

## Corrigendum

to

### ACER/CEER ANNUAL REPORT ON THE RESULTS OF MONITORING THE INTERNAL ELECTRICITY AND NATURAL GAS MARKETS IN 2020

Electricity Wholesale Markets Volume

#### Document history

Version	Comment	Date
1	Original version.	30 October 2021
1.1	Corrigendum.  The corrigendum rectifies in particular: <ul style="list-style-type: none"> <li>• the y-axis in Figure 43 on page 73,</li> <li>• the caption of Table 15 on page 114,</li> <li>• the categorisation of Slovenia in Table 25 on page 133.</li> </ul> All changes are set out below.	13 January 2022

#### Changes from Original to Corrigendum version (January 2021)

The change (indicated in *italics*) introduced vis-à-vis version 1 is presented below by heading number and title of version 1. Some changes are shown by presenting directly the figures and tables.

#### Executive Summary

The second sentence in Paragraph 44 on page 16 has been changed as follows:

Version 1	Corrigendum 1.1
“Among other indicators, the presence of loop flows and the amount of redispatching costs indicate where bidding zones and congestions are not aligned.”	“Among other indicators, the presence of loop flows and the amount of <i>remedial action</i> costs indicate where bidding zones and congestions are not aligned.”

Footnote 23 on page 16 has been changed as follows:

Version 1	Corrigendum 1.1

"See paragraph 35 on the relevance of the indicator on redispatching costs."

*"The cost of remedial actions per MWh load is obtained by dividing the sum of redispatching costs and costs related to other actions, excluding the costs incurred to solve voltage issues at the transmission level, by the total national demand."*

### 3.1 Electricity price developments

The second sentence in Paragraph 1084 on page 34 has been changed as follows:

Version 1	Corrigendum 1.1
"The drop was most significant in the Nordics. Prices in Norway were 76 % lower year-on-year, followed by Sweden (-51 %), Finland (-36 %), Denmark (-35 %), and Greece (-29 %)."	"The drop was most significant in the Nordics. Prices in Norway were 76 % lower year-on-year, followed by Sweden (-51 %), Finland (-36 %), Denmark (-32 %), and Greece (-29 %)."

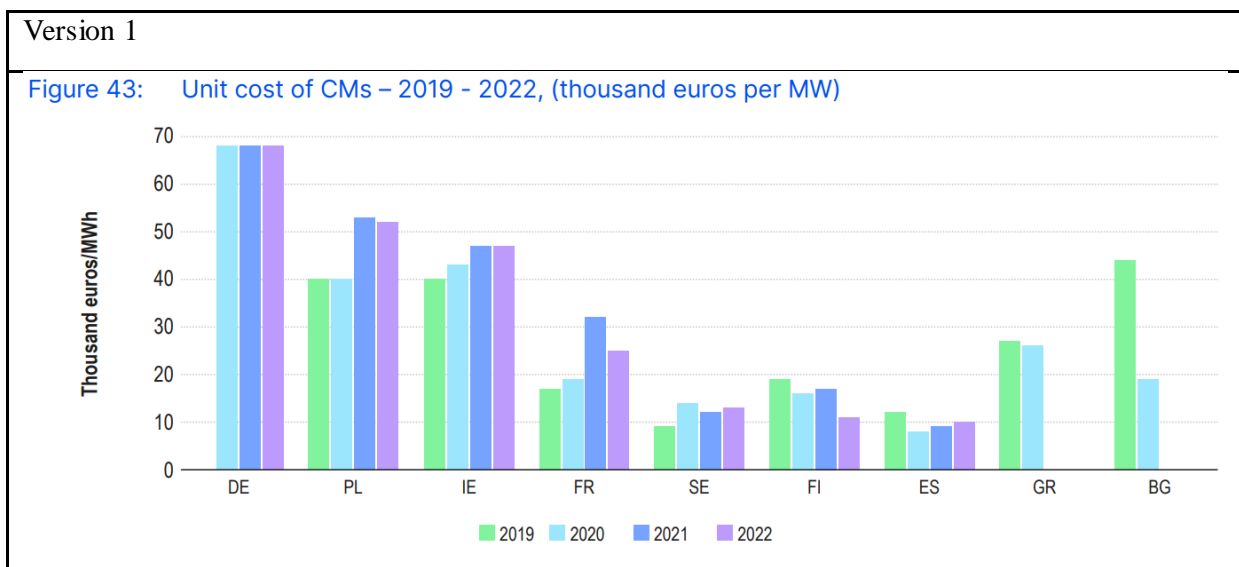
### 3.1 Price spikes and negative prices

The second sentence in Paragraph 112 on page 36 has been changed as follows:

Version 1	Corrigendum 1.1
"Overall, the number of price spikes increased by 25 % in 2020. Price spikes appeared most often in Sicily, with 454 occurrences in the year."	"Overall, the number of price spikes increased by 25 % in 2020. Price spikes appeared most often in Sicily, with 550 occurrences in the year."

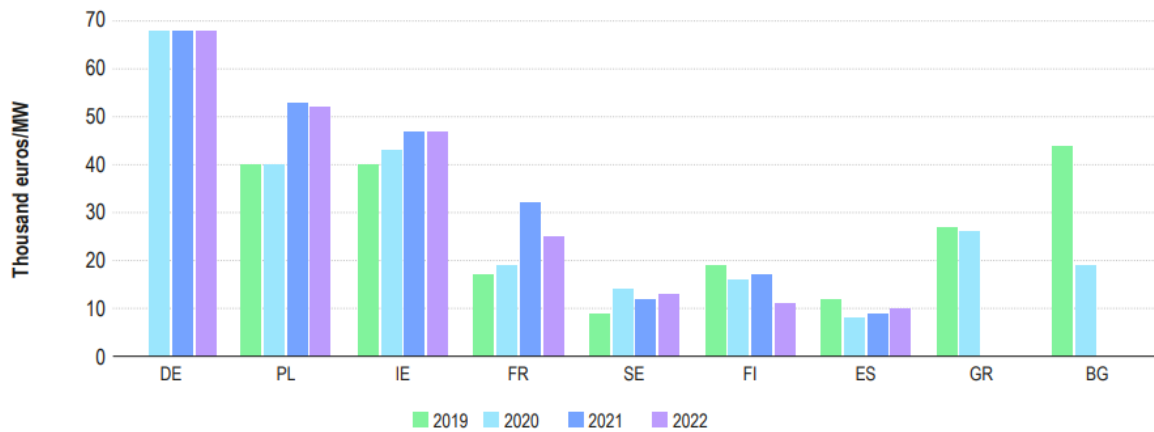
### 6.2 Costs and financing of CMs

The y-axis title has been amended so that units match those of the caption in Figure 43 on page 73 as follows:



## Corrigendum 1.1

Figure 43: Unit cost of CMs – 2019 - 2022 (thousand euros per MWh)



### 7.1 Price limits and restrictions on features of imbalance settlement

Footnote 252 on page 85 has been changed as follows:

Version 1	Corrigendum 1.1
" From 1 January 2018 until 31 December 2020, Germany remained the technical prices limits for balancing energy equal to +/-99,999 euros/MWh with the exception of the periods from 6 January 2018 to 11 July 2018 and from 17 October 2019 to 2 November 2020 where these limits were narrowed to +/-9,999 euros/MWh."	" From 1 January 2018 until 31 December 2020, Germany remained the technical prices limits for balancing energy equal to +/-99,999 euros/MWh with the exception of the periods from 6 January 2018 to 11 July 2018, <i>from 15 July 2018 to 14 October 2018</i> , and from 17 October 2019 to 2 November 2020 where these limits were narrowed to +/-9,999 euros/MWh."

### 7.5 Restrictive requirements in prequalification and/or the design of products for balancing

The last bullet point in Paragraph 332 on page 94 has been changed as follows:

Version 1	Corrigendum 1.1
"The duration reached one or more months in Bulgaria (FCR, aFRR) and Denmark (aFRR, mFRR)."	"The duration reached one or more months in Bulgaria (FCR, aFRR), and Denmark <i>and Slovenia (both for aFRR, mFRR).</i> "

The last sentence in Paragraph 333 on page 94 has been changed as follows:

Version 1	Corrigendum 1.1
"In 2020, all MSs allowed asymmetric balancing capacity products for RR and mFRR."	"In 2020, all MSs allowed asymmetric balancing capacity products <i>for mFRR.</i> "

The penultimate sentence in Paragraph 334 on page 94 has been removed and the remaining text adapted as follows:

Version 1	Corrigendum 1.1
“However, in 2020, pay-as-bid was still the dominant pricing method in many MSs, especially for aFRR and mFRR (Table 22 in Annex 4). The regulatory authority sets the price of the balancing capacity of some reserves in Poland (FCR, aFRR, and RR) and France (aFRR). In some MSs, it also sets the price of the balancing energy activated from some reserves: France (FCR and aFRR), Italy (FCR), the Czech Republic (aFRR) and Denmark (aFRR).”	“However, in 2020, pay-as-bid was still the dominant pricing method in many MSs, especially for aFRR and mFRR (Table 22 in Annex 4). In some MSs, <i>the regulatory authority</i> sets the price of the balancing energy activated from some reserves: France (FCR and aFRR), Italy (FCR), the Czech Republic (aFRR) and Denmark (aFRR).”

## 7.10 Limited incentive to contract dynamic retail prices

The second sentence in Paragraph 375 on page 102 has been removed and the remaining text adapted as follows:

Version 1	Corrigendum 1.1
“In eight MSs, the development had started, but it was still lower than 20 %: Lithuania (0.4 %), Hungary (4.6 %), Belgium (5.6 %), Poland (10.5 %), Ireland (11.3 %), Croatia (12.2 %), Slovakia (14.3 %), Romania (15 %) and Germany (18 %).”	“In <i>nine</i> MSs, the development had started, but it was still lower than 20 %: Lithuania (0.4 %), Hungary (4.6 %), Belgium (5.6 %), Poland (10.5 %), Ireland (11.3 %), Croatia (12.2 %), Slovakia (14.3 %), Romania (15 %) and Germany (18 %).”

## Annex 1: Additional figures and tables

The caption of Table15 on page 114 has been amended as follows:

Version 1	Corrigendum 1.1
“Main market characteristics of the Contracting Parties of the Energy Community- 2020 (MWh)”	“Main market characteristics of the Contracting Parties of the Energy Community- 2020 (TW)”

## Annex 4: Methodology to estimate the scores per barrier

The missing footnote 360 on page 123 was added as follows:

Version 1	Corrigendum 1.1
	<i>The only exception applies to the barrier on “Limited incentive to contract dynamic retail prices”, for which a 50% weight is given to the indicator “Share of final household consumers with smart meters (metering points)” and a 25% weight is given to the other two indicators “Share</i>

	<i>of the energy component in the electricity bill” and “Level of dispersion of DA prices in 2020 calculated as the difference between P95 and P5”.</i>
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Table 21 on pages 124 to 128 was the subject of multiple amendments listed below.

- On row 5 on page 125, the description of one indicator was amended as follows:

Version 1	Corrigendum 1.1
“Composite indicator assessing the price settlement rule of balancing capacity for all types of reserves in 2020.”	“Composite indicator assessing the price settlement rule of balancing <i>energy</i> for all types of reserves in 2020.”

- On row 5 on page 125, in the column dedicated to “ranges and thresholds”, the following modification was applied:

Version 1	Corrigendum 1.1
“If a MS does not have all four balancing capacity reserves”	“If a MS does not have all four balancing <i>energy</i> reserves”

- On row 7 on page 125, in the column dedicated to “ranges and thresholds”, the following modification was applied:

Version 1	Corrigendum 1.1
“From 0 to 4 (maximum score if free bids are allowed for all four balancing reserves). If a MS does not have all four balancing capacity reserves, the final score is rescaled to ensure comparability.”	“From 0 to 3 (maximum score if free bids are allowed for all <i>three</i> balancing reserves). If a MS does not have all <i>three</i> balancing capacity reserves, the final score is rescaled to ensure comparability.”

- On row 1 on page 127, the description of one indicator was amended as follows:

Version 1	Corrigendum 1.1
“Composite indicator assessing the price settlement rule of balancing capacity for all types of reserves in 2020. A scoring system allocates the best score when marginal pricing is used and the worst one when prices are regulated followed by pay-as-bid methods.”	“Composite indicator assessing the price settlement rule of balancing <i>energy</i> for all types of reserves in 2020. A scoring system allocates the best score when marginal pricing is used and the worst one when prices are regulated followed by pay-as-bid methods.”

- On row 1 on page 127, the description of one indicator was amended as follows:

Version 1	Corrigendum 1.1
“Composite indicator assessing the price settlement rule of balancing capacity for all types of reserves in 2020. A scoring system allocates the best score when marginal pricing is used and the worst one when prices are regulated followed by pay-as-bid methods.”	“Composite indicator assessing the price settlement rule of balancing <i>energy</i> for all types of reserves in 2020. A scoring system allocates the best score when marginal pricing is used and the worst one when prices are regulated followed by pay-as-bid methods.”

- On row 1 on page 127, in the column dedicated to “ranges and thresholds”, the following modification was applied:

Version 1	Corrigendum 1.1
“From 0 to 8 (if marginal pricing is the settlement rule for all four balancing reserves). If a MS does not have all four balancing capacity reserves, the final score is rescaled to ensure comparability.”	“From 0 to 8 (if marginal pricing is the settlement rule for all four balancing reserves). If a MS does not have all four balancing <i>energy</i> reserves, the final score is rescaled to ensure comparability.”

Table 22 on pages 129 and 130 was the subject of multiple amendments listed below.

- On page 129, in the row dedicated to “Symmetric balancing capacity products”, the following modification was applied in the column listing Member States (“MS”):

Version 1	Corrigendum 1.1
“All countries except for GR,IE”	“NAP”

- On page 130, the row dedicated to “Settlement rule - balancing capacity market”, was removed entirely:
- On page 130, in the row dedicated to “Activation rule”, the following modification was applied in the column dedicated to “FCR”:

Version 1	Corrigendum 1.1
“Pro-rata”	“NAP”

The table titled “Overview of missing data in Table 22” in page 131 was the subject of multiple amendments listed below.

- in the row dedicated to “Symmetric balancing capacity products”, the following modification was applied to both the column dedicated to “FCR” and “RR”:

Version 1	Corrigendum 1.1
“No missing data”	“NAP”

- the row dedicated to “Settlement rule - balancing capacity market”, was removed entirely.

In Table 25 on page 133, in the row dedicated to “Customers are free to contract with aggregators or independent aggregators without prior consent of their supplier”, “SI” was moved from the column “Incorporated” to the column “Not incorporated” as follows:

Version 1
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Description of the provision	Incorporated	Not incorporated
Customers are free to contract with aggregators or independent aggregators without prior consent of their supplier	DK, EE, FI, FR, GR, HU, IT, LT, LV, RO, SI	AT, CZ, IE, NL, PT, BE <sup>3</sup> , CY <sup>3</sup> , DE <sup>3</sup> , LU <sup>3</sup> , MT <sup>1</sup> , PL <sup>3</sup> , SK <sup>3</sup> , ES, SE, HR
Market participants engaged in aggregation are financially responsible for their imbalances	AT, CZ, DK, EE, FR, GR, HU, IE, IT, LT, LV, NL, PT, RO, SI	FI, BE <sup>3</sup> , CY <sup>3</sup> , DE <sup>3</sup> , LU <sup>3</sup> , MT <sup>1</sup> , PL <sup>3</sup> , SK <sup>3</sup> , ES, SE, HR
A conflict resolution mechanism between market participants engaged in aggregation and other market participants	AT, GR, LT, LV, RO	CZ, DK, EE, FI, FR, HR, HU <sup>2</sup> , IE, IT, NL, PT, SI, BE <sup>3</sup> , CY <sup>3</sup> , DE <sup>3</sup> , LU <sup>3</sup> , MT <sup>1</sup> , PL <sup>3</sup> , SK <sup>3</sup> , ES, SE
A method for calculating financial compensation to suppliers or BRPs during activation of DSR	FR, IT, RO, SI	AT, CZ, DK, EE, FI, GR, HR, HU, IE, NL, LT, LV, PT, BE <sup>3</sup> , CY <sup>3</sup> , DE <sup>3</sup> , LU <sup>3</sup> , MT <sup>1</sup> , PL <sup>3</sup> , SK <sup>3</sup> , ES, SE

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Description of the provision	Incorporated	Not incorporated
Customers are free to contract with aggregators or independent aggregators without prior consent of their supplier	DK, EE, FI, FR, GR, HU, IT, LT, LV, RO	AT, CZ, IE, NL, PT, BE <sup>3</sup> , CY <sup>3</sup> , DE <sup>3</sup> , LU <sup>3</sup> , MT <sup>1</sup> , PL <sup>3</sup> , SK <sup>3</sup> , ES, SE, HR, SI
Market participants engaged in aggregation are financially responsible for their imbalances	AT, CZ, DK, EE, FR, GR, HU, IE, IT, LT, LV, NL, PT, RO, SI	FI, BE <sup>3</sup> , CY <sup>3</sup> , DE <sup>3</sup> , LU <sup>3</sup> , MT <sup>1</sup> , PL <sup>3</sup> , SK <sup>3</sup> , ES, SE, HR
A conflict resolution mechanism between market participants engaged in aggregation and other market participants	AT, GR, LT, LV, RO	CZ, DK, EE, FI, FR, HR, HU <sup>2</sup> , IE, IT, NL, PT, SI, BE <sup>3</sup> , CY <sup>3</sup> , DE <sup>3</sup> , LU <sup>3</sup> , MT <sup>1</sup> , PL <sup>3</sup> , SK <sup>3</sup> , ES, SE
A method for calculating financial compensation to suppliers or BRPs during activation of DSR	FR, IT, RO, SI	AT, CZ, DK, EE, FI, GR, HR, HU, IE, NL, LT, LV, PT, BE <sup>3</sup> , CY <sup>3</sup> , DE <sup>3</sup> , LU <sup>3</sup> , MT <sup>1</sup> , PL <sup>3</sup> , SK <sup>3</sup> , ES, SE