Topic 1: Application of the flow-based approach

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The Proposal applies a flow-based approach with multiple scenarios on a yearly and a monthly level for the calculation of flow-based parameters.

ACER supports the application of a flow-based approach, as this approach is in line with the FCA Regulation and the CACM Regulation. In ACER's view, a flow-based approach is appropriate for meshed networks such as the Core CCR and consistent with the approach applied in Core Day-ahead CCM. Most importantly, ACER understands that all efforts of Core TSOs to implement the Coordinated NTC approach in Core CCR have failed, as TSOs could not to agree how to split the interdependent cross-zonal capacities among different bidding zone borders. In case of flow-based approach, such a split is not necessary, since the flow-based allocation determines the volume of allocated capacities per each border based on maximisation of economic surplus.

The proposed application of a flow-based approach implies that flow-based parameters will be used for allocating capacities (see Article 29 and Article 30 of the CACM Regulation). As the auctions currently performed by the single allocation platform do not support the use of flow-based parameters for capacity allocation, ACER has requested all TSOs to propose amendments to the following terms and conditions or methodologies in order to accommodate the long-term flow-based capacity allocation approach:

- requirements for the single allocation platform pursuant to Article 49 of the FCA Regulation (SAP);
- harmonised allocation rules pursuant to Article 51 of the FCA Regulation (HAR);
- congestion income distribution methodology pursuant to Article 57 of the FCA Regulation (CiD);
- methodology for sharing costs incurred to ensure firmness and remuneration of long-term transmission rights pursuant to Article 61 of the FCA Regulation (FRC).

* **Do you agree with the application of the flow-based approach in the Core LT capacity calculation?**

- ○ Yes
- ○ No
- ○ I don't have a view

Please explain:

Both the TSOs and ACER consider that the flow-based approach to capacity calculation leads "by default" to an increase in economic efficiency with the same level of system security. Should this necessarily be the case, we wonder why the legislator would have put this element as the first condition

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to the implementation of a flow-based approach in the forward timeframe in article 10(5) FCA Regulation.

While the flow-based approach may indeed be linked to improved economic efficiency in theory, the practice may be quite different. This is already the case in day-ahead – as shown by the economic indicators in CWE, which show much lower efficiency gains in practice than modelled ex-ante in theory. We question if this would also apply to the forward timeframe, where significant uncertainties will be taken into account in a flow-based model. For instance, the need for linear parameters (especially GSKs) which is specific to flow-based and may lead to high reliability margins, in a context where uncertainty is already high by nature given the time horizon and the impossibility to value the relieving effect of certain exchanges on CNEC flows, due to the optional nature of LTTRs which forbids netting. Grid models will be much less precise than in day-ahead, and elements like reliability margins or allocation constraints will likely be much more limiting. Finally, the validation process may lead to significant gaps between theoretically calculated and actually allocated capacities.

All in all, it is far from certain that with such levels of uncertainty, a flow-based approach to capacity calculation will "by default" yield more economic efficiency than a cNTC approach. Without any justification in the TSOs explanatory document or in the ACER statement in support of this consultation, we consider that the choice for a flow-based capacity calculation in the forward timeframe is not compliant with article 10(5) FCA Regulation.

Do you have any other comments regarding this topic?

The proposal lacks details about the allocation process. We understood from discussions at Core Consultative Group meetings that the objective is to use the flow-based approach not just for the calculation process but also for the allocation of capacity by 3 to 5 years (this also seems the option favoured by ACER). In the meantime, an NTC extraction would be performed to allocate capacity at each border. Considering the uncertainties about the capacity calculation model already – and the worries we have that a flow-based calculation may not yield very high level of cross-zonal capacity in the forward timeframe – the lack of clear idea how capacity will be allocated in the future significantly adds to market participants concerns with the overall proposal. Flow-based capacity allocation (in addition to calculation) may require significant adaptation on market participants' side from an operational standpoint.

Hence, we call on the TSOs and ACER to engage in a dialogue with market participants to help us understand how the future capacity calculation and allocation processes will play out. This should include all the elements in the new processes that would require an adaptation of tools and systems on market participants' side. Any final decision on the matter should be backed by a thorough impact assessment showing the benefits of both flow-based capacity calculation and flow-based capacity allocation.

Topic 2: Selection of critical network elements

Topic 2: Selection of critical network elements
The Proposal allows the TSOs to include additional internal critical network elements with contingencies (CNECs) in the capacity calculation on top of those defined in the initial day-ahead CNEC list. As argued by the Core TSOs, this is required in order to avoid negative financial consequences for the TSOs in case of over-allocation at the long-term level, and the need to

accommodate such LT allocation at the day-ahead level with the Long Term Allocation (LTA) inclusion process.

ACER is of the view that the CNEC list at the long-term level should be consistent with the CNEC list at the day-ahead level. According to the Core day-ahead capacity calculation methodology (Core DA CCM), day-ahead validation cannot lower the remaining available margin (RAM) values below the level required to accommodate the long-term allocation. As such, ACER sees no financial risk to the TSOs. This provision has not been changed in the actual amendment of the Core DA CCM.

ACER also considers it unlikely that alignment between the two CNEC lists would endanger network security since the LT CCM needs to ensure that LT capacities are always feasible with the application of remedial actions.

Given the above, ACER proposes to apply the same principles for defining the CNEC list at the long- term level as those applied at the day-ahead level.

* Do you agree with the proposed CNEC selection principles?

- ○ Yes
- ○ No
- ○ I don't have a view

Please explain

We agree with ACER that the CNEC selection criteria proposed by the TSOs are not appropriate. Article 7.1 does not include a methodology for CNE(C) selection, which will therefore remain at national level if the methodology is approved as is.

This approach is also not coherent with the CNE(C) selection methodology for day-ahead and intraday (article 5), which is harmonised at CCR level for the Core region. Besides, the LTCCM proposal does not take account of the requirements laid down by ACER in its decision on the DA and ID CCMs for the Core region concerning the removal of internal CNE(C)s from the DA and ID capacity calculation within two years unless properly justified by the TSOs and approved by all CCR NRAs. For consistency reasons once again, we believe the same provision should apply to the LTCC. This will also allow full compliance with article 10(3) FCA Regulation ("The capacity calculation methodology shall be compatible with the capacity calculation methodology established for the day-ahead and intraday time frames pursuant to Article 21(1) of Regulation (EU) 2015/1222.") With such uncoordinated CNE(C) selection and application, between bidding zones and across timeframes, the likelihood of drastically reduced available capacity in the forward timeframe increases.

The list of CNE(C)s should be systematically approved by all Core TSOs and all Core NRAs, not just updated unilaterally by single TSOs, as laid out in article 7.4. The review of CNE(C)s should also happen at regular and foreseen intervals rather than ad-hoc and possibly every month. We request that the Core TSOs apply the same requirements as in article 5 of the Core DA/ID CCMs.

Finally on article 7: an additional paragraph in the LTCCM should mirror the latest evolutions regarding the possible consideration of third-country CNECs proposed in the DA CCM (article 20.6a of the updated Core DA CCM proposal). As we suggested in reaction to this proposal in the DA CCM, the process of approving a new CNEC (or set of CNECs) for a third-country TSO should not be left to the

discretion of that TSO. The same process of collective selection and approval as for Core TSO CNECs (see our comments on article 7.1) should apply here.

Do you have any other comments regarding this topic?

We acknowledge that the PTDF threshold for CNECs of 5% proposed in article 7.3 is consistent with that of the DA and ID CCMs, and the current practice in CWE flow-based.

However, although this 5% criterion is apparently currently being applied, it has never been approved. On the contrary, it was identified as one of the open issues that still need to be resolved. In their Position Paper on CWE Flow-Based Market Coupling of March 2015, the CWE NRAs write the following (in paragraph 9.12 CBCO selection):

> "The project has proposed the rule of 5% to identify a critical branch (the 5% criterion means that a CBCO, to be selected, has to have at least one zone-to- zone PTDF which exceeds 5%). It is stated in the Approval Package that this rule was assessed inside the project to be efficient. This has nevertheless not been demonstrated to CWE NRAs. If there is room for improving this CB selection rule, this could lead to a higher global welfare. As a matter of fact, a network element not considered as a CB in the Flow-Based methodology cannot limit cross-border exchanges. If an overload is expected on this line, the relevant TSO(s) may have to activate potentially costly remedial actions such as re-dispatching. Moreover, the current rule does not prevent the fact that constraints with very low PTDF are active and may have huge impact on prices. Therefore, CWE NRAs consider that the project has to demonstrate, at the latest when applying for a capacity calculation methodology in the frame of the CACM Regulation, whether the 5% rule is optimal, or what other rule could lead to such optimality. The Flow-Based methodology would have to be adapted consequently."

Six years later, this demonstration of the optimality of the 5% criterion has not been provided, and is still not detailed in the proposed LTCCM or its explanatory document.

Topic 3: Minimum remaining available margin (RAM)

Topic 3: Minimum remaining available margin (RAM)
The Explanatory document to the Proposal defines the level of minimum RAM for the long-term allocation at the level of 20% of Fmax. The Proposal does not define this level.
ACER notes that the minimum RAM is an important threshold, ensuring the minimum level of allocation available in the long-term timeframe. ACER considers that the minimum RAM values and/or principles have to be clearly defined in the methodology (and not in the explanatory documents).
While the level of the minimum RAM of 20% reflects the current minimum RAM applied at the day-ahead timeframe in Central Western Europe (CWE)'s flow-based approach, ACER is concerned that this level may likely lead to much lower long-term cross-zonal capacities. This is because the minimum RAM in the day-ahead timeframe is applied with netting of all allocated capacities (i.e. allocated capacities causing flows in the opposite direction of RAM allows more allocated capacities causing flows in the direction of RAM), whereas the minimum RAM in long term timeframe would be applied without netting of allocated capacities. Hence the minimum RAM value

in long-term timeframe is not directly comparable with minimum RAM value in day-ahead timeframe.

ACER intends to investigate the effect of no netting on minimum RAM and level of offered capacities and propose a higher minimum RAM value for the long-term frame if needed.

In addition, in order to provide comparable levels of capacity allocation in a possible transitional period, ACER investigates the options of:

- using historical long-term NTCs converted into minimum RAM, or
- statistical analysis of day-ahead RAMs, providing the minimum applied day-ahead RAM, which would be used as a long term minimum RAM.

ACER considers that the proposed Core flow-based approach would result in a coordinated and secure level of allocated capacities. Coordinated capacity calculation should even out the existing substantial differences in the allocated quantities at some Core borders.

Since market participants use long-term allocation as a hedging opportunity, ACER invites stakeholders to share their expectations regarding the volumes of the allocated capacities.

What are your expectations and needs regarding the volume of offered capacities in long term timeframe?

We are not entirely sure about the ACER criticism regarding the lack of definition of the minRAM threshold in the methodology itself. We believe that article 14.2 clearly sets the minRAM threshold to 20%, and we welcome the inscription of this minimum commitment in the body of the methodology.

Should the worries of ACER regarding the different results of the minRAM concept in forward and in DA (thanks to netting in DA), then indeed the threshold of 20% for minRAM in the forward timeframe may give a false assumption and may need to be reviewed.

Considering the commitment made by NRAs at Core Consultative Group meetings in the course of 2020 that average levels of allocated capacity in the forward timeframe should not decrease following the implementation of the Core LT CCM, we believe that an analysis of historical levels of capacity made available to the market in the past 3 to 5 years should be assessed and converted into minRAM levels that make sense for the forward timeframe.

* **Do you agree with using a minimum RAM higher than 20% for the LT timeframes?**
- ○ Yes
- ○ No
- ○ I don't have a view

Do you have any other comments regarding this topic?

Topic 4: Application of allocation (external) constraints

Article 6 of the Proposal provides a possibility for TSOs to apply the allocation constraints (external constraints, i.e. export/import limits) on top of the flow-based parameters. This approach is further justified in Annex 1 to the Proposal.

ACER notes that external constraints are currently exercised by TenneT (the Netherlands) and PSE (Poland) in the day-ahead timeframe. In ACER's view, argumentation provided in Annex 1 is more appropriate for the day-ahead timeframe, and therefore should be removed from the Proposal.

Nevertheless, based on the discussions with the Core NRAs and TSOs, ACER understands that as long as the external constraints are applied at the day-ahead level, they are also required at the long-term level, in order to accommodate the day-ahead external constraints and avoid over-allocation at the long-term level.

Therefore ACER proposes to allow for external constraints only if they are applied at the day-ahead level. In addition, ACER proposes to strengthen the monitoring of the applied values of external constraints by specifying the relevant monitoring requirements in that respect.

*Do you agree with the proposed way of application of allocation (external) constraints in the Core LT CCM?

- ○ Yes
- ○ No
- ○ I don't have a view

Please explain:

We oppose the inclusion in the methodology of a provision opening the possibility for TSOs to include import/export limits in the forward timeframe without proper justification, consultation of other Core TSOs and market participants, and approval by all Core regulators.

Do you have any other comments regarding this topic?

Topic 5: Implementation timeline and revision

Topic 5: Implementation timeline and revision

The Proposal foresees an implementation timeline for the LT CCM of up to 5 years. The Core NRAs and ACER are of the view that this timescale is excessively long compared to the developments required. The Core NRAs recommend a shorter implementation timeline for the LT CCM and, where possible, application of the already existing tools, developed for the flow-based Core DA CCM where the flow-based approach would be applied.

In ACER's view, the current application of the flow-based approach in the CWE area already provides significant experience with the flow-based approach, and is expected to extend to the entire Core region in February 2022.

Moreover, ACER considers that the shorter implementation timeline would be possible if the initial application of the flow-based approach involve certain temporary (and appropriately justified) simplifications. These should gradually be removed over time, once the TSOs gain the necessary experience with the flow-based approach in the long-term timeframe.

For the above reasons, ACER proposes to shorten the implementation timeline of the LT CCM to 2.5 years after the approval of the Proposal, and to allow for a subsequent revision of the methodology 18 months following the go-live.

* Do you agree with the proposed implementation deadline?

- ○ Yes
- ○ No
- ○ I don't have a view

Please explain:

While we share ACER's concerns with regard to the excessive length of the implementation timeline for this LT CCM, we believe it is directly linked to the choice of a flow-based capacity calculation methodology (and possibly flow-based capacity allocation process). A cNTC methodology for the calculation of capacity would drastically reduce the implementation timeline considering the experience acquired in existing NTC calculations. We recall our statements on the lack of proper justification and impact assessment, either on the TSOs or on ACER's side, for the choice of a flow-based methodology contrary to what article 10(5) FCA Regulation requires.

Besides, other evolutions have recently been proposed regarding LTTRs, especially the full allocation of all calculated capacity year-ahead through the so-called "block-bid" approach, which may in our view bring real benefits for market participants if properly implemented. Should these evolutions be in competition as regards the implementation timeline (because they resort to the same resources), we clearly consider that the priority should be given to the "block-bid" approach and not to the flow-based LT CCM.

Do you have any other comments regarding this topic?

Topic 6: Other proposed amendments

Topic 6: Other proposed amendments

In addition to the substantive amendments set out above, ACER proposes to introduce a number of amendments mainly to improve clarity and readability of the Proposal as well as ensure its consistency with the applicable Regulations and the related terms and conditions or methodologies. In particular, ACER proposes to:

- apply AC load flow for the reference load flow calculation in order to obtain more accurate results;
- apply the fallback procedure based on the flow-based parameters from previous yearly auction (at yearly time horizon), i.e. parameters from the corresponding season of the previous yearly auction (at monthly time horizon); and
- align the provisions on the publication of data with the corresponding provisions in the Core day- ahead and intraday CCMs.

*__Do you agree with the proposed amendments?__

○ Yes

○ No

○ I don't have a view

__Please explain:__

We generally agree with the proposals laid out by ACER, in particular the alignment of data publication requirements on that of the DA and ID CCM for the Core region.

__Do you have any other comments regarding the Proposal?__

We request a number of additional amendments to the TSOs proposal:

• *__Article 8.1__ In accordance with article 13 of the FCA Regulation, Core TSOs developed the following methodology to determine the common GSK:*

a. each Core TSO shall define for its bidding zone and for each timestamp a GSK, which translates a change in a bidding zone net position into a specific change of injection or withdrawal in the CGM. A GSK shall have fixed values, which means that the relative contribution of generation or load to the change in the bidding zone net position shall remain the same, regardless of the volume of the change;
b. Core TSOs shall take into account the actual information on generation and/or load available in the common grid model for each scenario developed in accordance with article 19 of the FCA Regulation in order to select the nodes that will contribute to the generation shift key;
c. each Core TSO shall aim to apply a GSK that resembles the dispatch and the corresponding flow pattern, thereby contributing to minimizing the flow reliability margins;
d. Core TSOs shall define generation shift key for the calculation period. Each Core TSO is allowed to use one GSK for multiple timestamps;
e. the Core TSOs belonging to the same bidding zone shall jointly define a common GSK for that bidding zone and shall agree on a methodology for such coordination. For Germany and Luxembourg, each TSO shall calculate its individual GSK and the Core CCC shall combine them into a single GSK for the whole German-Luxembourgian bidding zone, by assigning relative weights to each Core TSO's GSK. The German and Luxembourgian TSOs shall agree on these weights, based on the share of the generation in each Core TSO's control area that is responsive to changes in net position, and provide them to the Core CCC.

Article 8.1 does not provide a harmonised methodology for GSKs, as required under article 13 FCA Regulation. Should TSOs think that local specificities prevent harmonisation of principles and methodologies, these specificities should be clearly explained. The addition of article 8.2 foreseeing a harmonisation of the methodology for GSKs in the future is not sufficient in relation to the FCA Regulation.

The addition of specifications for the determinations of GSKs in Germany and Luxembourg – basically allowing the TSOs of Germany on the one side, and Luxembourg on the other side, to unilaterally define their GSKs – contradicts the principle of article 8.1.e which initially states that the GSK in bidding zones covering multiple TSO areas shall be defined jointly. Considering that the German-Luxembourg bidding zone is the only one covering multiple TSOs, the principle of article 8.1.e seems void.

> • **Article 9.1:** *Each Core TSO may define a set of available RAs, which is located in its control area. For transparency reasons, all Core TSOs have to be informed about this set of RAs in advance.*
> **and article 9.2:** *Only the following RAs are considered:*
> - *opening or closing of one or more line(s), cable(s), transformer(s), bus bar coupler(s);*
> - *switching of one or more network element(s) from one bus bar to another;*
> - *transformer and PST tap adjustment.*

Article 9.1 leaves entire room to TSOs to define the set of available RAs in their control area, and article 9.2 openly excludes the consideration of costly remedial actions. We believe that costly remedial actions should be systematically considered in the capacity calculation, to the same extent that they are considered in the coordinated security assessment. Where economically efficient, costly remedial actions should be taken in order to allocate the maximum of cross-zonal capacity to the market. Congestion "rents" and redispatch "costs" are both financial redistributions elements that should be considered on an equal footing in order to optimise regional welfare.

More generally, the process as described in this version of the methodology does not give a role to the coordinated capacity calculator (CCC), contrary to the initial version of the methodology. We have not received clarification from the TSOs whether this step has now been abandoned, and why. If not, all the steps should be clearly detailed in the methodology.

> • **Article 10.3:** *For the month-ahead capacity calculation timeframe in case of a considerable change such as for example a change in generation pattern following untypical climate and hydrological conditions, compared to the Individual Grid Model (IGM) for the ENTSO-E year-ahead reference scenario, in the grid of a Core TSO, this Core TSO shall update its IGM by incorporating the latest available information as regard to the generation pattern and topology (due to grid element commissioning or decommissioning), while the NP of the bidding zone is maintained unchanged when changing the generation pattern/topology. Therefore, the described updating process with the latest available data does not imply creation of a new scenario for the monthly timeframe and hence does not require approval process specified in article 3(5) of CGMM for FCA Regulation.*

We think the scenarios to be used in the common grid model for the monthly capacity calculation should always be updated – i.e. not only in case of "considerable change", a concept that is not defined and would likely be applied differently by each TSO. This would allow reflecting the latest changes in market fundamentals and topology, and hence improve the efficiency of monthly capacity calculation.

> • **Article 17.1.b:** *In accordance with article 15 of the FCA Regulation, referring to article 26 of the CACM Regulation, the Core TSOs shall have the right to correct long-term capacity relevant*

to the Core TSO's BZBs for reasons of operational security during the validation process. In exceptional situations long-term capacities can be reduced by all Core TSOs. These potential situations are at least: [...] b. when RAs, pursuant to TITLE 2:Article 9, that are needed to ensure the calculated capacity on all CNECs, are not sufficient;

See our comments to article 9.1 and 9.2.

> • **Article 17.4:** *When the process of individual verification of the calculated capacities is completed, then the final capacity validation process takes place in a coordinated way, whereby Core TSOs may require a reduction in calculated capacities for reasons of operational security.*

We welcome the removal of the last sentence initially included in this paragraph ("*When performing the steps of the validation, Core TSOs shall consider the operational security limits, but may also consider additional grid constraints, grid models, and other relevant information. Therefore, Core TSOs shall use the tools developed by the Core CCC for analysis but may also employ verification tools not available to the Core CCC.*") The possible application by individual TSOs of "additional grid constraints, grid models and other relevant information" – none of them defined in the methodology – as part of the validation process would have left far too much room to the TSOs for further restricting capacity. Elements that can restrict capacity should be included in the methodology, not left open for discretionary application at the end of the process by the TSOs.

Coming back to our initial comment on the application of a flow-based methodology: by the time we have reached article 17 of the methodology, we are particularly doubtful that a flow-based approach would be "by default" more efficient than a cNTC approach. Indeed, the theoretical model sees the imposition of the following elements that are likely to skew a calculation that may have "by default" led to mathematical ideal results:

- non-coordinated selection of CNE(C)s
- sensitivity threshold for PTDFs set at 5% without justification
- imposition of import and export limits
- non-harmonised methodology for GSKs
- exclusion of costly remedial actions
- uncertain grid models that are not updated frequently enough
- further restriction imposed as part of the validation process

Once again we call on ACER to provide a full impact assessment based on all the elements of the methodology to justify that a flow-based capacity calculation methodology would be more efficient than a cNTC approach, as required by article 10(5) FCA Regulation.

> • **Article 20.5:** *The Core CCC shall issue a quarterly report on capacity validation to the Core NRAs after approval by the Core TSOs. In each quarterly report, the Core CCC shall provide all the information on the reductions of calculated capacity after coordinated validation of capacities according to Article 17(3)(4).* **and article 20.6.**

We recommend making the report on reductions made during the validation of cross-zonal capacity available to the public as well, for transparency reasons.