Nominated Electricity Market Operators (NEMOs) consultation on CACM Methodologies

A EURELECTRIC response paper

December 2016

Dépôt légal: D/2016/12.105/60

Algorithm Proposal, incorporating the Day-Ahead and Intraday algorithm requirements

Algorithm proposal

1. Do you have comments on the proposal to base the SDAC and SIDC on the PCR Euphemia and XBID algorithms?

The choice of the PCR Euphemia algorithm for the SDAC and the XBID algorithm for the SIDC is based on currently used/to be used algorithms and is therefore acceptable.

Concerning Article 4 paragraph 2: why is it specified that a "quadratic linear programme" should be used? Algorithm development in the future may make "circular" more efficient than "quadratic". It would be enough to state that the main objective is "to maximise overall economic welfare".

Concerning Article 4 paragraph 7.a: why mention hourly prices when in the future it might be quarterly prices? Rather use: "relevant market time unit".

Regarding Article 5 paragraph 4: how is the Article meant to be interpreted, specifically: "The SOB module maintains a consolidated order book for all contracts (not local contracts) themselves" in combination with "NEMOs are entitled to match other local contracts themselves".

How do you define local contracts? A) Contracts entered in NEMO A in Bidding Zone Alfa or B) contracts entered in Bidding Zone Alfa, irrespective which NEMO is chosen by the market party? If the definition of local contracts is A), it means that an order entered in NEMO A in Bidding Zone Alfa is not shared within Bidding Zone Alfa and market participants active on NEMO B in Bidding Zone Alfa, but just within NEMO A in Bidding Zone Alfa. We do not think, that would be in the interest of a market party. Since the market party is trading on an exchange we might assume, that it should be interested that the order is entered into the SOB and thereby at least available in its own unconstrained Bidding Zone, no matter on which exchange it is entered.

Therefore: we suggest to emphasise/add to the text, that all orders entered in the local trading solution (Article 5 paragraph 3) are automatically entered into the Shared Order Book. Then the only question would be the visibility based on network constraints i.e. order in Bidding Zone Alfa would in any case be visible to market parties in Bidding Zone Alfa independent of whether they trade on NEMO A or B.

Only in situations where the intraday algorithm doesn't work for some reason, and where communication with the SOB is impossible and there is no fall back, it should be able to match it locally within NEMO A in Bidding Zone Alfa.

2. Do you have comments on the emphasis in the Proposal on monitoring and maintaining algorithm performance?

We appreciate the involvement of the Market Electricity Stakeholder Committee (MESC) in the definition of criteria for algorithm performance monitoring and reporting of the monitoring results. The criteria and the performance results measured should be published regularly to the extent possible, even if there are no deteriorations or other special events visible to ensure confidence. The publication of this type of performance monitoring statistics could be added for example under Article 6 paragraph 4.

3. What should be the critical parameters of algorithm performance (DA; ID)?

We think that the list that we previously proposed is still relevant. Amongst other things:

-social welfare for the coupled area

-optimality gap

-incident reporting (use of back-up procedures) etc.

On PRBs:

-Number, Volumes and Depth of PRBs per Bidding Zones

-Number of combination of PRB reinsertion (number of simple, double, etc)

On block bids:

-Number of submitted block bids per zone

-Publish details on block bids in all areas (same as EPEX today): which block is the parent, the child, clearing status, etc.

 On timing:

-Time to first solution

-Time dedicated to each subtask (relaxation, tree exploring, PUN search, PRB re-insertion..)

-Number of feasible solutions investigated

-Quality of the solution: gap to optimality

-Show statistics to prove that running 2 hours is not improving the solution compared to results obtained with the 10 minutes constraint (welfare, prices, flows).

On patches/heuristics:

-Flag the activation of patches such as delta P rule (2 EUR cut-off), intuitive patch

-Provide the delta in terms of welfare/price/flows between FB plain and FB intuitive solution

-Number of MIC re-insertion

-Number of PRB reinsertion: how many in total and how many are true PRBs, how many are false PRBs?

4. Do you have comments on the proposals for transparency regarding the algorithm (public description, performance and incident reporting, consultation on changes)?

Regarding the public description: we appreciate that the NEMOs shall maintain a public description of both algorithms according to Article 6 paragraph 4.

Regarding performance reporting: as mentioned in question 2 above: we would appreciate if the performance criteria and regular statistics on them could be reported along the publicly available description of the algorithms under Article 6 paragraph 4.

Regarding incident reporting: usage of back-up procedures should be reported, even if they worked and there were no visible consequences for market parties. That could also happen under Article 6 paragraph 4.

Regarding consultation on changes: since market parties can not directly post change request to the algorithm, it is important that all change requests posted by NEMOs and/or TSOs are made public. The MESC can then discuss whether or not it has any impact on stakeholders. If a change request has an impact on stakeholders, a discussion in the MESC could determine what the appropriate consultation procedure should be: is a prepared MESC discussion enough to gather input from all stakeholders or is an open consultation the appropriate method to get feedback on a change request in accordance with CACM Article 12. Please refer to answers 5 and 6.

5. Do you have comments on the proposals for controls on usage and change requests for new functionality, to maintain DA and ID algorithm performance?

We agree that the main goal should be to maintain DA and ID algorithm performance, so there might be legitimate reasons to control usage and to disagree on a new functionality. Performance criteria will be developed according to 6.1. and there are principles for usage limits described in 7.15.

It is uncertain, whether allocation constraints from the TSOs such as for example FB constraints fall under the notion of "Usage limits". It should be made clear that this is not the case.

In addition, we would like to emphasise that a third solution to restricting usage or denying a new functionality should be to improve Algorithm Performance as mentioned in Article 7 paragraph 17. That should actually be the first solution, in case the costs are not bigger than the benefits.

We therefore lack transparency on how these decisions are taken within the NEMO Committee to ensure an objective and non-discriminatory treatment of change requests and how the different criteria and objectives are prioritised in the NEMO Committee decision making process. There should therefore be a publication of all posted change request and the decision to go ahead or not, independent of their category under 7.27. to ensure a minimum of transparency.

6. Do you have comments on the proposal to manage changes to the algorithms, or should all changes require a modification using the procedure outlined in CACM (Articles 9 and 12)?

We agree that the change management principles described in Article 7 can work for minor/day to day changes to the algorithm. We are uncertain however, how the decision is made regarding which change request is a minor change and which change request requires the use of procedures described in CACM Articles 9, 10 and 37 to ensure the management of the algorithm by the TSOs and NEMOs.

Connected to that is the question of when a change should be notified to stakeholders or consulted with stakeholders and how - for example by following CACM Article 12. For that reason, we think that all change request should be made public independent of categorisation, to ensure that an informed discussion in the MESC can happen regarding the choice of the proper consultation procedure.

7. NEMOs propose a formal escalation body where NEMO decisions (taken on the basis of QMV) can be challenged. This is relevant because some algorithm issues may involve conflicting NEMO, TSO or MS priorities. Do you have comments on the proposal to consult with the MESC? Should NRAs or ACER potentially play a role in resolving conflicts (e.g., acting as the arbitral body for NEMO decisions), or is an independent arbitral tribunal adequate? Do you have any other comments?

We do not think an independent arbitral tribunal is adequate for all decisions. If the conflict is "just" between NEMOs an independent arbitral tribunal set up by the NEMOs would work. If the conflict involves NEMOs, TSOs and conflicting MS priorities, an arbitral tribunal established by the NEMOs is not the appropriate decision making authority. In that case NRAs or ACER should play a role in resolving conflicts. The first step would be to publish all change request to see, what interests are involved.

8. Do you have any other comments on the Proposal?

Add a paragraph, describing that all change requests are made public, and that MESC can discuss and decide upon whether the change has impact on stakeholders and if yes, what the appropriate method to ensure stakeholder participation would be.

Day-Ahead Algorithm requirements

1. Do you have comments on the proposed DA Algorithm requirements – 1. Background?

No Comments

2. Do you have comments on the proposed DA Algorithm requirements – 2. Terminology?

No Comments

3. Do you have comments on the proposed DA Algorithm requirements – 3. Approach?

Regarding State, Future Requirement: it would be welcome if a distinction could be made , which Future Requirements are already under development within PCR and for which Future Requirements development has not yet started and when it is expected to start in that case.

4. Do you have comments on the proposed DA Algorithm requirements – 4. Price coupling algorithm requirements-Title 1- Requirements on functionalities and performance?

Regarding 1.h and i:
What exactly does h mean? Does h describe a normal situation as 1 price per Bidding Zone per MTU? Or does it describe a normal situation as 1 price per Bidding Zone per MTU per NEMO trading hub and that could be a different price at NEMO A or NEMO B even in a normal situation within a Bidding Zone, "where applicable"? In our view, in a normal situation, h should require 1 price per Bidding Zone per MTU independent of how many NEMO trading hubs are within the bidding zone.
In addition, h) addresses a potential fall back requirement of requiring 1 price per MTU independent of NEMO trading hubs in a fall back situation to be determined by the respective TSO.   We assume this will be addressed in the separate hearing 2017.
What is exactly the difference between h and i besides one being an initial requirement and the other one a future requirement? Does i) take into account the potential fall back requirements from a TSO or is i) supposed to reflect a normal situation?
Regarding 3.c: not necessary and too deterministic of the future. Maybe in the future a self-developed algorithm performs better. The algorithm should be performing the market coupling, meeting all the requirements other characteristics are not important to write down in a binding methodology.
Regarding 3.e. we would like a new paragraph added: the algorithm should scale well, when a higher time resolution is introduced i.e. for example a step from hourly to quarterly products
Regarding 3.g. we would like to add a paragraph that the choices on how the algorithm shall handle potential curtailment situations are made transparent to the market parties.

5. Do you have comments on the proposed DA Algorithm requirements – 4. Price coupling algorithm requirements-Title 2- Requirements related to Cross-zonal capacities?

Regarding 1 a and b) : what is the difference besides the initial / future requirement?

6. Do you have comments on the proposed DA Algorithm requirements – 4. Price coupling algorithm requirements-Title 3- Requirements related to allocation constraints?

Regarding 1 c and 3: both address the losses on DC cables and are initial requirements: one incorporates losses and the other one sets a "flow tariff" resembling the losses, both lead to zero flow should the price difference not recuperate the losses. Why not merge both paragraphs in one addressing losses on DC cables? It should anyway be transparent for market parties, which function is activated on which DC cable and how exactly the losses are incorporated

General comment: it should be transparent for market parties which of the allocation constraints under Titel 3 is activated, the size of the constraint and where it is activated.

7. Do you have comments on the proposed DA Algorithm requirements – 4. Price coupling algorithm requirements-Title 4- Requirements related to balance constraints?

Regarding 1: what is meant by a "defined area"? A member state? A TSO area? If a defined area were not identical with all Bidding Zones, could it put an extra constraint on the algorithm?

8. Do you have comments on the proposed DA Algorithm requirements – 4. Price coupling algorithm requirements-Title 5- Requirements on algorithm output and deadlines for the delivery of single day-ahead coupling results?

No Comments

9. Do you have comments on the proposed DA Algorithm requirements – 4. Price coupling algorithm requirements-Title 6- Currency?

No Comments

Intraday Algorithm requirements

1. Do you have comments on the proposed ID algorithm requirements – Title 1: General requirements?

1.d.: while we understand the need to have possible different GOT and GCT during a transition period, it makes sense to harmonise them and to move GCT closer to real time

1.s.: ideally price limits per Bidding Zone are harmonised.

2. Do you have comments on the proposed ID algorithm requirements – Title 2: Requirements related to Cross-zonal capacities?

Regarding 1 l: if a Bidding Zone, one border, one instrument or one NEMO needs to be halted/unhalted, it needs to be made public why this decision was taken.

3. Do you have comments on the proposed ID algorithm requirements – Title 3: Requirements related to allocation constraints?

Regarding Titel 3 in general: it should be made public, which allocation constraints are activated, where, how the operated and why.

4. Do you have comments on the proposed ID algorithm requirements – Title 4: Requirements on algorithm output and deadlines for the delivery of single intraday coupling results?

No Comments

5. Do you have comments on the proposed ID algorithm requirements – Title 5: Currency?

No Comments

6. Do you have any other comments on the ID algorithm requirements?

Question on chapter 2 Terminology: are there cases where the bidding zone is not identical to the scheduling area? If that is the case, what are the practical implications?

Question on chapter 2 Approach: Regarding State, Future Requirement: it would be welcomed if a distinction could be made, which Future Requirements are already under development within PCR and for which Future Requirements development has not yet started and when it is expected to start in that case.

Products Proposal

1. Do you have comments on the proposed DA and ID Products, including the categorisation of whether they are required at the start of operation of the SDAC/SIDC or at a future date?

The list of products to be available by the start of the operation of the SDAC/SIDC seems to be complete.

2. The NEMOs believe that the technical specifications of the different products are better explained in separate public documentation, which can be more readily updated if needed. Do you have comments on this approach?

That sounds reasonable.

3. Do you have comments on the proposed process to enable new products, or should all changes require a modification using the procedure outlined in CACM (Articles 9/12 and 40/53)?

In our view the introduction of new products can be done using the process described in the Change Management Principles described in the All NEMO proposal. That should allow a speedy introduction if all NEMOs agree. Additional transparency should be ensured by making the change request public. If there is however a disagreement on such a change request, procedures outlined in the CACM should apply.

4. Do you have any other comments on the Proposal?

Why is there no article on the proposed processes, referencing to the All NEMO proposal? In our view everything from the chapter of "Impact on the objectives of CACM Regulation" point 4 could be moved in a separate article.

Back-up methodology Proposal

1. Do you have general comments on the proposed Back-up Methodology for single day-ahead coupling and for the single intraday coupling?

> Concerning the requirement for back-up common communication system, We wish to highlight the importance to ensure that confidential data is exchanged in a secured way. In particular, the risk of decoupling does not justify, in our view, a reduced security level of the exchanged data. Therefore, the possibility to exchange confidential data files without encryption should be carefully assessed and excluded if the same security level as in the normal data exchange process cannot be ensured.

As regards the requirement for timings, it would be useful to include in the proposal the deadlines mentioned in paragraph 39 if already agreed, in accordance with the CACM Regulation.2. Do you have specific comments on Article 3-the 'SDAC backup procedures and steps' of the proposed Back-up Methodology for single day-ahead coupling and for the single intraday coupling.

> No comments.

3. Do you have specific comments on Article 4-the 'Intraday timeframe price coupling algorithm backup procedures and steps' of the proposed Back-up Methodology for single day-ahead coupling and for the single intraday coupling.

> No comments.

Harmonized Max-Min price Limit Proposal

1. Do you find that the proposal addresses all the relevant objectives and issues that it should?

⟩   If not kindly list key issues not covered, and motivate why they should:

> We does not find the proposal ambitious enough. The proposal would not lead to any improvements. It is not in line with the objective of the CACM guideline (i.e.: harmonised price limit should reflect the VOLL). At minimum, we would expect a clear path to target/roadmap on how target price caps would be reached.

2. In the proposal being consulted upon two different levels are indicated as possible price limits to apply in the Single Intra Day Coupling (SIDC), one like proposed for Single Day Ahead Coupling (SDAC) and one with a wider range. The reason being that SIDC, contrary to SDAC (Implicit Auction), is based on continuous trading and matching of individual orders based on a continually, for each Bidding Zone, visible best bid/ask spread and accordingly there is no clear relevance for limits other than on technical grounds.

On that basis we have these specific questions linked to the price limits to be applied:

⟩   Do you have any opinion about if the price limits set for Single Day Ahead Coupling (SDAC) and Single Intra Day Coupling (SIDC) should be identical or different?

> In principle, the upper price limit should allow scarcity prices to manifest. If day ahead and intraday markets function reasonably well, then real physical scarcity only manifests close to real time or in real time i.e. in the intraday and balancing markets, when the uncertainty about available production (capacity), grid capacity and projected demand has been considerably reduced. In other words, the closer to delivery, the higher the limit (if any) should be. In our view therefore, the upper price limit in the SIDC and the balancing markets has to reflect scarcity pricing, to incentivise flexibility from production and load. The SDAC price limit could either be identical to the SIDC price limit, or it could be lower since physical scarcity is not yet properly manifested in the day ahead markets. But it would be wrong in our view to have a higher price limit in the SDAC then in the SDIC.

⟩   If you argue for different levels can you kindly provide reasoning for why that should be the case:

> As argued above: the SDIC upper price limit should either be higher or identical to the SDAC upper price limit, since physical scarcity is manifesting closer to real time/in real time.

) Do you have any opinions about the limits proposed for SDAC? If you disagree with the proposed limits what would you deem as more appropriate limits and can you elaborate on why?

) Do you have any opinion about either of the options (A: +3000/-500; B:+9999/-9999) proposed as limits for SIDC? If you disagree with both sets of proposed limits what would you deem as more appropriate limits and can you elaborate on why?

As stated above, the motivation to align min and max prices for SIDC and SDAC is not clear to us. This would not represent any improvement compared to current situation. However, as long as there is no proposal which is aligned to the CACM guideline, our preference goes to option B: we propose for the SIDC the limit B +9999/-9999 to allow for proper scarcity pricing close to real time. This proposal has however several consequences on currently existing arrangements regarding balancing market max prices, the use and pricing of strategic reserves, max order price limits, etc. These arrangements should therefore be reviewed accordingly.

3. Do you have any suggestions on how to over time tackle the required need to consider the limits in relation to Value of Lost Load (VOLL)?

) Further, do you have a suggestion on how to in relation to price limits tackle the fact that there is no uniform VOLL across the EU?

The question of VOLL is also addressed in the winter package. In the meantime and as an interim solution, we propose to set the SDIC to +- 9999 to allow it to come closer to reflecting scarcity prices that market parties might be willing to bid, independent of what the final VOLL calculation harmonised or not will be.

4. While the Proposal clearly says that harmonised limits shall apply for SDAC and SIDC respectively it also allows for derogations based on two options, namely (a) an agreement between relevant NEMOs and TSOs and approval by NRAs (Article 6.1), or (b) temporary derogations decided upon by the All NEMO Committee (Article 6.3), and for both options it may be valid in single Member States, Bidding Zones and regions or the whole SIDC or SDAC geographic scope if due consideration is made of the impact on the objectives of the regulation.

⟩ What is your view on the derogation option in Article 6.1?

We disagree with the option for a permanent derogation from the Harmonised Minimum and Maximum Clearing Prices for SDAC and SIDC. In a price coupled area it might lead to one region/area repeatedly meeting the price cap, while there is no scarcity manifest in the neighbouring price area/region, with all the negative consequences for the functioning of the algorithm (decoupling, fall back procedures) and competition that that may imply.

Therefore, the possibility to grant derogations should be limited as far as possible and NEMOs should be obliged to perform a cost-benefit analysis showing the impact of the derogation on the achievement of the overall objectives of the CACM Regulation. This obligation should be introduced in the paragraph 6.1 of the current proposal. We also believe that derogations should be limited in time.

⟩ What is your view on the temporary derogation option in Article 6.3?

We could potentially agree that a temporary derogation should be possible for the reasons described in Article 6.3.. In our view the temporary derogation may also trigger a review of the Harmonised Maximum and Minimum Clearing Price Limits described in 6.4.

⟩ What is your view in general about possible existence of derogations, and do you find that, when such decisions are made, the measures proposed to ensure consideration of overall objectives are sufficient?

See above

5. Do you have other specific feed-back on this Min-Max Proposal?

No comments