Explanatory note for the all-NEMOs public consultation on the terms and conditions applied for the "Products That Can be Taken into Account in the Single Day-Ahead Coupling" in accordance with Article 40 of Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management

18 May 2026

Disclaimer

This explanatory document is provided by all NEMOs for information and clarification purposes only for the purpose of the Public Consultation for the terms and conditions applied for the "Products That Can be Taken into Account in the Single Day-Ahead Coupling", in accordance with Article 40 of the Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management.

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1. Introduction

In accordance with Article 40 (3) of CACM, to ensure that the terms and conditions on SDAC products continue to meet their objectives, the NEMOs shall consult market participants at least every two years to ensure that available products reflect their needs.

This explanatory document gives an overview of the background and rationale for possible amendments proposed for the terms and conditions applied to the "*Products That Can be Taken into Account in the Single Day-Ahead Coupling*" (hereinafter "the SDAC Products Methodology", "SDAC PM" or the "Methodology") as currently in force according to the ACER Decision 13/2024. This document includes an assessment of the different products and order types usage following the introduction of the 15' products and MTU in SDAC.

2. Background

The SDAC Products Methodology concerns products and order types that can be taken into account and used when submitting sell and buy orders in the SDAC as provided for under Article 40 (1) of CACM.

As per Article 7 par.3 in the Methodology,

> *"All NEMOs shall reassess the classification of SDAC products into mandatory and optional products and propose amendments following the next review of these terms and conditions."*

NEMOs have performed a review on the Mandatory (MTU-Orders, Period-Orders and Simple Block Orders) and Optional Products (Complex Block Orders, Scalable Complex Orders) for the period 1st October 2025 to 28 February 2026 and undertaken an analysis on Products Usage for all the Products and Order Types.

NEMOs are now consulting on the results of the analysis and the need for possible amendments to the SDAC Product Methodology, in accordance with Article 12 of CACM.

3. Analysis of Products Usage

3.1 Number of Submitted orders

NEMOs started their assessment on the need for amending the SDAC PM, by assessing the level of usages registered in the first 5 months after the go-live of the 15' MTU. Indeed, the level of Usages is a key factor for the algorithm's performance, and, in case exceeded above the usage range, it is a possible driver for the application of corrective measures. In this respect a balance between Market Participants needs and algorithm capability must be considered when proposing the products classification. For the analysis period, following relevant analysis as provided in the recuring CACM Annual Report, the

products usage is initially evaluated in terms of total Number of Submitted Orders for the Order Types and Products available. Table 1 below and figures 1-3, presenting the Total Number of Orders submitted per Order Type and Product available, already supports that the majority of the Orders are submitted for the 15' MTU Products.

Granularity	No. of STEPs (*)	No. of SCOs	No. of SIMPLE BOs	No. of Complex (**) BOs
15'	115,955,094	5,339	507,630	439,969
30'	3,925,435	2,838	9	0
60'	16,462,984	0	208,237	134,387
	136,343,513	**8,177**	**715,876**	**574,356**

Table 1, Total Number of Orders submitted in the SDAC sessions for Order Types and Products supported

(*) Number of Steps or intervals included in the aggregated Curves submitted at the BZ level.

(**) Complex Block Orders according to SDAC PM.

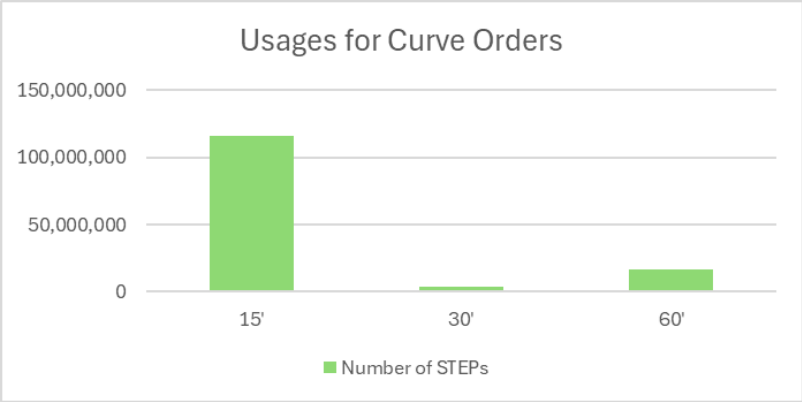

Figure 1

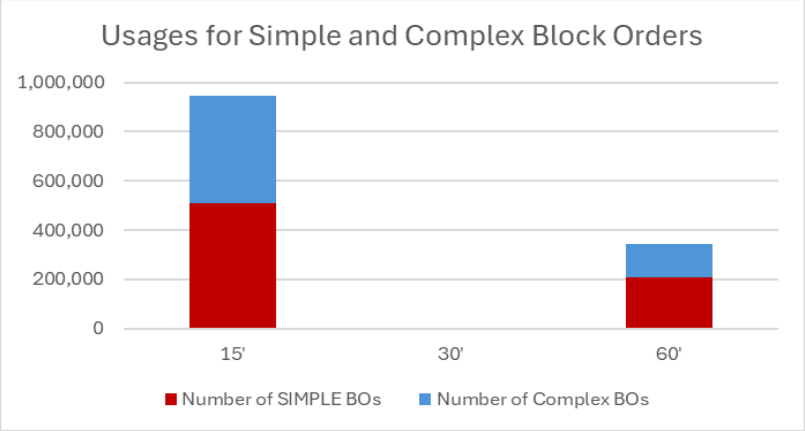

Figure 2

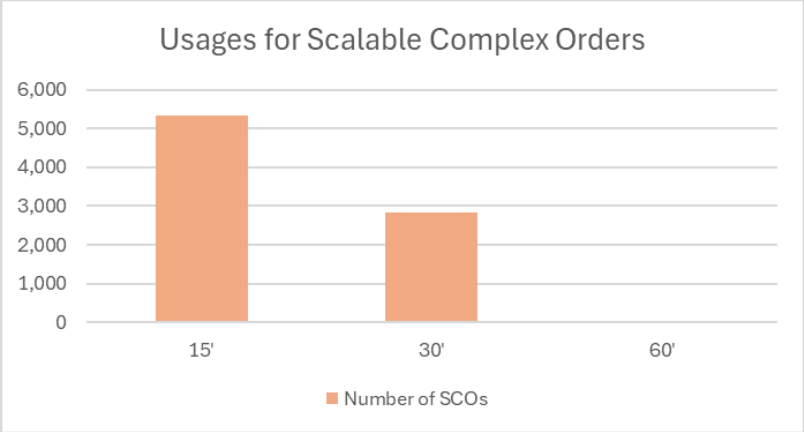

Figure 3

3.2 Usages of Curve Orders

Focusing on the Curve Orders and complementing the analysis with the volumes of submitted Curve Orders, excluding the BZ granularity, we can also confirm that the 15' granularity (MTU orders), represent the majority of the volumes of submitted Curve Orders.

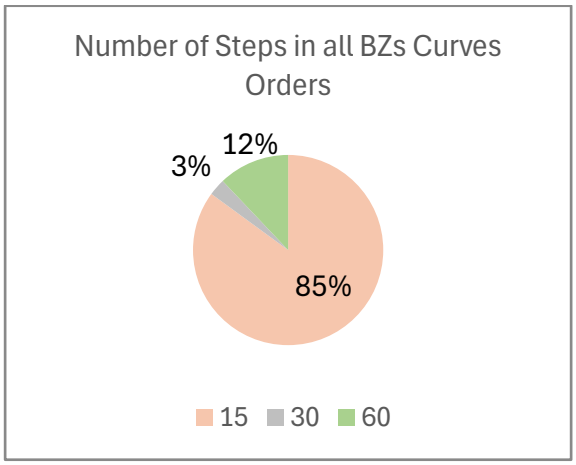

Figure 4

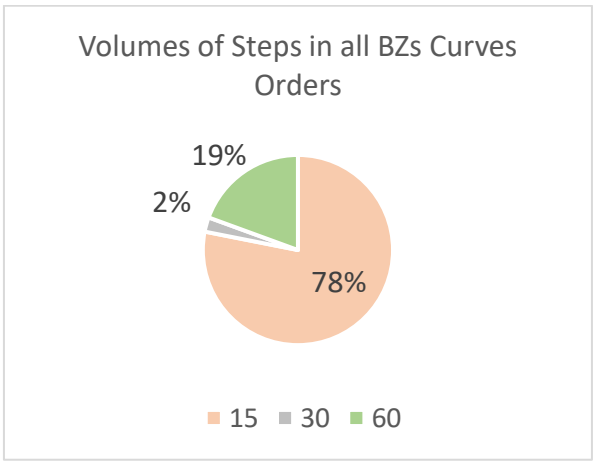

Figure 5

However, when adding the Country detail, we observe that for several Countries a significant share of volumes is still submitted at 60' granularity. Tables 2 and 3 below present the share of 60' Period Orders both in terms of number and volumes of the submitted Orders.

Submitted volumes			
Country	Time Granularity		
	15	30	60
Austria	49%	0%	51%
Belgium	58%	0%	42%
Bulgaria	73%	0%	27%
Croatia	57%	0%	43%
Czechia	51%	0%	49%
Denmark	68%	0%	32%
Estonia	97%	0%	3%
Finland	89%	0%	11%
France	65%	0%	34%
Germany	82%	0%	18%
Greece	94%	0%	6%
Hungary	77%	0%	23%
Ireland	0%	100%	0%
Italy	81%	0%	19%
Latvia	95%	0%	5%
Lithuania	93%	0%	7%
Netherlands	61%	0%	39%
Norway	89%	0%	11%
Poland	59%	0%	41%
Portugal	100%	0%	0%
Romania	39%	0%	61%
Slovak Republic	82%	0%	18%
Slovenia	66%	0%	34%
Spain	100%	0%	0%
Sweden	81%	0%	19%
Northern Ireland	0%	100%	0%
Total	**78%**	**2%**	**19%**

Table 2

Number of submitted orders			
Country	Time Granularity		
	15	30	60
Austria	73%	0%	27%
Belgium	80%	0%	20%
Bulgaria	91%	0%	9%
Croatia	77%	0%	23%
Czechia	77%	0%	23%
Denmark	78%	0%	22%
Estonia	99%	0%	1%
Finland	91%	0%	9%
France	73%	0%	27%
Germany	92%	0%	8%
Greece	97%	0%	3%
Hungary	86%	0%	14%
Ireland	0%	100%	0%
Italy	92%	0%	8%
Latvia	97%	0%	3%
Lithuania	98%	0%	2%
Netherlands	78%	0%	22%
Norway	97%	0%	3%
Poland	52%	0%	48%
Portugal	100%	0%	0%
Romania	82%	0%	18%
Slovak Republic	80%	0%	20%
Slovenia	90%	0%	10%
Spain	100%	0%	0%
Sweden	94%	0%	6%
Northern Ireland	0%	100%	0%
Total	**85%**	**3%**	**12%**

Table 3

Green: Less than 20%, Yellow: between 20% and 40%, Red: more than 40%

3.3 Assessing risk of 60 min Period Orders being replaced by Block Orders

Currently, SDAC PM supports the 60' products and relevant Period Orders as Mandatory Products. Being either a Mandatory Product or an Optional Product, under acceptable algorithmic conditions not requiring the introduction of a Corrective Measure according to the provisions of Article 12 of the Algorithm Methodology, Market Participants (MPs) may still have the opportunity to use 60' Period Orders. However, it is important to stress that when a specific product or order type is not available the MPs will consider alternative products/order types for facilitating their market participation and scheduling needs of their assets.

60' and 30' Period Orders, by definition, include the underlying four (4) or two (2) relevant 15' periods while by definition of their acceptance rules any volume cleared for 60' and 30' Period Orders should be of the same MW quantity for each of the included 15' periods.

For assessing a possible replacement of 60' or 15' Period Orders by Block Orders linking multiple 15' periods/MTUs, although this should not be considered a 100% equivalent due to the algorithmic implementation of the Block Orders and the Minimum Acceptance Ratio parameter, we consider the following observations and reasoning based on our analysis.

The maximum number of Block Orders (Usage Range) tested in the last Scalability Scenario in the 2024 Scalability Report was around 36.577.

Considering the observed usage of around 136.000.000 (total steps submitted) in the analysis period of five (5) months, in case the 12% of steps @60' were replaced by Block Orders, we would have an increase of submitted Block Orders of almost 16.000.000, consisting in an average number per session increased by 109.000. In max: currently a magnitude of 8000 Block Orders per SDAC session, increase of 1360%. It should be noted that even a replacement of multiple Steps with Block Orders of bigger volume could introduce significant difficulties for the algorithm as the size of the discrete components are increasing.

NEMOs also expect an adverse effect in case of application of SDAC CMs. The simplification of the Curves' management will lead to increased usage of Block Orders, i.e. increased risk of performance degradation for the algorithm for removing a product with significantly low usage and disproportional or even adverse results for algorithmic performance.

3.3 Usage of SCOs in Spain, Portugal and SEM (Ireland/ Northern Ireland)

Another case of Order Type exhibiting a rather small number of submitted Orders, but with significant volumes submitted, are the Scalable Complex Orders (SCOs). Considering the figures of Table-4 for the BZs of Spain, Portugal and SEM (Ireland/ Northern Ireland), we observe that SCOs, in terms of submitted volumes, are accounting for around 20% of volumes in the affected BZs. This means SCO is a product that efficiently allows the market participants to express their needs with few orders and smaller impact on the algorithm.

BZ	Submitted volumes SCO	Submitted volumes Curves	Submitted volumes BO	Total	SCOs %
	(MWh)	(MWh)	(MWh)	(MWh)	
Bidding Area - Northern Ireland	1,710,420	10,924,676	0	12,635,096	21%
Bidding Area - Republic Of Ireland	10,441,844	35,474,440	0	45,916,284	
Bidding Area - Spain	52,160,165	192,565,143	28,686,620	273,411,927	17%
Bidding Area - Portugal	8,122,663	70,667,331	68,696	78,858,690	

Table 4, Usage of SCOs in Spain, Portugal and SEM (Ireland/ Northern Ireland)

3.4 Parameters of Block Orders

Based on the SDAC PM definition of a Block Order, the Minimum Acceptance Ratio (MAR) parameter, ranging between 0-1, always under the Market Participants' selection, is intended to make Block Orders more flexible, to facilitate the underlying assets scheduling needs for minimum operational stability and to help the algorithm to converge. Introducing Block Orders to the market without the MAR would bring counter-productive effect or be detrimental to Market Participants.

In a Block Order implementation without MAR (or case of MAR=1 for a fixed all-or-nothing acceptance), the Market Participants would tend to use many more Block Orders with smaller volume granularity, possibly also in linked families, to mimic the behavior of Block Orders with MAR less than 1.

In a Block Order implementation without MAR (case of MAR=0 for a full curtailable block), the Market Participants would lose the ability to consistently define profiles reflecting their operational/scheduling

needs. Of course, besides the case of Simple Block Orders, such an implementation would have more severe effects for the cases of Linked Families and Exclusive Groups where Simple Blocks are combined to reflect the biding strategies of assets or portfolios of assets along with specific volume acceptance requirements.

Relaxation of the MAR ratio (or abolishment of such parameter) for the Block Orders would then have adverse effects both to the algorithm convergence and to the scheduling needs of the Market Participants affecting also the feasibility of their scheduling.

3.5 Further analysis

In the context of JET-A, ACER requested the NEMOs to investigate the need for Market Participants to use the 60' Block Orders and asked them to quantify the impact of 60' Blocks Orders on the algorithm investigating the possibility of removing the 60' granularity for Block Orders and allow MPs to submit only 15' Block Orders in an attempt to increase the standardization of available Products and Order Types.

NEMOs observe that, despite most Blocks Orders are submitted with a 15' granularity, a share of around 30% of Block Orders is still submitted with a 60' granularity, corresponding to a share of 20% in terms of submitted volumes (see Figures 6 and 7).

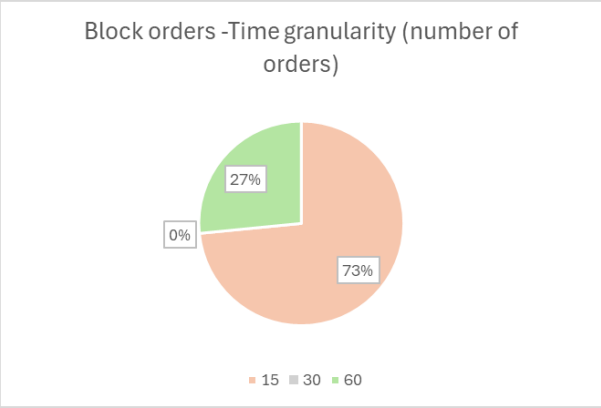

Figure 6

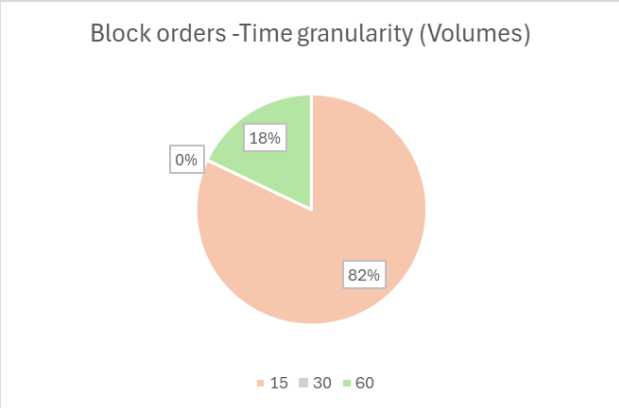

Figure 7

The usage of the 60' Block Orders is more relevant in some countries with respect to others. The share in terms of submitted volumes and number of orders is reported in Table 5 and 6 below.

Submitted volumes			
Country	Time Granularity		
	15	30	60
Austria	12%	0%	88%
Belgium	92%	0%	8%
Bulgaria	77%	0%	23%
Croatia	16%	0%	84%
Czechia	97%	0%	3%
Denmark	12%	0%	88%
Estonia	63%	0%	37%
Finland	85%	0%	15%
France	97%	0%	3%
Germany	86%	0%	14%
Greece	100%	0%	0%
Hungary	51%	0%	49%
Ireland	0%	0%	0%
Italy	90%	0%	10%
Latvia	1%	0%	99%
Lithuania	78%	0%	22%
Netherlands	58%	0%	42%
Norway	50%	0%	50%
Poland	90%	0%	10%
Portugal	100%	0%	0%
Romania	58%	0%	42%
Slovak Republic	82%	0%	18%
Slovenia	59%	0%	41%
Spain	100%	0%	0%
Sweden	95%	0%	5%
Northern Ireland	0%	0%	0%
Total	**82%**	**0%**	**18%**

Table 5

Number of submitted orders			
Country	Time Granularity		
	15	30	60
Austria	15%	0%	85%
Belgium	68%	0%	32%
Bulgaria	38%	0%	62%
Croatia	7%	0%	93%
Czechia	83%	0%	17%
Denmark	66%	0%	34%
Estonia	94%	0%	6%
Finland	76%	0%	24%
France	76%	0%	24%
Germany	90%	0%	10%
Greece	100%	0%	0%
Hungary	77%	0%	23%
Ireland	0%	0%	0%
Italy	78%	0%	22%
Latvia	18%	0%	82%
Lithuania	54%	0%	46%
Netherlands	67%	0%	33%
Norway	78%	0%	22%
Poland	27%	0%	73%
Portugal	100%	0%	0%
Romania	41%	0%	59%
Slovak Republic	73%	0%	27%
Slovenia	63%	0%	37%
Spain	100%	0%	0%
Sweden	82%	0%	18%
Northern Ireland	0%	0%	0%
Total	**73%**	**0%**	**27%**

Table 6

Green: Less than 20%, Yellow: between 20% and 40%, Red: more than 40%

NEMOs also performed a simulation to assess the impact of 60' Block Orders and their possible conversion/substitution of 15' equivalents on the performance of the algorithm. The simulation considered as input fourteen (14) Delivery Days (from 25 January till 7 February2026), chosen on the basis of their time to first solution (TTFS) in the period was quite high (existing stress parameter). All blocks with 60'/30' resolution were converted to equivalent blocks with 15' time resolution. Both reference (original) sessions and converted sessions were run using same machine to make sure that the results, shown in Table 7, are comparable.

Based on these results, NEMOs cannot draw the conclusion that converting 60'/30' blocks would significantly improve the performance of the algorithm, and for such reason NEMOs do not consider proposing the possibility of removing the 60' granularity offering for the submission of blocks orders.

Indicator	Before conversion	After conversion
Average number of solutions found	2.8	2.5
Average Time to first solution (s)	699	685
Average economic surplus (€/session)	15,594,110,023	15,594,109,481
Average Number of PRBs	19.9	18.9

Table 7

3.5 Concluding remarks

Classifying SDAC products as "mandatory" or "optional" is only relevant when Corrective Measures (CMs) need to be applied. NEMOs believe that they already possess the necessary tools and resources, such as parameters and optional Products & Orders Types, to successfully restore the performance of SDAC algorithm to a pre-defined satisfactory level (like: pre-tested alternative configurations, Complex Block Orders, SCOs, ramping, TSOs parameters). In case CMs are used in SDAC, the anticipated benefits of reducing/removing usage of the 30′ & 60' Period Orders are minimal or even negative.

The low usage of the Period Orders with 30' and 60' resolution indicates no significant performance gain: linear step-orders have minimal impact performance of the algorithm, and the usage of 15' resolution is already high. Reducing the usage of 30′ & 60' Period Orders would likely lead to an increase of Simple Block Orders or Complex Block Orders, bringing an adverse effect of increased complexity of the order book for the SDAC algorithm compared to the initial intention of a CM to restore performance under.

In summary, NEMOs believe it is unnecessary, or even fit for purpose, to classify 30′ and 60′ Period Orders as Optional Products/Order Types, since suitable measures already exist within current SDAC CM provisions under the AM.

Additionally, in NEMOs view, the removal of the MAR parameter for Block Orders, forcing the MPs to bid only blocks with MAR=0 or MAR=1, would restrict the ability of MPs to express their needs, and, could end up in an increase of Complex Blocks or in an increase in the number of Simple Blocks, worsening the algorithm performance.

Based on the reasons outlined above, NEMOs do not recommend any changes to the existing text of the SDAC Products Methodology.

4. Storage Orders

Considering that the Storage Orders are not yest industrialized and that currently NEMOs and TSOs are planning a separate relevant Public Consultation with Stakeholders, NEMOs intend to provide supplementary proposal for the introduction of Storage Orders in due time.

5. Useful links

- Commission Regulation (EU) 2015/1222 (CACM)

  https://eur-lex.europa.eu/eli/reg/2015/1222/2021-03-15

- Regulation (EU) 2019/943

  https://eur-lex.europa.eu/eli/reg/2019/943/oj

- ACER Decision 13/2024 (Products That Can be Taken into Account in the Single Day-Ahead Coupling)

  ACER website:

  ACER Decision 13-2024 on SDAC Products

  ACER Decision 13-2024 on SDAC Products - Annex I

- CACM Annual Report 2024

  NEMO Committee website: https://www.nemo-committee.eu/assets/files/cacm-annual-report-2024.pdf

- CACM Scalability Report 2024

  NEMO Committee website: https://www.nemo-committee.eu/assets/files/cacm-scalability-report-2024.pdf

6. Abbreviations

AM – Algorithm Methodology

CACM – Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on Capacity Allocation and Congestion Management (Capacity Allocation and Congestion Management)

CO – Complex Order

DA – Day-ahead

DAM – Day Ahead Market

EC – European Commission

MCSC – Market Coupling Steering Committee

MTU – Market Time Unit

NEMO – Nominated Electricity Market Operator

OBK – Orderbook

SCO – Scalable Complex Order

SDAC – Single Day-Ahead Coupling