



MARKET PARTIES PLATFORM

Linking Energy Markets

Response to the Consultation on Flow Based IDCC methodology

MPP-2017-005



GENERAL COMMENTS

The MPP welcomes the consultation of CWE TSOs for a proposal for the improvement of intra-day capacity. The MPP has been actively involved in the discussions around this subject in the context of the introduction of Flow Based market coupling in the CWE region.

The proposal is indeed an improvement of the current situation and includes many features promoted by the MPP in the past years. We consider this as a step forward in the optimisation of the use of the grid.

Planning

Since this improvement is long awaited we would urge the TSOs to meet the dead lines set by the CWE regulators in February 2016 (which already included a delay compared to the original planning set in the approval package for the Flow Based coupling). In doing so we suggest to implement any improvement as soon as possible. Since the TSOs already use well developed tools this should be possible (see our letter to the Pentilateral Energy Forum, dated: 25 November 2016, reference: MPP-2016-00437) we suggest an alternative planning:

1. Go live for centralised calculation in the ID time frame without remedial action optimisation but countertrading if the MCP is “out of the ID FB domain” (Q4 2017)
2. Go live for a full ID FB recalculation with Remedial Action Optimization (RAO) including countertrading as a possible remedial action (June 2018)

Principles

We see the proposal as a real improvement, especially the fact that the calculation is based on the DACGM (and the IDCGM in the future), including updated F_{ref} and GSKs. We also welcome the development of automated remedial action optimization.

There are also some principles that raise some concerns:

- The “TSOs shall not buy back allocated capacities” principle is inefficient in our view. TSOs should rather consider to buy back cross-border capacities in the intraday timeframe, when expected physical power flows corresponding to the market clearing point cannot be handled by the TSOs. Individual TSOs that indicate a likely congestion should then compare the costs of buying back cross-zonal capacities (i.e. countertrading) with the costs of internal redispatch actions in order to take the most efficient decisions. This would not negatively impact the market and TSOs could be less conservative in allocating capacity in the DA time frame.
- The “TSOs consider different FRM in cross-zonal capacity calculation and in security assessment” principle leads to discrimination. Both cross zonal capacity reduction and internal redispatch are two types of costly remedial actions and should be treated equally. TSOs should use identical FRMs for cross-zonal capacity calculation and for triggering internal redispatch actions.
- We also don’t understand the rationale behind the “TSOs shall be allowed to refuse a capacity increase” principle. It could only be relevant if TSOs hold back information from the centralised computation and this should not be the case.
- The current proposal will translate the ID FB domain into an ID ATC domain. Much of the benefits will become reality if FB is also used in ID. We do not see a good explanation for this. This is even more disappointing as there is no planning for the introduction of FB in the intra-day.
- Although we appreciate the fact that the use of remedial action will be automated, MPP regrets the fact that the transparency on this will not be granted.

Suggestions for the impact assessment

The MPP appreciates the consultation documents and the included case studies. However, we miss information on some aspects of the methodology and on numerical figures. This makes the methodology unpredictable. We would also include performance indicators that would give more insight in the benefits of the current proposal, also in the light of further improvements.

About this consultation

Although we welcome this consultation, we have serious problems with the consultation process. Announcing a meeting on the subjects only a few working days before the event and a consultation period of only two weeks is unacceptable. Especially as an association it is very difficult to attract input from members and consolidate it for input in such a short time frame. As we also represent many small market parties that rely on associations to voice their opinion the consultation procedure may be discriminating. For this reason, our response may be incomplete and other input may follow at a later stage.

Moreover, the consultation tool does not allow for this more general input and doesn't provide for a possibility to download the input given. The response in the consultation tool is therefore incomplete and this document should be seen as the reference for the complete input at this moment.

CONSULTATION QUESTIONS

A. Introduction

- 1 *After studying the consultation document, do you have a clear view on the challenges and benefits of the implementation of Flow Based intraday capacity calculation?*

The process description in the document gives a good overview. However, it is not very clear on the details of the current situation and what is to be developed in this project. Furthermore, the technical paper lacks numerical values of each parameter each TSO intends to apply (as is not the case for the data each TSO applies in the current Day Ahead calculation). To fully understand the challenges and benefits of the proposal tables should be included at the end of each section to specify the parameters currently used for both DA calculation and for the ID proposal.

The document indicates that the focus is only on the capacity calculation and does not cover the capacity allocation. Including only capacity calculation seems a more pragmatic approach for the short term. However, on the long term, market participants would like to have a full FB approach in ID consistent with what we have in DA.

We also conclude from the documents that the proposal is only a first step which comprises one calculation of the domain for intraday. This also seems a reasonable pragmatic approach, but the planning seems rather long compared to what is in place today. This one calculation approach is acceptable as first step, but it should be clear to the market when the calculation will be done and capacities should be published as early as possible to make sure the market can react on it. We call TSOs to keep working on extending the process and offer several recalculations of the domain (within the intraday timeframe) as there is a clear market need to have updates of the FB domain during the day. We believe that the target should be to perform a recalculation of the domain every hour to get a view on what is available for each hour, provided it keep the same exchange potential as the process today (it should not deteriorate).

To conclude: the documents give a view, but not a sufficiently detailed view on the challenges and benefits. Regarding the benefits of the implementation of the methodology we think that these can be underestimated given the purely geometrical metrics used for the impact assessment. In our view these do not reflect the economic impact of an increase of the ID FB domain properly.

B. Coordinated Flow Based intraday capacity calculation process

- 2 *Are the inputs for the capacity calculation clearly described and understandable?*
TP: chapter 3.1 CP: chapter 3.1

The description is only understandable to a certain extend. We have several questions:

FRM

- To set a value for the FRM of each asset, we advocate that CWE TSOs compare historical forecasted flows (with forecasted injections/withdrawals and forecasted topology) with flows corresponding to realized injections/withdrawals applied to the forecasted topology. Indeed, the realized flows may be significantly affected by changes in network topology that result more from a deliberate (remedial) action than justified by operational uncertainties.

- The methodology provides no insight on the risk policy considered by each TSO. This should be detailed in the technical paper, including numerical figures on the parameters used by CWE TSOs.
- The documents illustrate that the “external constraint” is used to avoid getting “too far away” from the reference point due to the linearization of FB model. In our view that uncertainty is already covered by the FRM.

GSK

- TSOs use different methods to determine the GSK. In our view TSOs should demonstrate that their approach makes sure that GSKs are representative. It is a particular concern that methods that do not take into account the actual remaining capacity of generating unit do not accidentally trigger constraints on units’ output line if the selection criteria included them.
- Regarding the German GSK (Doc2, 3.1.1.1): The fallback solution is the GSK from a previous day. Why is it better than using the DA GSK?
- Does the French GSK include must-run units?

CNEC

The CNEC selection criteria, or the non 0 PTDF, should be carefully reviewed. In its current form it can lead to having a pair of non representative zone to zone exchanges that go above the threshold while the others, especially the ones used by in the market direction, are well below.

- 3 *Is the capacity calculation process clearly described and understandable?*
 TP: chapter 3.2 CP: chapter 3.2

The capacity calculation process is not sufficiently described and understandable. Some shortcomings are:

- As mentioned before: Transparency is needed on what parameters are used and their influence on the calculation.
- In RAO, costly remedial actions should be taken into account only if economically relevant. If the available capacity (in MW) is the main objective of the RAO, TSOs should specify which costly remedial actions ought to be considered in the optimisation.
- The RAO algorithm is not clearly described. A proper mathematical formulation would help. As an example: Why is the relative margin denominator the sum of absolute PTDF and not the difference between the max and min PTDF?

- 4 *Are the outputs of the capacity calculation process clearly described and understandable?*
 TP: chapter 3.3 CP: chapter 3.2

The description is complete.

- 5 *Which sections of the capacity calculation process should be more clearly described?*
 TP: chapter 3 CP: chapter 3

Some subjects should be described more in detail especially the capacity validation process by individual TSOs:

- What does the computation exactly take into account?
- How much time does it take?
- What is the exact purpose of the validation? Can it be avoided?

- 6 *Is the re-assessment of ID ATCs for allocation process clearly described and understandable?*

TP: section 3.4 CP: chapter 3.3

There are some concerns:

- TSOs should not be allowed to oppose/reject the new ID ATC domain (step 4 of the proposed methodology) since the increase of capacities will be based on individual grid inputs. We assume that the inputs provided by each TSO are qualitative and should not change. Therefore, we consider that this step should only be triggered in case of exceptional grid conditions (e.g. Force Majeure).
- It should be possible that the MCP, which serves as a starting point for ID ATC extraction, can be updated to account for potential XB redispatch actions, as a result of the ID security assessment.

- 7 *Do you feel sufficiently informed about the method of Remedial Action Optimization and their influences for cross-border capacity?*

TP: section 3.1 and 3.2

The information on the Remedial Action Optimization method should be improved:

- The RAO method should be further detailed (and more precisely the new algorithms). In particular, it seems necessary to consider alternative objective functions, and to present the list of (costly) remedial actions under consideration for RAO.
- We would like to be able to assess the impact of this optimization process in terms of capacity increase. Therefore, it is important that this process is performed in a realistic way during the parallel runs.
- The document describes that TSOs intend to use redispatch as a remedial action. However, it seems the trigger for costly remedial action is to avoid having automatic MCP inclusion. We would like a much broader and systematic use of redispatch. In our opinion the congestion rents should be used either reinforce the grid or redispatch. Congestion rents are also money resulting from a congestion management mechanism, although this is an ex ante limitation for the market. Therefore, we believe that redispatch should be considered as an option for remedial actions on the same footing as allocation of cross border capacity is.
- As remedial actions will be one of the key elements in the proposed methodology we insist on the fact that these measures should be accompanied by a high level of transparency otherwise the whole process will become a black box for market participants and put the FB approach for ID at risk.

- 8 *TSO developed the optimisation function in order to have a positive impact on the market as it will provide more domain in the likely market directions (around the DA market clearing point). Do you agree with this point of view?*

TP: chapter 3.2 CP: chapter 3.2

We disagree with this point. The optimisation function should increase the domain in the direction that is most likely with the latest flow configuration. This direction can change for a given hour as the day progresses. The most valuable direction (i.e. the direction that would mostly increase congestion rents considering fixed DA market prices) should be favoured in the optimisation process.

- 9 *Do you think it is justified to optimize the ID FB domain around the DA Market Clearing Point (MCP), knowing it can lead to FB domain reductions in the unlikely market directions?*
TP: chapter 3.2 CP: chapter 3.2

We do not think this is justified as question 8: the MCP is correct from a DA perspective but this is not necessarily the case in ID. The MCP should be updated considering XB redispatch actions managed before IDCC or during RAO (for instance to reintegrate the ID FB domain in case the MCP was in the LTA area). Also, as long as XB capacity is not allocated flow-based in the ID timeframe, ID ATCs could be recomputed periodically in the ID timeframe without updating the FB domain but based on updated MCP.

C. Expert experimentation results and parallel run

- 10 *Are you convinced by the experimentations performed so far and the foreseen developments?*
CP: chapter 4

We are not convinced by the experimentations.

- We can see that automatic MCP inclusion would have been required most of the time. This points to an insufficient set of RA or other limitation of the current approach (i.e. GSK, CNEC selection).
- We do not understand why lower I_{max} figures were used in phase 3 of the experiment? Shouldn't corrected results be published?
- Why is there so much emphasis on the ATC domain in the impact assessment, and as much weight to a reduction of ID ATC in the "non-interesting" direction for the energy market as to an increase of capacity in the relevant direction (as of day ahead)? In our view it is relevant to consider DA market spreads to weight the variations of capacity in the different directions.

- 11 *What are your expectations from the external parallel run process?*

From the market perspective, there is very little benefit of an external parallel run in a continuous trading market. The method only deals with capacity calculation and not with allocation. To anticipate the impact of IDCC capacity, it would certainly be better to publish an off line assessment of IDFB domain for historical values and for some specific scenario's in the future (SPAIC).

- 12 *Do you have enough information (results, explanations) about the performed IDCC experimentation to get a clear picture of the possible impact on cross-border capacities for the ID market?*
CP: chapter 4

The information is not sufficient yet. Apart from the lack of transparency on numerical figures we think that the approach should be improved, see earlier questions and general comments.

D. Publication of data

- 13 *Do you have enough information regarding the Flow Based intraday capacity calculation process?*

TP: chapter 5

Yes.

E. Additional questions

- 14 *What are your general expectations from the new IDCC process?*

We expect a better use of the grid by applying the most recent data. This should result in significant gain in ID cross-border capacity in the most economical direction, and the possibility for TSOs to trade-off between internal redispatch and XB capacity reduction.

- 15 *What are the most important go-live criteria for the process from your point of view?*

Predictability is a key criterion. TSOs must be ready and make sure that the IDCC will work smoothly and deliver in conformity to the impact assessment published. MCP inclusion should not be to the detriment of FB DA allocated capacities.

- 16 *What is your most important criterion regarding the capacity calculation process and output? (predictability of capacity, volume of capacity...)*

The result should be an optimal use of the grid infrastructure. Predictability and transparency are key to achieve this goal. Both allow market parties to provide TSOs with better predictions and which should result in less uncertainties and consequently more capacity in the most economical direction. Due to the impact of remedial actions, the transparency dataset needs to be enlarged compared to the FB process in day-ahead.



MARKET PARTIES PLATFORM

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Market Parties Platform

The Market Parties Platform is a cooperation of energy industry associations in the Central West European electricity market (including the Benelux, France, Austrian and German market). Main goal of this cooperation is to actively promote the forming of an integrated CWE electricity market and efficient coupling with the surrounding regions. This will increase efficiency of the market and will therefore bring benefits to the electricity consumers in this region. The work is strongly linked with Eurelectric.

Current secretariat:

Energie-Nederland

Lange Houtstraat 2

NL-2511 CW Den Haag

www.marketpartienplatform.eu

For more information about this publication, please contact:

Ruud Otter, Chairman Market Parties Platform

e-mail: rotter@energie-nederland.nl

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