Public Consultation Report to the second amendment of the Intraday Capacity Calculation Methodology of the Core Capacity Calculation Region

in accordance with article 20ff. of the Commission Regulation (EU) 2015/1222 of 24th July 2015 establishing a guideline on capacity allocation and congestion management

09-08-2022

Purpose:	☐ methodology draft ☐ for NRA approval	☐ for public consultation ☒ for final publication
Status:	☐ draft	☒ final
TSO approval:	☐ for approval	☒ approved
NRA approval:	☐ outstanding	☐ approved

GLOSSARY

All definitions and abbreviations of the second amendment of Core ID CCM apply accordingly.

1. INTRODUCTION

This document is the consultation report for the Core TSOs proposal for the Core CCR TSOs' second amendment of the Core Intraday Capacity Calculation Methodology (Core ID CCM) in accordance with article 20ff. of the Commission Regulation (EU) 2015/1222 of 24th July 2015 establishing a guideline on capacity allocation and congestion management (CACM).

Core TSOs would like to thank all parties involved in the public consultation for their interest in the second amendment of the Core ID CCM. Core TSOs welcome the feedback received as it is valuable for the further development and detailing of the second amendment of the Core ID CCM.

1.1. Public consultation on second amendment of Core ID CCM

Via the ENTSO-E Consultation Platform, the public consultation document for the second amendment of the Core ID CCM was available to Core stakeholders from 4 March 2022 until 4 April 2022. In total, two stakeholders submitted its response.

Since the public consultation results should be processed in an anonymised manner, the identity of the respondent is not disclosed in this consultation report. Please note that the response was, however, shared with the Core National Regulatory Authorities (NRAs) in a non-anonymised manner.

The Core TSOs wish to clarify that the content of this document is intended to summarise the results obtained in the public consultation. The Core TSOs did their best to reply to all comments and concerns.

2. CORE TSOS SECOND AMENDMENT OF THE CORE ID CCM – CONSULTATION FEEDBACK

2.1. Introduction

In this chapter, a summary is provided of the stakeholder response received via the ENTSO-E Consultation Platform. The response is structured in a table showing the stakeholder response, the action taken by Core TSOs and in addition a Core TSOs' answer to the stakeholder response.

2.2. Proposal for amendment – Stakeholder feedback

Stakeholder response		Action taken	TSOs answer
S1.1	The stakeholder believes that the elaboration of coordinated capacity calculation (CC) methodologies by Capacity Calculation Regions (CCRs) is an essential step to meet the objectives of the CACM Regulation to ensure the optimal use of transmission infrastructure. A truly coordinated capacity calculation process aimed at optimizing the capacity made available to the market, while ensuring operational security, is fundamental to improve the efficiency of wholesale electricity markets. For these reasons, the stakeholder welcomes this consultation of the TSOs of the CCR CORE, since considering the feedback of market participants will enhance the benefits of the coordinated capacity calculation methodologies. Given the technical nature of the amendments, the stakeholder is thankful for the share of an explanatory document. Yet, this document is still very technical, making it difficult for market participant to understand the issues at stake. It also fails to introduce the context of most the amendment proposals, doesn't always explain the abbreviation used, doesn't present any impact analysis. The stakeholder would be thankful to TSOs for sharing more pedagogical reports on the mentioned technical processes, such as charts or simple examples (which could be much more appropriate for the explanation than the shared flowcharts).	Explanatory document updated	Core TSOs welcome the given feedback and are willing in general to provide more examples or explanation on specific parts of the methodology. The explanatory document has been reviewed taking your feedback in mind to improve its readability. To ensure full transparency in our communication, Core TSOs ask stakeholders to formalise concrete request(s) on further explanations of specific process steps to be discussed during regular Core consultative group meetings.

| E S1 | Concerning the alignment with CORE ROSC DA CROSA process The explanatory document attached to the consultation unfortunately fails to introduce the imposed timing of the CGM, ROSC and IDCC processes – and the interdependencies between them – making it difficult for the market participants to express an informed view on the proposed amendments.

As it is, the stakeholder understands that the IDCC process needs to be based on the ROSC outputs (including IGMs and proposed/agreed coordinated RAs) to ensure that the highest possible capabilities available are offered to the market while considering all possible conditions resulting from the security of the system operation. Yet, according to TSOs, there are doubts on the feasibility of doing iteratively these two processes within the timing defined by the CCM requirements.

The parallelization of both these processes (e.g. taking into account the DACF CGM – which doesn't include coordinated RAs – as input for the IDCC) is considered to increase risk for unreliable results and compromised grid security. According to CORE TSOs, the best feasible solution to tackle this issue ("target solution") eventually consists in (i) taking as input for the IDCC process expected results from the ROSC process (obtained as result of the 1st RAO run) and to (ii) skipping the NRAO step.

The stakeholder regrets that TSOs didn't share any cost benefice analysis enabling market participants to compare the various options that have been considered, and to what extend the above-mentioned solution is eventually the best feasible.

In particular, the stakeholder deplores that no information has been shared concerning the impact of the deletion of the NRAO while these topological measures are a major lever for the optimization of the network use. The explanatory note doesn't mention any alternative studied by the TSOs, such as a simplified optimization with a lower level of constraints. | N/A | To improve the ability to understand the interdependencies between the CGM creation, the Core ICS process for the interim period, the ROSC process for the target model and the IDCC process, further details have been added to the explanatory note.

It is a correct understanding that Core TSO deem it most efficient and secure to base the IDCC process upon the latest outputs possible from the ROSC process. However, as long as both the ROSC process and the Core IDCC process cannot be performed fully sequentially, a trade-off will need to be made between waiting longer for (intermediate) ROSC outputs and keeping sufficient time available to perform the IDCC process.

Currently, Core TSOs deem 19:55 as the best timing for waiting on updated outputs from the CROSA / CSA process, which keeps sufficient time available for the required IDCC computations and local validations of results.

It is also important to understand that in case of congestions in the initial DACF CGM, both the ROSC's CROSA (or CSA during the interim period) and the NRAO will have a very similar objective function, being the resolving of congestions. Congestions in the initial DACF CGM are very frequently observed issues.

Core TSOs deem the potential to resolve congestions greater via the CROSA / CSA process, due to the usage of both costly and non-costly RAs, as well as more secure since all relevant elements are taken into account (instead of only CNECs / MNECs via the Core NRAO). The proposed/coordinated RAs in the CROSA / CSA process would then be part of the inputs considered at the start of the Core IDCC process. |
| E S1 | As it stands, it is unclear whether non-costly remedial actions will still be considered in the ID timeframe. If so, at which stage of the ROSC/IDCC process? At what level | | This is also an explanation why it is not possible to include a simplified NRAO in the Core IDCC, seen the algorithm would influence the impact of these RAs included |

	of coordination? What would be the simplifications to reduce the level of constraints of this optimization? If not, what would be the rules imposed upon TSOs for the implementation of non-costly remedial actions? In any case, the stakeholder asks TSOs to share an assessment of the resulting under optimization of ID flow-based domain, and the potential impact on the level of ID cross-border capacities (It is important that there is no step back with this process and result with lower cross border capacity). Without this information, it is difficult for market participant to express an informed view on the TSOs proposal.		via the CROSA / CSA process. In addition, reserving time in the IDCC process for a simplified optimization (e.g. 30 minutes) would reduce the maturity of the outputs available from the CROSA / CSA process, which could increase the above-mentioned effect. Unfortunately, it is not possible for Core TSOs to provide a detailed cost benefit analysis, due to lack of an extensive experimentation data set of Core IDCC computations including an NRAO. The decision to leave out the NRAO in the IDCC process was based on Core TSO's operational experience from the current CSA process (e.g. which costly & non-costly RAs are effective for resolving congestions in the CGM) and from the Core DACC process (e.g. impact of DA NRAO and observed performance).
S1	Concerning the inclusion of an additional step for the application of the art. 31 of ROSC methodology In first instance and as mentioned several times in previous consultations, the stakeholder asks CORE TSOs to share with market participants their approach concerning the best timing to activate RAs once congestions (as a result of the DA allocation for example) are detected through the ROSC process (e.g. the closer to the real-time, or the sooner possible). In case RAs are to be applied with anticipation, the stakeholder is favorable to the implementation of measures that could prevent the market from counteracting applied RAs (and eventually preventing a "ping-pong" effect where corrected flows may be rescheduled by the market). Yet, the explanatory note fails to explain why XNECs should be added to the initial computation to meet this objective. As it stands, it is unclear which network elements could be included in the lists of VNECs (whose abbreviation is by the way not explained), and why XNECs with a "sensitivity over a certain threshold" are not already part of the selected CNECs. Could the sensitivity of certain network element evolve because of the activation of RAs? The stakeholder	Explanatory document updated	Core TSOs take note of the made requests on further clarifying the approach for activation of RAs, but request to tackle this topic via the ROSC project, since this topic is not part of the Core ID CCM. An additional paragraph has been added in the explanatory note to clarify the reason why additional XNECs that are not CNECs could be included in the IDCC initial computation. The definition of VNEC has also been included in the note. In general, only the elements that are overloaded in CROSA triggering cross-redispatch or countertrading measures to solve the related congestions, and which are not part of the list of IDCC CNECs, are potentially concerned. Such additional elements could have sensitivity below the 5% threshold since CROSA aims to solve congestions of all grid elements regardless they are part or not of IDCC CNEC list. In the current approach, it is proposed to consider an additional global threshold dedicated to these specific XNECs additions in order to limit the impact on the ID capacities but ensuring operational security, prevent any undue discrimination between internal and cross-zonal exchanges, and comply to Art. 31 of ROSC methodology. Such threshold should be agreed amongst Core NRAs and TSOs based on more experience once the ROSC CROSA process is implemented. Without such experience, it is currently not possible to give

	reminds that according to CACM, there shall be no undue discrimination between internal and cross-zonal exchange and only network elements influenced (above a given threshold) by cross-border exchanges should be considered for the IDCC.		more details about which network elements would be included in the list of VNEC.
S1	Concerning the interim solution between the implementation of the ID FB and ROSC v1 The stakeholder is wondering whether the CORE TSOs did analyze the possibility for considering at least curative RAs that have historically proven their efficiency on identified CNECs. Such an approach is admittedly not optimal but seems better than considering any curative RAs at all.	N/A	It is also important to remind that such process is only applicable for the target solution after ROSC v1 implementation. No systematic information about overloaded XNECs that triggers cross-redispatch or countertrading measures is available and shared in the current ROSC ICS process. The inclusion of curative RAs in the interim solution has indeed already been identified as a possible mitigation solution. Core TSOs acknowledge the added value of the application of such curative RAs for specific areas and CNECs. However, the current ROSC ICS process does not provide the needed automatic and standardized information about the application of curative RAs that solve congestions in DACF grid models. The inclusion of such curative RAs in IDCC would therefore imply heavy IT developments in ROSC ICS, Core IDCC and local TSOs processes for a limited period until ROSC v1 implementation. Core TSOs are currently assessing alternative mitigation measures for interim solution, focusing on the most promising and technically feasible solutions.
S1	Concerning the new ID ATC Extraction Methodology for negative ATCs Again, the stakeholder asks for clarification on the timing of the activation of RAs once the ROSC process detects a congestion (e.g. a clearing point outside the FB domain, as given in example in the charts). Not applying RAs as soon as a congestion is detected gives the opportunity to the market to remove it itself. Such removal can only occur if the price spread reverses between DA and ID timeframes, which is in our view quite unusual so close to real-time. At the end of the day, such an approach could lead to higher costs of RD/CT for the system since the market liquidity declines as real-time is nearing. However, in case the spread reverses between DA and ID timeframes, the application of negative ATCs indeed enables to prevent cross-zonal trade in the critical direction until these ATCs become positive again. The stakeholder supports this approach since it enables a	N/A	It`s not clear to the Core TSOs what is meant with "neutralisation lead-time". But in case ATCs remain negative and are not solved by additional market allocations then TSOs will apply remedial actions to resolve the grid congestions. Core TSOs decided to provide zero ATCs instead of negative ATC for Intraday Auctions, because negative ATCs in ID Auctions would bring the risk that the complete ID Auction on SIDC level would fail. In case there is not enough liquidity in the market to satisfy all negative ATCs the market coupling algorithm would not be able to find a solution. Consequently, the ID Auction on SIDC level would fail. To prevent any risk on the SIDC performance caused by the Core capacities no negative ATCs will be provided to the ID Auctions.

	closer management of the congestion than a hard constraint but is wondering whether it remains negative until the neutralisation lead-time in case the ATC doesn't become positive again. The stakeholder is also wondering why such negative ATC could not be applied above all during the intraday auctions, since they could permit to entirely remove congestions using the market – hence minimizing the costs for the system. In that approach, trades would be forced until the congestion is removed, and the costs incurred supported by TSOs. When it comes to the sharing of the negative ATCs between borders, The stakeholder takes note of the TSOs proposal to take PTDFs into account (instead of equal share over all borders as it is the case for positive ATCs).		
S1	Concerning DA CCM amendments The stakeholder welcomes TSOs efforts towards a finer modelling of the HVDC in capacity calculation since it can better describe their impact on CNEC and eventually leads to an IDCC closer to the network constraints.	N/A	
S1	Concerning the possibility for CORE TSOs to update ID capacities The explanatory note doesn't precise the need for the TSOs to add such a possibility to reduce ID capacities. The stakeholder asks TSOs to precise what the "significant changes" they are considering are. In a general manner, the stakeholder reminds that such ID capacity reduction should only be used as a last resort, and duly justified to market participants so they could forecast these reductions and monitor the risks it creates (on the cross-border flows and prices).	N/A	Core TSOs consider, amongst others, an activated critical grid situation (according to ENTSO-e definition), the unforeseen outage of a critical network element or HVDC cable and/or a foreseen grid situation that is not containable with available remedial actions as sufficiently significant to consider a reduction of intraday capacity during the day (after 22:00 D-1 and after 10:00 D).

S2	The stakeholder welcomes the Core CCR TSOs' consultation for the second amendment of the Intraday Capacity Calculation Methodology of the Core Capacity Calculation Region in accordance with article 20ff. of the Commission Regulation (EU) 2015/1222 of 24th July 2015 establishing a guideline on capacity allocation and congestion management.	N/A	

S2	Concerning the alignment with CORE ROSC DA CROSA process
	• Explanatory documents fail to introduce the imposed timing of the CGM, ROSC and IDCC processes – and the interdependencies between them – making it difficult for the market participants to express an informed view on the proposed amendments.
	• The stakeholder understands that the IDCC process needs to be based on the ROSC outputs (including IGMs and proposed/agreed coordinated RAs) to ensure that the highest possible capabilities available are offered to the market while considering all possible conditions resulting from the security of the system operation. Yet, accordingly to TSOs, there are doubts on the feasibility of doing iteratively these two processes within the timing defined by the CCM requirements.
	• The parallelization of both these processes is considered to increase risk for unreliable results and compromised grid security. According to CORE TSOs, the best feasible solution to tackle this issue ("target solution") eventually consists in
	  i. taking as input for the IDCC process expected results from the ROSC process (obtained as result of the 1st RAO run) and to
	  ii. skip NRAO step.
	• The stakeholder deplores that no information has been shared
		N/A	Core TSOs are willing to provide more information on the impact of using intermediate ROSC CROSA results as input of the intraday capacity calculation process. However, such information is at the moment not available and can only be provided once the external // run of ROSC CROSA has been initiated. It is difficult to anticipate on the extent of the impact as long as no quantitative results are available.

	concerning the impact of the deletion of the NRAO while these topological measures are a major level for the optimization of the network use. • The stakeholder asks TSOs to share an assessment of the resulting under optimization of ID flow-based domain, and the potential impact on the level of ID cross-border capacities. Without this information, it is difficult for market participant to express an informed view on the TSOs proposal. • There should be no step back with the alignment of these process, and there should be no reduction of intraday capacity • Also what are the risks related to the consideration of "expected results of the ROSC – 1st RAO run) rather than the results of the 2nd RAO run.		
S2	Concerning the new ID ATC Extraction Methodology for negative ATCs • The stakeholder understands that negative RAM are already present as no LTA inclusion nor minRAM are applied in ID, so that the DA Market Clearing Point can turn out to be outside of the ID updated FB domain. The question is how to transform those negative RAM to negative ATC over BZ borders (that are bilateral per default). As long as there is no FB allocation in ID, an ex-ante choice (probably at the expense of market efficiency) has to be made on how to allocate positive/negative RAM to BZB. While the allocation of positive RAM is done via the already applied iterative process (where all border with positive Z2Z PTDF receive an equal share of the RAM, then transformed to ATC by applying the Z2CNEC PTDF), the stakeholder understands that this can create disproportionate issues when applied to negative RAM. Dividing share of RAMs by small PTDF results in large negative ATC which longer blocks trade on an oriented BZB while the effect in terms of security is negligible. The proposed solution by TSO is to share the negative RAM to BZB proportionally to the Z2CNEC PTDF. Dividing by small PTDF will still be done, but the negative RAM share is smaller, resulting in negative ATC that can more rapidly get	N/A	Core TSOs welcome the feedback. The method to extract negative ATCs is only related to the extraction of ATCs from the intraday FB Domain. The DA process is not affected. TSOs are open to discuss this topic further at the next CORE CG meeting and to provide some more educational material.

	positive again (thanks to trades in the opposite direction of the oriented BZB). • In consequence the advantage of being situated far from a constraint (small PTDF) when allocating positive RAM becomes a (probable disproportionate) disadvantage when allocating negative RAM. The stakeholder therefore supports CORE TSO proposal. However the stakeholder would welcome educational presentation on this complex matter at the next CORE CG meeting. Also it is not clear whether this also apply to DA domain that were built based on FB and LTA domain (ELI/BALAS formulation).	12	