Resp. Respondent's answers Answer from NEMOs

15 min MTU

Need for safeguards and (quantitative) analysis

we consider that several safeguards are needed as preconditions to be met for the SDAC 15 min MTU go-live (and that these are not met for the moment):

- Insurance that the SDAC algorithm will be able to accommodate complex block orders (linked, exclusive, flexible MTU orders) as of today, including the extension of current related parameters and constraints;
- Insurance that the SDAC algorithm will be able to accommodate multiple MTU products (either through the CPM function embedded in the algo, or via block orders possibly facilitated by a user interface) and to deal with the implied increased complexity in terms of number of block orders;
- Impact assessment on the PRBs to be sure those would not dramatically increase;
- Guarantee that the go-live would not be based on non-uniform pricing;
- Guarantee that the duration of the algorithm runs would not be increased by more than +15/20
 minutes in addition to the current duration (17 minutes) and that the deadlines and operational
 processes after the SDAC will be all adapted accordingly.

1, 2 and

In the absence of these safeguards, we believe that the SDAC 15 min MTU go-live is very risky and should be questioned, since it could be detrimental to the proper functioning of the DA market

The governance to assess the impact and to oversee the implementation of the 15 min MTU change should be reviewed, integrating the concerns of all actors (i.e. not solely be focused on NEMOs computational challenges). We hence call for a deep investigation of the choices in terms of product design and their consequences to be performed in 2023, including stakeholders consultations (even if not required by Regulation), with regular meetings on status and visibility on decisions taken.

It is foreseen that replacement of MIC orders by Scalable MIC Orders is needed, in combination with other changes, as a previous step to provide the adequate performance in MTU.

At the moment SDAC MSD are not in a position to secure that full multi-MTU can be supported within foreseeable calculation time. It is the target to offer all time resolutions 15, 30, 60 min when applicable in the relevant bidding zones.

SDAC MSD will investigate the PRB status based on foreseen changes into the algorithm. This study shall be completed during Q2/2023. Information from this study will be provided to market participants.

SDAC MSD can confirm that go live of the 15min MTU will not be based on non-uniform pricing.

Currently SDAC MSD is foreseeing 45min calculation time allocation. This is heavily dependent on requested product methodology. The final calculation time may also be longer. The post calculation processes and timings are the responsibility of the SDAC

NEMOs refer also to the Scalability report that is published each year as part of the CACM Annual report. The Scalability report provides an analysis on the usage of each product and its impact on algorithm performance .

<u>CACM Annual Report 2021</u> (note: simulation results may be misleading with regard to where we are in the research and development as these simulations are conducted on the versions that are used in current production.)

Resp. Respondent's answers Answer from NEMOs

Visibility on products wrt 15 min MTU implementation needed enough in advance:

<u>Provide visibility on products and their evolution</u> We however stress the need of market participants to anticipate any evolution in the products, the visibility to the evolution of the SDAC products should be provided as soon as possible, latest by mid-2023. This is even more urgent given the fact that some states will transition to 15 minutes ISP sooner than 2025. Information on any change in the list of products (or concerning the limitations constraining their use - e.g. maximal number of block products of a given type, risk of paradoxical rejection...) to be traded on the SDAC, or concerning the limitations constraining their use (e.g. maximal number of block products of a given type, risk of paradoxical rejection...) should be known well before this date.

(...) Recommendation to conduct the next consultation on products in Q4 2023 or at the latest Q1 2024, and not to wait for the 2 years as proposed by NEMOs.

Possibly define new products?

In any case, the change can only improve economic surplus if it provides at the same time the right products allowing market participants to offer flexibility at this time granularity (in line with their portfolio capabilities (Thermal power plants are not fully flexible: their productions are constrained by minimum stable levels, min-up/down time and ramping capabilities. Batteries and pump-hydro storages are constrained by their charging.)). That means substantially increasing the possibility to use smart orders (linked block order, exclusive group, flexible block order,...) and potentially to define new products that are in line with assets key characteristics. This is unfortunately not addressed by NEMOs currently while it is absolutely key to integrate it early in the discussion. As market participants operating a mix of technologies, we are not confident with this situation: we fear that we might be forced to offer block orders that do not represent well our true flexibility, to avoid the risk that the executed orders lead to an unfeasible production plan for our portfolio

NEMOs will cooperate with Market Participants in 2023, to define the product setup in SDAC to be after the implementation of the 15 min MTU. NEMOs will always welcome proposals from market participants having ideas on improvements on existing and new products

SDAC MSD aims to provide the product recommendation to all SDAC NEMOs before end of June/2023.

For implementation of an updated SDAC products methodology with potential new products related to 15 min MTU, NEMOs will agree on a timeline with ACER so that their approval can be done at latest by December 2024. Indeed, a consultation shall be organized most likely within Q1 2024

1,3 and 4

Resp. Respondent's answers Answer from NEMOs

Balance and trade-off aspects of 15 min MTU implementation: 15 min MTU vs list of products and vs performance of the algorithm vsb SDAC/SIDC

Debates and decisions on this issue should be based on a balanced trade-off between, on the one hand, a growing complexity to be handled by the algorithms (e.g. complex products, 15 minutes ISP) and, on the other hand, overall simplification, allowing to decrease computational time but altering the efficiency of the market to a large extent.

15 min MTU vs availability of products The introduction of 15-minute products in SDAC, which is expected to bring significant complexity and deteriorate algorithm performance, should not come at the expense of the availability of products currently accommodated by SDAC in most Member States.

15 min MTU vs possible step backs of functionalities and productsIn addition, Eurelectric is very concerned of possible step backs on functionalities and services of the algorithms, especially regarding those used in a limited number of Member States. In particular, concerning MIC products, we would agree to replace MIC orders by scalable MIC if complex block orders (such as linked, exclusive and flexible MTU orders) are accommodated by the SDAC algorithm and ready for use by all Market Participants in all Bidding Zones. National rules, where applicable, must clearly implement this as a one-off change.

1, 2, 3, 5 and 6

15 min MTU vs risk for stability of SDAC and availability of products; 15 min more suitable for SIDC

?If there is a performance problem of Euphemia due to the future change to a 15-minute Market Time Unit, we have to assume that SDAC cannot be the mean of achieving an optimal dispatch in the context of the energy transition in any region. The intraday continuous trade close to real time is the most appropriate tool. it seems that the current challenges to the Euphemia algorithm are the introduction of smaller granularity products. The latter should not come at the cost of a suppression of block orders or other products currently proposed in SDAC.

We recommend to let the intraday market (continuous and auction) cope with the 15' granularity. It is definitely dangerous to move to a 15' SDAC with less trust in the result, less robustness and also less time for TSO nominations and fallback process as the calculation time will irremediably increase. Last but not least, at the time being where the market faces strong attacks from politics, it is irresponsible to take any risk on the SDAC /risk for robustness, risk of less predictability)

15 min MTU preferable for SIDC, only later (not in 2025) for SDAC

15 min MTU: We acknowledge that in theory, if well implemented, the measure could be beneficial for the system by improving the flexibility signals required for renewable integration. However, we remain to be convinced on the needs (welfare gains) to implement it in day-ahead already in 2025. Given the intraday uncertainties on production and demand (linked to error forecast or forced outages), we find it more relevant to implement first it in the single intraday coupling.

The replacement of MIC orders with scalable MIC orders is in the implementation plan; performance simulations are done including these products.

15 min in SIDC will be in some cases provided before SDAC, for zones where the 15 min ISP is implemented before January 2025.

Remind also that 15 min MTU in SDAC is a mandatory legal requirement.

It is the aim of all NEMOs, and doing what we can, to avoid the application of corrective measures in order to implement 15 min MTUs in SDAC. As of now, it is not foreseen that complex block orders will have to be removed.

Resp.	Respondent's answers	Answer from NEMOs
6	Flexibility in the implementation: postpone or maintain (temporarily) multiple granularity The 15 min MTU implementation requires further discussions with market participants on the list of products that will be available because the issue implies heavy IT evolutions. EDF would recommend some flexibility (postponing the implementation later in 2025 or maintaining 30 and 60 min products in case of launch in time) so that all market participants are ready for the change.	NEMOs will cooperate with Market Participants in 2023, to define the product setup in SDAC after the implementation of the 15 min MTU. See also answer above.
4	Trading in the same granularity as ISP is a basic right The basic right to trade in the same granularity as the imbalance settlement period should be ensured under all circumstances. In this regard, we expect that at least SIDC will accommodate 15 minutes products mid-2024.	SIDC Continuous accommodates already for 15 min MTU in those areas where 15 min ISP is implemented. Subsequent implementation of 15 min MTU in new areas in ID Continuous will be done as soon as possible after implementation of 15 min ISP by TSOs in new areas. By Q2 2024 IDAs will be offered with 15 min time resolution in all bidding zones where no TSOs derogation of 15 min ISP prevents this. Mind that unlike what is foreseen for SDAC, the SIDC IDAs will only support a single time resolution within each bidding zones that equals the ISP of the bidding zone.
5	Concerns linked with the possible time limit extension. With the current EUPHEMIA algorithm, it takes a minimum of 45 minutes to get a SDAC result based on an hourly granularity. According to expert from EPEXSPOT as discussed during our council meetings, it would take more than 4 times this time and the pb to solve would be at least 4 times more complex should we base the calculation on a 15 minutes granularity. One can assume that to provide a result in a reasonable time frame, the system would have to resort to shortcuts and approximations that would be detrimental to the robustness, accuracy and predictability of the market results. Indeed, the SDAC has to be robust as it is used by more and more consumers and it will increase again with the demand response development that is unavoidable for the power shift. Even for producers that have some flexibility, a robust and predictive price signal is required to let them put the efficient production in the grid. A 15' SDAC in a reasonable calculation duration will irremediably induce approximations that can lead to abnormal results for prices or capacity allocations.	The operational committee of the SDAC is working on the extension of the calculation time to 45 minutes to uphold the quality of the solution. Also improving the hardware on which the calculation is run is part of the work in securing the quality of the calculation results. The indicators, such as PRBs and price volatility, shall not be unjustly deteriorated.

Resp.	Respondent's answers	Answer from NEMOs
6	Granularity vs SDAC/IDA/SIDC continuous EDF considers that if both 15/30 min products and complex products (with the same range of options as today) cannot be accommodated within the SDAC, complex products should be prioritized (time constraints are looser in day-ahead than in intraday, so there should be more possibilities to handle both complex products AND 15/30 min products in this timeframe). As far as cross-zonal capacities can be allocated with a finer granularity closer to delivery (be it with the continuous SIDC or with the intraday pan-European auctions), it is key for the efficiency of demand response based on spot markets that exclusive block products with a long duration can be handled at least in day-ahead. Such flexibility represents for example several GW of demand in France	See answer to previous responses above.
	List of products	
1, 2 , 3, and 6	Regrets that complex block orders not considered as mandatory by ACER: stakeholders therefore asks for the mandatory accommodation of complex block orders by the Day-Ahed algorithmin a self dispatch model - the optimization under the portfolio-based approach implies the use of complex products (in particular linked, exclusive an loop block products) to provide a good representation of the assets, mandatory products should be extended to linked bids and exclusive bids. Removal of such products could lead to an increase in electricity prices and a de-optimisation of the whole market.	See answer to previous responses above. The split of products into Mandatory and Optional products were decided by ACER in their decision No 37/2020 of 22 December 2020 on the current methodology.

Resp.	Respondent's answers	Answer from NEMOs
	MIC orders We advise refocusing the work on MIC orders removal towards making complex orders available in Iberia, rather than developing so-called "scalable MIC orders".	Currently it is foreseen that Complex (block) orders and scalable MIC will coexist.
2	We raised our concerns regarding the replacement of MIC orders by Scalable MIC orders to improve Euphemia performance, announced at the Market Coupling Consultative Group meetings in 2022. In the framework of several European consultations, we have already expressed our views on this: • The flexibility for market participants should come from the freedom of bidding (i.e. portfolio bidding + direct nomination to TSOs) and the use of "complex blockorders" (including the most sophisticated formats of blocks currently available in the rest of Europe) • It is necessary to allow a transitional period in order to accommodate the update of the regulatory framework to the use the complex block orders instead of MICorder As far as we understood their projected design, scalable MIC orders will not allow to properly reflect market participant constraints, flexibility and costs, and risk impacting price formation and price clearing. Complex block orders currently available in the rest of Europe can alleviate this limitation of Scalable MIC orders and should be made available to all capacity resources, such as all types of storage, demand side response, etc. This would improve the optimisation of SDAC and achieve a level-playing field with other European market participants.	
2	PUN orders We understand that PUN orders are expected to be phased out and this is a development we very much welcome. However, the last consultation on the market reform in Italy is not foreseeing any changes (https://www.arera.it/allegati/docs/22/685-22.pdf). We would like to see an assessment by the NEMOs on this by this March.	This topic belongs to the field of competence of Italian authorities (Italian government and secondly Italian NRA). NEMOs together with ACER are following the topic on a monthly basis.
	Other	

Resp.	Respondent's answers	Answer from NEMOs
3 and 6	Despite efforts (like MCCG), the transparency towards MP shall be further improved Eurelectric welcomes NEMOs' efforts, notably through the recently set up Market Coupling Consultative Group (MCCG), to provide an insight on the analyses of the algorithms' performance carried out by the NEMOs (that were not made public or available to market participants before). However, transparency and clarity towards Market Participants could still be further improved especially on those evolutions leading to increase the run times or to prioritize developments (i.e.	NEMO Committee appreciate that the creation of MCCG is welcomed by the market participants. Indeed it is the right forum to work on further improvement of transparency and clarity towards MP; the request on MPs shall be reflected in the next MCCG agenda
	works on non-uniform pricing and global impact assessments on calculation times).	Next MCCG in June 2023 to be used for thorough discussion with MPs on products

No#	Respondents
1	ENGIE
2	EFET - European Federation of Energy Traders
3	EURELECTRIC
4	CEZ
5	Compagnie Nationale du Rhone - CNR
6	EDF