European Federation of Energy Traders
SO YOU CAN RELY ON THE MARKET

Keizersgracht 62-64
1015 CS Amsterdam
+31 20 520 7970
secretariat@efet.org
www.efet.org

Core TSOs' proposal for the 1st amendment of the Intraday Flow-based Capacity Calculation Methodology

■

EFET response – 21 November 2021

The European Federation of Energy Traders (EFET[1]) welcomes the opportunity to provide our comments to the Core TSOs' proposal for the 1st amendment of the Intraday Flow-based Capacity Calculation Methodology.

As preliminary remark, we wanted to stress the complexity of the matter being consulted given the intricacy of the various projects being involved here. Part of those projects are already operational (existing ID ATC extraction) while the others (CORE DA FB, ID CC 1, ID CC 2, obligation to provide ID XB capacity as from 3PM DA, ID CC & CA, ID CC & CA fallback) will be progressively implemented. This multiplies the variety of configurations for which solutions regarding i) update of DA leftovers (Art 11 ID CC) and ii) ATC extraction (Art 22 ID CC) must be found.

In order to properly assess the impact of the proposed amendments, we would have liked to receive clearer information on the links between the different project go-lives. We tried to do it ourselves, and we hope this is a correct understanding.

There are two amendments in the consultation, but both are related to the need to review the ATC extraction process because it currently cannot manage the BALAS formulation that is used in DA (a side remark/question would be why that is not to be applied in the CWE context where Extended LTA inclusion is already used):

1. Update of the intraday cross-zonal capacities remaining after the SDAC. This is for XBID (aka DA leftovers) given the fact TSOs have to possibility to remove the **virtual margins** added during the DA process (related to the 70% rule or the LTA domain). When the BALAS formulation is used in DA, TSO can remove (part of) the virtual RAM related to the 70% rule **per CNEC** and (part of) the virtual RAM related to the LTA inclusion **per border.**

2. ATC extraction needed for ID capacity allocation (both for XBID **and** for ID auctions when FB allocation is not there yet **or** in fallback situation). This will not be an issue anymore as from the moment FB capacity allocation is in place. There are the *BALAS like optimization (aka ELI)* and the *iterative* processes, both used for ATC extraction.

While the first amendment is clearly described and can easily be subscribed to, the second one is much more challenging.

First, we must make a clear distinction about what process will be applied when and how does it relate to both extraction methods.

[1] The European Federation of Energy Traders (EFET) promotes and facilitates European energy trading in open, transparent and liquid wholesale markets, unhindered by national borders or other undue obstacles. We build trust in power and gas markets across Europe, so that they may underpin a sustainable and secure energy supply and enable the transition to a carbon neutral economy. We currently represent more than 100 energy trading companies, active in over 27 European countries. For more information, visit our website at www.efet.org

EFET European Federation of Energy Traders
SO YOU CAN RELY ON THE MARKET

Keizersgracht 62-64
1015 CS Amsterdam
+31 20 520 7970
secretariat@efet.org
www.efet.org

- If the FB domain is modelled as a final PTDF in the Day-Ahead (no BALAS), the ID ATC calculation remains unchanged (current *iterative* process)
- If the FB domain is modelled with BALAS in the Day-Ahead (virgin + LTA), an optimization problem is used for the ID ATC extraction instead (*ELI* process). This algorithm then also treats the 2 domains as separate variables linked by a linear coefficient ('alpha').
- The ELI process will be used anyway and continuously (cfr. case 1.A in the table hereunder) as from the CORE DA FB Go-live and onwards for deriving leftovers capacities from DA for XBID.
- The iterative process will have to be used during the period where there will be a FB ID CC but no FB allocation yet (cases 2) but also as fallback solution under the target model (case 4.B)
- Case 2,3 and 4 are used in the context of ID auctions
- Both methods will overlap so that they will have to be maintained in parallel.

DA/ID	1. When updating DA leftovers (as from CORE DA FB Go-live and onwards)	2. As from FB IDCC (1Y after CORE DA FB) but before FB CA	3. As from FB IDCC and CA	4. As from FB IDCC and CA in a fallback mode using DA parameters
A. CORE DA FB with Extended LTA approach (as from CORE go-live)	ELI ATC Extraction. Because this will re-use the FB parameters and LTA domain from the DA that feed Euphemia	Iterative ATC Extraction. There is no LTA inclusion in ID FB CC	No ATC extraction needed as there is a FB allocation (unless fallback procedure cfr. 2)	ELI ATC Extraction . Because this will re-use the FB parameters and LTA domain from the DA that feed Euphemia
B. CORE DA FB with LTAmargin (kept as option B if A is not ready by the CORE DA FB Go-live	Iterative ATC Extraction. Because LTA in already fully included in the final FB domain used as single input for Euphemia	Iterative ATC Extraction. There is no LTA inclusion in ID FB CC		Iterative ATC Extraction. Because LTA in already fully included in the final FB domain used as single input for Euphemia

In terms of timing and under normal circumstances (no occurrence of fallback process), it looks like the following:

AS FROM	UNTIL	Process applied
FEV 22 (CORE DA FB)	FEV 23 (ID CC 1)	ELI applied to leftovers

EFET European Federation of Energy Traders
SO YOU CAN RELY ON THE MARKET

Keizersgracht 62-64
1015 CS Amsterdam
+31 20 520 7970
secretariat@efet.org
www.efet.org

FEV 23	OCT 23 (provide ID XB C by 3PM DA)	Iterative applied to FB parameters from ID CC
OCT 23	FB ID CC & CA	ELI applied to leftovers + Iterative applied on FB parameters from ID CC
FB ID CC & CA		No ATC extraction needed anymore

Under the assumption that our understanding turns out to be correct, we would like to stress some elements regarding the ELI process.

- Having 2 solution models simultaneously (iterative & ELI) is not ideal since the results may differ substantially. In principle, the virgin & LTA domains are always available (under the target solution), so there should be no need to keep the old iterative search, even in fallback mode.

- We welcome the initiative to move to an optimization-based calculation. It is more transparent and provides more robustness to the results than the iterative method which was path-dependent (based on how the ATC margin is incremented, one could end up with diverging ID ATC domain shapes).

- Switching to an optimization problem clearly reduces the complexity of the ATC calculation process (both on TSOs & participant side) since there is no need to recompute a modified final domain (convex hull) anymore. This becomes even more true with the integration of CORE.

- The ELI process for the ID ATC extraction has, as single optimization variable, the alpha factor determining the shares of the FB and LTA domains for which capacity will be allocated during XBID or ID auctions in fallback mode. It should be clarified why the same alpha as determined in DA is not used?

- It is not clear how (often) the “Wsum” coefficient will be computed/updated. It is clearly necessary to have full transparency on this parameter. Ideally, it should be published on JAO alongside the DA results.

- The document does not convince us that the new proposal will achieve a reduction of number of times that there is 0 MW of ID ATC on any border/direction.
    - Which transparency data would be provided by JAO that could help market participants understand the daily ID ATC calculation results?
    - The objective function is not well defined. The “Min ATC” across the system will likely be 0 for most hours (some ATC being already fully saturated from DA results) and thus the optimization will never consider this term of the optimization function. This means that the objective function would only maximize $\sum \overline{ATC} / N_{\text{oriented borders}}$.
      At the very least, a binary term to exclude these already-saturated lines should be included. More generally, we think the objective should probably be reworked in terms of welfare rather than using a fairness criterion (N_borders) to allocate the volumes across borders.