeness, the Notifying Party also provided market share estimates on narrower segments of the Dutch market for generation and wholesale supply of electricity, notably for electricity generated from conventional sources only. As shown in Table 2 below, for 2021 the Parties' combined share would amount to [30-40]%. In an even narrower sub-segment, i.e. electricity generated from gas-fired power plants only, the Parties combined share would be only [10-20]%.<sup>105</sup>

**Table 2 – Historical generation shares of main competitors in conventional generation (pro-rata) in the Netherlands**

Generators in the Netherlands	2019		2020		2021	
	TWh	Market Share	TWh	Market Share	TWh	Market Share
RWE	[...]	[10-20]%	[...]	[10-20]%	[...]	[20-30]%
Target	[...]	[5-10]%	[...]	[5-10]%	[...]	[0-5]%
<i>RWE (including Target)</i>	[...]	[20-30]%	[...]	[20-30]%	[...]	[30-40]%
Eneco	[...]	[5-10]%	[...]	[5-10]%	[...]	[5-10]%
Vattenfall (excluding Target)	[...]	[10-20]%	[...]	[5-10]%	[...]	[10-20]%
Engie	[...]	[10-20]%	[...]	[10-20]%	[...]	[10-20]%
Uniper	[...]	[5-10]%	[...]	[5-10]%	[...]	[5-10]%
Other	[...]	[40-50]%	[...]	[40-50]%	[...]	[30-40]%
<b>Total Market in the Netherlands</b>	<b>95.8</b>	<b>100%</b>	<b>88.1</b>	<b>100%</b>	<b>78.8</b>	<b>100%</b>

Source: Form CO, Table 32.

- (79) The Notifying Party has further submitted forward-looking market share estimates for the years 2022, 2025 and 2030. All Dutch coal plants are expected to be

<sup>104</sup> Including power purchase agreements ('PPAs') with generation assets owned by third parties.

<sup>105</sup> Form CO, Table 38.

decommissioned between 2025 and 2030 due to the phase-out of coal as a source for electricity production in the Netherlands.<sup>106</sup> As apparent from Table 3 and Table 4 below, RWE's future generation capacity both overall and from conventional sources is expected to decrease, with a significant drop occurring between 2025 and 2030 due to the Dutch coal phase-out.

**Table 3 – Forward-looking capacity shares of RWE and main competitors in generation and wholesale supply of electricity (pro-rata) in the Netherlands**

Generators in the Netherlands	2022		2025		2030	
	GW	Market Share	GW	Market Share	GW	Market Share
RWE	[...]	[10-20]%	[...]	[5-10]%	[...]	[5-10]%
Target	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
<i>RWE (including Target)</i>	[...]	[10-20]%	[...]	[10-20]%	[...]	[5-10]%
Eneco	[...]	[5-10]%	[...]	[10-20]%	[...]	[10-20]%
Vattenfall (excluding Target)	[...]	[5-10]%	[...]	[5-10]%	[...]	[5-10]%
Engie	[...]	[5-10]%	[...]	[5-10]%	[...]	[5-10]%
Uniper	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Other	[...]	[60-70]%	[...]	[60-70]%	[...]	[60-70]%
<b>Total Market in the Netherlands</b>	<b>46.8</b>	<b>100%</b>	<b>56.0</b>	<b>100%</b>	<b>60.2</b>	<b>100%</b>

Source: Form CO, Table 31.

**Table 4 – Forward-looking capacity shares of RWE and main competitors in conventional generation (pro-rata) in the Netherlands**

Generators in the Netherlands	2022		2025		2030	
	GW	Market Share	GW	Market Share	GW	Market Share
RWE	[...]	[10-20]%	[...]	[20-30]%	[...]	[10-20]%
Target	[...]	[5-10]%	[...]	[5-10]%	[...]	[5-10]%
<i>RWE (including Target)</i>	[...]	[20-30]%	[...]	[20-30]%	[...]	[20-30]%
Eneco	[...]	[0-5]%	[...]	[0-5]%	[...]	[5-10]%
Vattenfall (excluding Target)	[...]	[5-10]%	[...]	[5-10]%	[...]	[10-20]%
Engie	[...]	[10-20]%	[...]	[10-20]%	[...]	[10-20]%
Uniper	[...]	[5-10]%	[...]	[5-10]%	[...]	[0-5]%
Other	[...]	[40-50]%	[...]	[30-40]%	[...]	[30-40]%
<b>Total Market in the Netherlands</b>	<b>22.9</b>	<b>100%</b>	<b>21.2</b>	<b>100%</b>	<b>15.6</b>	<b>100%</b>

Source: Form CO, Table 33.

- (80) For the sake of completeness, considering out-of-market flows from neighbouring bidding zones, it can be mentioned that for any area comprising the Netherlands and one or several of its neighbouring bidding zones, the combined shares of the

<sup>106</sup> On 11 December 2019 the Netherlands adopted a law prohibiting the use of coal for the production of electricity by 1 January 2030 at the latest. See *Staatsblad van het Koninkrijk der Nederlanden*, Jaargang 2019, 493.



Parties for electricity generation and wholesale supply would be lower than for the Netherlands alone.<sup>107</sup> By way of example, for the Netherlands and Germany combined,<sup>108</sup> the Parties' combined market share for electricity generation and wholesale supply would be only [10-20]% (based on generation in 2021).<sup>109</sup>

- (81) In addition, the Commission considers it informative for the purpose of the assessment of the Transaction to take into account the generation mix of the various competing generators, as displayed in Table 5 below.

**Table 5 – Estimated Dutch generation portfolio of main competitors by technology 2022 (pro-rata)**

Installed capacity (MW)	NL Total	RWE (pre-trans.)	RWE (post-trans.)	Vattenfall (post-trans.)	Engie	Uniper	Eneco	Other
Fossil Gas	17,600	1,975	3,385	1,993	2,932	536	1,031	7,723
Hard coal & biomass co-firing	4,012	2,211	2,211	--	--	1,070	--	731
Nuclear	486	146	146	--	--	--	--	341
Hydro	38	11	11	6	--	--	--	21
Solar	14,900	21	26	9	26	--	814	14,025
Wind onshore	5,300	384	384	368	65	--	1,769	2,715
Wind offshore	3,100	--	--	--	--	--	615	2,485
Biomass	600	--	--	--	--	--	15	585
Waste	763	--	--	--	--	--	--	763
<b>Total</b>	<b>46,799</b>	<b>4,747</b>	<b>6,157</b>	<b>2,381</b>	<b>3,023</b>	<b>1,606</b>	<b>4,244</b>	<b>29,388</b>

Source: Form CO, Table 44.

### 5.2.3. The Notifying Party's view

- (82) The Notifying Party takes the view that the Transaction does not significantly impede effective competition in the market for the generation and wholesale supply of electricity in the Netherlands for a number of reasons pertaining to the market structure, on the one hand, and the lack of ability and incentive to enter into a possible withholding strategy, on the other hand.
- (83) From a structural point of view, the Notifying Party submits that the combined market share post-Transaction would remain limited, based on both historical generation data as well as on forward-looking capacity data, which would underline the fact that the concentration of the Dutch power generation market is low.<sup>110</sup> Strong competitors will continue to constrain RWE post-Transaction, in

<sup>107</sup> Form CO, paragraph 160.

<sup>108</sup> The Notifying Party submits that due to RWE's only minor generation assets in neighbouring countries other than Germany, analysing a hypothetical Dutch-German market would be the most conservative approach for any wider-than-national delineation. See Form CO, paragraph 160.

<sup>109</sup> Form CO, Table 24.

<sup>110</sup> Form CO, paragraphs 221 et seq.

particular in light of the foreseen phase-out of coal-fired power plants by 2030. That phase-out will primarily impact RWE and Uniper who together account for more than [80-90]% of the coal-fired generation capacity in the Netherlands today,<sup>111</sup> while the continuing increase in renewable capacity is expected to benefit RWE less than its main competitors.<sup>112</sup> In addition, the Notifying Party analysed the residual supply index ('RSI'), which quantifies whether an electricity provider is pivotal, i.e. indispensable to meet demand. According to its RSI analysis, RWE would be pivotal in less than [...] % of hours even under the most conservative import scenario (assuming a 50% available import capacity), and pivotal in less than [...] % of the hours in any of the scenarios considered as more realistic by the Notifying Party.<sup>113</sup>

- (84) With respect to it lacking the ability and incentive to engage in a hypothetical withholding strategy, the Notifying Party contends, first, that it would have no ability to withhold significant production capacity due to the low market concentration level, its limited market share and its lack of pivotality in the market. In addition, the Dutch generation and wholesale supply market is highly interconnected and is part of the flow-based market coupling of day-ahead and intra-day trading markets.<sup>114</sup> This would trigger an automatic increase of imports from neighbouring countries in the event of a short-term price increase and, hence, thwart any attempt to withhold domestic capacity.
- (85) Second, the Notifying Party submits that it would lack any incentive to engage in a hypothetical withholding strategy because the Target is an efficient, mid-merit CCGT power plant. The withholding of this plant would lead to a significant loss in margins from foregone income that the plant would have earned absent the withholding, in particular during hours of scarce supply which are the times when RWE could presumably influence the price. Such loss in margins would make withholding particularly costly. RWE would also have only a limited number of generation assets that would typically remain infra-marginal. Therefore, RWE would not have sufficient baseload capacity to benefit from higher prices resulting from such a capacity withdrawal.
- (86) The Notifying Party further argues that, in any event, the simple SRMC-based merit-order approach described in the previous paragraph overstates incentives to withhold, for the following reasons.<sup>115</sup>
- (87) *First*, the market is characterised by uncertainty and market players cannot with certainty know when and how much capacity to withdraw in order to maximize their profits (a “wrong” amount of withdrawal at the “wrong” time might lead to losses).

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<sup>111</sup> Form CO, paragraph 227 and Table 44.

<sup>112</sup> Form CO, paragraph 227 and Table 45.

<sup>113</sup> Form CO, paragraphs 228 et seq. and Annex 7 (Report prepared by Frontier Economics).

<sup>114</sup> The “flow-based” approach describes how a change in the net position (import or export) of each bidding zone changes the power flow at each critical branch. The Netherlands is part of European coupling of day-ahead and intraday trading markets which creates a cross-zonal market for short-term trading of electricity (Form CO, paragraph 292).

<sup>115</sup> Form CO, paragraphs 317 et seq. and 368 et seq.



- (88) *Second*, the merit order curve is smoother (i.e. with less pronounced increases in SRMC from one production unit to the next along the curve) in reality than can be modelled in theory. As a result, any given capacity withdrawal might lead to significant gains in a model framework (because of significantly higher SRMC for the next generation asset to the right in the theoretical merit order), while in reality differences in SRMC between subsequent generation assets are likely to be smaller.
- (89) *Third*, due to the interconnection with neighbouring bidding zones, demand and supply react more elastically to price changes than a merit order model for a single country would suggest.
- (90) *Fourth*, in reality plants might have longer cycles with fewer starts and minimum up and down times compared to the basis of a profit maximising strategy that a simple merit order approach might predict with a high number of starts for a plant,<sup>116</sup> which can make withdrawal less attractive in practice.
- (91) *Fifth*, existing forward trading<sup>117</sup> and non-spot market sales positions may significantly affect and reduce (short-term) incentives, in particular in rising markets when the buy-back price<sup>118</sup> is significantly above the settlement<sup>119</sup> of forward sales<sup>120</sup>.
- (92) *Sixth*, the Regulation on wholesale energy market integrity and transparency (REMIT)<sup>121</sup> prohibits RWE from manipulating the market and withholding an important capacity, which would be easily detectable and subject to significant fines.<sup>122</sup>
- (93) Finally, the Notifying Party submitted a forward-looking incentive analysis (the ‘Incentives analysis’) and considers that the results of this analysis demonstrate that the Transaction does not give rise to competition concerns, because (i) the Transaction leads only to a moderate number of hours in which a hypothetical withholding strategy would be profitable (up to [...] hours in 2025, out of a maximum of 8,760 hours in a year), which by itself does not raise competition concerns, (ii) the base price increase (reflecting a potential harm to consumers) from the additional incentives to withhold capacity due to the Transaction is limited and reaches only up to EUR [...] /MWh (or [...] % of the base price before withholding), and (iii) the increase in profits for RWE from withholding capacity is limited (less than EUR [...] million per year in 2025, i.e. less than [...] % of total

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<sup>116</sup> The start of a power plant causes additional variable costs (e.g. energy cost for start-up and increased wear and tear). Start-up costs depend on the operating state of the power plant, i.e. whether it makes a cold, warm or hot start and the duration of operation until the next ramp-down. Revision cycles, which are very costly for CCGTs, are also triggered by the number of full starts/stops.

<sup>117</sup> Forward sales are a form of financial trading in electricity derivatives that take place more than one day ahead of the physical delivery of the traded electricity. See also fn. 9 above.

<sup>118</sup> I.e. the price RWE would have to pay in order to buy back the amount of electricity sold in advance.

<sup>119</sup> I.e. the price at which RWE sold the relevant electricity in advance.

<sup>120</sup> This is because where the wholesaler has sold a given generation capacity in advance, he would have to buy back the withheld generation that he is no longer producing (and, hence, cannot use to honour the forward trade) at a higher wholesale (spot) price, but cannot raise the settlement price in the forward deal.

<sup>121</sup> Regulation (EU) No 1227/2011.

<sup>122</sup> Form CO, paragraphs 320 et seq.

gross profits before withholding), which needs to be weighed against a high probability of detection when withholding two large CCGT power plants.

#### 5.2.4. *The Commission's assessment*

- (94) The Transaction would add to RWE's portfolio of electricity generation assets in the Netherlands one of the largest modern CCGT power plants in the country. CCGT power plants are flexible generation assets and [information concerning CCGT power plants].<sup>123</sup> This leads to the potential concern that RWE would have post-Transaction the ability and incentives to withdraw flexible capacity in order to increase the market price that it receives on its remaining infra-marginal production units.
- (95) It is true that RWE's market share for generation and wholesale supply of electricity post-Transaction would remain limited, based on both historical generation data ([20-30]% in 2021, and less in previous years) as well as forward-looking capacity data ([10-20]% in 2022, and less in subsequent years).
- (96) However, due to the functioning of the electricity generation and wholesale supply market, market shares do not necessarily provide an indication of a company's ability to engage in a withholding strategy and to impact prices. Even companies with a moderate market share may be able to influence the wholesale price under some circumstances. In line with Commission precedents in the electricity sector set out in paragraph (74) above, the Commission has therefore assessed whether, despite the Parties' limited market share, the Transaction could affect RWE's ability and incentives to influence market prices in a profitable manner by withholding part of its flexible production.

##### 5.2.4.1. Analysis of RWE's ability to withhold post-Transaction

- (97) As set out in paragraphs (71) et seq. above, withholding strategies usually require the combination of flexible generation assets (the withheld assets) and "baseload" generation assets (the benefitting assets, which would remain operational and therefore would benefit from the resulting higher price).<sup>124</sup> A starting point for the Commission's assessment is therefore to look at the entire portfolio of power generation assets in the relevant market controlled (also *pro rata*) by the Notifying Party.
- (98) RWE's pre-Transaction generation portfolio in the Netherlands consists of 562 MW installed capacity in nuclear, onshore wind, solar and hydro power plants and about 4,180 MW installed capacity in gas-fired and hard coal/biomass co-firing plants.<sup>125</sup> Of these, approximately 3,400 MW installed capacity relates to "baseload" generation assets (either due to low SRMC or must-run obligations).<sup>126</sup> At least 1,300 MW installed capacity constitutes flexible generation assets that could theoretically be withheld. In light of this, the Commission considers that RWE might at least theoretically be able to engage in a withholding strategy already pre-Transaction. RWE's theoretical ability to withhold already pre-

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<sup>123</sup> Form CO, Annex 05w, RWE internal document.

<sup>124</sup> See, e.g., case M.8871 – *RWE / E.ON ASSETS*, paragraphs 49 et seq.

<sup>125</sup> Form CO, Table 44.

<sup>126</sup> Form CO, paragraph 349 and Table 65.

Transaction was confirmed by the large majority of respondents to the market investigation, many of which noted however that they have not experienced any strategic withholding by RWE to date.<sup>127</sup>

- (99) The addition of the Target’s 1.4 GW installed capacity, which also constitutes flexible generation, could potentially increase RWE’s ability to withhold post-Transaction. RWE’s post-Transaction portfolio may thus be suited for withholding strategies.
- (100) The Commission has analysed the RSI analysis provided by the Notifying Party. Energy regulators and competition agencies typically use RSI analyses as a preliminary indication of market power in electricity wholesale markets. The Commission considers that while RSI is a useful screening tool to monitor the functioning of the electricity wholesale market and to identify possible problematic areas, it suffers from a number of limitations that should be taken into account when reviewing the impact of mergers. For example, a company may have the ability (e.g. by withholding capacity) to influence the wholesale price even when it is not pivotal. Likewise, a company may have limited incentives to exercise market power even when it is pivotal, if the residual demand that cannot be met by competitors is small. For these reasons, the Commission considers that the RSI analysis submitted by the Notifying Party is alone insufficient to dispel concerns on the generation market, and that further analysis of RWE’s ability and incentives to withhold is necessary in this case.
- (101) To assess RWE’s ability to withhold capacity, the Commission investigated the marginality of the flexible generation plants Clauscentrale C (operated by RWE pre-Transaction) and Magnum (operated by the Target pre-Transaction) that were potentially well suited for withholding strategies, due to their flexibility (i.e. ability to ramp-up or down the whole plant within an hour), and [information about costs].<sup>128</sup> The marginality analysis consists in counting the hours during which a plant is marginal in the merit order curve, i.e. when the plant is producing and its SRMC are very close to the market price. The more often certain plants are marginal, the less costly it is to pursue a strategy of withholding these plants, as the margin on these plants is limited.<sup>129</sup> In 2019, Magnum was producing and marginal at [...]% (i.e. its SRMC were [...]% or more of the day-ahead market price) for [...]% of hours in 2019, [...]% of hours in 2020, and [...]% of hours in 2021. Clauscentrale C was marginal at [...]% for [...][%] of hours in 2019, [...]% in 2020 and [...]% in 2021. These results show a non-insignificant number of hours over 2019-2021 where Clauscentrale C and Magnum could have been withheld at a contained cost, as the lost margin on these plants would have been at most [...]% of the day-ahead market price.

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<sup>127</sup> See responses to questions D.A.2 and D.A.3 of eRFI.

<sup>128</sup> When plants with high SRMC are marginal, RWE’s low SRMC plants are likely to be producing, and hence the price increase triggered by withholding a high SRMC plant can generate additional profits on the “baseload” production units with lower SRMC. The latter are therefore less well suited for a withholding strategy.

<sup>129</sup> The overall spot market price is defined based on the SRMC of the “marginal” unit (see paragraph (71) above). The spot market price therefore allows a “marginal” unit only to cover its SRMC, whereas infra-marginal units gain a higher profit the larger the difference is between their own SRMC and the spot market price.

- (102) As noted at paragraph (98) above, in response to the market investigation, the large majority of respondents who expressed a view considered it possible, at least in theory, that RWE already pre-Transaction would be able to withhold flexible plants in the Netherlands to increase the wholesale power price in order to earn higher margins on its remaining operating Dutch power plants.<sup>130</sup> Respondents noted for instance that “*with a fossil/biomass power plant capacity of almost 4.4 GW (Amer power plant 600 MW, Claus C 1275 MW, Eemshaven coal power plant 1560 MW, Moerdijk Gas power plant 700 MW and Swentibold cogen Geleen 230 MW), RWE can theoretically already influence the market price. 4.4 GW is almost 20% of the peak consumption of all consumers in the Netherlands together*”<sup>131</sup> and that for RWE it would be “*possible to strategically withhold capacity to trigger different marginal units with higher marginal prices. The main competition in the infra-marginal sphere (especially the level before marginal) is interconnection and/or less efficient CCGTs.*”<sup>132</sup> The majority of respondents who expressed a view further consider that RWE’s ability to withhold would increase post-Transaction.<sup>133</sup>
- (103) On the other hand, the Dutch electricity market regulator, the ACM, voiced no concerns that RWE would structurally withhold capacity to increase the wholesale market price, in particular due to the share of RWE’s conventional generation portfolio in relation to its low installed renewables capacity, as apparent also from Table 5 above. As set out at paragraph (72) above, conventional generation assets can be infra-marginal, marginal or out-of-merit depending on the load of demand at a given point in time. Therefore, a limited portfolio of renewables capacity would limit RWE’s ability to recoup losses from the capacity withheld with higher prices on baseload production.<sup>134</sup>
- (104) Against this background, the Commission has noted in previous cases<sup>135</sup> that an ability to withhold output does not necessarily imply an ability to raise prices (in other words, withholding output does not necessarily translate into a general price increase). Indeed, depending on the elasticity of supply in the market, withheld units may be absorbed by countervailing production from other suppliers, including imports, thus preventing prices from increasing in the first place. Absent any price increase from withholding production, a withholding strategy cannot be profitably implemented. The Commission has therefore assessed the existence and likelihood of price increases and, hence, incentives of the merged entity to withhold.

#### 5.2.4.2. Analysis of RWE’s incentives to withhold post-Transaction

- (105) The market investigation provided feedback on RWE’s theoretical incentives to engage in a withholding strategy in the future with the aim to increase wholesale market prices. The majority of respondents consider it possible that RWE would have such incentives, noting for instance that “*the phase-out of conventional capacity always makes the ownership of gas-fired power plants more interesting on the market and increases the moments that they are the price setting assets*”, and that “[w]ith a higher share of renewables in the future more power plants will be

<sup>130</sup> See responses to question D.A.4 of eRFI.

<sup>131</sup> See responses to question D.A.3 of eRFI.

<sup>132</sup> See responses to question D.A.10 of eRFI.

<sup>133</sup> See responses to question D.A.4 of eRFI.

<sup>134</sup> Email from ACM to DG COMP on 09/11/2022.

<sup>135</sup> See case M.8660 – *FORTUM / UNIPER*, paragraphs 181-182.

*priced out of the market for certain periods [...] There will therefore be a need for the power plant owners in general to raise the prices in the remaining periods in order to make their power plants economically profitable*".<sup>136</sup> Other respondents pointed to theoretically different incentives between the Target's current owner, Vattenfall, and RWE, due to the fact that RWE has no activities in the retail markets and, hence, would not be constrained by considerations of retail price impacts that a withholding on the wholesale level might have.<sup>137</sup>

- (106) However, the results of the market investigation also confirmed a number of elements put forward by the Notifying Party which are generally likely to reduce RWE's incentives to withhold. In this respect, all respondents who expressed a view considered that uncertainty in the market prevents generators from knowing when and how much to profitably withdraw, noting for instance that "[u]ncertainties in the market make it very difficult to estimate future clean-dark and clean-spark spreads<sup>138</sup> [which] makes it difficult to estimate future operating hours".<sup>139</sup> A large majority of respondents who expressed a view also considered that existing (long-term) forward and futures trading reduce (short-term) incentives to withhold electricity due to possibly unfavourable spot market prices for its buy back, i.e. the price RWE would have to pay in order to buy back the amount of electricity sold in advance.<sup>140</sup> All respondents who expressed a view further indicated that the existing day-ahead and intra-day market coupling between the Netherlands and neighbouring bidding zones decreases RWE's incentives to carry out a successful withholding strategy, as "*market power across the integrated markets is lower and the uncertainty on the position in the merit order is increased*".<sup>141</sup> Other respondents pointed to the "*regulatory exposure due to the size of the Magnum power plant*" that a withholding of the Target's capacity could entail.<sup>142</sup>
- (107) In order to determine the likelihood of a withholding strategy to occur post-Transaction, the Commission also sought to quantify potential price reactions due to withholding and the resulting incentives for RWE. For such a quantitative assessment, it is necessary to estimate whether RWE would have a *large enough* incentive to withhold capacity on the day-ahead market. This would only be the case if the withholding strategy would generate large enough price increases that would cover for both the loss of profit inherent to the reduction of volumes sold by the withheld plant and for the risks that are associated with withholding, such as the risk of the withholding being discovered by the regulator, as withholding is prohibited under the REMIT regulation and can lead to sanctions,<sup>143</sup> or the risk of non-profitable withholding in certain hours.

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<sup>136</sup> See responses to question D.A.8 of eRFI.

<sup>137</sup> See responses to question D.A.9 of eRFI.

<sup>138</sup> Clean-dark and clean-spark spreads designate the difference between the input fuel costs and the wholesale power price. For electric power generation fuelled by natural gas, this difference is called the spark spread; for electric power generation fuelled by coal, the difference is called the dark spread.

<sup>139</sup> See responses to question D.A.11 and D.A.12 of eRFI.

<sup>140</sup> See responses to question D.A.13 of eRFI.

<sup>141</sup> See responses to questions D.A.15 and D.A.16 of eRFI.

<sup>142</sup> See responses to questions D.A.9 of eRFI.

<sup>143</sup> Articles 4 and 5 of REMIT, and Article 77(i)(1)(b) Dutch Electricity Act 1998.

- (108) The Notifying Party conducted an Incentives analysis describing what would be the most plausible withholding strategies, and in which incentives they would result. Among all RWE plants post-Transaction, the Notifying Party considered only Magnum and Clauscentrale C suitable for an opportunistic withholding strategy. The report did not consider it plausible to withhold other plants, because of either must-run clauses (some RWE co-fired coal/biomass plants are also used for heating), low controllability (contrary to Magnum and Clauscentrale C, which can be fully ramped-up or down within an hour), or low SRMC that would result in important lost margins. The analysis presents two post-Transaction withholding scenarios: withholding one plant (Scenario A), i.e. Magnum or Clauscentrale C, depending on which plant is best placed for every hour, or withholding both Magnum and Clauscentrale C jointly (Scenario B). These post-Transaction simulations were then compared to a pre-merger withholding scenario in which only Clauscentrale C was withheld. The Notifying Party considers the withholding strategy described in Scenario B as being extreme and easily detectable since RWE would withhold up to [...] % of its total Dutch gas-fired capacity in certain hours.
- (109) The Commission agrees with the Notifying Party that Magnum and Clauscentrale C are the plants that are the most relevant to implement a withholding strategy. This is not only for the reasons submitted by the Notifying Party as set out above, but also because of the high capacity of these plants and their high current level of marginality, which is expected to increase in the near future. Other RWE plants do not qualify for a withholding strategy, either because of their must-run clauses, low controllability, or low SRMC. However, the Commission does not agree that the withholding Scenario B is extreme as the market investigation revealed that it was very difficult to detect a withholding behaviour. Moreover, if one were to assume that post-Transaction, in order not to be detected, RWE could withhold no more than a certain share of its gas capacity, this would also apply pre-Transaction, and therefore the counterfactual scenario should be modified accordingly, to account for less capacity withheld pre-Transaction.<sup>144</sup> Considering the counterfactual scenario chosen by the Notifying Party in its model, the Commission considers it *prima facie* plausible that RWE could apply the withholding strategy described under Scenario B, and therefore considers the assessment of both Scenario A and Scenario B as relevant.
- (110) The simulation consisted in forward-looking market modelling for future years 2023, 2025 and 2030. To determine the hourly wholesale prices for these years under the non-withholding scenario and under the pre- and post-merger withholding scenarios, the Notifying Party used the European power market model ‘Plexos’<sup>145</sup>, with assumptions on development of capacities, demand and commodity prices. Then, RWE used the dispatch model ‘ROM’<sup>146</sup> to simulate the

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<sup>144</sup> Everything else equal, reducing the capacities that could be withheld pre-Transaction increases the Transaction-specific effect of withholding on prices.

<sup>145</sup> Plexos is a commercial software developed by Energy Exemplar. It is a power market model which uses various inputs to match demand and supply at the lowest costs, i.e. the lowest power price. Plexos produces hourly price curves. Plexos is widely used in the energy sector and is considered industry-standard.

<sup>146</sup> The Real Option Model (‘ROM’) is an optimisation tool developed in-house by RWE, which optimises the power station dispatch against given price curves (from Plexos) based on the detailed technical parameters of the respective power station. ROM produces generation volumes, margins, and running hours as main output.

dispatch of generation across all power stations under the price levels obtained as an output of the Plexos model. The ROM model minimises costs under commodity price assumptions. From the market price and plant generation outputs obtained respectively from Plexos and ROM, RWE was then able to compute the expected hourly profit (or loss) resulting from withholding under the different scenarios, and to calculate the merger-specific increment. The Commission acknowledges that the Plexos and ROM models were not built for the purposes of this investigation, but are used by RWE in its regular course of business. Although the Commission did not review the algorithms underlying the models, the Commission did verify that the market predictions obtained as an output of these models (and in particular generation shares and expected volumes) were consistent with market expectations for the future years considered.

- (111) The RWE simulation showed a substantial increase in the number of hours where withholding would be profitable, ranging between [...] hours in 2030 under Scenario A ([...] % of yearly hours), and [...] hours in 2025 under Scenario B ([...] % of yearly hours). However, the overall merger-specific impact of withholding when profitable for RWE would be limited, with an overall price effect of at most (under scenario B) [...] % in 2023, [...] % in 2025 and [...] % in 2030. Looking more specifically at peak hours<sup>147</sup> during weekdays, the effect would always remain below [...] %. The Notifying Party's Incentive analysis also estimated the impact on prices in Germany where RWE would also be able to benefit from the withholding in the Netherlands. When prices are coupled between Germany and the Netherlands, an increase in prices in the Netherlands will also impact prices in Germany, where RWE is an important producer. In Germany, the impact would be even more limited with a merger-specific price increase of [...] % on average.
- (112) Although relatively small price increases in electricity markets can typically be considered problematic<sup>148</sup>, a price increase of [less than 1] % in the near future (2023), and [less than 1] % in 8 years' time (2030) appears extremely limited<sup>149</sup>, especially with regards to the fact that uncertainty on the supply and demand levels is not modelled into these results. Uncertainty implies that RWE may not have perfect foresight on when and how much capacity to withdraw in order to maximise its profits. Withholding capacity incurs lost revenues from the plant that is withheld, and the strategy can only be profitable if it generates more additional revenues from the other plants that continue producing, than the revenues lost on the withheld plant. Therefore, withholding when not optimal, or not withholding the optimal quantities, might lead to losses. The higher risks involved from withholding under uncertainty implies lower incentives to withhold.
- (113) In light of the energy crisis, the Commission has recently proposed guidance to Member States as well as adopted measures to alleviate the impact of increased gas

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<sup>147</sup> 6:00 to 10:00 and 16:00 to 20:00.

<sup>148</sup> See case M.5224 – *EDF / BRITISH ENERGY*, paragraphs 31-33.

<sup>149</sup> The Commission also asked EPEX to calculate what would have been the market price with the aforementioned withholding scenarios using past data from the Dutch day-ahead market on merit order curve and demand for years 2020 and 2021. However, the price reaction calculated by EPEX did not factor in the potential change in imports, which are likely to be substantial on the Dutch day-ahead market. Therefore, the Commission did not rely on this data to analyse RWE incentives.

prices on electricity prices.<sup>150</sup> The application of a temporary cap on market revenues for certain technologies (wind, nuclear, etc.) directly affects incentives to withhold as it limits the potential gain from a withholding strategy for these technologies. In other words, the temporary price cap limits the possible price increase following withholding, which therefore might not apply to all of RWE's production units. Moreover, the ongoing reform to decouple electricity from gas prices may potentially reduce the Parties' ability and incentive to withhold stemming from flexible gas plants.<sup>151</sup> While these regulatory interventions or potential changes to market design are only temporary, they may further reduce the already low incentives to withhold computed under the Notifying Party's model.

- (114) The limited price impact of the withholding strategy in question was also confirmed by the market investigation. Overall, the large majority of respondents considered that the Transaction would likely have no significant impact on their company or on the market for the generation and wholesale supply of electricity in the Netherlands.<sup>152</sup>
- (115) On the basis of the above, the Commission considers that while RWE may have the ability to engage in a withholding strategy, the incentives for RWE to withhold would be limited, and it is even uncertain whether such a withholding strategy could be profitably implemented post-Transaction considering market uncertainty. Even in case such a strategy could be viably implemented, it would result in a very limited impact on prices. Therefore, the Commission considers that the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement with respect to the market for the generation and wholesale supply of electricity in the Netherlands.

### **5.3. Balancing and ancillary services**

#### *5.3.1. Market shares*

- (116) The Parties' combined market shares in regulation of aFRR at national level in the Netherlands were low in 2021 ([10-20]% combined and [5-10]% upwards, [10-20]% downwards) but higher in 2019 and 2020 ([20-30]% and [20-30]% combined and [10-20]% and [20-30]% upwards and [20-30]% and [20-30]% downwards), as can be seen in Table 6 and Table 7 below.

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<sup>150</sup> Annex 2 to REPowerEU communication on the application of infra-marginal profit fiscal measures (<https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52022DC0108>) and Council regulation on an emergency intervention to address high energy prices (st12999-en22.pdf (europa.eu)).

<sup>151</sup> See State of the Union Address by Commission President von der Leyen, available at [https://ec.europa.eu/commission/presscorner/detail/ov/SPEECH\\_22\\_5493](https://ec.europa.eu/commission/presscorner/detail/ov/SPEECH_22_5493), in which the Commission President presented the objective of decoupling gas and electricity prices.

<sup>152</sup> See responses to questions E.1 and E.3 of eRFI.



**Table 6 – aFFR market shares<sup>153</sup>**

aFFR (average of up and down)	2019		2020		2021	
	MW	%	MW	%	MW	%
[5-10]%RWE	[...]	[10-20]%	[...]	[0-5]%	[...]	[5-10]%
Target	[...]	[5-10]%	[...]	[10-20]%	[...]	[5-10]%
<i>Post-Transaction (RWE + Target)</i>	[...]	[20-30]%	[...]	[20-30]%	[...]	[10-20]%
Vattenfall (excl. Target)	[...]	[20-30]%	[...]	[20-30]%	[...]	[20-30]%
Engie	[...]	[30-40]%	[...]	[30-40]%	[...]	[30-40]%
Eneco	[...]	[10-20]%	[...]	[10-20]%	[...]	[10-20]%
PZEM	[...]	[10-20]%	[...]	[10-20]%	[...]	[10-20]%
<b>Total procured by TenneT</b>	<b>407.0</b>	<b>100%</b>	<b>356.0</b>	<b>100%</b>	<b>361.5</b>	<b>100%</b>

Source: Form CO, Table 114 and Reply to RFI 20.

**Table 7 – aFFR market shares of the Parties split into upwards and downward aFFR<sup>154</sup>**

aFFR market shares	2019		2020		2021	
	MW	%	MW	%	MW	%
<b>aFFR Upwards</b>						
<b>Total procured by TenneT</b>	<b>407.0</b>	<b>100%</b>	<b>356.0</b>	<b>100%</b>	<b>330.3</b>	<b>100%</b>
RWE	[...]	[10-20]%	[...]	[0-5]%	[...]	[0-5]%
Target	[...]	[5-10]%	[...]	[10-20]%	[...]	[5-10]%
<i>Post-Transaction (RWE + Target)</i>	[...]	[10-20]%	[...]	[20-30]%	[...]	[5-10]%
<b>aFFR Downwards</b>						
<b>Total procured by TenneT</b>	<b>407.0</b>	<b>100%</b>	<b>356.0</b>	<b>100%</b>	<b>392.4</b>	<b>100%</b>
RWE	[...]	[10-20]%	[...]	[0-5]%	[...]	[5-10]%
Target	[...]	[10-20]%	[...]	[10-20]%	[...]	[5-10]%
<i>Post-Transaction (RWE + Target)</i>	[...]	[20-30]%	[...]	[20-30]%	[...]	[10-20]%

Source: Form CO, Table 115.

- (117) Notwithstanding these low market shares, several market participants expressed concerns that post-Transaction, RWE would become one of only a few BSPs capable of covering TSO's entire balancing needs.<sup>155</sup> For that reason, some market participants were concerned that RWE could exploit this situation, due to its ability to fulfil all of TenneT's balancing needs, by offering capacity (for TenneT's entire balancing requirements) at a low price to win the activation of reserved capacity (see paragraph (32)). Once that reserve was activated by TenneT, then RWE could profit, by bidding a high balancing energy price, which would be a price that was paid by retailers and, ultimately, consumers (the 'Activation Strategy'). These concerns were investigated during the market investigation.

<sup>153</sup> Since 1st January 2021, bids for upwards and downwards reserve are submitted separately. The Parties provide the average capacity here.

<sup>154</sup> The contracted quantities from the Target are not necessarily symmetric for 2019 and 2020 since Vattenfall submits portfolio bids for aFFR (i.e. the total procured volume from Vattenfall is symmetric but can be split between different power plants in Vattenfall's portfolio).

<sup>155</sup> Minutes of conference calls with market participants on 28 June 2022 and 1 July 2022. Responses to questions E.1 and E.2 of eRFI.

### 5.3.2. *The Notifying Party's view*

- (118) The Notifying Party argues that the Parties' combined shares in the narrowest possible market of aFRR are negligible in 2021 at [10-20]% and do not give rise to an affected market. Market shares would be even lower on a broader balancing and ancillary services market. For that reason, no competition concerns can arise, even if considering separate shares for upwards and downwards regulation of aFRR.<sup>156</sup>
- (119) Furthermore, only the 2021 market shares are a meaningful indicator of the Parties' current position. The reason for the fall in market share in 2021 is due to structural reforms of the market, which were designed to foster liquidity and competition. These reforms consisted of a switch from weekly to daily aFRR tenders in September 2020 and the procurement of separate upwards and downwards regulation of aFRR in January 2021. The effect of these reforms is to allow more players to enter the market, as it is possible for other players, including for example wind farms, to provide aFRR for just one side of the market.<sup>157</sup>
- (120) The Notifying Party also argues that the presence of "free bids" from BSPs does not allow RWE to exploit its position and that, furthermore, there are a sufficient number of competitors in the market.<sup>158</sup>
- (121) In addition, the balancing market is very unpredictable and is opaque, whereas the sole purchaser, TenneT, has full transparency.<sup>159</sup> The Dutch imbalance price system also incentivises BRPs to optimise against imbalance, which could reduce the need for aFRR activations. Higher aFRR energy prices would lead to higher imbalance prices and therefore increase the incentive for BRPs to reduce any imbalance (before the activation of aFRR).<sup>160</sup>
- (122) Future market reforms i.e. the implementation of the Platform for the International Coordination of Automated Frequency Restoration and Stable System Operation ('PICASSO') in 2024 will also increase the competitiveness of the aFRR market in the Netherlands and allow for the activation of aFRR bids from outside of the Netherlands.<sup>161</sup>
- (123) Finally, the balancing and ancillary services market, and the aFRR market, are very small compared to the generation and wholesale supply market. The size of the aFRR market was 723 MW in 2021, compared to an average load of 12,145 MW in the generation and wholesale supply market.<sup>162</sup> The Notifying Party also adds that the national regulatory authority can intervene, in case of a lack of competition.<sup>163</sup>

### 5.3.3. *The Commission's assessment*

- (124) A majority of the respondents to the market investigation indicated that RWE could in theory carry out the Activation Strategy (highlighted in paragraph (117))

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<sup>156</sup> Form CO, paragraphs 480-487.

<sup>157</sup> Form CO, paragraph 469.

<sup>158</sup> Form CO, paragraphs 490-491.

<sup>159</sup> Form CO, paragraph 492.

<sup>160</sup> Form CO, paragraph 494.

<sup>161</sup> Form CO, paragraph 493.

<sup>162</sup> Form CO, paragraph 495.

<sup>163</sup> Form CO, paragraph 496.

above).<sup>164</sup> In addition, the Commission notes that several market participants indicated more generally that the Transaction could have a negative impact on the balancing and ancillary services market.<sup>165</sup> However, the Commission finds that these comments are not supported by the remainder of the findings in the market investigation.

- (125) First, despite the majority considering that it was theoretically possible for RWE to carry out the Activation Strategy, several respondents questioned the likelihood of RWE carrying out such a strategy. One participant added that: “*this could also be a strategy today. Of course the impact increases post-merger, but RWE aims for a diverse portfolio with a lot renewable which might be impacted negatively with such a strategy.*”<sup>166</sup> Other participants considered that such behaviour would be detectable by market participants and indeed, “*RWE would be able to bid for the entire volume but it would be too obvious, a more subtle approach would benefit them more.*”<sup>167</sup> TenneT also considered that the Activation Strategy was unlikely, noting that first, the balancing energy market allowed for free, non-procured bids that could disrupt the strategy and second, that RWE, as a BRP, would be exposed to a high imbalance price as an effect of high balancing energy prices and so would not benefit from such a strategy.<sup>168</sup>
- (126) The replies to the market investigation also confirmed a number of the Notifying Party’s arguments. For example, the vast majority of respondents indicated that the aFRR market was easier to enter, following the recent market reforms introduced in 2021. As noted by TenneT “*we see more renewables and decentral assets being prequalified in order to provide aFRR.*”<sup>169</sup> However, TenneT also confirmed that at present, it was mainly conventional power plants that were delivering aFRR. Even so, the vast majority of market participants also agreed that the presence of “free bids”, namely BSPs without a prior capacity contract, could now compete with BSPs with a capacity contract and would disrupt the Activation Strategy.
- (127) The aFRR market was also widely considered to be non-transparent, further complicating the Activation Strategy. As noted by TenneT: “*All that is published is the total contracted capacity (for FCR, aFRR and mFRRda) and the average contracted price. For aFRR balancing energy TenneT publishes the bid-prices at several points of the MOL in each direction (first and last bids and at 100, 300 and 600 MW); both prior and after Balancing energy gate closure time.*”<sup>170</sup> The ACM also agreed the market was “hard to predict”, that volumes were low and that consequently there would be no impact arising from the Transaction as regards aFRR.<sup>171</sup>
- (128) TenneT, the sole buyer of aFRR services, noted that it tended to contract aFRR services from multiple operators rather than just one,<sup>172</sup> and that the Transaction

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<sup>164</sup> See responses to question D.B.5 of eRFI.

<sup>165</sup> Responses to questions E.1 and E.2 of eRFI.

<sup>166</sup> Response to question D.B.6 of eRFI.

<sup>167</sup> Response to question D.B.6 of eRFI.

<sup>168</sup> Response to question D.B.3 of Request for Information 1 to TenneT.

<sup>169</sup> Response to question D.B.1 of Request for Information 1 to TenneT.

<sup>170</sup> Response to question D.B.5 of Request for Information 1 to TenneT.

<sup>171</sup> Email from ACM to DG COMP on 09/11/2022.

<sup>172</sup> Minutes of a conference call with TenneT on 11 July 2022.

would have a limited impact due to the fact that it was “*unlikely that RWE would be the pivotal party in the balancing market.*”<sup>173</sup>

- (129) Furthermore, the Parties currently have a very limited position in the provision of aFRR services and the Commission has seen no indication that this should increase post-Transaction. As set out in Table 6, competitors such as Vattenfall and Engie have historically provided more aFRR regulation than the Parties and even competitors with a historically lower market share in aFRR such as Eneco and PZEM had a more significant market position in aFRR in 2021 than either of the Parties.
- (130) Finally, the introduction of PICASSO in 2024 is expected by market participants to increase competition although only to a limited degree, as additional volumes would only be supplied in the future where there was available border capacity.<sup>174</sup>
- (131) The Commission considers that the assessment below\*\* applies to both aFRR (overall) and upwards and downwards regulation of aFRR (separately).
- (132) On the basis of the above, the Commission does not consider it likely that RWE could implement the Activation Strategy. The Commission therefore considers that the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement with respect to the market for the provision of aFRR, nor in relation to the markets for upwards and downwards regulation of aFRR in the Netherlands.

#### **5.4. Congestion management**

- (133) The relevant congestion management services in the Netherlands are redispatching and capacity restriction agreements. In this decision the market shares are presented on the narrowest plausible markets, i.e. separately for each of redispatching and capacity restriction agreements.

##### *5.4.1. Market shares*

- (134) For redispatching, as shown in Table 8 below based on gigawatt hours (GWh), the combined market shares of the Parties ranged between [20-30]% and [30-40]% for the period 2019 – 2021, with their individual shares ranging between [0-5] – [10-20]% for RWE and [10-20]% – [30-40]% for the Target.

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<sup>173</sup> Response to question E.1 of Request for Information 1 to TenneT.

<sup>174</sup> Responses to question D.B.10 and D.B.11 of eRFI.

\* Should read: ‘above’.

**Table 8 – Market shares of the Parties in redispatching in the Netherlands** <sup>175</sup>

	2019		2020		2021	
	GWh	%	GWh	%	GWh	%
RWE	[...]	[0-5]%	[...]	[0-5]%	[...]	[10-20]%
Target	[...]	[30-40]%	[...]	[20-30]%	[...]	[10-20]%
<i>Combined</i>	[...]	[30-40]%	[...]	[20-30]%	[...]	[20-30]%
<b>Total activated</b>	<b>588</b>	<b>100%</b>	<b>612</b>	<b>100%</b>	<b>1,302</b>	<b>100%</b>

Source: Table 117, Form CO. The volumes are those that were activated intraday (i.e. after gate closure at the day-ahead auction on the power exchange).

- (135) For both Parties, in this period their shares mainly relate to the provision of downward redispatch (i.e. curtailment of their generation).
- (136) The total redispatching volumes were more than twice as high in 2021 than in the previous years, due to the unavailability in that year of an important power line near Eemshaven. A 4.5-month long upgrading project resulted in the unavailability of the important Diemen-Lelystad transmission line connecting the north and south of the Netherlands, which caused congestion on the parallel transmission lines allowing electricity to be transported between north and south, leading to additional demand for redispatch. This event is reflected in RWE's increased market share for 2021, which mainly relates to downward redispatch (curtailment) of its Eemshaven plant.<sup>176</sup>
- (137) The Diemen-Lelystad transmission line became available again in March 2022. The upgrade to that line led to a reinforcement of transmission capacity (from a 2,500 to a 4,000 ampere connection) which should make future redispatch requirements less likely. The Notifying Party estimates that the Parties' shares for March – September 2022 are [10-20]% for RWE and [0-5]% for the Target ([10-20]% combined).
- (138) For capacity restriction agreements, in 2021 the Parties received combined payments of EUR [...] million (EUR [...] million for RWE, EUR [...] million for the Target), leading to estimated combined market shares in the range of [10-20]% to [10-20].<sup>177</sup>
- (139) Notwithstanding these relatively low market shares, several market participants raised concerns relating to congestion management, specifically relating to redispatching (and not capacity restriction agreements). These market participants consider that the northern part of the Netherlands around Eemshaven is a highly congested area, due to, in summary, relatively high generation and low demand. Pre-Transaction, in the Eemshaven area there are three market players active in generation who TenneT can turn to in order to resolve congestion, i.e. Engie,

<sup>175</sup> The Parties were not able to provide the market shares of their competitors for redispatching (or for capacity restriction agreements) because TenneT is the only party who has access to the necessary data. The Parties submit that TenneT will not provide the Parties with this data as TenneT considers it to be confidential (Response from the Notifying Party to RFI 20).

<sup>176</sup> Form CO, paragraphs 521-522. The increase in RWE's downward dispatch in 2021 was [...] GWh; [...] GWh of that was accounted for by its Eemshaven A and Eemshaven B plants.

<sup>177</sup> Response dated 13/12/2022 from the Notifying Party to RFI 19. The market shares are in a range due to uncertainty for the Notifying Party on which elements of capacity restriction agreements are included by TenneT in its published congestion management costs.

Vattenfall (current owner of Magnum) and RWE (with its coal-fired power Eemshaven plant). Post-Transaction, the merged entity would be one of only two such generators. Given that RWE also has generation plants in other parts of the Netherlands, the market participants who raised concerns therefore allege that RWE could overproduce in the northern part of the Netherlands to create congestion, thereby triggering redispatch requests from TenneT that RWE could benefit from for both negative redispatch (curtailment) in the north and positive redispatch (ramping up) in the south.

#### 5.4.2. *The Notifying Party's view*

- (140) The Notifying Party submits that competition concerns in relation to congestion management services, and redispatching in particular, can be excluded for the following reasons.
- (141) *First*, TenneT has significant countervailing buyer power. TenneT, the only purchaser of congestion management services in the Netherlands, is a large and sophisticated purchaser with full transparency of all bids submitted by the market participants.<sup>178</sup> TenneT is financially incentivised to keep the costs for redispatching services as low as possible by the ACM's "Method Decision" (*Methodebesluit*).<sup>179</sup>
- (142) *Second*, the practice of creating congestion (to benefit from redispatch payments) would be detectable by TenneT. In addition to TenneT having full knowledge of all offers for redispatching services, it will also have simulated the future demand to evaluate grid reinforcements. A sudden increase in the redispatch demand in the north, caused by RWE, would be immediately observable, in particular if it occurs simultaneously with increased redispatch bids from RWE. If TenneT finds that RWE is engaging in such conduct deliberately, it can withdraw RWE's recognition as BRP.<sup>180</sup>
- (143) *Third*, the profitability from such a strategy is unclear given the lack of transparency. RWE has no certainty whether it would be called by TenneT to provide redispatch services and if so how much. There are several gas-fired power plants in the region, including Eemscentrale and Delesto, that would be in competition with RWE and all these plants have an obligation to supply redispatching services as their capacity exceeds 60 MW. Given the significant uncertainty in relation to when congestion could be created and about the level of competing bids, RWE would bear the significant risk of incurring negative margins

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<sup>178</sup> Form CO, paragraphs 550-552.

<sup>179</sup> Form CO, paragraphs 553 – 555. The "Method Decision" states that "*The ACM considers it useful to give TenneT a financial incentive for the costs of congestion management. A financial incentive ensures that TenneT tries to solve transmission constraints as efficiently (i.e., as cheaply) as possible. After all, TenneT does not have to use redispatch services, but can use other measures, such as cancelling scheduled unavailability. TenneT can also deal with structural congestion on the grid by increasing the capacity of the grid. It is therefore important that TenneT feels it has an incentive to minimize the use of redispatch services and to carry out redispatch as cheaply as possible*". Pursuant to the Dutch Electricity Act, the ACM determines the tariffs for carrying out the legal tasks by TenneT (Article 41c of the Electricity Act). The tariffs are based, amongst other things, on the Method Decision, which is determined by the ACM. The current regulation period covers the years 2022-2026.

<sup>180</sup> Form CO, paragraph 556. See Article 10.35(1)(d) Dutch Electricity Grid Code.

if RWE's redispatch bid is not accepted by TenneT and RWE has to generate in unprofitable hours/days with negative margins (which, under this hypothetical strategy, RWE would only have generated with the aim of triggering a curtailment request).<sup>181</sup>

- (144) *Fourth*, RWE has limited ability to create (additional) congestion. The two RWE conventional power plants in the north, Eemshaven A and B, [information about RWE plants' utilisation rates] when the Target is activated for negative redispatch. When producing at maximum capacity prior to the implementation of the abovementioned hypothetical strategy, [information about RWE's production capacity] with the purpose of triggering requests for additional curtailment.<sup>182</sup>
- (145) In addition, the upgrade of the Diemen-Lelystad transmission line connecting the north and south of the Netherlands, discussed at paragraph (137) above, should, by itself, reduce the likelihood of congestion in the future and therefore reduce future redispatch requirements. As such, it is unclear whether, after those grid reinforcements, the two Eemshaven plants would be even large enough to produce congestion on the increased transport capacity.<sup>183</sup>
- (146) *Fifth*, sufficiently credible competitors will continue to exert pressure on the merged entity. Those who are obliged to submit bids (as outlined at paragraph (51) above) includes the five largest generators (Engie, Eneco, RWE, Uniper and Vattenfall) and several of the medium-sized and smaller generators (e.g. EPZ Akzo Nobel, Dow, Onyx Power, Air Liquide, Shell and EDF). Additionally, parties with connection capacities below 60 MW can submit bids on a voluntary basis (and/or upon the request of TenneT). As a result, TenneT has access to a number of credible alternatives to which it could switch easily and immediately (i.e. by simply selecting a bid or reaching out to suppliers).<sup>184</sup>
- (147) *Sixth*, the redispatching bidding process is competitive and lacks transparency. The Parties and other redispatch providers have no transparency over TenneT's selection and decision process when submitting their bids and they submit their bids (for every quarter-hour for each available power plant) without knowing for what this capacity could be used. They have no information on the bids submitted by any of their competitors, the location or size of the congestion that is being resolved by the respective redispatch, or the leverage a specific power plant has in solving a specific congestion issue (which depends on which gridlines can be used to resolve the connection and on the location of the plant in relation to the location of the congestion).<sup>185</sup>
- (148) *Seventh*, TenneT's increase of transport capacity will reduce the need for redispatching services. To solve the transmission bottlenecks in the Eemshaven area, TenneT is increasing the transport capacity between Eemshaven and Diemen via two main projects: (i) the construction of a new 380 kV connection between Eemshaven Oudeschip and Vierverlaten (to be operational by 2024); and (ii) the extension of existing 380 kV connections to 2 x 2,635 megavolt-amperes (MVA)

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181 Form CO, paragraphs 557-560.

182 Form CO, paragraph 561.

183 Form CO, paragraph 562.

184 Form CO, paragraphs 563-564.

185 Form CO, paragraphs 565-566.



connections between Diemen and Lelystad, Lelystad and Ens as well as Ens and Zwolle (to be operational between 2020 to 2024). The outlined investments of TenneT in new and upgraded transmission infrastructure will increase the transmission capacity between north and south of the Netherlands and thereby reduce congestion on these lines. This will in turn lead to a reduction in the demand for redispatch, and therefore the Parties' activities in the redispatch market are expected to decrease.<sup>186</sup>

- (149) *Finally*, the Notifying Party notes that redispatching volumes are very small. In 2020, for example, the ratio of redispatch volumes as compared to total electricity generation in the Netherlands was only 0.5% and the ratio between both Parties (RWE + Target) redispatch volumes as compared to both Parties generation volumes was only [...]%.<sup>187</sup>

#### 5.4.3. *The Commission's assessment*

- (150) A majority of the respondents to the market investigation considers that RWE's ability to cause congestion would increase post-Transaction.<sup>188</sup>
- (151) A majority also considers that when a specific congestion event occurs, generators have a high level of certainty as to whether they are likely to be called on by TenneT to provide redispatching services.<sup>189</sup> One respondent commented that "*Congestion in the Eemshaven area is well known, owning an asset there makes it pretty likely that TenneT will call when this problem occurs*". However, other respondents point to there being "*multiple solutions available to TenneT in order to resolve a congestion event*" (i.e. due to there always being two inter-related transactions for curtailment and ramping-up in and outside the congested area as outlined in paragraph (48)) and that the "*market and the bid ladder determine who shall be called upon*".<sup>190</sup> Therefore, the Commission considers that, while generators may have some knowledge of the likelihood of being called on by TenneT to provide redispatching services, uncertainties relating to redispatching will always remain for generators.
- (152) Although a majority of the respondents to the market investigation considered that, in theory, it is likely that a generator with plants throughout the Netherlands would benefit overall from the behaviour outlined in paragraph (139),<sup>191</sup> a majority also considers it unlikely that, post-Transaction, RWE would deliberately cause congestion in order to trigger redispatch requirements.<sup>192</sup> One respondent who considered it "*highly unlikely*" that RWE would deliberately cause congestion explained that "*[d]ue to the size of the assets held by RWE, we consider that any unexpected behaviour would be detectable*".<sup>193</sup>

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<sup>186</sup> Form CO, paragraphs 568-576.

<sup>187</sup> Form CO, paragraph 577.

<sup>188</sup> See responses to question DC11 of the eRFI and the response to question D.C.6 of Request for Information 1 to TenneT.

<sup>189</sup> See responses to question DC3 of the eRFI.

<sup>190</sup> See responses to question D.C.4 of the eRFI. The "bid ladder" lists information (e.g. price and capacity) for all the bids for each 15-minute period.

<sup>191</sup> See responses to question D.C.5 of the eRFI.

<sup>192</sup> See responses to question D.C.13 of the eRFI.

<sup>193</sup> See responses to question D.C.14 of the eRFI.



- (153) Furthermore, no respondents substantiated any suggestion that there have been instances where a generator in the Netherlands caused congestion in order to trigger redispatch requirements.<sup>194</sup> TenneT confirmed that it has no evidence that such conduct has ever occurred.<sup>195</sup>
- (154) The ACM does “*not think that RWE could create congestion in the north to benefit from that*” due to the “*grid configuration in the near future*” and “*the upgrade to the north/west connection*”.<sup>196</sup> Indeed, the replies to the market investigation confirmed the Notifying Party’s argument that the recent upgrade of the Diemen-Lelystad transmission line has reduced congestion in the north and the need for redispatching.<sup>197</sup>
- (155) The Commission considers that, based on the conditions prevailing prior to the recent upgrades (including to the Diemen-Lelystad transmission line), there appears to have been a theoretical likelihood that, post-Transaction, RWE could create congestion and would have had some certainty as to whether it would be called by TenneT to provide redispatching services. However, with the upgrades, the Commission notes that in the future there will likely be less congestion and less demand from TenneT for redispatching.
- (156) The fact that there is no evidence that a generator in the Netherlands has ever deliberately caused congestion, taken together with the risks inherent in attempting to benefit from causing congestion (the risks of detection by TenneT and/or the ACM, with the subsequent risk of a fine and having its recognition as BRP withdrawn pursuant to Article 10.35 of the Dutch Electricity Grid Code, and the risk of losing money through producing at unprofitable times where RWE would incur negative margins, as outlined in paragraph (143)), leads the Commission to conclude that the Transaction will not lead to a situation where RWE would engage in the anti-competitive behaviour of creating congestion to benefit from redispatching payments.
- (157) On the basis of the above, the Commission considers that the Transaction does not raise serious doubts as to its compatibility with the internal market or the functioning of the EEA Agreement with respect to the overall market for the provision of congestion management services, or its possible sub-segments for capacity restriction agreements or redispatching, in the Netherlands.

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<sup>194</sup> See responses to questions D.C.1 and D.C.2 of the eRFI.

<sup>195</sup> Response to question D.C.1 of Request for Information 1 to TenneT.

<sup>196</sup> Email from ACM to DG COMP on 09/11/2022.

<sup>197</sup> See responses to question D.C.17 of the eRFI and the response to question D.C.8 of Request for Information 1 to TenneT.

**6. CONCLUSION**

- (158) For the above reasons, the European Commission has decided not to oppose the notified operation and to declare it compatible with the internal market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of the Merger Regulation and Article 57 of the EEA Agreement.

*For the Commission*

*(Signed)*  
*Margrethe VESTAGER*  
*Executive Vice-President*