EUROPEAN COMMISSION

Brussels, 5.12.2024
C(2024) 8770 final

**PUBLIC VERSION**

In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EC) No 139/2004 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus […]. Where possible the information omitted has been replaced by ranges of figures or a general description.

Veolia Invest Hungary Zrt.
Szabadság út 301
2040 Budaörs
Hungary

**Subject:** **Case M.11515 - VEOLIA ENVIRONNEMENT / UNIPER HUNGARY ENERGETIKAI**
**Commission decision pursuant to Article 6(1)(b) of Council Regulation No 139/2004[1] and Article 57 of the Agreement on the European Economic Area[2]**

Dear Sir or Madam,

(1) On 30 October 2024, the European Commission received notification of a proposed concentration pursuant to Article 4 of the Merger Regulation by which Veolia Invest Hungary Zrt. ('Veolia Hungary', Hungary), controlled by Veolia Environnement S.A. ('Veolia', France), acquires sole control of Uniper Hungary Energetikai Kft. ('Uniper Hungary' or the 'Target', Hungary) within the meaning of Article 3(1)(b) of the Merger Regulation, (the 'Transaction').[3] Veolia Hungary is hereafter referred to as the 'Notifying Party' and, together with Uniper Hungary, as 'Parties' to the proposed Transaction.

[1] 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.
[2] OJ L 1, 3.1.1994, p. 3 (the 'EEA Agreement').
[3] OJ C/2024/6788, 7.11.2024.

## 1. THE PARTIES

(2) **Veolia Hungary** provides water, waste and energy management solutions in Hungary, and notably operates gas-fired and biomass power plants in ten locations. Veolia, which is Veolia Hungary's ultimate parent company, is active globally in water, waste, and energy management.

(3) **Uniper Hungary** owns and operates the Gönyű power plant, a combined cycle gas turbine ('CCGT') power plant located in the north-western part of Hungary, which has an installed total capacity of 428 megawatts ('MW'). Uniper Hungary is controlled pre-Transaction by Uniper SE ('Uniper' or the 'Seller'), which is ultimately controlled by the Federal Republic of Germany.

## 2. THE TRANSACTION

(4) The Transaction consists of the acquisition of sole control by Veolia Hungary over the Target through the acquisition by Veolia Hungary of 100% of the share capital and voting rights of the Target from its current sole shareholder Uniper. The Transaction will be implemented by way of a share and purchase agreement signed on 14 February 2024. It follows that the Transaction is a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.

(5) The divestment of Uniper Hungary is part of the structural commitments (which include the sale of a number of Uniper's assets, among which the sale of the Gönyű power plant) made under the Commission's decision approving the EUR 34.5 billion German aid measure to recapitalize Uniper in the context of Russia's war against Ukraine.[4]

## 3. UNION DIMENSION

(6) The undertakings concerned have a combined aggregate world-wide turnover of more than EUR 5 000 million[5] (Veolia: EUR 45.4 billion; Uniper Hungary: […] ). Each of the Parties has a Union-wide turnover in excess of EUR 250 million (Veolia: […]; Uniper Hungary: […]). While Uniper Hungary achieves the totality of its turnover in Hungary, Veolia does not achieve more than two-thirds of its aggregate Union-wide turnover within this Member State. The Transaction therefore has a Union dimension pursuant to Article 1(2) of the Merger Regulation.

## 4. MARKET DEFINITION

### 4.1. Introduction to balancing and ancillary services

(7) The Transaction concerns the markets for balancing and ancillary services in Hungary.

(8) Balancing and ancillary services are services provided to transmission system operators ('TSO') by balancing services providers ('BSP') for the TSO's task of load frequency control, i.e., to maintain the frequency of the electricity grid within

4 Case SA.103791 – Germany – Recapitalisation of Uniper, paragraphs 89-91.

5 Turnover calculated in accordance with Article 5 of the Merger Regulation.

a narrow bandwidth (at a frequency of 50 Hz)[6], to avoid critical imbalances or even blackouts. BSPs are electricity producers, such as the Parties, that have been prequalified (or "accredited") by the Hungarian TSO, i.e., Mavir[7], to provide specific balancing and ancillary services.[8]

(9) Each TSO is responsible for the load frequency control ('LFC') in their own load frequency control area ('LFC area').[9] For Hungary, the LFC area coincides with the bidding zone.[10][11] The Hungarian LFC area is located within the synchronous area of "Continental Europe", which means that Hungary is interconnected with other continental European countries to form one synchronous electrical transmission grid.

(10) Mavir ensures a constant balance between electricity production and consumption through the procurement and activation of upward and downward balancing services. Upward balancing (i.e. increase of power) is required if there is not enough electricity or too much demand in the grid and the frequency drops below 50 Hz. Downward balancing (i.e. decrease of power) is required if there is too much electricity or too little demand in the grid and the frequency exceeds the target frequency of 50 Hz. To a certain extent, "balancing" between surplus offer and demand is done in the intraday (wholesale) market. Only to the extent that intraday trading does not fully resolve imbalances would the TSO resort to activation of balancing reserves. Figure 1 below shows the procurement of balancing reserves in parallel to the trading in the wholesale markets and their activation in real time to delivery.

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6 In Europe, standard network frequency is 50 Hertz.

7 See, https://www.mavir.hu/web/mavir-en.

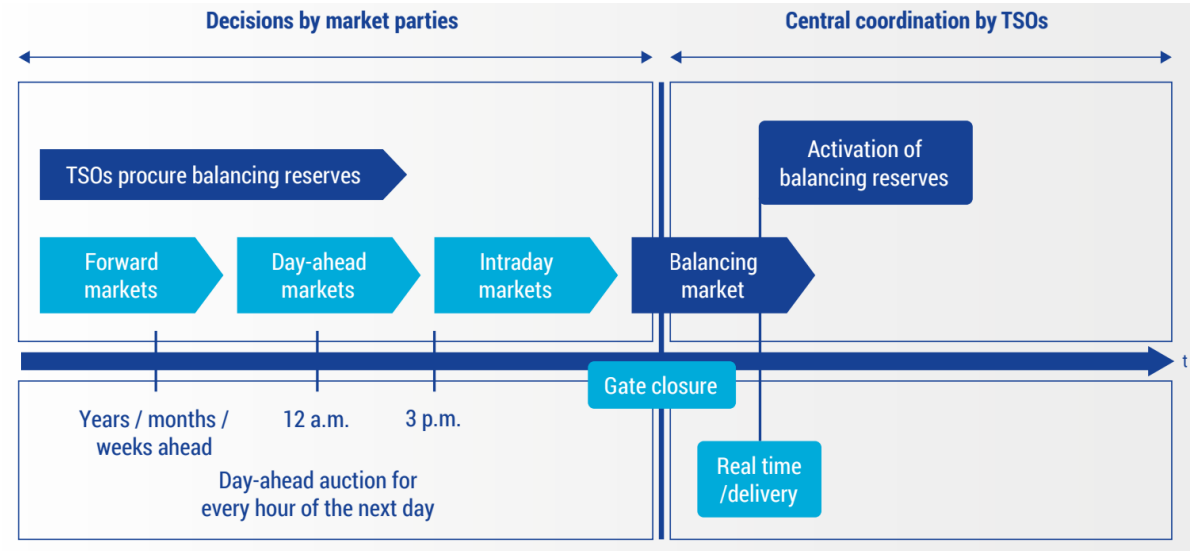
8 Form CO, paragraph 126. BSPs need to obtain product-specific accreditation per balancing service they intend to provide, i.e., separately for Frequency Containment Reserves ('FCR'), automatic Frequency Restoration Reserve ('aFRR') and manual Frequency Restoration Reserve ('mFRR'); see minutes of conference call with Mavir, 15 May 2024, paragraphs 7-11.

9 LFC area means a part of a synchronous area or an entire synchronous area, physically demarcated by interconnectors to other LFC areas, operated by one or more TSOs fulfilling the obligations of load-frequency control, see Article 3.2(12) of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing ('Electricity Balancing Guideline').

10 A bidding zone is the largest geographical area in which bids and offers from market participants can be matched without the need to attribute cross-zonal capacity. Currently, bidding zones in Europe are mostly defined by national borders. See, e.g., https://www.acer.europa.eu/electricity/market-rules/capacity-allocation-and-congestion-management/bidding-zone-review.

11 Article 3 of Determination of LFC blocks for the Synchronous Area Continental Europe, amended on 11 February 2022, based on Article 141(2) of Commission Regulation (EU) 2017/1485 establishing a guideline on electricity transmission system operation (available at https://www.acer.europa.eu/electricity/implementation-monitoring/so).

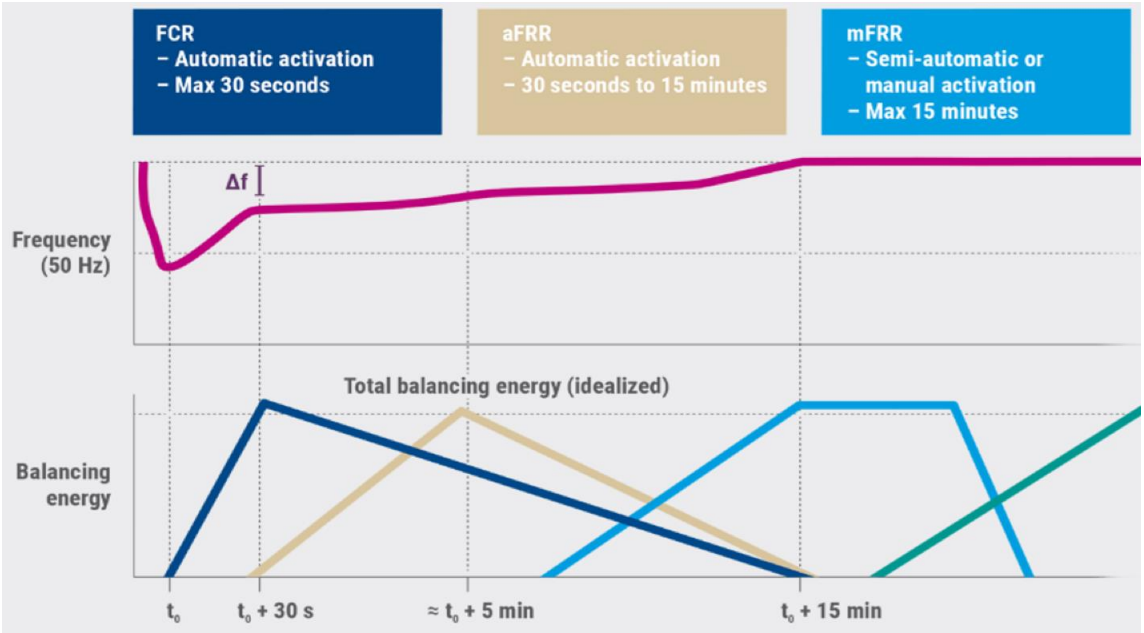
**Figure 1 – Overview of different time frames of the electricity wholesale and balancing markets**




*Source: ENTSO-E, Market Report 2023.*

(11) Mavir procures FCR, aFRR and mFRR capacity which BSPs commit to reserve, i.e., not to use for concurrent activities in other markets such as the electricity wholesale markets. If an imbalance occurs in Hungary, Mavir sends an automated request for FCR and aFRR activation to those BSPs who have committed to reserve the relevant capacity. If the imbalance persists, Mavir manually requests mFRR activation from relevant BSPs. The chronological sequence of the services activated by Mavir is schematically represented in Figure 2 below.

**Figure 2 – Overview of services and process of frequency restoration**




*Source: ENTSO-E, Market Report 2020.*

(12) Depending on response time, activation method and the available energy volume, three main balancing services (comprising both capacity reservation and energy activation) can be distinguished. These are:

(a) Primary regulation reserves or Frequency Containment Reserves (FCR): The aim of FCR is to stabilise frequency disturbances and it is activated automatically, within seconds, in response to frequency changes. Mavir procures on average about 40 MW[12] of FCR capacity.[13]

(b) Secondary regulation reserves or automatic Frequency Restoration Reserve (aFRR): aFRR is activated automatically with a full activation time in Hungary of currently up to 15 minutes, which means that BSPs have 15 minutes to deliver their full energy after receiving the request from Mavir. As of 2026, the full activation time will be reduced to 5 minutes, to align with the harmonized European aFRR standards.[14] In 2023, Mavir procured on average about 177,258 MW[15] of upward aFRR ('aFRR+') capacity and 245,810 MW of downward aFRR ('aFRR-') capacity per month and an average of 4,555 MWh[16] of aFRR+ energy and 30,502 MWh of aFRR- energy per month, with a maximum 15-minute activation of around 200 MW of aFRR+ and 500 MW of aFRR- in September 2024, latest month for which data is publicly available.[17]

(c) Tertiary regulation reserves or manual Frequency Restoration Reserve (mFRR): mFRR is activated manually, in contrast to FCR and aFRR, and its full activation time is typically of 15 minutes (in Hungary currently of 12,5 minutes).

(13) Not all electricity generating technologies are equally suitable to provide all types of balancing services, given the differences in activation time and activation method: whereas aFRR-accredited power plants in Hungary are equally suitable to provide mFRR services, the opposite is not true, since aFRR requires the BSP to be able to activate automatically. mFRR services can therefore be provided from a larger variety of sources (nuclear, biomass etc.), compared to aFRR services which are mainly supplied by natural gas and, to a lesser extent, by renewable energy sources.[18]

(14) Regarding aFRR more specifically, Mavir procures aFRR services in a two-step bidding process:

(a) **Capacity reservation** – In a first step, Mavir launches a "capacity tender" to which BSPs respond by pledging to reserve a certain amount of balancing capacity in the future ('capacity bid'). If successful, BSPs are remunerated

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12 Corresponding to Hungary's share of the total power of 3000 MW positive and negative FCR that are constantly ready for activation across European LFC zones to ensure the grid stability in the Continental Europe synchronous area. The amount of 3000 MW represents the cumulative power of the two largest power plants in the synchronous area.

13 See Hungarian Energy and Public Utility Regulatory Authority, Magyar Energetikai és Közmű-szabályozási Hivatal ('MEKH'), Monthly market monitoring reports for electricity for the month of September 2024 (hereinafter 'MEKH September 2024 Report'), slide 41, available at: https://www.mekh.hu/download/8/2d/81000/MonthlyReport_EL_SEP_2024.pdf.

14 Minutes of conference call with Mavir, 15 May 2024, paragraph 5.

15 Reserve capacity is usually expressed in MW, as Mavir reserves a certain power range that is put on "standby" to be ready to respond to sudden frequency deviations if called upon.

16 Contrary to aFRR capacity, which is expressed as a power range (in MW), aFRR energy designates the volume of electricity (in MWh) being fed into or taken out of the power grid over a given period of time.

17 MEKH September 2024 Report.

18 Minutes of conference call with Mavir, 15 May 2024, paragraph 10.

for the mere reservation of capacity, irrespective of whether the capacity is subsequently activated by Mavir.

Mavir procures aFRR capacity through two distinct tender types, each separately for upward and downward aFRR capacity: monthly tenders and daily tenders (both day-ahead and intra-day).[19] Monthly tenders are multi-round tenders, whereas daily tenders are single round. Monthly tenders represent 66% of aFRR+ and 59% of aFRR- procured capacity, and daily tenders represent 34% of aFRR+ and 41% of aFRR- procured capacity in 2024[20].[21] While all accredited BSPs can participate in daily aFRR capacity tenders, monthly aFRR capacity tenders are not open to photovoltaic systems and Battery Energy Storage Systems ('BESS').[22]

aFRR capacity is remunerated by Mavir on a pay-as-bid basis, meaning that successful bids are remunerated at their actual bid price.[23]

(b) **Energy activation** – In a second step, Mavir launches an "energy tender", to which BSPs respond by submitting an "energy bid" which, if selected, will be activated by Mavir in the event of imbalance. BSPs having won the first tender (*i.e.*, capacity tender) are obliged to participate in this second tender (*i.e.*, energy tender). Other accredited BSPs can, however, also place bids in energy tenders as so-called "free bids".

Mavir procures aFRR energy exclusively through intra-day tenders, with separate tenders for aFRR+ and aFRR- energy. Intra-day energy tenders are single round tenders, where bids can be placed from 12:00 the day before until 25 minutes before delivery, i.e., the period for which balancing energy is being procured ('gate closure time').[24]

aFRR energy bids are currently also paid as bid, although Mavir will switch to a pay-as-cleared model when Hungary joins the European Platform for the International Coordination of Automated Frequency Restoration and Stable System Operation ('PICASSO'),[25] as described in more detail further below.[26] In a pay-as-cleared model, all successful BSPs are remunerated at a uniform price which is determined by the offer price of the last infra-marginal unit.

(15) Mavir, in turn, is remunerated for its procurement cost for aFRR capacity and aFRR energy in different ways, depending on the services procured.

(16) For its aFRR capacity reservation costs, final electricity consumers pay a network usage fee proportionate to their electricity consumption. The network usage fee is set annually by the Hungarian Energy and Public Utility Regulatory Authority, MEKH, based on Mavir's expected justifiable network operation costs. For 2024, MEKH has set the network usage fee to 6.80 HUF/kWh (for large consumers connected directly to the high voltage transmission network) and 8.68 HUF/kWh (for households and smaller businesses connected to the local distribution

19 See replies of Mavir to RFI 3, question 4.
20 January to June 2024.
21 Form CO, Table 38.
22 Minutes of conference call with Mavir, 11 October 2024, paragraph 24. See also, Form CO, Table 38.
23 Form CO, paragraph 87.
24 Form CO, Table 38 and paragraph 457.
25 See, e.g., https://www.entsoe.eu/network_codes/eb/picasso/.
26 Form CO, paragraph 263.

network).[27] For 2025, MEKH has decided to leave the network usage fee unchanged.[28] Mavir's balancing costs for all balancing capacity services combined, i.e. FCR, aFRR and mFRR, account for approximately 79% thereof.[29] On this basis, the cost of balancing capacity procurement (all balancing services combined) for an average household in Hungary[30] translates into approximately HUF 1,372 (or EUR 3.48) per month. Given MEKH's decision to leave the network usage fee level unchanged for 2025, the impact of Mavir's balancing costs on end-consumers will therefore remain identical at least until the end of 2025.

(17) For its aFRR energy activation costs, Mavir does not invoice the final consumer, but instead settles the amount with the entities responsible for the respective imbalances.[31]

(18) In relative terms, the markets for the provision of aFRR capacity and aFRR energy are small compared to the generation and wholesale of electricity in Hungary. Based on the Notifying Party's best available estimates, the market size for the provision of aFRR capacity was less than 7% compared to generation and wholesale of electricity, and the market for the provision of aFRR energy amounts not even to 1% compared to generation and wholesale of electricity, as shown in Table 1 below.

**Table 1 – Market size (in revenue, EUR) for the generation and wholesale of electricity, provision of aFRR capacity and aFRR energy in Hungary, in 2023**

| Market size in 2023 (million EUR) | | |
|---|---|---|
| **Electricity generation and wholesale** | **aFRR capacity** | **aFRR energy** |
| 4,719.7 | 315.3 | 46.1 |

*Source: Notifying Party's response to RFI 27, question 2, based on publicly available data from Mavir, MEKH, and the Hungarian electricity exchange HUPX. Amounts in HUF converted to EUR based on the European Central Bank's average HUF-EUR exchange rate for 2023.*

(19) The Transaction only gives rise to affected markets in aFRR, which is the focus of this Decision.[32]

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27 See https://www.mekh.hu/download/3/ff/51000/H5847_2023.pdf, page 92.

28 See https://mekh.hu/megjelentek-a-villamos-energia-jovo-evi-rendszerhasznalati-dijai with further references.

29 See https://www.mekh.hu/download/3/ff/51000/H5847_2023.pdf, page 29.

30 See Hungarian Central Statistical Office, Monthly average electricity consumption per household consumer in Hungary for 2023 (which was 197.6 kWh nationwide), available at https://www.ksh.hu/stadat_files/kor/en/kor0068.html.

31 Each electricity supplier or buyer with a connection to the transmission grid carries a balance responsibility and must be connected to a balance responsible party ('BRP'). BRPs are responsible to correctly forecast production and consumption of their portfolio of grid access points and to exchange excess demand or supply with other BRPs. A BRP is financially responsible for any remaining imbalances that occur in their portfolio grid allocation points.

32 The Transaction also results in horizontal overlaps in the market for the supply of mFRR services and in the market for generation and wholesale supply of electricity as well as in a vertical link regarding the purchase of natural gas which is an input for the generation of electricity. However, these overlaps and vertical link do not give rise to affected markets within the meaning of recital 25(g) Annex I to Commission Regulation (EU) 2023/914 implementing Council Regulation (EC) No 139/2004 (OJ L 119, 5.5.2023, p. 22), as they meet the condition for review under point 5(d) (i) (aa) and (ii) (aa) of the Commission Notice on a simplified treatment for certain concentrations under Council Regulation (EC) No 139/2004 (OJ C 160, 5.5.2023, p. 1) and as there are no indications, that the Transaction would otherwise give rise to serious doubts as to its compatibility with the internal market or the

## 4.2. aFRR services

### *4.2.1. Product market definition*

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

(20) 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.[33]

(21) The Commission has previously considered whether balancing and ancillary services should be divided into markets at least for (i) FCR, (ii) aFRR, and (iii) mFRR, based on the order of activation and the magnitude of frequency deviation.[34] While in the past leaving this question open,[35] the Commission has in a recent decision, considered that there are separate product markets for the provision of FCR, aFRR and mFRR services.[36]

(22) Within aFRR, the Commission has considered segmenting between the upward (aFRR+) and downward (aFRR-) regulation of aFRR, but ultimately left the question open.[37]

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

(23) The Notifying Party considers that the relevant product market is the market for balancing and ancillary services without any further segmentation. The Notifying Party however submits that the market definition can ultimately be left open as no competition concerns would arise from the Transaction.[38]

(24) *First*, aFRR and mFRR are substitutable to a significant extent: aFRR-accredited power plants can and do compete for the provision of mFRR services in Hungary. Moreover, players in the mFRR segment can shift to aFRR with limited investment.[39]

(25) *Second*, from a demand perspective, FCR, aFRR, and mFRR can be used to meet the same need, with the activation time being the main difference. In Hungary, small imbalance levels are covered with FCR, which can be automatically activated and fully ramped up within seconds. However, FCR is generally limited in Hungary due to the limited sources of electricity generation suitable for immediate

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functioning of the EEA Agreement with respect to the markets for the supply of mFRR services, for generation and wholesale supply of electricity, and for the purchase of natural gas. Therefore, these markets will not be assessed in detail in this Decision. The Parties' activities do not overlap in the market for FCR.

33 See cases M.10713 – *RWE / Newco Eemshaven*, paragraph 39; M.9626 – *PKN ORLEN / ENERGA*, paragraph 21 and M.8660 – *FORTUM / UNIPER*, paragraphs 19, 69 et seq.

34 See cases M.9626 – *PKN ORLEN / ENERGA*, paragraph 22 and M.8660 – *FORTUM / UNIPER*, paragraphs 54, 78.

35 See cases M.9626 *PKN ORLEN / ENERGA*, paragraph 25 and M.8660 *FORTUM / UNIPER*, paragraph 78.

36 See case M.10713 – *RWE / NEWCO EEMSHAVEN*, paragraph 42.

37 See cases M. M.8660 – *FORTUM / UNIPER*, paragraph 311 and M.10713 – *RWE / NEWCO EEMSHAVEN*, paragraph 42.

38 Form CO, paragraphs 93, 100.

39 Form CO, paragraph 93.

response services. When more balancing energy is needed, Mavir may activate additional aFRR or mFRR energy.[40]

(26) *Third*, the Notifying Party considers that a further segmentation between upward regulation of aFRR (aFRR+) and downward regulation of aFRR (aFRR-) is not relevant as BSPs offer both services and are procured by Mavir in identical tendering procedures.[41]

(27) *Fourth*, the Notifying Party considers that a segmentation between capacity reservation and energy activation is not justified either, as, in essence, they simply correspond to different stages in Mavir's process to procure balancing services. The Notifying Party submits that no BSP exclusively participates in the balancing energy market, as those offering aFRR services are also incentivized to join aFRR capacity tenders to maximize revenue from both energy and capacity fees.[42]

4.2.1.3. The Commission's assessment

(28) All respondents to the Commission's market investigation that expressed a view confirmed the Commission's past practice that the provision of balancing and ancillary services is a distinct market, separate from the generation and wholesale supply of electricity.[43] The Hungarian NCA (GVH) has adopted a similar approach in Hungary, distinguishing balancing and ancillary services from the electricity generation and wholesale market in its decisional practice.[44]

(29) With regard to the distinction between FCR, aFRR and mFRR, the market investigation results suggest that FCR constitutes a separate market from aFRR and mFRR, given that not all generation units active in the provision of aFRR or mFRR services are also active in FCR.[45] Regarding the possible distinction between aFRR and mFRR, Mavir notes that "*the accreditation process is different depending on the type of service*" and that the requirements to prequalify for mFRR are less stringent than for aFRR, resulting in aFRR-accredited plants being technically suitable to provide mFRR services but not the opposite.[46] As a result, the generation technologies used for mFRR are much more varied than for aFRR services: while predominantly natural gas-fired plants and photovoltaic plants were pre-qualified to provide aFRR services in 2023, mFRR services were provided, in addition to natural gas and photovoltaics, from a mix of generation sources based on biogas, biomass, diesel, lignite, nuclear and oil. Indeed, around 40% of the mFRR-accredited capacity is not accredited for aFRR.[47] Based on these elements, the Commission considers that there are separate markets for (i) FCR, (ii) aFRR and (iii) mFRR.

(30) Within aFRR, all BSPs expressing a view indicated that the procurement of aFRR capacity and of aFRR energy constitute two separate markets. Market participants pointed to differences in applicable pricing methods, the existence of separate tenders and to the fact that some BSPs are not authorized to participate in all aFRR

40 Form CO, paragraphs 94-97.
41 Form CO, paragraph 98.
42 Form CO, paragraph 99.
43 Replies to eRFI to competitors (BSPs), question B.1.
44 GVH decision of 1 December 2020 in case VJ/37-22/2020, paragraph 72.
45 Replies to eRFI to competitors (BSPs), question B.3.
46 Minutes of conference call with Mavir on 15 May 2024, paragraphs 8-11.
47 Form CO, Table 11.

capacity tenders,[48] whereas for aFRR energy bids, all aFRR-accredited BSPs are allowed to participate.[49] Mavir confirmed that aFRR capacity and aFRR energy are procured in two separate steps, with aFRR capacity being procured via a mix of monthly and daily tenders, whereas aFRR energy is only procured via daily bids.[50] Furthermore, Mavir confirmed that some technologies, such as photovoltaics and BESS, are not allowed to participate in monthly aFRR capacity tenders, whereas they are allowed to participate in aFRR energy bids.[51] Moreover, while the majority of BSPs explain that they are equally successful in aFRR capacity tenders and aFRR energy bids, a non-negligible minority of BSPs stated that they are typically more successful in aFRR capacity tenders.[52]

(31) Due to the Parties' specific focus of their activities in the Hungarian aFRR sector, which leads them to be particularly strong in the provision of downward aFRR capacity and energy during winter months, the Commission considered a potential further segmentation of the aFRR energy and aFRR capacity markets by (i) direction of regulation (i.e., up- or downward), and (ii) season of the year (i.e., winter or summer months[53]). In both regards, the market investigation was inconclusive.

(a) *Upward regulation of aFRR and downward regulation of aFRR.* Mavir is procuring upward and downward regulation via separate tenders for both aFRR energy and capacity.[54] The results of the market investigation indicate that the large majority of BSPs can provide both aFRR+ and aFRR- services, with one market participant noting that "*our portfolio is able to provide both aFRR+ and aFRR- and to maximize our options we participate in both services equally*".[55] However, some BSPs, in particular those relying on photovoltaic assets almost only provide aFRR- services, as was confirmed in the market investigation.[56] One market participant notes that "*although [photovoltaics] are technically capable to do so, in the case of aFRR+, the economic risk is high for PVs* [i.e., photovoltaics], *so they prefer not to participate in this [aFRR+] tender*."[57] Another market participant notes that "*PV sources can be used for aFRR- balancing in case of overproduction because production can be reduced easily. PVs cannot be used for aFRR+*".[58] The Hungarian Ministry of Energy further stated regarding the currently deployed photovoltaic production assets in Hungary that "*balancing services of PV are limited to aFRR-*".[59]

(b) *Seasonality*. The vast majority of BSPs expressing a view stated that they are active both in winter and summer months on the aFRR+ and aFRR- markets. While a slight majority of BSPs expressing a view indicated that they do not

48 Replies to eRFI to competitors (BSPs), questions B.6 and B.8.
49 Form CO, Table 38.
50 Minutes of conference call with Mavir on 15 May 2024, paragraph 13 and Mavir's response to RFI 8, question 2.
51 Minutes of conference call with Mavir on 11 October 2024, paragraphs 23-24.
52 Replies to eRFI to competitors (BSPs), question B.7.
53 For the purpose of this case, the Commission has divided the year into two, instead of four, seasons, based on the average household heating period between November and April defined as "winter" and the remaining months defined as "summer".
54 Minutes of conference call with Mavir on 15 May 2024, paragraph 15.
55 Replies to eRFI to competitors (BSPs), question B.4.
56 Replies to eRFI to competitors (BSPs), questions B.4 and D.B.1.
57 Replies to eRFI to competitors (BSPs), question D.B.2.
58 Minutes of conference call with a competitor on 4 September 2024, paragraph 6.
59 Minutes of conference call with the Ministry of Energy on 25 September 2024, paragraph 11.

face a significant advantage or disadvantage between summer and winter months for aFRR+, the majority of BSPs expressing a view stated that, for aFRR-, they face either a significant advantage or disadvantage depending on the winter or summer periods. One respondent stated that "*[m]any of our asset[s] in our portfolio [are] CHP* [i.e., combined heat and power] *asset[s] and in the winter period the increased heat demand makes it increasingly profitable to service these needs even when it is required to be switched off of the electricity grid for aFRR-*".[60] Another respondent pointed to the fact that photovoltaic systems have lower production levels in winter.[61]

(32) In light of the above, the Commission considers that balancing and ancillary services constitute a separate product market from the generation and wholesale supply of electricity. With regard to balancing and ancillary services, the Commission further considers the provision of (i) FCR, (ii) aFRR and (iii) mFRR services, respectively, to constitute separate product markets. With regard to aFRR services, more specifically, the Commission considers the provision of (i) aFRR capacity and of (ii) aFRR energy to constitute separate product markets. The question of whether the product markets for the provision of aFRR capacity and aFRR energy should be further segmented between (i) upward and downward regulation and (ii) according to seasonality 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.

(33) The Commission will therefore assess the Transaction based on the narrowest plausible market segments based on the Parties' activities, i.e., both the aFRR capacity market and the aFRR energy market respectively segmented by (i) the direction of regulation (up- or downward) and (ii) season (summer or winter months).

*4.2.2. Geographic market definition*

4.2.2.1. The Commission's decisional practice

(34) The Commission has previously considered the geographic scope of balancing services, and the provision of aFRR services in particular, to be national in scope[62], and potentially even limited to the relevant TSO's LFC area.[63]

(35) The Commission previously concluded that the Hungarian market for balancing and ancillary services was national in scope.[64]

4.2.2.2. The Notifying Party's view

(36) The Notifying Party agrees with the Commission's previous practice.[65]

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60 Replies to eRFI to competitors (BSPs), question B.9.

61 Replies to eRFI to competitors (BSPs), question B.9.

62 M.9626 – *PKN ORLEN / ENERGA*, paragraph 28, M.8660 – *FORTUM / UNIPER*, paragraph 98 and M.10713 – *RWE / NEWCO EEMSHAVEN*, paragraph 43.

63 See cases M.7927 – *EPH / ENEL / SE*, paragraph 37; M.9626 – *PKN ORLEN / ENERGA*, paragraph 26 and M.8660 – *FORTUM / UNIPER*, paragraph 98.

64 M.3696 – *E.ON / MOL*, paragraph 255.

65 Form CO, paragraph 105.

(37) The Notifying Party notes that the European PICASSO platform, as described in more detail further below, will most certainly result in an expansion of the relevant geographic market of the aFRR energy activation segment in the near future. However, since Hungary has not yet joined PICASSO, the platform has had no impact on the geographic scope of any segment of the balancing and ancillary services market with respect to Hungary so far.[66]

4.2.2.3. The Commission's assessment

(38) All respondents expressing a view considered that the aFRR capacity and aFRR energy markets in Hungary are national in scope.[67] BSPs notably noted that they only provide their balancing services at national level in Hungary, and that there is no narrower than national aFRR energy or aFRR capacity market.[68]

(39) In light of the above, the Commission will for the purpose of this Decision conduct the competitive assessment for the provision of aFRR capacity and aFRR energy at the national level. However, as will be explained in more detail in Section 5.2.2.4.1, the market for aFRR energy is currently undergoing significant changes, likely to broaden the aFRR energy market to a wider-than-national market.

## 4.3. Conclusion on market definition

(40) In light of the above, and for the purposes of this Decision, the competitive assessment will be based on the following markets and plausible segments:

(a) the market for the provision of aFRR capacity in Hungary, segmented by direction of regulation (i.e., aFRR+ capacity and aFRR- capacity) and by season (i.e., aFRR+ capacity during summer months, aFRR+ capacity during winter months, aFRR- capacity during summer months, and aFRR- capacity during winter months); and

(b) the market for the provision of aFRR energy in Hungary (with due regard to the expected expansion of the scope of the geographic market), segmented by direction of regulation (i.e., aFRR+ energy and aFRR- energy) and by season (i.e., aFRR+ energy during summer months, aFRR+ energy during winter months, aFRR- energy during summer months, and aFRR- energy during winter months).

(41) In light of the Parties' focus of activities in Hungary, the Commission's analysis will focus on the segments for aFRR- capacity during winter months and aFRR- energy during winter months, where the Parties' combined position appears to be strongest.

# 5. COMPETITIVE ASSESSMENT

## 5.1. Analytical framework

(42) 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

66 Form CO, paragraphs 106-112.
67 Replies to eRFI to competitors (BSPs), question C.1.
68 Replies to eRFI to competitors (BSPs), question C.1.

under the Council Regulation on the control of concentrations between undertakings ('Horizontal Merger Guidelines').[69]

(43) 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.[70] This Decision focuses on non-coordinated effects.

(44) 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.[71]

(45) The Horizontal Merger Guidelines list a number of factors to be taken into consideration when assessing whether significant non-coordinated effects are likely 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.[72]

(46) According to the Horizontal Merger Guidelines, in assessing the competitive effects of a concentration, the Commission compares the competitive conditions that would result from the notified concentration with the conditions that would have prevailed without the concentration. Whereas this comparison usually compares the likely effects of a concentration with the competitive conditions existing at the time of the merger, the Commission may, in some circumstances, take into account future changes to the market that can reasonably be predicted.[73] Such reasonably predictable future changes may arise in particular, but not only, where firms are likely to enter or exit the market absent the concentration.[74]

## 5.2. Non-coordinated effects

### *5.2.1. aFRR capacity reservation*

#### 5.2.1.1. Introduction

(47) The market for the provision of aFRR capacity is a key mechanism for ensuring grid stability, allowing TSOs to pre-secure capacity from BSPs to address potential

69 OJ C 31, 05.02.2004.
70 Horizontal Merger Guidelines, paragraph 22.
71 Horizontal Merger Guidelines, paragraphs 23-24.
72 Horizontal Merger Guidelines, paragraphs 26-38.
73 Horizontal Merger Guidelines, paragraph 9.
74 Horizontal Merger Guidelines, paragraphs 9 and 68 et seq.

imbalances. In this market, BSPs commit to reserving upward and/or downward aFRR capacity in exchange for a capacity fee.

(48) Upward aFRR capacity entails a BSP reserving electricity that can be injected into the grid upon activation, addressing situations where electricity demand exceeds supply. Conversely, downward aFRR capacity involves BSPs offering to either reduce their electricity generation or increase their consumption to help alleviate excess supply. These services ensure that TSOs have the flexibility to respond effectively to fluctuations in electricity supply and demand.

(49) Procurement in the market for the provision of aFRR capacity occurs through a structured tendering process, which may include monthly, day-ahead, and intraday tenders. BSPs submit bids to reserve specific capacities, which TSOs evaluate based on cost-effectiveness and technical compatibility with grid requirements. Once capacity is reserved, BSPs receive a capacity fee, regardless of whether the capacity is activated. This fee is paid on a "pay-as-bid" basis for the capacity pledged by the BSPs.

(50) The actual activation of such reserved aFRR capacity is done at a later stage, on the basis of separate tenders as described in Section 5.2.2.1 below.

(51) In contrast to generation and wholesale electricity markets, the market for the provision of aFRR capacity prioritizes reliability and readiness to address imbalances, with TSOs acting as the sole purchaser and BSPs providing services tailored to the operational needs of the grid.

5.2.1.2. Market shares

(52) For the purposes of this Decision, the Commission has relied on data provided by Mavir to estimate shares on the market for the provision of aFRR capacity. This data corresponds to all capacity tenders organized between January 2021 and September 2024, and shows how much volume each competitor secured in each tender. Table 2 below shows the Parties' combined market shares in the various plausible market segments.

**Table 2 – Parties' combined (volume) share in capacity reservation, 2023**

| Potential market | aFRR | aFRR+ | aFRR- |
|---|---|---|---|
| 2023 | [40-50]% | [20-30]% | [50-60]% |
| Winter (November 2023 - April 2024) | [40-50]% | [20-30]% | [50-60]% |
| Summer (May 2023 – October 2023) | [30-40]% | [20-30]% | [40-50]% |

*Source: Estimates by the Commission based on Mavir's response to RFI 13 Q1.*

(53) The Parties' combined shares in the market for the provision of aFRR capacity in Hungary was [40-50]% in 2023, with an increment of [10-20] percentage points. Considering the narrower segments for upward and downward reservation of aFRR capacity, the Parties' combined share was [20-30]% for upward and [50-60]% for downward regulation in 2023. In the narrowest plausible segments for upward and downward reservation of aFRR capacity according to seasonality, the Parties' combined share in the winter months was [20-30]% upwards and [50-60]%

downwards in 2023, with an increment of [5-10] and [20-30] percentage points respectively.[75]

(54) As can be seen in Tables 3, 4, and 5 below, the Parties' combined share in the market for the provision of aFRR capacity has been relatively stable, ranging from [40-50]% in 2021 to [40-50]% in 2023. However, preliminary data for 2024 suggests that the Parties' shares will decrease to approximately [30-40]%.[76]

**Table 3 – Parties' combined (volume) share in aFRR capacity reservation, 2021-2023**

| Competitor | 2021 | | 2022 | | 2023 | |
|---|---|---|---|---|---|---|
| | MWh | Share | MWh | Share | MWh | Share |
| Veolia | […] | [10-20]% | […] | [10-20]% | […] | [10-20]% |
| Uniper | […] | [20-30]% | […] | [20-30]% | […] | [20-30]% |
| ***Combined*** | ***[…]*** | ***[40-50]%*** | ***[…]*** | ***[40-50]%*** | ***[…]*** | ***[40-50]%*** |
| MVM | […] | [20-30]% | […] | [30-40]% | […] | [10-20]% |
| MET | […] | [10-20]% | […] | [10-20]% | […] | [10-20]% |
| E.ON | […] | [5-10]% | […] | [5-10]% | […] | [10-20]% |
| Others | […] | [10-20]% | […] | [10-20]% | […] | [10-20]% |
| ***Total*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** |

*Source: Estimates by the Commission based on Mavir's response to RFI 13 Q1.*

**Table 4 – Parties' combined (volume) share in aFRR+ capacity reservation, 2021-2023**

| Competitor | 2021 | | 2022 | | 2023 | |
|---|---|---|---|---|---|---|
| | MWh | Share | MWh | Share | MWh | Share |
| Veolia | […] | [10-20]% | […] | [10-20]% | […] | [10-20]% |
| Uniper | […] | [20-30]% | […] | [10-20]% | […] | [10-20]% |
| ***Combined*** | ***[…]*** | ***[30-40]%*** | ***[…]*** | ***[20-30]%*** | ***[…]*** | ***[20-30]%*** |
| MVM | […] | [30-40]% | […] | [30-40]% | […] | [10-20]% |
| MET | […] | [10-20]% | […] | [10-20]% | […] | [10-20]% |
| E.ON | […] | [5-10]% | […] | [10-20]% | […] | [20-30]% |
| Others | […] | [10-20]% | […] | [10-20]% | […] | [20-30]% |
| ***Total*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** |

*Source: Estimates by the Commission based on Mavir's response to RFI 13 Q1.*

**Table 5 – Parties' combined (volume) share in aFRR- capacity reservation, 2021-2023**

| Competitor | 2021 | | 2022 | | 2023 | |
|---|---|---|---|---|---|---|
| | MWh | Share | MWh | Share | MWh | Share |
| Veolia | […] | [10-20]% | […] | [10-20]% | […] | [20-30]% |
| Uniper | […] | [30-40]% | […] | [30-40]% | […] | [30-40]% |
| ***Combined*** | ***[…]*** | ***[50-60]%*** | ***[…]*** | ***[50-60]%*** | ***[…]*** | ***[50-60]%*** |
| MVM | […] | [10-20]% | […] | [20-30]% | […] | [10-20]% |
| MET | […] | [10-20]% | […] | [10-20]% | […] | [10-20]% |

[75] Estimates by the Commission based on Mavir's response to RFI 13 Q1.

[76] Shares for 2024 are inclusive of all months up until September. The Parties' position tends to be stronger in winter months. Even conservatively assuming that the Parties' position in the winter of 2024 will be as strong as in the previous winter (a conservative assumption in light of photovoltaic expansion in 2024), the Parties' forecasted full-2024 market share in the overall aFRR capacity market is [30-40]% in all tenders (down from [40-50]% in the previous year).

| Competitor | 2021 | | 2022 | | 2023 | |
|---|---|---|---|---|---|---|
| | MWh | Share | MWh | Share | MWh | Share |
| E.ON | […] | [5-10]% | […] | [5-10]% | […] | [0-5]% |
| Others | […] | [5-10]% | […] | [5-10]% | […] | [5-10]% |
| ***Total*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** |

*Source: Estimates by the Commission based on Mavir's response to RFI 13 Q1.*

(55) In addition, the Commission considers it informative for the purpose of its assessment of the Transaction to take into account seasonal differences in market shares, reflecting the Parties' relative efficiency in particular during winter months, as shown in Table 6 below.

**Table 6 – Parties' combined (volume) share in aFRR- capacity reservation, winter**

| Competitor | 2021 (Nov. 21 – April 22) | | 2022 (Nov. 22 – April 23) | | 2023 (Nov. 23 – April 24) | |
|---|---|---|---|---|---|---|
| | MWh | Share | MWh | Share | MWh | Share |
| Veolia | […] | [20-30]% | […] | [40-50]% | […] | [30-40]% |
| Uniper | […] | [30-40]% | […] | [20-30]% | […] | [20-30]% |
| ***Combined*** | ***[…]*** | ***[50-60]%*** | ***[…]*** | ***[60-70]%*** | ***[…]*** | ***[50-60]%*** |
| MVM | […] | [20-30]% | […] | [10-20]% | […] | [10-20]% |
| MET | […] | [10-20]% | […] | [5-10]% | […] | [10-20]% |
| E.ON | […] | [5-10]% | […] | [0-5]% | […] | [5-10]% |
| Others | […] | [5-10]% | […] | [5-10]% | […] | [10-20]% |
| ***Total*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** |

*Source: Estimates by the Commission based on Mavir's response to RFI 13 Q1.*

(56) Finally, as shown in Table 7 below, it may also be informative for the purpose of assessing the Transaction to consider the Parties' relative efficiency in different types of tenders, particularly in light of the significant expansion of photovoltaic power in the daily segment of the market (as will be explained in Section 5.2.1.4.2 below).

**Table 7 – Parties' combined (volume) share in aFRR- capacity reservation, tender type**

| Tender type | 2022 | | 2023 | | 2024 | |
|---|---|---|---|---|---|---|
| | MWh | Share | MWh | Share | MWh | Share |
| Monthly only | […] | [50-60]% | […] | [50-60]% | […] | [50-60]% |
| Daily only | […] | [40-50]% | […] | [50-60]% | […] | [30-40]% |
| ***All tenders*** | ***[…]*** | ***[50-60]%*** | ***[…]*** | ***[50-60]%*** | ***[…]*** | ***[40-50]%*** |

*Source: Estimates by the Commission based on Mavir's response to RFI 13 Q1. Shares for 2024 are inclusive of all months up until September.*

5.2.1.3. The Notifying Party's view

(57) As a preliminary point, the Notifying Party submits that market shares do not accurately reflect the competitive dynamics in the balancing and ancillary services market, nor would they be indicative of the Parties' market power. First, this is a bidding market with frequent tenders, where even small players can constrain larger ones due to the absence of product differentiation and monopsony conditions, allowing the TSO to quickly shift volumes between suppliers. Second, participation in balancing services depends on fluctuating opportunity arbitration,

driven by accredited capacity and shifting forecasts. Third, unpredictable factors such as weather, maintenance, and fluctuating input costs significantly influence short-term market shares but do not reflect long-term competitive strength. Fourth, such unpredictability is reinforced by the lack of transparency in the market. Finally, some accredited BSPs exert competitive pressure despite not actively participating in tenders, such that, in the Parties' view, accredited capacities are a more reliable indicator of market power than traditional market share metrics.[77]

(58) The Notifying Party further submits that even in the few segments of the aFRR markets where the Parties' presence is more important, numerous factors allow to discard any potential competition concerns, for the reasons set out below.

(59) *First*, the Notifying Party submits that the Parties are not close competitors in the aFRR market, as Veolia derives its capacity almost entirely from combined heat and power ('CHP') plants, which vary significantly in flexibility and competitiveness by season. In winter, high heat production allows CHP plants to offer competitive aFRR bids and greater flexibility. However, in summer, reduced efficiency and higher costs associated with balancing commitments make them less competitive.[78]

(60) The Notifying Party contrasts this with the Target's Gönyű CCGT plant, which is less affected by seasonality. The Notifying Party identifies Alpiq and MET, operating similar CCGT plants in Csepel and Dunamenti, as closer competitors to the Target[2] due to their comparable technology and year-round efficiency.[79]

(61) *Second*, the Notifying Party submits that accredited balancing capacity in the market significantly exceeds Mavir's procurement needs. According to the Notifying Party, the accredited capacity of other market participants (excluding Veolia Hungary and Uniper Hungary) in 2023 was more than five times Mavir's maximum hourly aFRR and mFRR requirements on the basis of monthly tenders and over double its total needs across all tender types. For example, all other players held 1,225 MW aFRR-accredited capacity, compared to Mavir's maximum hourly procurement of 260 MW through monthly tenders and 597 MW across all tender types.[80]

(62) The Notifying Party explains that accredited capacity reflects the maximum technical potential for balancing services but notes that BSPs typically bid less than their full capacity based on market conditions and other commitments. Balancing capacity offered at a given time depends on a plant's generation schedule, which operators adjust dynamically to optimize profitability.[81]

(63) *Third*, the Notifying Party submits that Mavir, as the sole buyer in this market, wields significant buyer power. According to the Notifying Party, Mavir employs advanced tendering processes to foster competition among suppliers and to secure the best offers. These tendering processes can be easily modified, should this prove beneficial to Mavir.[82]

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77 Form CO, paragraphs 137-144.
78 Form CO, paragraphs 194-198.
79 Form CO, paragraph 199.
80 Form CO, paragraphs 202-203.
81 Form CO, paragraphs 204-206.
82 Form CO, paragraph 213.

(64) The Notifying Party offers the example of Mavir's recent reforms, whereby the TSO introduced shorter procurement intervals (day-ahead and intraday tenders), aimed at facilitating participation from smaller operators, batteries, and renewable energy sources.[83]

(65) *Fourth*, the Notifying Party takes the view that the Transaction does not significantly impede effective competition in the aFRR market in Hungary for a number of reasons pertaining to structural changes that the market is expected to undergo and which will result in significantly increased competitive pressure on the Parties in the short to medium term:

(a) The Notifying Party expects significant entry and expansion from new players, in particular photovoltaic plants. There is a growing trend of photovoltaic and wind power obtaining aFRR-certification, with the share of aFRR-accredited photovoltaic and wind capacities increasing from 14,5% in May 2023 to 31,9% in April 2024. Photovoltaic plants are able to participate efficiently to the aFRR market, in particular to aFRR downward services. Participation to aFRR upward services is limited, as photovoltaic plants typically generate a maximum output for the wholesale market. This restriction could however be mitigated via the co-location of photovoltaic systems and BESS. Moreover, although photovoltaic plants currently cannot participate in monthly aFRR-capacity tenders, the Notifying Party also expects this to be mitigated in the future by a further shift from Mavir towards procurement of aFRR capacity via daily tenders.[84]

(b) The Notifying Party expects significant changes resulting from the fast-paced development of BESS.[85] By April 2026, 727 MW of BESS are expected by the Notifying Party to be installed in Hungary.[86] The expansion of BESS is supported by the Hungarian government which pursues the goal of reaching 1000 MW BESS capacity by 2030. To this effect, it launched a first auction for an overall 440 MW of BESS capacity, partially subsidized by the Recovery and Resilience Facility[87], which will have to be completed by end of April 2026. The Notifying Party submits that BESS can participate in FCR, aFRR or mFRR services, both in upward and downward directions. BESS are particularly well-suited to provide balancing services[88] and in particular aFRR, given that the FCR market's potential is constrained due to its small market size. This results in the aFRR market offering a more profitable avenue.[89] The Notifying Party submits that the increasing BESS buildout, coupled with the other developments such as the expansion of

83 Form CO, paragraphs 214-215.

84 Form CO, paragraphs 346-361.

85 Form CO, paragraphs 292 et seq.

86 Form CO, Figure 8.

87 The European Recovery and Resilience Facility ('RRF') was adopted with the purpose of mitigating the economic and social impact of the COVID-19 pandemic. The RRF entered into force on 19 February 2021 with the aim of financing reforms and investments from Member States made between February 2020 and 31 December 2026. To benefit from support under the RRF, governments submitted National Recovery and Resilience Plans ('NRRP'), outlining the reforms and investments they will implement by the end of 2026.

88 The Notifying Party submits that in the UK, Ireland, Germany, France, and Belgium, 80% of battery projects' revenues come from frequency response. Form CO, paragraph 324.

89 In Germany, battery storage already dominates FCR services, exceeding grid operator requirements, and are now shifting their focus to the aFRR market. Form CO, paragraph 326.

photovoltaics, is expected to lead to a substantial decrease in both aFRR capacity prices and aFRR energy prices.[90]

(c) The Notifying Party moreover submits that MVM is significantly expanding its balancing capacities. MVM is currently in the process of commissioning new CCGT units at the Tisza Power Plant and the Mátra Power Plant. Combined, these units are expected to have a balancing capacity of 800 MW, with 533 MW of this capacity becoming operational by 2027, and the remaining 267 MW becoming available in 2029. The Notifying Party expects these new plants to participate in all types of aFRR capacity tenders, as CCGT units do not face any restrictions as to their participation to the different aFRR markets. As a result of this expansion, MVM will become one of the largest participants in the aFRR markets in terms of accredited capacities and these new plants will be able to cover Mavir's aFRR capacity needs, on their own, in most hours. Moreover, as newer CCGT units, the Notifying Party expects these new plants to operate with superior efficiency and flexibility to all existing CCGTs in Hungary, which means that they will be able to exert important competitive pressure on the overall aFRR capacity market.[91]

5.2.1.4. The Commission's assessment

(66) 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,[92] the Commission notes at the outset that in the market for the provision of aFRR capacity, where BSPs offer aFRR capacity on an 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.

(67) As explained in Section 5.2.1.2, the Parties' shares in the market for the provision of aFRR capacity at national level in Hungary amounted to [40-50]% in 2023, with an increment of [10-20] percentage points. Regarding the aFRR+ capacity reservation segment in particular, the Parties' combined share in 2023 amounted to [20-30]% with an [10-20] percentage points increment. As for the aFRR- capacity reservation segment, the Parties' combined share in 2023 amounted to [50-60]% with an increment of [20-30] percentage points. However, preliminary data for 2024 suggests that the Parties' shares will decrease to [30-40]% for overall aFRR, to [20-30]% for aFRR+, and to [40-50]% for aFRR-.[93]

(68) As the above makes clear, the Parties' shares in the aFRR- capacity reservation segment are the main cause of their high share in the overall market for the provision of aFRR capacity.

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90 Form CO, Figure 9.

91 Form CO, paragraphs 362-371.

92 Horizontal Merger Guidelines, paragraph 14.

93 Shares for 2024 are inclusive of all months up until September. The Parties' position tends to be stronger in winter months. Even conservatively assuming that the Parties' position in the winter of 2024 will be as strong as in the previous winter (a conservative assumption in light of photovoltaic expansion in 2024), the Parties' forecasted full-2024 market share is [30-40]% for overall aFRR in all tenders (down from [40-50]% in the previous year), [20-30]% in aFRR+ in all tenders (slightly up from [20-30]% in the previous year), and [40-50]% in aFRR- in all tenders (down from [50-60]% in the previous year).

(69) The Parties' high share in this aFRR- capacity reservation segment, despite the presence of rivals' significant spare capacity, has historically been due to the Parties' superior efficiency and consequent ability to offer relatively lower prices. Pre-merger, the Parties have in the past posed a significant competitive constraint on each other, offering relatively lower prices, while competitors' prices have been relatively higher. However, due to the consideration of security of supply, the TSO reserves capacity not only from the Parties, but also from some of the relatively more expensive rivals. All else being equal, the transaction therefore would have had the potential to increase prices, by eliminating the competitive constraint that the Parties imposed on each other.

(70) However, as explained further in Section 5.2.1.4.2, the competitive landscape is now quickly changing, with photovoltaic generators expanding into the market and also being able to offer lower prices. Moreover, as indicated by the Parties, the competitive constraint that the Parties impose on one another is to some extent diminished by their difference in competitive positioning over the year. In winter, heat co-generation places Veolia's CHP plants ahead of Gönyű in terms of generation efficiency because they generate revenue not only from electricity generation and the provision of balancing services, but also from selling heat. On the contrary, in summer, when heat co-generation cannot be sold, Veolia's plants are some of the least efficient, well below Gönyű.[94] This difference in competitiveness of the Parties was also confirmed by one of the Parties' competitors that stated that "*Veolia and Gönyű have quite different marginal costs*"[95]. As shown in Figure 3 below, such differences in competitive positioning are clearly reflected in the Parties' shares – when Veolia has a high share of the market, Uniper tends to have a low share, and vice-versa.

**Figure 3 – Parties' combined (volume, MWh) share in aFRR- capacity reservation (monthly tenders), 2021-2024**

[…]

(71) Moreover, pursuant to the Horizontal Merger Guidelines, current market shares may not adequately reflect reasonably certain future changes in the market structure[96] and the Commission may take into account future changes to the market that can reasonably be predicted.[97] Such reasonably predictable future changes may arise in particular, but not only, where firms are likely to enter or exit the market absent the concentration.[98] For entry to be considered a sufficient competitive constraint on the merging parties, it must be shown to be likely, timely and sufficient to deter or defeat any potential anti-competitive effects of the merger.[99] As explained below in more detail, the Hungarian market for balancing services is currently experiencing substantial structural changes that will significantly increase competition in the market for the provision of aFRR capacity and, as a consequence, significantly decrease Mavir's reliance on the Parties' services.

(72) Following the market investigation with a wide range of market participants, TSOs and regulatory bodies and associations, the Commission considers that, on balance,

94 Form CO, paragraph 491.
95 Replies to eRFI to competitors (BSPs), question E.3.
96 Horizontal Merger Guidelines, paragraph 15.
97 Horizontal Merger Guidelines, paragraph 9.
98 Horizontal Merger Guidelines, paragraphs 9 and 68 et seq.
99 Horizontal Merger Guidelines, paragraphs 68 et seq.

the Transaction will not give rise to horizontal non-coordinated effects in respect of aFRR capacity for the reasons set out below.

5.2.1.4.1. Battery electric storage systems are expected to gain significant share of the market in the near future

(73) The information collected during the market investigation, notably via calls with BESS developers, the Hungarian Ministry of Energy, MEKH, and Mavir support the Notifying Party's claim that BESS are expected to gain significant share of the aFRR markets in the near future, both on the aFRR capacity and aFRR energy markets.

(74) BESS are considered ideal providers of ancillary services in power grids, due to their split-second responsiveness.[100] Among balancing and ancillary services, BESS are currently more largely used for the provision of FCR than aFRR services, due to FCR's shorter activation time and typically smaller energy volumes that make BESS' instant availability but often limited capacity more suitable for FCR.[101] In Germany, for instance, BESS are already dominating the FCR segment.[102] In Hungary, BESS are already providing FCR services, with currently around 20 MW of accredited capacity.[103]

(75) BESS are expected to significantly increase their presence on the Hungarian market, and notably in the aFRR market, with 440 MW BESS capacity entering the market as early as of April 2026. As part of the Hungarian government's goal to reach 1 GW of BESS capacity by 2030,[104] the Ministry of Energy launched in November 2023 a tender for the procurement of 440 MW of BESS capacity supported by a subsidy scheme, comprising (i) direct grants to support the initial investment for every supported project, and (ii) annual support for operation for a 10-year period in form of a two-way contract for difference ('CfD').[105] The investment grant for the financing of capital expenditure will be paid during the construction period of each supported project, while the annual support for operation will be paid over a 10-year period from the commencement of operation of the project.[106] A total of 53 projects were selected in April and May 2024 as a result of the tender.[107] The tender award criteria foresee that the projects must be physically completed by 30 April 2026 at the latest.[108]

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100 Study of the International Energy Agency, Batteries and Secure Energy Transitions, page 37,available at: https://iea.blob.core.windows.net/assets/cb39c1bf-d2b3-446d-8c35-aae6b1f3a4a0/BatteriesandSecureEnergyTransitions.pdf.

101 Minutes of conference call with ACER on 3 September 2024, paragraph 15.

102 ENTSO-E 2024 Balancing Report, page 135.

103 Minutes of conference call with Mavir on 15 May 2024, paragraph 18.

104 The development of BESS was one of the measures identified in Hungary's National Recovery and Resilience Plan (2023) to reduce the cost of frequency regulation in the country.

105 This auction is part of a Hungarian aid scheme to support the installation of at least 800 MW of new electricity storage facilities in Hungary. See case SA.102428 (Hungary TCTF – RRF: Aid for energy storage facilities for the integration of weather variable renewable energy sources) declaring the aid scheme compatible with the internal market. See also minutes of conference call with the Ministry of Energy on 25 September 2024, paragraphs 6-7.

106 See case SA.102428, paragraph 12.

107 See for the list of selected projects: https://www.palyazat.gov.hu/eredmenyek/tamogatott-projektek?program=RRF+V%C3%A9grehajt%C3%A1s&op=RRF&konstrukcio=RRF-6.5.1-23.

108 See call for tender "Hálózati energiatárolók telepítése energiapiaci szereplőknél RRF-6.5.1-23" (in English: Installation of grid energy storage for energy market players), (hereinafter 'Call for tender')

(76) In addition, the Ministry of Energy expects 200 MW of BESS capacity to be developed by 2026 via the government-subsidized program "Solar Energy Plus" targeting the deployment of photovoltaic systems coupled with BESS by households, primarily for households' internal use.[109] Although only a minority of this deployed capacity might be offered as balancing services to Mavir via the use of aggregators, the Ministry of Energy expects this program to have an overall positive impact on the electricity imbalances generated by the household sector.[110] The call for tender indeed states that the Solar Energy Plus program is "*in line with the network development plans, as the generation, storage and consumption of on-site energy will result in a more balanced network that ensures the security of supply of the system in the long term*."[111] The program was launched in January 2024 and has been met with keen interest: following the exhaustion of allocated funds (EUR 192 million) by the applications received since the program's launch in January 2024, the Ministry of Energy increased the available funds by additional EUR 76 million.[112]

(77) Besides these government supported schemes, the Ministry of Energy expects further 500 MW of BESS capacity to come from market initiatives, most likely coupled with photovoltaic projects.[113] The Ministry of Energy indeed notes that around 3000 MW of additional photovoltaic capacity have already been permitted but that financial institutions have expressed concerns due to negative prices on the wholesale market. As a result, more and more photovoltaic projects under development are planning to be coupled with BESS capacity in order to secure financing from financial institutions. The Ministry of Energy expects that around 20% of BESS capacity will be on average added to these additional photovoltaic capacities.[114] Although it is unclear to what extent these additional batteries will provide balancing services to Mavir or be used internally by the photovoltaic projects, the deployment of batteries coupled with photovoltaics is expected to have a positive impact on the overall grid stability,[115] and hence, the demand for balancing services.[116]

(78) The emphasis placed on increasing BESS capacity for the provision of aFRR services in the Hungarian 2023 National Recovery and Resilience Plan and the financial support by the Hungarian government make it particularly likely that BESS will enter the aFRR market as of April 2026 and become "*potential future drivers*"[117] that may increase competition on the Hungarian aFRR markets:

(a) **The awarded BESS projects under the government's subsidy scheme are very likely to materialise**, as there has been sufficient interest for it given

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available at https://www.palyazat.gov.hu/programok/helyreallitasi-es-ellenallokepessegi-terv/rrf/rrf-651-23/dokumentumok.

109 Minutes of conference call with the Ministry of Energy on 25 September 2024, paragraph 8.

110 Minutes of conference call with the Ministry of Energy on 25 September 2024, paragraph 8.

111 See Call for Tender of the Solar Energy Plus Program, available at: https://napenergiaplusz.nffku.hu/.

112 See press release of the Ministry of Energy of 8 July 2024, available at: Közel másfélszeresére emelik a Napenergia Plusz Program keretösszegét. Amounts in HUF converted to EUR based on the European Central Bank's average HUF-EUR exchange rate for 2024.

113 Minutes of conference call with the Ministry of Energy on 25 September 2024, paragraph 9.

114 Reply to RFI of the Ministry of Energy on 3 December 2024.

115 See e.g., Study of the International Energy Agency, Batteries and Secure Energy Transitions, pages 18-19, available at: https://iea.blob.core.windows.net/assets/cb39c1bf-d2b3-446d-8c35-aae6b1f3a4a0/BatteriesandSecureEnergyTransitions.pdf.

116 See also paragraph (88).

117 Minutes of conference call with MEKH on 9 October 2024, paragraph 13.

that the subsidy scheme was fully subscribed to. Furthermore, winning projects have been selected on the basis of sound project plans, and the public funding they receive is a way to secure their development.[118] Indeed, the Hungarian government's subsidy scheme, which provides both a profit-enhancing feed-in premium and a one-time direct grant to support the initial project's investment, incentivises the development of and reduces the operational risk of BESS investment.[119] Apart from financial incentives, electricity market stakeholders also see a need to increase the development of BESS to meet their compliance and sustainability obligations and objectives. By way of example, a developer stated that it will also use its battery portfolio awarded under the government scheme for the "*purposes of complying with the Renewable Energy Directive*".[120]

(b) **The selected BESS projects will need to obtain an aFRR accreditation.** One of the conditions for the selected projects to be considered physically complete, is the requirement to obtain aFRR accreditation.[121] Should projects not be physically complete by 30 April 2026, selected projects will have to repay 5% of the amount of awarded investment support, and after 6 months the amount to be reimbursed would be 10% of the subsidy amount per month.[122] As such, BESS projects have a strong financial incentive not only to have the BESS project ready by April 2026, but also to have obtained the aFRR accreditation by this date. Moreover, all selected BESS operators responding to the market investigation indicated in that regard that they will accredit 100% of the total awarded BESS capacity for aFRR services.[123] In practice, it is rather unlikely that a significant number of the awarded projects would not receive an aFRR accreditation. Indeed, several winning projects are being carried out by market participants who already have successfully obtained an aFRR accreditation from Mavir for other generation technologies and can leverage their experience to obtain the accreditation rapidly, including, e.g., MVM, Alteo, MET, MOL, Energiabörze, Greenergy and E.ON.[124] In addition, public evidence suggests that smaller awarded projects that are not eligible for accreditation as a BSP themselves (the threshold for becoming a BSP is balancing capacity of at least 5 MW)[125] are planning to utilize aggregators for providing aFRR services.[126]

(c) **The selected BESS projects will be financially incentivized to provide aFRR services**. The annual support of BESS via the CfD-scheme will be based on benchmark activity levels set by MEKH for each market segment to

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118 See evaluation criteria in Section 8.3 of the Call for tender.

119 Minutes of conference call with a BESS developer on 27 September 2024, paragraph 8..

120 Minutes of conference call with a BESS developer on 2 October 2024, paragraph 16.

121 See Section 2.2 of the Call for tender.

122 See Section 4.2 of the Call for tender.

123 Replies to eRFI to competitors (BSPs), question D.C.3 and replies to eRFI to BESS developers, question A.4.

124 See for the list of selected projects: https://www.palyazat.gov.hu/eredmenyek/tamogatott-projektek?program=RRF+V%C3%A9greh ajt%C3%A1s&op=RRF&konstrukcio=RRF-6.5.1-23.

125 Form CO, paragraph 312.

126 Aggregators combine the upward and/or downward balancing capacities of usually multiple smaller assets, that would otherwise not be able to enter the balancing market, to make these capacities available to the TSO for aFRR capacity tenders and aFRR energy bids. Form CO, paragraphs 217-221. See the description of the selected BESS developer Kozár Szolár Korlátolt Felelősségű Társaság https://www.palyazat.gov.hu/eredmenyek/tamogatott-projektek/3753690201 and SALIX Energy Alfa Korlátolt Felelősségű Társaság https://www.palyazat.gov.hu/eredmenyek/tamogatott-projektek/3767380201.

reflect changes in market demand and behaviour of BESS facilities.[127] Selected projects will be incentivized to meet MEKH's benchmarks in order to maximise their revenues under the subsidy scheme.[128] The Call for tender indeed states that "*[i]n order to maximise their revenues, it is advisable for storages to optimise their actual market activity based on current market needs*".[129] Based on current market dynamics in aFRR, it can be expected that this implies a constant deployment of BESS facilities also in the aFRR markets. Indeed, BESS operators have confirmed during the market investigation that to maximise profits, they will likely resort to so-called value-stacking, i.e., participate in parallel or in close sequence in different electricity markets from which they can derive revenues in order to maximise their return on investment.[130]

In addition, the Ministry of Energy confirmed that "*the CFD model is designed such that these new batteries are expected to provide FCR and aFRR balancing services. For aFRR, batteries are expected to participate both in the capacity and activation tenders*".[131] In practice, BESS operators confirmed that the aFRR market will represent an important segment for the BESS under development – with one of them stating that it expects the "*vast majority*" of its BESS revenues to be derived from the aFRR market.[132] One BESS developer notes "*the CfD mechanism promotes day-ahead aFRR market participation as a benchmark commercial behaviour for the contract-awarded capacities. […] As such, the profitability of these units are not sensitive to plummeting aFRR captured prices, but are very sensitive to captured market share. Hence, we expect most of these CfD capacities will dump their capacities on the day-ahead aFRR segments, squeezing out thermal capacities*."[133] Two other BESS developers explain that "*the 400MW battery tender was aFRR specific, meaning that winning bidders will have to allocate that battery capacity to aFRR balancing services […] Winning bidders are required to offer a minimum of 8 hours per day of their battery capacity in the daily aFRR capacity market*"[134] and that "*in practical terms, the subsidy is maximised if the Battery Energy Storage System ("BESS") operator delivers revenues at least matching the benchmark set by the relevant authority, and it is broadly assumed that maximising aFRR-related income is necessary to do so.*"[135]

Moreover, although the FCR market is considered the more "natural" balancing market for BESS, given its shorter duration of activation,[136] the FCR market is expected to become very quickly saturated given its small size (around 40 MW) compared to the BESS capacity arriving on the market in

127 Section 3.2 of the Call for tender.
128 See Section 3.2 of the Call for tender.
129 Section 3.2 of the Call for tender, English translation provided by the Notifying Party.
130 Minutes of a call with a BESS developer on 4 September 2024, paragraph 11.
131 Minutes of conference call with the Ministry of Energy on 25 September 2024, paragraph 10.
132 Minutes of conference call with a BESS developer on 27 September 2024, paragraph 21. See also the project description of the BESS developer MERITAL Vagyonkezelő, Kereskedelmi és Szolgáltató Korlátolt Felelősségű Társaság which states that it intends to be primarily active on the aFRR markets, available at https://www.palyazat.gov.hu/eredmenyek/tamogatott-projektek/3761120201.
133 Minutes of conference call with a BESS developer on 28 June 2024, paragraph 20.
134 Minutes of conference call with a BESS developer on 4 September 2024, paragraph 9.
135 Minutes of conference call with a BESS developer on 13 September 2024, paragraph 14.
136 Minutes of conference call with ACER on 3 September 2024, paragraph 15.

April 2026 (440 MW).[137] As a result, BESS will be incentivized to enter the aFRR market which is much larger in size: on average, Mavir procured 225 MW for aFRR+ capacity and 300 MW for aFRR- capacity in the first 9 months of 2024.[138] Such a development occurred in Germany, where BESS became dominant on the FCR market and are, as a result, now expanding in other balancing markets, in particular aFRR.[139]

(d) **BSPs view BESS as an important source of competition for aFRR in the next 1-3 years**. The vast majority of competitors having expressed a view in the market investigation consider it likely that BESS will become increasingly important on all aFRR market segments, equally for aFRR capacity and aFRR energy, in the next 1-3 years.[140]

(e) **Evidence in other countries shows the clear business case for BESS in the aFRR markets.** Across Europe, BESS are progressively expanding on the aFRR markets, with significant increases in deployment levels in a number of countries: in Belgium, the same amount of BESS was pre-qualified for FCR and aFRR, namely 103 MW by the end of 2023,[141] representing four times the amount prequalified in 2021.[142] In Germany, respectively 330 MW and 310 MW of BESS were prequalified for aFRR+ and aFRR- by February 2024, compared to only 60 MW in January 2023.[143] The majority of TSOs having expressed a view in the market investigation expect that BESS will reach market shares exceeding 10% for aFRR capacity in the next 1-3 years in their respective LFC areas (or even sooner according to some TSOs).[144] In Belgium, BESS already reach market shares of around [20-30]% for aFRR+ and around [5-10%]% for aFRR- (both for capacity reservation and energy activation tenders).[145] In Slovenia, the share of BESS is already around 50% for aFRR energy and capacity markets.[146]

(79) Based on the results of the market investigation, the Commission is of the view that the deployment of BESS in Hungary, as early as of 2026, will exercise important competitive pressure on the aFRR market and is likely to lead to a lower price level on the aFRR markets, including aFRR capacity reservation in Hungary.

(a) **BESS will bring very significant additional volume to the aFRR markets, including the capacity reservation market.** The 440 MW of BESS capacity that will enter the market in April 2026 will be able to cover, in theory,[147] either more than 100% of Mavir's average procured downward aFRR

137 See MEKH September 2024 Report, slide 41. See also minutes of conference call with a BESS developer on 4 September 2024, paragraph 11.

138 See MEKH September 2024 Report, slide 41. Minutes of conference call with a BESS developer on 4 September 2024, paragraph 15.

139 Minutes of conference call with Amprion on 13 September 2024, paragraph 22.

140 Replies to eRFI to competitors (BSPs), question D.C.1.

141 ENTSO-E 2024 Balancing Report, page 116.

142 By the end of 2021, 25 MW were pre-qualified for aFRR services and 25 MW for FCR services in Belgium. ENTSO-E 2022 balancing report, page 113.

143 50 Hertz, Amprion, Tennet and TransnetBW "Präqualifizierte Leistungen in Deutschland" (in English: Prequalified capacities in Germany), pages 2-3; available at https://www.regelleistung.net/xspproxy/api/staticfiles/regelleistung/startseite/pq-leistung-in%20deutschland.pdf.

144 Replies to eRFI to TSOs, question D.C.4.

145 Minutes of conference call with Elia on 17 September 2024, paragraph 12.

146 Response of the Slovenian TSO to the eRFI to TSOs, question D.C.5.

147 I.e., regardless of the alternative and rival deployment of part of that capacity in other electricity markets, such as electricity generation and wholesale or the provision of FCR services.

capacity or more than 100% of its average procured upward aFRR capacity, or more than 80% of both its average procured up- and downward aFRR capacity in the first 9 months of 2024,[148] and about 29% of the total aFRR-accredited capacity of Hungarian gas-fired power plants.[149] With regard to the magnitude of entry, one BSP states that the arrival of 440 MW of BESS capacity by April 2026 "*will have a supply shock effect on the aFFR segment in 2026*" and that it expects BESS to "*further contribute to price erosion as new supply in large volumes enters the market."*[150] Mavir is also developing its own BESS system via the development of 20 MW of BESS in Szolnok, which is expected to be completed in the first half of 2025.[151]

(b) **BESS are likely to gain share from conventional BSPs.** BESS are characterised by lower short-run marginal cost ('SRMC')[152] compared to gas-fired CCGTs and CHPs. To the extent that bid prices are formed on the basis of a BSP's cost-level, as is typically the case when bids are paid-as-cleared (also called 'uniform pricing'),[153] BESS will therefore typically push conventional power plants further down in the merit order list. One BSP expects that "*most of these CfD capacities [440 MW BESS subsidy scheme] will dump their capacities on the day-ahead aFRR segments, squeezing out thermal capacities. Thermal capacities will be left with the alternative of participating on the month-ahead auctions, driving price levels down*."[154] Therefore, under a uniform pricing model, BESS are likely to get activated more often and to gain share from conventional BSPs such as the Parties. The increasingly important role of BESS for the aFRR segment was also confirmed in the market investigation, with the vast majority of BSPs expressing a view that consider that BESS will become increasingly important on all aFRR segments.[155]

(c) **There are no technological barriers to BESS' participation in the market for the provision of aFRR capacity.** From a technical perspective, there is no impediment to a BESS unit providing aFRR services. One TSO notes that batteries are "*technically well-equipped for delivering aFRR capacity and energy*" and can do so at "*reasonable costs*".[156] Costs for BESS have indeed considerably decreased over the last years,[157] which is one of the reasons mentioned by TSOs for the expected significant increase of importance of BESS in the near future.[158] From a technological perspective, Mavir confirmed that "*there are no specific requirements that batteries have to fulfil to be competitive on the aFRR market*".[159] For participation in the aFRR

148 See MEKH September 2024 Report, slides 39-40, available at https://www.mekh.hu/market-monitoring-reports.

149 Form CO, Table 11.

150 Minutes of conference call with a competitor on 28 June 2024, paragraph 20.

151 See press release of the company selected to build the project on behalf of Mavir, available at https://forest-vill.hu/en/2024/02/26/hungary-enters-into-a-new-phase-in-electricity-storage/.

152 Form CO, paragraph 275.

153 As discussed in section 5.2.2.4.1 below, Hungary will introduce the pay-as-cleared model for the aFRR energy market at the latest when it joins PICASSO, i.e. in Q1 2026.

154 Minutes of conference call with a competitor on 28 June 2024, paragraph 20.

155 Replies to eRFI to competitors (BSPs), question D.C.1.

156 Replies to eRFI to TSOs, question D.C.5.

157 Study of the International Energy Agency, Batteries and Secure Energy Transitions, page 21. Available at: https://iea.blob.core.windows.net/assets/cb39c1bf-d2b3-446d-8c35-aae6b1f3a4a0/BatteriesandSecureEnergyTransitions.pdf.

158 Replies to eRFI to TSOs, question D.C.5.

159 Minutes of conference call with Mavir on 11 October 2024, paragraph 23.

capacity market, BESS need simply to prove that they can provide both the minimum and the maximum of their control range[160] for a continuous period of at least 2 hours.[161] Respondents to the market investigation have confirmed that virtually all BESS being developed under Hungary's subsidy scheme awarded in 2024 are systems with 2-hour or 4-hour runtimes,[162] i.e. they respond to these technological requirements. One respondent noted in that regard that "*all lithium projects would provide 2 hour runtime, and they represent around 90% of the 440 MW auction scheme. For the remaining 10%, these rely on different technologies which are able to provide a 4 hour runtime*".[163] Mavir and market participants also confirmed that there is no minimum power output requirement for BESS to participate in the aFRR markets. In fact, as one respondent noted, for BESS "*there is a requirement that they are connected to an energy aggregator so they can provide services on the grid*".[164] This means that BESS will be able to participate in the market, at least, as part of an aggregated larger pool of combined capacity from the various sources under the aggregator's management.[165]

(d) **There are no barriers to BESS' participation in the market for the provision of aFRR capacity related to Mavir's procurement process.** According to Mavir's current Tender Regulation Document, batteries cannot participate in monthly tenders but only in daily tenders. Mavir could, however, decide to change these rules at any moment.[166] Mavir purchases its aFRR reservation capacity needs through monthly and daily (both day-ahead and intra-day) tenders. In 2024 (January to June), the share of aFRR capacity procured through daily tenders was around 35-40%, with the rest being procured through monthly tenders.[167] In addition, Mavir can move away from monthly tenders to daily tenders at any time and, as a result, diversify its sources of supply. Mavir confirmed during the market investigation that there are no obstacles preventing Mavir from adjusting its procurement strategy and reducing its reliance on monthly bids.[168] Moreover, Mavir also confirmed it is legally obliged, under the Hungarian Electricity Act, to select the lowest aFRR capacity bid.[169] Accordingly, to the extent that BESS and photovoltaic power have a lower marginal cost than fossil gas plants (and are therefore able to offer lower bids), Mavir would have an incentive to shift its procurement towards the more dynamic and competitive "daily tender" segment of the market.

(e) **In countries where BESS already significantly participate in aFRR capacity reservation services, their expansion resulted in increased competition in the relevant market.** Empirical evidence from other European countries in which BESS already play a more significant role in

160 Control range refers to the maximum upward and downward regulation capacity of a given energy asset.

161 Mavir's response to RFI 13, question 8.

162 Minutes of conference call with a BESS developer on 27 September 2024, paragraph 19.

163 Minutes of conference call with a BESS developer on 27 September 2024, paragraph 19.

164 Minutes of conference call with a BESS developer on 27 September 2024, paragraph 18.

165 See footnote 126 for a definition of aggregators.

166 Minutes of conference call with Mavir on 11 October 2024, paragraph 24.

167 See Form CO, Table 38.

168 Minutes of conference call with Mavir on 11 October 2024, paragraph 20.

169 Mavir's response to RFI 3, question 5. See Section 141 §11 of the Hungarian Electricity Act, which foresees that Mavir has to carry out its activity in compliance with the "least cost principle", i.e. incurring the lowest cost possible.

aFRR services shows that BESS are likely to capture a significant share of the market for the provision of aFRR capacity. In Germany, while BESS are already dominating the FCR market and had a price-damping effect on this market, BESS are increasingly arriving on the aFRR market, with 310-330 MW being available as of February 2024.[170] In Belgium, as indicated above, BESS already gained market shares of around [20-30]% for aFRR+ and around [5-10]% for aFRR- (both for capacity reservation and energy activation tenders).[171] In Slovenia, the share of BESS is already around 50% for aFRR energy and capacity.[172]

(80) Moreover, Veolia Hungary does not own any BESS or other storage solutions in Hungary, nor does it currently have any approved plans to develop BESS projects.[173] The Commission therefore considers it unlikely that the Notifying Party could use its own BESS projects to thwart the impact that BESS are likely to have on conventional BSP .

(81) Therefore, based on the above elements, in particular (i) the arrival of 440 MW of BESS on the Hungarian market by end of April 2026, (ii) the requirement for the selected projects under the tender to obtain an aFRR certification, (iii) Mavir's ability, at any moment, to purchase even more aFRR reservation capacity through daily tenders (and its incentive to do so, given its legal mandate to select the lowest capacity bid), and (iv) the confirmation from selected BESS operators that they expect the aFRR segment to represent an important market for their BESS projects, the Commission considers that BESS are expected to gain significant share of the market even if one excludes their participation in monthly tenders.

5.2.1.4.2. Photovoltaic plants will likely expand and exert competitive constraint at least in the aFRR- segment, having already decreased the Parties' combined share from [50-60]% to [40-50]%

(82) In the last decade, photovoltaic energy production capacity has experienced significant growth in Hungary, reflecting increased investment and technological advancements in this segment. As shown in Figure 4 below, the maximum daily photovoltaic generation power has more than tripled in the last 5 years, from around 900 MW in 2020 to almost 3,200 MW in 2024.

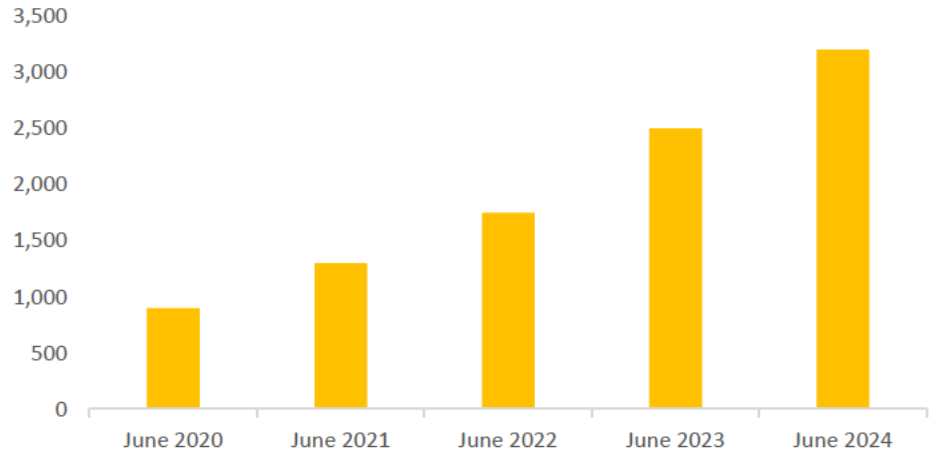
170 Study of the German Federal Ministry for Economic Affairs and Climate Action, *Stromspeicher-Strategie. Handlungsfelder und Maßnahmen für eine anhaltende Ausbaudynamik und optimale Systemintegration von Stromspeichern*, (in English: Fields of action and measures to ensure a persistent and dynamic expansion of electricity storage facilities and their optimal systems integration), December 2023, page 7. Available at: https://www.bmwk.de/Redaktion/DE/Downloads/S-T/stromspeicherstrategie-231208.pdf?__blob=publicationFile&v=8.

171 Minutes of conference call with Elia on 17 September 2024, paragraph 12.

172 Reply of Slovenian TSO to the eRFI to TSOs, question D.C.5.

173 Form CO, paragraph 309.

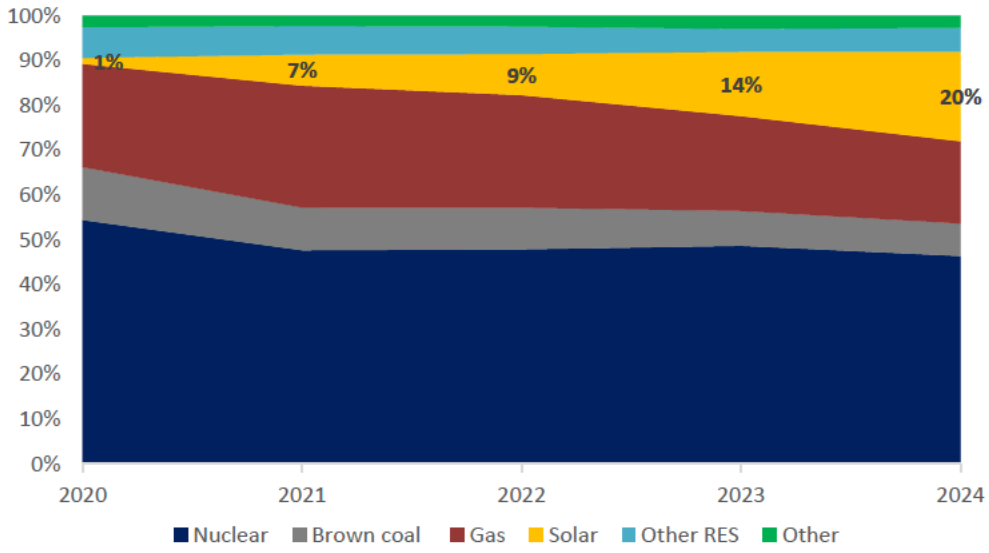
**Figure 4 – Maximum daily photovoltaic generation power in Hungary (MW), 2020-2024**




*Source: MEKH Monthly Electricity Reports: June 2020, June 2021, June 2022, June 2023, and June 2024.*

(83) In the same time period, the share of photovoltaic power in the Hungarian energy mix has increased from just 1% in 2020 to over 20% in 2024, as shown in Figure 5 below.

**Figure 5 – Share of photovoltaic sources in Hungarian energy mix (%), 2020-2024**




*Source: Response from HUPX to Request for Information 24 of 18/11/2024, based on TSO data.*

(84) **There exist low to no barriers to expansion, an expansion that is already underway.** The market investigation results suggest that barriers to entry for photovoltaic sources in adjacent electricity markets, including the provision of aFRR capacity, are either low or entirely absent.[174] The absence of barriers to entry

[174] Replies to eRFI to TSOs, question D.A.2.1.

allows photovoltaic generators to easily expand their operations beyond the wholesale segment and into ancillary services, such as balancing markets.[175]

(85) According to MEKH and Mavir, this expansion is already underway: photovoltaic capacities accredited for balancing services have more than tripled from 225 MW in January 2022 to 677 MW by December 2022, and then more than doubled again to 1,611 MW by December 2023.[176] Similarly, the share of photovoltaic capacities accredited specifically for aFRR services has more than doubled from 15% in May 2023 to 32% by April 2024.[177]

(86) **Photovoltaic plants are particularly suited to participate in the aFRR-segment, where the Parties' market position has historically been stronger, although future development of co-locations with BESS will allow photovoltaics to gain share also in the aFRR+ segment.** As explained by one BSP, photovoltaic plants are particularly suited for the downward segment of the aFRR capacity market: *"PV sources can be used for aFRR- balancing in case of overproduction because production can be reduced easily"*.[178] However, they are suited only for daily tenders and not for monthly ones, partly due to Mavir's current tender design.[179] To address this initial limitation, in April 2023, Mavir introduced hourly aFRR capacity products[180] and, as a consequence, a shift towards more daily tenders, to allow photovoltaic sources to compete in the aFRR capacity market.[181]

(87) Whereas photovoltaic plants are currently better suited to provide downward aFRR capacity, the parallel trend observed in the Hungarian aFRR capacity market towards significant entry of BESS will allow photovoltaic plants to participate in the future more significantly also in the provision of upward aFRR capacity, to the extent that BESS are being coupled with photovoltaic plants (so-called co-location between BESS and photovoltaic plants).[182]

(88) The purpose of co-located BESS and photovoltaic plants is to optimize the cumulative performance of both the BESS and the photovoltaic generator. With a co-located BESS, instead of reducing generation output to provide downward balancing, the photovoltaic plant can instead divert the output to charge the BESS. The BESS can then discharge at a later time. In addition, photovoltaic generators with a co-located BESS can also participate in tenders that cover night-time hours (utilising their battery charge if activation is needed during those hours) and have more leeway to increase their participation in the aFRR+ capacity market (by making use of their co-located battery unit to ramp up if needed). This is consistent

175 In fact, Mavir has observed, albeit to a marginal extent, that, in the case of negative day-ahead market prices, certain photovoltaic units have been reallocated from the electricity wholesale market to the aFRR+ capacity and energy markets; see Mavir's response to RFI 8, question 14.

176 MEKH and Mavir, Data of the Hungarian Electricity System (2022 report, page 49; 2023 report, page 51).

177 Form CO, paragraph 351.

178 Minutes of conference call with a competitor on 4 September 2024, paragraph 6.

179 Minutes of conference call with MAVIR on 15 May 2024, paragraphs 13 and 24.

180 Until 2024, aFRR capacity in daily tenders was procured in blocks of 8, 16, or 24 hours.

181 Minutes from conference all with Mavir on 11 October 2024, paragraph 18.

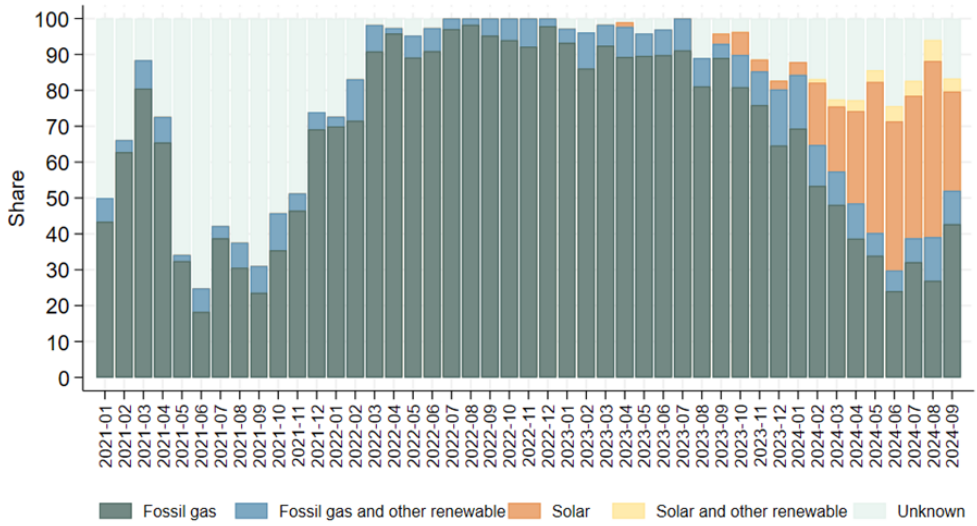
182 Form CO, Annex RFI 7-Q6(a): at least 19 of the 52 BESS projects (37%) will be co-located with solar or wind plants.

with the market investigation results, where respondents explain that photovoltaic sources can be used both in the provision of aFRR- and aFRR+.[183]

(89) **The expansion of photovoltaic capacity has already had notable impact on the Parties' position in the downward segment of the aFRR capacity market.** The exponential increase in *accredited* photovoltaic aFRR capacity has already translated into an increase in *actual* photovoltaic aFRR capacity reservation by Mavir.

(90) As shown in Figure 6 below, ever since Mavir has shifted part of its aFRR capacity procurement towards day-ahead and intra-day tenders, the share captured by photovoltaic sources in aFRR- daily tenders has grown from close to 0% in August 2023 to as much as 50% in August 2024. In other words, photovoltaic generators have captured more than half of the daily segment of the market in less than a year.

**Figure 6 – aFRR- capacity reservation by source of energy (daily tenders, MWh), 2021-2024**




*Source: Commission analysis of response from Mavir to Request for Information 23 of 20/09/2024.*

(91) As shown in Table 7 of Section 5.2.1.2, the Parties' combined share in this segment has decreased significantly, from [50-60]% in 2023 to [40-50]% in 2024. This decline is even more pronounced when focusing on daily tenders, where the Parties' combined share has fallen more sharply from [50-60]% in 2023 to [30-40]% in 2024. These figures underscore the growing competitive pressure exerted by the increasing participation of photovoltaic generators.[184]

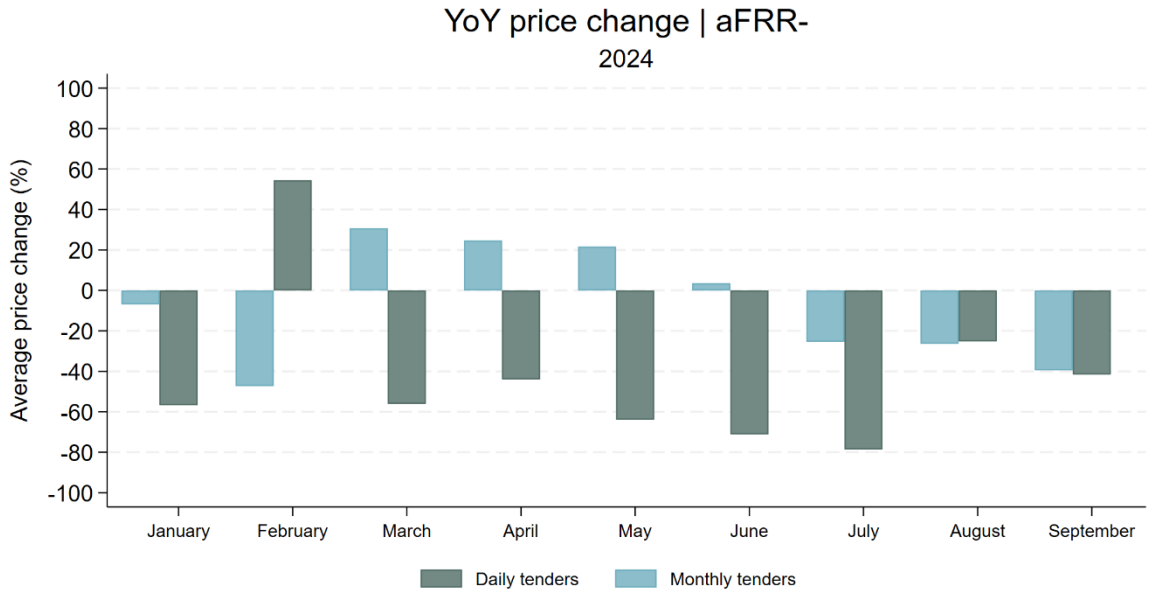
(92) Therefore, there are clear indications that the significant expansion of photovoltaic energy production in the wholesale market is trickling down into a substantial increase of aFRR-accredited capacity, which in turn is resulting in Mavir reserving significant volumes of aFRR capacity from photovoltaic sources.

183 Replies to eRFI to competitors (BSPs), question D.B.1.1.

184 Shares for 2024 are inclusive of all months up until September. The Parties' position tends to be stronger in winter months. Even conservatively assuming that the Parties' position in the winter of 2024 will be as strong as in the previous winter (a conservative assumption in light of photovoltaic expansion in 2024), the Parties' forecasted full-2024 market share in the downward segment of the aFRR capacity market is [40-50]% in all tenders (down from [50-60]% in the previous year), or [40-50]% in daily tenders (down from [50-60]% in the previous year).

(93) **Photovoltaics' expansionary trend is likely to continue.** While daily tenders in 2024 (January to June) currently represent around 35-40% of the overall capacity procured by the TSO,[185] Mavir has confirmed that if necessary it could move towards procuring more capacity via daily tenders in the future.[186] Such procurement strategy is encouraged by the Electricity Balancing Guidelines, with half of European TSOs already procuring close to 100% of their overall capacity via daily tenders.[187] Such shift towards daily tenders is also in line with Mavir's legal mandate to select the lowest bid.[188] As shown in Figure 7 below, the average price of aFRR- capacity procured in daily tenders during 2024 (when the photovoltaic expansion unfolded) decreased by 25% to 78% when compared to the same month in the previous year, and (with the exception of February) was significantly more pronounced in daily tenders (where photovoltaics can participate) as opposed to monthly tenders (where photovoltaics are not yet active).[189]

**Figure 7 – Year-on-year price change in aFRR- capacity in daily and monthly tenders (2024 vs 2023, in %)**




*Source: Commission analysis of response from Mavir to Request for Information 23 of 20 September 2024.*

(94) The results of the market investigation indicate that this expansionary trend is expected to continue, with a vast majority of respondents considering that the role of photovoltaics in both aFRR capacity and aFRR energy is expected to *"grow significantly in the coming 3-5 years"*. In particular, one respondent expects that

185 See Form CO, Table 38.

186 See section 5.2.1.4.4 below.

187 ACER, Progress of EU electricity wholesale market integration: 2023 Market Monitoring Report, November 2023, Figure 25, showing 11 out of 22 TSOs procuring almost 100% of their overall capacity via daily tenders.

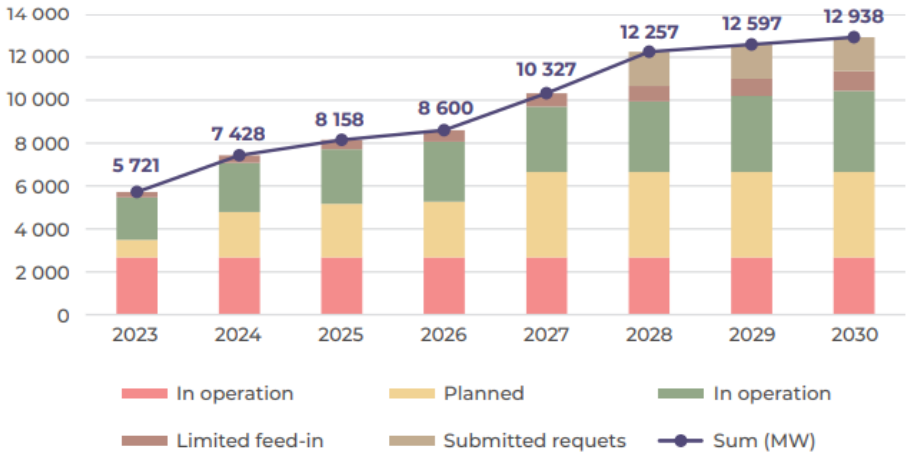
188 Mavir's response to RFI 3, question 5. See also Section 141 §11 of the Hungarian Electricity Act, which foresees that Mavir has to carry out its activity in compliance with the "least cost principle", i.e. incurring the lowest cost possible.

189 Commission analysis of response from Mavir to Request for Information 23 of 20/09/2024. No data yet available for the months of October, November, and December 2024.

*"[i]n the next 5 years another 2000-4000 MW capacity of industrial solar will be online, [and] most of these will be aFRR accredited".*[190]

(95) As shown in Figure 8 below, this expectation is consistent with MEKH and Mavir's external publications, who forecast that installed photovoltaic capacity will more than double between 2023 and 2030, with significant additions each year.

**Figure 8 – Forecasted installed photovoltaic capacity (MW), 2023-2030**




*Source: "Energy in Hungary", Published by the Hungarian Energy and Public Utility Regulatory Authority (MEKH) on the occasion of the 20th ERRA Annual Conference on 9-10 October 2023 in Budapest, slide 9.*

(96) Mavir and MEKH's forecast implies that, between 2023 and 2026 alone, installed photovoltaic capacity will increase by almost 3,000 MW. Conservatively assuming that 28% of this capacity will receive accreditation for balancing purposes (based on the ratio currently observed for 2023), this would further increase photovoltaics' share in the daily tender segment of the aFRR- market from the current 50% to 75% or beyond.[191]

5.2.1.4.3. MVM group is expected to significantly expand its production capacities, including for use in the aFRR capacity market

(97) MVM Group is currently developing its production capacity, and as a result, its ability to provide balancing and ancillary services.

(98) Specifically, MVM Group is in the process of commissioning three new CCGT units at its Tisza Power Plant (two CCGT blocks, each with a generation capacity of 500 MW) and its Mátra Power Plant (one CCGT block with a generation capacity of 650 MW).

190 Replies to eRFI to competitors (BSPs), question D.B.4.

191 As of the end of 2023, there was 1,611 MW accredited photovoltaic capacity out of a total of 5,721 installed photovoltaic capacity, for a ratio of 28%. In practice, this ratio is likely to be conservative, as there is a time lag between the installation and accreditation of a photovoltaic plant (implying that much of the recently installed capacity in 2023 has still not undergone the process of accreditation). In any case, applying this ratio to future years conservatively leads to an estimated increase of 50% in accredited photovoltaic capacity, from 1,611 MW in 2023 to 2,422 MW in 2026. Applying that same growth rate to the current share of photovoltaics in the daily tender segment of the aFRR- market suggests that its share may increase from 50% to 75% until 2026.

(99) MVM reports that these units will have a combined balancing capacity of 800 MW.[192] This is substantially more than is currently offered by any market participant. By way of comparison, Gönyű's total balancing capacity is 225 MW. This expansion would make MVM the largest participant in the aFRR segment in terms of accredited capacities.

(100) Furthermore, as newer CCGT units, the Tisza and Mátra plants are expected to operate with at least the same efficiency and flexibility to all existing CCGTs in Hungary (including Gönyű).[193] Once operational, these plants will be well placed to exert competitive pressure on the Parties and gain market share in the capacity aFRR segments.

(101) These two projects are currently in the procurement phase. Because MVM is a state-owned company, both procedures are carried out within the framework of public procurement. In the case of the Mátra project, the evaluation of the submitted bids is currently in progress. In the case of the Tisza project, the necessary site preparation works for the CCGT are ongoing: demolitions have started and the installation of the necessary systems has been carried out.[194] In addition to launching the procurement phases for both projects, MVM has started requesting the necessary environmental, energy, and grid connection permits. In terms of timeline, MVM expects: [information about MVM's expected timeline].[195] According to Mavir, the CCGT at Mátra Power Plant and the first CCGT block of the Tisza Power Plant are expected to be operational as early as 2028;[196,197] the second block of Tisza is expected by Q2 2029.[198,199]

(102) In terms of profitability of the two projects, the majority of competitors that expressed an opinion in the market investigation indicated that, when operational, it would be profitable for MVM's two projects to be deployed in the capacity and activation segments of aFRR services.[200] In a similar vein, MVM's internal documents indicate that they expect Mavir's needs for aFRR services to continuously increase over the next years.[201] In addition, Gönyű's business model shows that [information about Uniper Hungary's business model].[202] These are all strong indications that there is an attractive business case for new CCGT plants allocated to the aFRR markets.

(103) In addition, it is worth noting that MVM – 100% state-owned – and these two projects represent an integral part of Hungary's plan to increase installed electricity capacity in Hungary to achieve security of supply.[203] Furthermore, the

192 See https://mert.mvm.hu/hu-HU/Media/Hirek/TervezettGazturbinasEromu.
193 Minutes of conference call held with MVM on 23 May 2024, paragraphs 10-12.
194 MVM's status update report on the Tisza plant sent to MEKH on 27 September 2024.
195 MVM's response to RFI 9.
196 Minutes of conference call held with MVM on 23 May 2024, paragraph 11.
197 MVM's status update report on the Tisza plant sent to MEKH on 27 September 2024.
198 Mavir, A magyar VER természetviselkedései 2024 (in English: "Natural behaviour on the Hungarian electricity system 2024"), available at: https://mavir.hu/documents/10258/239341965/HFT2024_A+magyar+VER+természetviselkedései_publ.pdf/c371c38b-c179-ff11-d79d-7e81c14b793c?t=1716562412446.
199 MVM's status update report on the Tisza plant sent to MEKH on 27 September 2024
200 Replies to eRFI to competitors (BSPs), question D.D.1.
201 MVM's response to RFI 9.
202 Form CO, Annex 5.4 (b), slides 7-9.
203 Hungary's National Energy and Climate Plan 2024, page 73, available at: https://commission.europa.eu/document/download/0a2953f8-5789-4f6f-9714-

transformation of the currently lignite-fired Mátra power plan into a low-carbon plant (i.e., the construction of the Mátra CCGT plant project) is of paramount importance to Hungary's commitment to decarbonisation. This plant alone currently accounts for 5% of total domestic greenhouse gas emissions.[204]

(104) The Commission notes that with these two projects, MVM would represent an even bigger competitive constraint on the aFRR capacity market, with a total accredited capacity for aFRR of 899 MW (800 MW of new capacity introduced by the two new project plus their current 99 MW of aFRR-accredited capacity) compared to 542 MW of the Parties.[205] While [information about MVM's expected timeline], several factors suggest that the two projects are on track to meet the expected deployment dates: the projects have been publicly announced; permits have been requested and, in some cases, granted; public procurement phases have been launched; and demolition works have started for the Tisza plant.

5.2.1.4.4. Mavir can amend its own procurement rules and switch to a larger share of daily tenders to attract additional sources of supply

(105) Mavir purchases its aFRR reservation capacity needs through monthly and daily (both day-ahead and intra-day) tenders. In 2024, the share of aFRR capacity procured through daily tenders was around 35-40%, with the rest being procured through monthly tenders.[206] Given that photovoltaic plants and BESS cannot participate in monthly tenders, daily tenders are more competitive and will benefit from the expansion of these two growing energy sources (as explained before in Sections 5.2.1.4.1 and 5.2.1.4.2). Mavir can move away from monthly tenders to daily tenders at any time and, as a result, diversify its sources of supply. There are no obstacles preventing Mavir from adjusting its procurement strategy and reducing its reliance on monthly bids (and, consequently, on the Parties). Indeed, given Mavir's legal mandate to select the lowest capacity bid,[207] Mavir would have an incentive to shift towards the more dynamic and competitive "daily tender" segment of the market to take advantage of the photovoltaic and BESS expansion.

(106) Furthermore, European legislation encourages TSOs to favour short term capacity bids, as Article 32(2) of the Electricity Balancing Guidelines state that "*the procurement process [for balancing capacity] shall be performed on a short-term basis to the extent possible and where economically efficient*". It is worth noting that half of European TSOs is already procuring close to 100% of their overall capacity via daily tenders,[208] for example:

(a) Belgian TSO Elia launched in September 2018 a public consultation on "*the new aFRR design*" which notably entailed moving away from weekly

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03df3d4cbbab_en?filename=HU_FINAL%20UPDATED%20NECP%202021-2030%20%28English%29.pdf.

204 Hungary's National Energy and Climate Plan 2024, pages 49 and 50.

205 Form CO, Table 34.

206 See Form CO, Table 38.

207 Mavir's response to RFI 3, question 5. See also Section 141 §11 of the Hungarian Electricity Act (least cost principle).

208 ACER, Progress of EU electricity wholesale market integration: 2023 Market Monitoring Report, November 2023, Figure 25, showing 11 out of 22 TSOs procuring almost 100% of their overall capacity via daily tenders.

procurement of aFRR capacity reserves to daily procurement.[209] The public consultation resulted in a decision to indeed move away from weekly procurement of aFRR capacity reserves to daily procurement, a new procurement design was set up quite quickly to detail the contractual, regulatory and IT changes that needed to take place to allow for daily procurement, allowing for a projected go-live for July 2020.[210]

(b) Other European TSOs procuring all or almost all of their aFRR capacity requirements through daily tenders include the TSOs of Austria, Bulgaria, Germany, Estonia, Greece, the Netherlands, Poland, Portugal, Romania and Sweden.[211]

(107) The results of the market investigation indicate that Mavir would likely intervene if the aFRR capacity prices were to increase. All respondents that expressed an opinion agreed that they have seen Mavir react to high prices in the past by, for instance, changing the applicable regulations or adjusting tender procedures for aFRR services.[212] In addition, all respondents that expressed an opinion indicated that if aFRR capacity prices were to increase significantly in the future, they would expect Mavir to change its tender procedure (or other rules) to counteract such price effects.[213]

(108) Mavir confirmed that, even though it considers the current split between daily and monthly tenders to be an optimal split under the current market circumstances, catering for both its needs for price efficiency, on the one hand, and supply security, on the other hand, it could move away from monthly tenders towards daily tenders at any time. Indeed, Mavir confirmed that "*in a dynamically changing market such as balancing capacity market, Mavir always makes this decision considering current market conditions*",[214] which means that "*if market conditions changed (e.g., price increase by the Parties), MAVIR could in theory shift towards more daily tenders if it considered this to be beneficial*".[215]

(109) In addition, the Commission notes that there is significant spare accredited capacity[216] in the Hungarian aFRR markets. Mavir indicates that there is six to eight times more capacity accredited than what the TSO needs.[217] According to the Parties, in 2023, all other market players (except the Parties) had a total of 1,225 MW capacity accredited for aFRR. In that same year, the TSO tendered at most 597 MW for aFRR capacity in any given hour (both monthly and daily tenders

209 See Elia, Public consultation on the new aFRR design, available at: https://www.elia.be/en/public-consultation/20180903-public-consultation-on-the-new-afrr-design (see in particular the Proposal for the design note of the new aFRR design, pages 35 et seq.).

210 Elia, Implementation plan for a new aFRR design and a separated procurement of FCR and aFRR products, available at: https://www.elia.be/en/public-consultation/20181109-implementation-plan-for-a-new-afrr-design (see in particular aFRR implementation plan, pages 36 et seq.).

211 ACER, Progress of EU electricity wholesale market integration: 2023 Market Monitoring Report, November 2023, page 32. In addition, the Danish TSOs procure more than 50% of their aFRR capacity requirements through daily tenders.

212 Replies to eRFI to competitors (BSPs), question D.E.2.

213 Ibid., replies to question D.E.3.

214 Mavir's response to Question 6 of RFI 15.

215 Minutes of conference call with Mavir on 11 October 2024, paragraph 20.

216 The accredited capacity of a given plant for a specific type of balancing service (e.g. aFRR) represents the maximum change in output (upward or downward) that the plant is technically capable of providing in response to a call by the TSO for the provision of that service.

217 Minutes of conference call with Mavir on 15 May 2024, paragraph 31.

combined).[218] Although this spare capacity does not currently translate into higher participation rates in aFRR capacity tenders, as indicated by the Parties' significant combined market share,[219] the large amount of accredited aFRR capacity indicates nevertheless that barriers to entry and expansion for accredited BSPs are low. In fact, the barriers for a BSP to shift from having accredited aFRR capacity to becoming an actual provider of aFRR capacity are mostly of a commercial nature, subject to a BSP's profit-maximising strategy that could lead the BSP to participate in different electricity markets depending on opportunity costs and the likelihood to maximise revenues. This was confirmed by the market investigation where the majority of respondents who expressed an opinion indicated that the barriers to enter or expand in the aFRR capacity market for companies already active in adjacent electricity markets (such as electricity generation and wholesale) were low to inexistent.[220]

(110) The Commission further notes that the excess spare accredited capacity described above does not constitute an obstacle capable of deterring Mavir from increasing the share of daily tenders as compared to monthly tenders in the event of a significant price increase. Given that this spare capacity does not currently translate into higher participation rates in aFRR capacity tenders, despite the already elevated price level in Hungary, it can reasonably be expected that Mavir would resort to a shift in its procurement approach rather than relying on the accredited capacity alone.

(111) It follows from the above that, if aFRR capacity prices were to increase, Mavir would have the ability and incentive to further shift from monthly to daily tenders and, as a result, allow an even larger share of certain energy sources, such as photovoltaic power and BESS, to participate in aFRR capacity tenders, thereby decreasing its reliance on fossil energy sources, including the Parties' gas-powered services.

5.2.1.5. Conclusion on balancing capacity reservation

(112) As explained above, the evidence collected during the market investigation indicates that the Hungarian aFRR market is undergoing material changes that will substantially increase competition in the market for the provision of aFRR capacity and significantly decrease Mavir's reliance on the Parties. Specifically: (i) the already ongoing expansion of BESS and photovoltaic energy sources will continue to increase competition and exert pressure on the Parties; (ii) the expansion of MVM will considerably increase competition in the market for the provision of aFRR capacity once the plants enter into operation; and (iii) Mavir can (and would have an incentive to) at any time mirror the behaviour of other EU TSOs – which is encouraged by EU legislation – and switch to a larger share of daily tenders to attract additional energy sources from providers other than the Parties. In that regard, one of the Parties' competitors stated that "*negative effects may occur in the short term, however, with changes in the supply side (PV, energy storage, new*

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218 Form CO, paragraph 202.

219 Which may be due to the fact that in practice, the amount of aFRR capacity that a plant can offer in a certain direction at a given moment is not necessarily equal to the plant's entire accredited aFRR capacity, because the actual available capacity depends on other factors such as leeway to adjust its electricity generation output in the required direction, which must therefore not be committed for use in other markets such as for day-ahead wholesale.

220 Replies to eRFI to competitors (BSPs), question D.D.6.

*CCGT), a new state of equilibrium could emerge, reversing some of the perceived negative effects of the Transaction*".[221] Another competitor notes that "*the Target and Veolia assets are already on the market. New entrants such as PVs, batteries make much bigger impact*".[222]

(113) The views expressed in the market investigation by the Parties' competitors are consistent with the result of the Commission's investigation. The majority of respondents that expressed an opinion indicated that the Transaction would not have a significant impact on the aFRR capacity markets.[223]

(114) In light of the various elements above, the Commission is of the view that these predictable future changes to the Hungarian aFRR capacity market will constitute sufficient competitive constraints for the Parties and prevent them from impacting effective competitive conditions in the market.

(115) All elements above are likely to occur. Taken together, they would be of sufficient scope and magnitude to defeat any anti-competitive effects of the Transaction. Overall, they would also be timely, in particular as the photovoltaic expansion is unfolding (capturing in less than a year 50% of volumes procured via daily tenders) and the BESS expansion will take effect as soon as 2026 (with the government-subsidised 440 MW coming online by then and covering more than 100% of Mavir's average needs upward or downward).

*5.2.2. aFRR energy activation*

5.2.2.1. Introduction

(116) As explained in section 4.1, aFRR energy activation occurs in a second step, following the reservation of aFRR capacity. Compared to the aFRR capacity market, with a monthly average of 422,068 MWh of aFRR capacity procured by Mavir in 2023, the aFRR energy market is smaller, with a monthly average of 35,056 MWh of aFRR energy procured.[224] Compared to the wholesale market, which has a monthly average size of 3,507,824 MWh, the market for the provision of aFRR energy is even smaller.[225]

(117) aFRR energy is procured by Mavir in 15-minutes intervals, separately for aFRR+ and aFRR- energy. For every quarter-hour, BSPs who have won in the aFRR capacity tender *must* submit and other BSPs *can* submit (so-called 'free bids') a bid that includes (i) the amount of balancing energy they are willing to activate in that 15-minutes interval, which for BSPs having won a corresponding aFRR capacity reservation tender must represent at least the amount they committed to reserve in that tender and (ii) the price at which they are willing to do so. BSPs having won an aFRR capacity reservation tender can freely select the price at which they submit an offer for the subsequent aFRR energy activation, i.e., prices between aFRR capacity and aFRR energy bids are independent from each other.[226]

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221 Replies to eRFI to competitors (BSPs), question E.2.

222 Replies to eRFI to competitors (BSPs), question E.2.

223 Replies to eRFI to competitors (BSPs), question E.2.

224 Form CO, Annex RFI 2 Q1(a), where Parties' estimated annual market size is summed up across aFRR+ and aFRR- and then divided by 12 to obtain a monthly figure.

225 Notifying Party's response to RFI 17 Q6, where Parties' estimated annual market size is divided by 12 to obtain a monthly figure.

226 See replies of Mavir to RFI 3, question 4. See also Form CO, paragraph 456.

(118) aFRR energy bids can be placed from 12:00 (noon) the day before until 25 minutes before the period for which the balancing energy is being procured ('gate closure time'). Bids are single rounds.[227]

(119) Mavir ranks the received bids in ascending price order and, for each bid, considers the capacity that can be activated within 1 minute. Starting from the cheapest offer, Mavir activates the bids in real-time in 1-minute time intervals, depending on the energy (upwards or downwards) that is required to restore balance in the grid. Successful bids are currently remunerated on a pay-as-bid basis, which means that every successful bidder is compensated at its actual bid price. The only exception to this compensation rule is when the fee cap mechanism[228] is applicable, in which case the winning bids that exceed the cap are compensated at a fee equal to the cap. The price-cap is applicable when the HHI, calculated based on aFRR energy bids submitted by BSPs, exceeds in a given quarter-hour 1,800. The fee cap is determined by MEKH, separately for aFRR upward and aFRR downward, and can be reviewed no more than once a month. In 2023, the fee cap applied to 65.9% of aFRR- and to 55.7% of aFRR+ energy bids.[229]

(120) Once Mavir will join the PICASSO platform (see section 5.2.2.4.1) the compensation method will change to a pay-as-cleared method and the fee cap mechanism currently in place will be discontinued.[230]

(121) As will be described in more detail in section 5.2.2.4, the aFRR energy market is currently undergoing strong evolution. There is a clear trend towards harmonized and integrated aFRR markets in Europe, notably via the introduction of standardized products and the expansion of PICASSO to further countries, including Hungary in 2026. Another trend is the entry of new generation technologies, such as photovoltaics and BESS, in the aFRR energy market.

5.2.2.2. Market shares

(122) For the purposes of this Decision, the Commission has relied on data provided by Mavir to estimate aFRR energy market shares. This data corresponds to all energy tenders organized between January 2021 and June 2024, and shows how much volume each competitor secured in each tender. Table 8 below shows the Parties' combined market shares in the various plausible market segments.

**Table 8 – Parties' combined (volume) share in aFRR energy activation, 2023**

| Potential market | aFRR energy[231] | aFRR+ energy | aFRR- energy |
|---|---|---|---|
| 2023 | [60-70]% | [50-60]% | [60-70]% |
| Winter (November 2023 - April 2024) | [60-70]% | [60-70]% | [60-70]% |
| Summer (May 2023 – October 2023) | [50-60]% | [40-50]% | [50-60]% |

227 Form CO, Table 38.

228 The fee cap mechanism is a mechanism that was introduced in November 2021 by Mavir in order to make competition more effective and to avoid possible distortions by dominant market participants in cases of high market concentration for aFRR energy bids. See replies of Mavir to RFI 3, question 6.

229 See replies of Mavir to RFI 3, question 6 and to RFI 4, questions 5-6. See also Form CO, paragraphs 469-473.

230 See replies of Mavir to RFI 8, questions 5-6.

231 The market share for aFRR reflects the Parties' share of the combined total market, taking into account the different sizes of the aFRR+ energy and aFRR- energy segments respectively.

*Source: Estimates by the Commission based on Mavir's response to RFI 4 Q7.*

(123) The Parties' combined market shares in activation of aFRR energy at national level in Hungary was [60-70]% in 2023, with an increment of [20-30] percentage points. Considering the narrower segments for upward and downward activation of aFRR energy, the Parties' combined share was [50-60]% upwards and [60-70]% downwards in 2023. In the narrowest plausible segments for upward and downward activation of aFRR energy during winter months, the Parties' combined share was [60-70]% upwards and [60-70]% downwards in 2023, with respective increments of [20-30] and [20-30] percentage points.

(124) As can be seen in Tables 9, 10, and 11 below, market shares can fluctuate significantly from year to year. This may result partially from the fact that this is a bidding market where competitive outcomes can often change from one tender to the other, but may also be due to the significant disruption observed during the 2022 energy crisis. For example, for the aFRR- energy activation market, the Parties' combined share increased from [40-50]% in 2021 to [70-80]% in 2022, falling back to [60-70]% in 2023 (and continuing this downward trend according to preliminary 2024 data, whereby the Parties' combined share in the first half of the year was [50-60]%).[232]

**Table 9 – Parties' combined (volume) share in aFRR energy activation, 2021-2023**

| Competitor | 2021 | | 2022 | | 2023 | |
|---|---|---|---|---|---|---|
| | MWh | Share | MWh | Share | MWh | Share |
| Veolia | […] | [20-30]% | […] | [20-30]% | […] | [20-30]% |
| Uniper | […] | [20-30]% | […] | [30-40]% | […] | [30-40]% |
| ***Combined*** | ***[…]*** | ***[40-50]%*** | ***[…]*** | ***[60-70]%*** | ***[…]*** | ***[60-70]%*** |
| MVM | […] | [20-30]% | […] | [20-30]% | […] | [10-20]% |
| MET | […] | [10-20]% | […] | [10-20]% | […] | [10-20]% |
| E.ON | […] | [5-10]% | […] | [5-10]% | […] | [5-10]% |
| Others | […] | [0-5]% | […] | [0-5]% | […] | [0-5]% |
| ***Total*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** |

*Source: Estimates by the Commission based on Mavir's response to RFI 4 Q7.*

**Table 10 – Parties' combined (volume) share in aFRR+ energy activation, 2021-2023**

| Competitor | 2021 | | 2022 | | 2023 | |
|---|---|---|---|---|---|---|
| | MWh | Share | MWh | Share | MWh | Share |
| Veolia | […] | [20-30]% | […] | [20-30]% | […] | [20-30]% |
| Uniper | […] | [20-30]% | […] | [20-30]% | […] | [20-30]% |
| ***Combined*** | ***[…]*** | ***[50-60]%*** | ***[…]*** | ***[40-50]%*** | ***[…]*** | ***[50-60]%*** |
| MVM | […] | [30-40]% | […] | [40-50]% | […] | [10-20]% |
| MET | […] | [5-10]% | […] | [5-10]% | […] | [5-10]% |
| E.ON | […] | [5-10]% | […] | [5-10]% | […] | [10-20]% |
| Others | […] | [0-5]% | […] | [0-5]% | […] | [5-10]% |
| ***Total*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** |

*Source: Estimates by the Commission based on Mavir's response to RFI 4 Q7.*

[232] Estimates by the Commission based on Mavir's response to RFI 4 Q7.

**Table 11 – Parties' combined (volume) share in aFRR- energy activation, 2021-2023**

| Competitor | 2021 | | 2022 | | 2023 | |
|---|---|---|---|---|---|---|
| | MWh | Share | MWh | Share | MWh | Share |
| Veolia | […] | [10-20]% | […] | [20-30]% | […] | [20-30]% |
| Uniper | […] | [20-30]% | […] | [40-50]% | […] | [30-40]% |
| ***Combined*** | ***[…]*** | ***[40-50]%*** | ***[…]*** | ***[70-80]%*** | ***[…]*** | ***[60-70]%*** |
| MVM | […] | [10-20]% | […] | [5-10]% | […] | [10-20]% |
| MET | […] | [20-30]% | […] | [10-20]% | […] | [10-20]% |
| E.ON | […] | [10-20]% | […] | [0-5]% | […] | [5-10]% |
| Others | […] | [5-10]% | […] | [0-5]% | […] | [5-10]% |
| ***Total*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** |

*Source: Estimates by the Commission based on Mavir's response to RFI 4 Q7.*

(125) In addition, the Commission considers it informative for the purpose of its assessment of the Transaction to take into account seasonal differences in market shares, reflecting the Parties' relative efficiency in particular during winter months, as shown in Table 12 below.

**Table 12 – Parties' combined (volume) share in aFRR- energy activation, winter**

| Competitor | 2021 (Nov. 21 – April 22) | | 2022 (Nov. 22 – April 23) | | 2023 (Nov. 23 – April 24) | |
|---|---|---|---|---|---|---|
| | MWh | Share | MWh | Share | MWh | Share |
| Veolia | […] | [20-30]% | […] | [40-50]% | […] | [40-50]% |
| Uniper | […] | [40-50]% | […] | [30-40]% | […] | [20-30]% |
| ***Combined*** | ***[…]*** | ***[60-70]%*** | ***[…]*** | ***[80-90]%*** | ***[…]*** | ***[60-70]%*** |
| MVM | […] | [5-10]% | […] | [0-5]% | […] | [5-10]% |
| MET | […] | [10-20]% | […] | [10-20]% | […] | [5-10]% |
| E.ON | […] | [5-10]% | […] | [0-5]% | […] | [5-10]% |
| Others | […] | [0-5]% | […] | [0-5]% | […] | [10-20]% |
| ***Total*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** | ***[…]*** | ***100%*** |

*Source: Estimates by the Commission based on Mavir's response to RFI 4 Q7.*

5.2.2.3. The Notifying Party's view

(126) As set out in Section 5.2.1.3, the Notifying Party considers that the Transaction is not likely to give rise to any non-coordinated effects also on the aFRR energy market for the following reasons: (i) market shares do not accurately reflect the competitive dynamics of the balancing and ancillary services markets or the Parties' position therein, (ii) the Parties are not close competitors on the aFRR markets as they rely on different electricity generation technologies which lead to varying degrees of competitiveness, (iii) total accredited aFRR capacity, excluding the Parties', exceeds Mavir's balancing needs two-fold across all tender types, (iv) Mavir, as the sole purchaser on the balancing markets, enjoys "buyer power" via its ability to change its procurement method, and (v) the aFRR markets are undergoing structural changes which will result in significant increase of competitive pressure on the Parties in the short to medium term.[233]

[233] Form CO, paragraphs 186 et seq.

(127) With regard to the structural changes of the aFRR markets, in addition to arguments related to the entry and/or expansion of BESS, photovoltaic plants and MVM's CCGT units (already set out in Section 5.2.1), the Notifying Party submits that Hungary's participation in European cooperation networks in the area of balancing and ancillary services leads to the creation of wider-than national if not European markets for these services. In particular, Hungary's participation in the International Grid Control Cooperation ('IGCC'), which provides a common platform for participating TSOs to net energy imbalances between LFC areas to optimize the activation of aFRR energy by avoiding simultaneous activation of aFRR energy in opposite directions, would reduce the need to activate energy balancing through aFRR upfront.[234] In addition, and more importantly, Hungary's expected accession to the PICASSO platform in the first quarter of 2026 will allow Mavir, alongside other European TSOs, to pool their aFRR resources and to activate aFRR energy from the cheapest available sources across all participating countries. As a result, PICASSO will enhance TSOs' access to aFRR energy reserves beyond their local procurement capabilities and increase competition by allowing BSPs from different countries to compete with each other, leading to aFRR market integration among participating countries.[235]

5.2.2.4. The Commission's assessment

(128) 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,[236] the Commission notes at the outset that in the market for the provision of aFRR energy, where BSPs offer aFRR energy 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.

(129) As shown above, the Parties' combined market share in the aFRR energy market overall amounted to [60-70]% in 2023, with an increment of [20-30] percentage points. On a narrower basis, the combined market share was as high as [60-70]% in the segments for aFRR- energy in the winter season of 2023, with an increment of [20-30] percentage points. Pursuant to established case-law, very large market shares, i.e. 50% or more, may in themselves be evidence of the existence of a dominant market position.[237]

(130) Indeed, with a high combined market share in aFRR energy activation, the Parties have a strong market position due to their efficiency and consequent low prices and high ramp up rates. The Hungarian TSO activates bids based on price and the capacity available within 1 minute. Due to their superior efficiency and higher ramp-up rates, the Parties are able to deliver more MW of energy within 1 minute and at a lower price than their rivals. For this reason, and as presented in section 5.2.1.4, pre-merger, the Parties pose a significant competitive constraint on each other, offering relatively lower prices and higher ramp-up rates, while competitors' prices are relatively higher. All else being equal, the transaction therefore has the potential to increase prices, by eliminating the competitive constraint that the Parties impose on each other.

234 Form CO, paragraphs 235 et seq.
235 Form CO, paragraphs 245 et seq.
236 Horizontal Merger Guidelines, paragraph 14.
237 Horizontal Merger Guidelines, paragraph 17.

(131) However, as noted above at paragraph (71), the Commission may take into account future changes to the market that can reasonably be predicted.[238] As explained below in more detail, the Hungarian markets for aFFR services are currently undergoing substantial structural changes that will significantly increase competition in the market for aFRR energy and, as a consequence, significantly decrease Mavir's reliance on the Parties' services.

(132) Following the market investigation with a wide range of market participants, TSOs and regulatory bodies and associations, the Commission considers that, on balance, the Transaction will not give rise to horizontal non-coordinated effects in respect of aFRR energy for the reasons set out below.

5.2.2.4.1. Hungary's accession to the PICASSO platform will result in increased competition from across Europe and lower prices in Hungary

(133) The information gathered during the market investigation from market participants, the Parties, the Hungarian TSO (Mavir) and other European TSOs, as well as ACER[239] and ENTSO-E[240] supports the Notifying Party's argument that Hungary's anticipated accession to PICASSO will lead to aFRR energy market integration among participating countries and increased competitive pressure for current BSPs in Hungary by BSPs from all participating countries.

(134) PICASSO allows participating TSOs to pool their aFRR energy resources and to activate aFRR energy from the cheapest available BSPs across all participating countries.[241] BSPs from countries participating in PICASSO submit their aFRR energy offers to their usual TSO. These offers are then forwarded to PICASSO, and are combined into a Common Merit Order List ('CMOL'). The CMOL is based on the local merit order lists of all participating countries' TSOs. TSOs submit their aFRR energy activation requests to PICASSO, on the basis of which an algorithm (so-called Activation Optimization Function or 'AOF') determines the most efficient activation, based on the CMOL (i.e., cheaper offers are prioritized)[242] and other factors, such as network congestion and available interconnector capacity.[243] The AOF matches TSOs' activation requests with the cheapest available energy bids and TSOs cannot directly choose which aFRR energy bids are activated to address their needs.[244] Conversely, BSPs have no insight into the extent to which their aFRR energy will be activated for cross-border supply.[245] Moreover, the AOF's optimization process does not include priority access to local volumes.[246]

238 Horizontal Merger Guidelines, paragraphs 9 and 68 et seq.
239 European Union Agency for the Cooperation of Energy Regulators ('ACER').
240 European Network of Transmission System Operators for Electricity ('ENTSO-E').
241 The cooperation of PICASSO and all TSOs involved is regulated and described in the Implementation framework for the European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation, in accordance with Article 21 of Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing.
242 The aFRR energy activation is settled based on marginal pricing, which is settled between the platform and the TSOs, as well as between the TSO and the BSPs belonging to their LFC area; see Mavir's response to RFI 4, question 3.c.
243 Form CO, paragraphs 248, 250-251.
244 Form CO, paragraph 251.
245 Form CO, Footnotes 183 and 184. See also Mavir's response to RFI 8, question 5.j.
246 Form CO, Footnote 188.

(135) Accession to PICASSO is mandatory for TSOs of EU Member States.[247] As of 30 November 2024, Austria, Belgium, Czechia, Denmark, Germany, Italy[248], the Netherlands, and Slovakia have become operational on the platform.[249] Following an initial deadline to join by 24 July 2022,[250] Mavir, like fourteen other TSOs,[251] has been granted a derogation to join until 24 July 2024.[252] Due to technical issues mainly related to the adaptation of Mavir's IT systems and the harmonization of BSPs' aFRR energy products,[253] Mavir could not join PICASSO by 24 July 2024. Instead, Mavir is expected to become operational on PICASSO during the first quarter of 2026. Mavir, the Hungarian Ministry of Energy, and ENTSO-E have confirmed during the market investigation that the initial technical issues are expected to be solved by 2026,[254] and that Hungary is on track to becoming operational on PICASSO in the course of the first quarter 2026, i.e., in less than one and a half years.[255]

(136) In addition to being mandated by law, Hungary's accession to PICASSO within the indicated timeframe is also very likely due to the expected economic benefits that its accession entails. ENTSO-E confirmed that there is a social-welfare reason to join PICASSO. Indeed, the algorithm underlying PICASSO, i.e., the AOF, ensures that the most cost-efficient available aFRR energy is being activated and delivered across all participating LFC areas at all times, to the extent possible.[256]

(137) With regard to Hungary in particular, given that Hungary has historically experienced one of the highest aFRR energy price levels of all European LFC areas,[257] the price-limiting effect of the AOF's allocation for the Hungarian LFC area is expected to be significant.[258] As shown in Table 13 below, the annual average aFRR+ and aFRR- energy prices in Hungary were significantly higher in 2023 and 2024 (until 30 September) than the annual average cross-border marginal

247 Except for Malta and Ireland. See Articles 1 and 21 of the Electricity Balancing Guidelines.

248 Italy has suspended its participation in PICASSO on a temporary basis since 15 March 2024 pursuant to ARERA decision 60/2024. See press release of ENTSO-E: https://www.entsoe.eu/network_codes/eb/picasso/.

249 See updates on accessions by ENTSO-E, available at https://www.entsoe.eu/network_codes/eb/picasso/.

250 Article 21(6) Electricity Balancing Guideline and Article 5(1) Implementation framework for the European platform for the exchange of balancing energy from frequency restoration reserves with automatic activation ('aFRRIF').

251 Of the 24 EEA Member States (plus Switzerland) whose accession to PICASSO is mandatory under the Electricity Balancing Guideline, seventeen TSOs (including Mavir) have been granted derogation from the initial 2022 accession deadline. Of these, Italy's Terna was granted derogation until 24 July 2023, Bulgaria's ESO until 30 June 2024, and all others until 24 July 2024. Five further TSOs (including Swissgrid from Switzerland) are currently in breach of the initial 2022 accession deadline without formal derogation.

252 See, e.g., aFRR-Platform Accession roadmap (version 12 of 26 September 2024), and Article 5.4(b)(vii) aFRRIF, in accordance with Article 62 Electricity Balancing Guideline.

253 MAVIR's response to RFI 8, question 7, RFI 4, question 3.a.

254 MAVIR's response to RFI 8, question 7 and RFI 4, question 3.a. See also minutes of conference call with MAVIR on 11 October 2024, paragraph 2; minutes of conference call with the Ministry of Energy on 25 September 2024, paragraph 3; and responses to eRFI to competitors (BSPs), question D.D.3.

255 Minutes of conference call with MAVIR on 11 October 2024, paragraph 2, minutes of conference call with the Ministry of Energy, paragraph 2. See also updated accession roadmap as of 26 September 2024, published by ENTSO-E at https://www.entsoe.eu/network_codes/eb/picasso/.

256 Minutes of conference call with ENTSO-E (PICASSO project), 4 October 2024, paragraphs 8 et seq. See also Energy Balancing Guideline, recital 11 and Article 29.

257 See ENTSO-E 2024 Balancing Report, page 49 and MAVIR's response to RFI 8, question 5.f.

258 See also paragraph (146) below.

prices in PICASSO member countries Austria, Czechia and Germany during the same period. This suggests that joining PICASSO will benefit Hungary in particular. Because Mavir is bound to procure the most cost-effective aFRR energy available,[259] it would be in its best interest to join the platform as quickly as possible to get access to lower-cost aFRR energy sources.

**Table 13 – Annual average aFRR energy prices in Hungary, Austria, Czechia and Germany, 2023-2024 (in EUR/MWh)[260]**

| Country | 2023 | | 2024 (until 30 September) | |
|---|---|---|---|---|
| | aFRR- | aFRR+ | aFRR- | aFRR+ |
| Hungary | 4.92 | 606.65 | 10.90 | 338.85 |
| Austria | -35.22 | 155.06 | -14.88 | 118.49 |
| Czechia | -29.43 | 183.31 | -1.42 | 157.70 |
| Germany | -48.47 | 148.82 | -26.07 | 122.96 |

*Source: Notifying Party's response to RFI 25, question 1, based on data from Transnet BW (https://www.transnetbw.de/en/energy-market/ancillary-services/picasso) and from Mavir (https://www.mavir.hu/web/riportok/kiegyenlito-energia-egysegarak).*

(138) Mavir confirmed the expected economic benefits from acceding to PICASSO, stating that its accession will materially impact balancing energy prices in Hungary due to "*the satisfaction of MAVIR's aFRR needs with cheaper import [aFRR] energy*", which Mavir expects to lead to lower prices for aFRR energy in Hungary "*given that the price level of balancing energy in Hungary is currently higher than in other countries participating in PICASSO*".[261]

(139) Moreover, it is also unlikely that Hungary's accession to PICASSO will be significantly delayed beyond the first quarter of 2026. Indeed, the main reasons for the current delay beyond the official prolongation until 24 July 2024, i.e. issues with Mavir's IT update and BSPs adaptation to the harmonized products, will be solved by 2026. Mavir indicated that the development and testing of its new IT systems were on track for Q1 2026,[262] and the large majority of BSPs that have responded to the Market investigation have confirmed that product harmonization and standardisation has been implemented or will be implemented ahead of the Q1 2026 deadline.[263]

(140) Based on the results of the market investigation, the Commission considers that Hungary's accession to PICASSO will significantly increase competitive pressure and lead to a lower price level for aFRR energy in Hungary, based on the following considerations.

(141) ***First*, Hungary's accession to PICASSO will open the Hungarian aFRR energy market to competition from BSPs across Europe and lower the price level in Hungary.** The large majority of respondents to the market investigation, both

259 Mavir's response to RFI 3, question 5. See also Section 141 §11 of the Hungarian Electricity Act, which foresees that Mavir has to carry out its activity in compliance with the "least cost principle", i.e. incurring the lowest cost possible.

260 Prices are expressed in terms of payments from the TSO(s) to BSPs.

261 Mavir's response to RFI 8, question 5.

262 Mavir's response to RFI 8, questions 7.a and 7.b.

263 Replies to eRFI to competitors (BSPs), question D.D.3.

competing BSPs as well as Mavir and other TSOs, expect prices for aFRR energy in Hungary to decrease in the event of Hungary's accession to PICASSO.[264] In that regard, Mavir confirmed that it expects the accession to PICASSO to entail major changes to the Hungarian aFRR energy market, stating that "*European BSPs will be able to participate with aFRR energy bids for the Hungarian market and, vice versa […]. The more competition there will be, the lower the prices that can possibly be achieved*".[265] This was confirmed by the Hungarian Ministry of Energy, who expect "*the impact [of] the accession of Hungary to PICASSO [to be] a significant increase in competition on the Hungarian aFRR activation balancing market*".[266] Similarly, ACER expects that "*the accession to the PICASSO platform should introduce more competition in the Hungarian market, as balancing energy originating elsewhere in Europe will be able to serve the Hungarian market [and] interconnection capacity should not pose a significant constraint for Hungary*".[267] Mavir noted that aFRR energy imports will not be subject to any transmission fee for the use of cross-border interconnectors.[268]

(142) The majority of foreign TSOs that expressed a view in response to the market investigation indicated that in countries where aFRR energy prices are currently above average, such as in Hungary, the accession to PICASSO is expected to lead to a decrease in average aFRR energy prices.[269] One TSO stated for instance that "*market design established in [Electricity Balancing] Regulation is that with further integration of balancing energy markets balancing energy bid prices will represent their true underlying costs and thus decrease*", noting however that "*real bidding behaviour may deviate*".[270] Other TSOs stated that "*in principle, the accession to PICASSO should have a positive effect toward a decrease [of] aFRR energy price levels where aFRR energy prices are currently above EU average due to an increased competitive pressure in the national market as long as transmission capacity is available from neighbouring countries towards the considered national market*",[271] and that "*with the connection to PICASSO, prices in LFC areas that currently face relatively high prices could decrease for the following reasons: 1) Optimizing the selection of aFRR Energy Bids over a larger area enables the selection of aFRR Energy Bids at the lowest prices (while considering constraints on transmission capacity), and 2) Increased competition might create a downward pressure on offered prices*".[272] Other TSOs still confirmed that, in principle, BSPs "*will face a higher competition due to a bigger market*" and the market integration "*should result in the convergence of prices, thus above average prices should decrease*".[273] However, TSOs also pointed out that the exact impact of the accession to PICASSO is hard to predict, as this "*depends on the whole balancing market environment in the concrete LFC area*", especially since "*[the accession requires the] removal of local price limits*".[274]

264 Replies to eRFI to competitors (BSPs), question D.D.4; and replies to eRFI to TSOs, question D.D.2.
265 Minutes of conference call with Mavir on 11 October 2024, paragraph 3.
266 Minutes of conference call with the Ministry of Energy on 25 September 2024, paragraph 3.
267 Minutes of conference call with ACER on 3 September 2024, paragraph 14.
268 Minutes of conference call with Mavir on 11 October 2024, paragraph 3.
269 Responses to eRFI to TSOs, question D.D.2.
270 Response to eRFI to TSOs, question D.D.2.1.
271 Response to eRFI to TSOs, question D.D.2.1.
272 Response to eRFI to TSOs, question D.D.2.1.
273 Response to eRFI to TSOs, question D.D.2.1.
274 Response to eRFI to TSOs, question D.D.2.1.

(143) The majority of competing BSPs that expressed a view in response to the market investigation also expect aFRR energy prices to decrease following Hungary's accession to PICASSO, noting, for instance, that "*international prices are lower than Hungarian, thus when [joining] a bigger market [with lower] average prices Hungarian prices will decrease*".[275]

(144) ***Second*, and more generally, participation in the PICASSO platform brings about social welfare benefits, which are typically higher for smaller LFC areas, such as Hungary.** Third-party studies submitted by the Notifying Party indicate that PICASSO raises social welfare for all of its active members.[276] The algorithm underlying the PICASSO platform ensures that there is always a social benefit, either on the consumers' or on the producers' side: if prices rise due to increasing exports, the producers' surplus accrues; if prices decrease due to increasing imports, the consumers' surplus accrues.[277] For the period of January until August 2024, the economic surplus calculated by ENTSO-E exceeded EUR 98,8 million for the TSOs having participated in the platform. Economic surpluses for smaller LFC areas (e.g., Austria and, in the future, likely Hungary) are higher than for larger LFC areas (e.g., Germany), which ENTSO-E explains by the fact that via PICASSO smaller LFC areas get access to a much larger market for aFRR energy in relative terms.[278] Given that Hungary has many interconnections to other LFC areas, ENTSO-E estimates that the potential for realization of aFRR netting, and hence social welfare benefits, is high once Hungary will join the platform.[279]

(145) ***Third*, Hungary is likely to import a significant amount of aFRR energy through PICASSO due to its high domestic price level and the lack of significant interconnection constraints with neighbouring countries.** The actual price impact in Hungary depends primarily on the amount of aFRR energy that will be "imported" into the Hungarian LFC area via PICASSO. In theory, PICASSO is conceived to allow all participating TSOs to source 100% of their aFRR energy needs through the platform, irrespective of where exactly the AOF activates aFRR energy bids.[280] The primary parameters that define the flow of aFRR energy across the participating LFC areas are price and cross-border interconnection capacity.

(146) With regard to price, as stated above, PICASSO's AOF determines the most efficient activation, based on the CMOL, i.e., cheaper offers are prioritized.[281] The price settlement for PICASSO is based on the pay-as-cleared principle.[282] This means that a uniform clearance price is defined by the marginal aFRR energy production unit, i.e., the last unit called for activation in a given settlement period.

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275 Replies to eRFI to competitors (BSPs), questions D.D.4 and D.D.4.1.

276 The Parties put forward a study according to which the average offered aFRR upward energy price and the marginal aFRR upward energy price (i.e., highest bid offered) in Germany have decreased following the accession to the PICASSO platform. See European Institute for Energy Research, Flexibility in the service of electricity grid stability, March 23, 2023, page 14 available at https://energie-fr-de.eu/fr/manifestations/lecteur/conference-sur-les-flexibilites-du-systeme-electrique.html?file=files/ofaenr/02-conferences/2023/230323_Flexibilites/Presentations/03_Simon_Paulus_EIFER_DFBEW_OFATE.pdf

277 Minutes of conference call with ENTSO-E (PICASSO project) on 4 October 2024, paragraph 8.

278 ENTSO-E, Update on Balancing Platforms at the Market European Stakeholders Committee of 8 October 2024, slides 23-24.

279 Minutes of conference call with ENTSO-E (PICASSO project) on 4 October 2024, paragraph 11.

280 Mavir's response to RFI 8, question 5.g.

281 See paragraph (134) above.

282 Article 30(1)(a) of the Electricity Balancing Guidelines.

ACER confirmed in this regard that TSOs that are currently not following the pay-as-cleared model, such as Hungary, "*have to change their activation system [to the paid-as-cleared system] ahead of joining the PICASSO platform*".[283] As the AOF activates the cheapest bids from the CMOL first, BSPs are incentivized by the pay-as-cleared model to place competitive bids, as that would improve their chance of being activated, while being remunerated based on the relatively more expensive marginal bid. In such a system, BSPs usually tend to bid closer to their generation costs, i.e., their SRMC, which increases their chances of ranking closer to the starting point of the CMOL and at the same time generating a margin equivalent to the difference between their bid price and the price of the marginal aFRR energy production unit.[284]

(147) As Hungary's BSPs, including the Parties, experience relatively higher SRMC for aFRR energy compared to BSPs from other PICASSO member countries, which is due also to Hungary's aFRR energy mix that remains to a large extent dependent on fossil gas-fired power plants,[285] the AOF will be more likely to activate aFRR energy bids in LFC areas where BSPs produce aFRR energy from lower-cost sources. In comparison to Hungary, this is the case, for instance, in Austria and Germany with a larger share of wind and hydro (e.g., pumped storage power plants) among their aFRR energy sources.[286] In this regard, ACER confirmed that "*for instance, Germany has quite a large merit order with a considerable number of players providing activation bids at comparatively low prices*".[287]

(148) As a result, the Parties will face competitive constraints from foreign BSPs that have, e.g., in the case of Austria and Germany, structurally lower SRMC than their Hungarian rivals and that will therefore be able to bid lower prices in the CMOL.

(149) With regard to cross-border interconnection capacity, foreign BSPs will be able to effectively compete in the Hungarian aFRR energy market only if the cross-zonal capacity of interconnectors ('CZC') between Hungary and its neighbouring countries is sufficient, i.e., if Mavir has access to a sufficiently large volume of aFRR energy flowing across Hungary's borders.[288] In theoretical terms, the CZC available to TSOs for aFRR services at any given moment depends on two factors: (1) the total capacity size of the interconnectors between two countries, and (2) the amount of power already flowing through the interconnectors.[289] However, predictions of the available CZC for balancing services are not readily available, as this not only depends on the nominal installed CZC per interconnector line, but also on dynamic factors such as the capacity used at a given time for wholesale market trades and international imbalance netting.[290] Mavir explained in this regard that "*the actual [CZC] varies due to the flow-based market coupling in the*

283 Minutes of conference call with ACER on 3 September 2024.

284 Form CO, paragraph 263.

285 Minutes of conference call with Mavir on 11 October 2024, paragraph 25.

286 See, e.g., Mavir's response to RFI 8, question 5.f. Such price effect from "imports" via PICASSO may be limited in case Hungarian BSPs would react to the uniform pricing based on the CMOL by downward adjusting their own aFRR energy bid prices, in which case the increased competition through PICASSO has nevertheless a positive effect on competition for aFRR energy in Hungary.

287 Minutes of conference call with ACER on 3 September 2024.

288 See, e.g., minutes of conference call with ACER on 3 September 2024.

289 Form CO, paragraph 267.

290 Mavir's response to RFI 8, question 5. CZC congestion can not only derive from cross-border congestion, but also from internal network congestion in neighbouring countries; see minutes of conference call with Mavir on 11 October 2024, paragraph 5.

*wholesale market and the imbalance netting. Both the day-ahead and intra-day wholesale market as well as the imbalance netting take priority over balancing energy on the interconnectors. An estimation of [available CZC] is still difficult because flow-based Intraday Capacity Calculation was introduced in Hungary only months ago*".[291]

(150) The Commission therefore sought to confirm the likely available CZC with the relevant regulatory bodies, who all confirmed that they expect the CZC between Hungary and its neighbouring countries to be sufficient for aFRR energy needs at virtually all times. The Hungarian Ministry of Energy confirmed that "*usually, there is sufficient interconnection capacity available between Hungary and its neighbouring countries*".[292] ACER noted in this regard that "*with regard to Hungary, […] interconnection capacities are satisfactory once it will become connected with all its neighbouring countries, in particular compared to other countries. Hungary will have at all times cross-zonal capacity left for aFRR balancing*".[293] ACER further specified that the available CZC for Hungary is rather good compared to other European countries. Assuming that all neighbouring TSOs are connected, ACER estimates that the "available CZC" for aFRR energy imports to Hungary is at least 200 MW at any point in time and at least 500 MW in approx. 98% of the time (for exports even 500 MW at any point in time).[294] The available CZC therefore in principle covers all of Mavir's maximum 15-minute up- or downward activation demand on any given day of the month, which was around 200 MW of aFRR+ energy and 500 MW of aFRR- energy in September 2024, the latest month for which data is publicly available.[295]

(151) Similarly, ENTSO-E explained that "*Hungary has many borders and hence a lot of connections to neighbouring countries. Looking at Hungary […] for instance, you see a very high level of realization of the theoretically available netting potential under IGCC. So, we could assume a rather high realization level for [Hungary] also under PICASSO*".[296] The majority of foreign TSOs that responded to the market investigation are also not aware of any relevant limitations to cross-border interconnections with neighbouring countries that could significantly limit the aFRR energy imported to Hungary from abroad after Hungary's accession to PICASSO,[297] although one TSO noted that "*some BSPs may strategically place very expensive balancing energy bids […] in case there are no cross-zonal capacities available for balancing and only locally procured aFRR bids can be activated*".[298] The Commission further notes that Hungary's average activated aFRR energy only represents about 1% of the wholesale market volume in Hungary and, hence, would also require a significantly lower CZC volume to allow

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291 Minutes of conference call with Mavir on 11 October 2024, paragraph 4.

292 Minutes of conference call with the Ministry of Energy on 25 September 2024, paragraph 4.

293 Minutes of conference call with ACER on 3 September 2024.

294 See presentation by ACER to the Commission during the conference call with ACER on 3 September 2024, slide 4.

295 MEKH September 2024 Report.

296 Minutes of conference call with ENTSO-E (PICASSO project) on 4 October 2024, paragraph 11.

297 Replies to eRFI to TSOs, question D.D.3. In line with Mavir's explanation above, the Austrian TSO specified that "*there are no specific limitations which would have an effect on Hungary's borders. However, since balancing energy receives the left overs of cross-zonal capacities after [the wholesale] markets (Day-Ahead, Intraday), the cross-zonal capacities for balancing can vary significantly during the day*" and "worst case" leave "*no cross-zonal capacities for balancing (PICASSO) in certain directions [if] the [wholesale] markets [need] all available capacity*", see reply to eRFI to TSOs, question D.D.3.1.

298 Reply to eRFI to TSOs, question D.D.2.1.

Mavir to source its aFRR energy needs through PICASSO.[299] As a result, the Commission considers that, although CZC can constitute from time to time a bottleneck for the provision of aFRR energy from BSPs located abroad, the available CZC can reasonably be expected to be sufficient for aFRR energy im- or exports to or from Hungary through PICASSO at virtually all times.

(152) ***Fourth*, Hungarian BSPs including the Parties will not be able to anticipate import levels and prices to adjust their own bidding strategy accordingly.** Indeed, as the Notifying Party points out, TSOs, and not BSPs, participate to the PICASSO platform.[300] Due to the complexity of the AOF, BSPs have no insight into how much energy will be activated abroad for use in Hungary.[301] BSPs only receive activation requests from their local TSO without any further information as to whether the activated energy is intended for domestic use or for export.[302] Moreover, Hungarian BSPs won't be able to factor in potential import constraints in their own bidding behaviour. This was confirmed by ACER who stated that "*the available interconnection capacities are only known after the bids, even though BSPs can try to estimate them based on the available cross-zonal capacities available in intraday. At the moment of bidding, BSPs therefore are not certain whether a given bid can be served from foreign sources or whether it will be covered by national bids due to interconnection constraints*".[303] The Commission therefore considers that BSPs' behaviour could not sufficiently counteract the likely impact that Hungary's accession to PICASSO is expected to have.

5.2.2.4.2. Battery electric storage systems are expected to gain significant share of the market in the near future

(153) As set out in section 5.2.1.4.1, BESS are expected to gain significant share in the aFRR markets, as early as of April 2026. Most of the considerations developed in section 5.2.1.4.1 are applicable equally to aFRR capacity and aFRR energy markets.

(154) *First*, 440 MW BESS capacity will be entering the market in April 2026. This significant increase in BESS capacity is very likely to be a "*potential future driver*"[304] of competition on the overall aFRR markets, both on the aFRR capacity and aFRR energy markets. Not only are the selected projects under the 440 MW subsidy scheme required to obtain an aFRR accreditation, but they will also be financially incentivized to be active on the different aFRR segments, via benchmark activity levels set by MEKH.[305] Finally, evidence from other European countries demonstrate that there is a clear business case for BESS to expand on all aFRR markets, with important developments of BESS capacity occurring in countries such as Germany, Belgium and Slovenia.

(155) *Second*, the deployment of BESS in Hungary is expected to exercise important competitive pressure both on the aFRR capacity and aFRR energy markets and is likely to lead to lower prices. The additional volumes brought about by the subsidy scheme are significant and would cover more than 100% of Mavir's maximum

299 Notifying Party's response to RFI 17 Q7.
300 Form CO, footnote 183 and Mavir's response to RFI 8, question 5.b.
301 Form CO, footnote 184 and Mavir's response to RFI 8, question 5.b.
302 Mavir's response to RFI 8, questions 5.b and 5.j.
303 Minutes of conference call with ACER on 3 September 2024, paragraph 9.
304 Minutes of conference call with the Ministry of Energy on 25 September 2024, paragraph 9.
305 See Call for tender, Sections 2.2 and 3.2.

daily upward aFRR energy needs and more than 50% of its maximum daily downward aFRR energy needs activated in the first 9 months of 2024.[306] In addition, given BESS' lower SRMC, they are likely to be able to offer more competitive bids compared to conventional BSPs, in particular under a pay-as-cleared model as will be applicable in Hungary under the PICASSO rules,[307] which would allow them to gain market share from conventional BSPs. In the market investigation, BSPs confirmed that they expect BESS to become increasingly important on all aFRR market segments, including aFRR energy, in the next 1-3 years.[308] Finally, in a number of EU countries, BESS already reached substantial market shares on aFRR energy segments: in Belgium, BESS reached market shares of [20-30]% for aFRR+ energy and [0-10]% for aFRR- energy[309] and in Slovenia, 50% of both aFRR energy and capacity markets are now procured from BESS.[310]

(156) *Third*, while on the aFRR capacity market, BESS can (currently) participate only in a part of the market, BESS can compete on the whole of the aFRR energy market, as no restrictions to their participation exist.[311]

5.2.2.4.3. Photovoltaic plants will likely expand and exert competitive constraint at least in the aFRR- segment

(157) Most of the considerations developed in section 5.2.1.4.2 are applicable equally to aFRR capacity and aFRR energy markets. As set out in section 5.2.1.4.2 above, photovoltaic energy production capacity in Hungary has more than tripled in the last 5 years, from around 900 MW in 2020 to almost 3,200 MW in 2024. In the same time period, the share of photovoltaic power in the Hungarian energy mix has increased from just 1% in 2020 to over 20% in 2024. The results of the market investigation indicate that this trend is expected to continue, with a vast majority of respondents considering that the role of photovoltaic plants in both aFRR capacity and aFRR energy is expected to *"grow significantly in the coming 3-5 years"*.[312]

(158) As also set out in section 5.2.1.4.2 above, barriers to expansion are very low to non-existent. Indeed, the market investigation results suggest that barriers to entry for photovoltaic plants in adjacent electricity markets are either low or non-existent also for aFRR energy. This allows photovoltaic generators to easily expand their operations beyond the wholesale market into balancing markets.[313] BSPs having responded to the market investigation indicate that the aFRR markets today are easily accessible for photovoltaic plants in particular through aggregators and that, in fact, "*it is much easier for a new BSP using only renewables to step on the market, than it was even 2-3 years ago*".[314]

(159) Although the market investigation confirmed that photovoltaics mainly participate in aFRR- and rarely in aFRR+ energy tenders,[315] the vast majority of responding

306 See MEKH September 2024 Report.
307 See paragraph (146) above.
308 Replies to eRFI to competitors (BSPs), question D.C.1.
309 Minutes of conference call with Elia on 17 September 2024, paragraph 12.
310 Reply of the Slovenian TSO to the eRFI to TSOs, question D.C.5.
311 See Mavir's response to RFI 13, question 8 and minutes of conference call with Mavir, 11 October 2024, paragraphs 23-24.
312 Replies to eRFI to competitors (BSPs), question D.B.4.
313 Replies to eRFI to competitors (BSPs), question D.A.6.
314 Replies to eRFI to competitors (BSPs), question D.A.6.1.
315 Replies to eRFI to competitors (BSPs), question D.B.2.1.

BSPs noted that the reason for this distribution is of economic rather than of technological nature.[316] Contrary to aFRR capacity tenders, there is no limitation to photovoltaics' participation in any aFRR energy bids.[317] Market participants explained, however, that "*although they are technically capable to do so, in the case of aFRR+, the economic risk is high for PVs, so they prefer not to participate in this tender*".[318] This may be partly due to "*the finance structure of [photovoltaic] power plants [being] based on the ["KÁT"] feed-in tariff system*."[319] However, Mavir observed that, albeit to a marginal extent, in the event of negative day-ahead market prices, certain photovoltaic units reallocated their sales from the wholesale markets to the aFRR+ energy (and capacity) market.[320]

(160) The expansion of photovoltaic capacity has already had notable impact on the Parties' position in the market for the provision of aFRR energy. The share of photovoltaic plants in the aFRR energy market in 2023 was about 3.2% (3.7% in aFRR- energy and 0% in aFRR+ energy).[321] In 2024 (until 30 September), photovoltaics' share in aFRR energy overall has already risen to 11.3% (14.2% in aFRR- energy and 2.5% in aFRR+ energy),[322] enough to influence rival BSPs' bidding behaviour or strategy in aFRR energy bids in which photovoltaic plants can participate.[323]

5.2.2.4.4. MVM group is expected to significantly expand its production capacities, including for use in the aFRR energy market

(161) As set out in section 5.2.1.4.3 above, MVM Group is currently developing its production capacity, and as a result, its ability to provide balancing and ancillary services. Specifically, MVM Group is in the process of commissioning three new CCGT units at its Tisza and Mátra power plants (with a total generation capacity of 1,650 MW, of which 800 MW are foreseen to be aFRR-accredited, i.e. more than three times more than the Target's aFFR-accredited capacity at Gönyű).

(162) These two projects are currently in the procurement phase. As set out above, [information about MVM's expected timeline].

(163) As state-of-the-art CCGT units, the Tisza and Mátra plants are expected to operate with at least the same efficiency and flexibility to all existing CCGTs in Hungary (including Gönyű).[324] Once operational, these plants will be well placed to exert competitive pressure on the Parties and gain market share in the aFRR energy market.

(164) The results of the market investigation indicate that there is an attractive business case for deploying the new CCGT plants also in the aFFR energy market.[325] In addition, the two CCGT projects represent an integral part of Hungary's plan to

316 Replies to eRFI to competitors (BSPs), question D.B.2.1.
317 Replies to eRFI to competitors (BSPs), question D.B.2.1.
318 Replies to eRFI to competitors (BSPs), question D.B.2.1.
319 Replies to eRFI to competitors (BSPs), question D.B.2.1.
320 Mavir's response to RFI 8, question 14.
321 Minutes of conference call with Mavir on 15 May 2024, paragraph 17.
322 Mavir's response to RFI 4 Q7.
323 Replies to eRFI to competitors (BSPs), question D.B.3.
324 Minutes of conference call with MVM on 29 May 2024, paragraphs 10-12.
325 Replies to eRFI to competitors (BSPs), question D.D.1., and MVM's response to RFI 9. See also Form CO, Annex 5.4 (b), slides 7-9.

increase installed electricity capacity in Hungary to achieve security of supply.[326] Furthermore, the transformation of the currently lignite-fired Mátra power plan into a low-carbon (CCGT) plant is of paramount importance to Hungary's commitment to decarbonisation.[327]

(165) The Commission notes that with these two projects, MVM would represent an even bigger competitive constraint on the aFRR energy market, with a total accredited capacity for aFRR of 800 MW, which is very significant compared to 542 MW aFRR-accredited capacity of the Parties.[328]

5.2.2.5. Conclusion on balancing energy activation

(166) In light of the various elements above, the Commission is of the view that these predictable future changes to the Hungarian aFRR energy market will constitute sufficient competitive constraints for the Parties and prevent them from impacting effective competitive conditions in the market.

(167) All elements above are likely to occur. Taken together, they would be of sufficient scope and magnitude to defeat any anti-competitive effects of the Transaction and, overall, they would be timely, in particular as some of them, such as Hungary's accession to PICASSO, the development of publicly subsidized BESS, and the expansion of photovoltaic plants in the aFRR energy market, are already unfolding or will take effect as soon as 2026.

*5.2.3. Conclusion on non-coordinated effects*

(168) 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 markets for the provision of aFRR capacity and of aFRR energy services, or their possible segments, in Hungary.

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326 Hungary's National Energy and Climate Plan 2024, page 73, available at: https://commission.europa.eu/document/download/0a2953f8-5789-4f6f-9714-03df3d4cbbab_en?filename=HU_FINAL%20UPDATED%20NECP%202021-2030%20%28English%29.pdf.

327 This plant alone accounts for currently 5% of total domestic greenhouse gas emissions. See Hungary's National Energy and Climate Plan 2024, pages 49 and 50.

328 Form CO, Table 16.

## 6. CONCLUSION

(169) 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)*
*Teresa RIBERA*
*Executive Vice-President*