SAP Review 2026 Explanatory Note

10 June 2026

Disclaimer
This explanatory document is submitted by All TSOs to the Agency for the Cooperation of Energy Regulators for information and clarification purposes only accompanying the All-TSOs' proposal for amendment of the establishment of a Single Allocation Platform (SAP) in accordance with Article 49 and for the cost sharing methodology in accordance with Article 59 of Commission Regulation (EU) 2016/1719 establishing a Guideline on Forward Capacity Allocation.

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I. Introduction

The Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (hereinafter "FCA Regulation") was published in the official Journal of the European Union on 27 September 2016 and entered into force on 17 October 2016. Today´s version of the SAP Proposal from 22 March 2023 – and still into force today- took already into account the general principles, goals and other methodologies set out in the FCA Regulation. Indeed, the goal of the FCA Regulation is the coordination and harmonisation of forward capacity calculation and allocation in the long-term capacity markets, and it sets requirements for the TSOs to co-operate on a pan-European level; on the level of capacity calculation regions. The SAP Proposal lays down the functional requirements, governance, liabilities, and cost sharing methodology for the Single Allocation Platform. The SAP shall be able to perform, at least, the execution of the long-term auctions in accordance with the HAR and any associated additional tasks required in the provision of long-term auctions (such as clearing and settlement and on call support).

The revision of the SAP methodology ("TSO-Proposal") associated to this explanatory document is driven by the changes required due to the improvement of collateral management for flow-based auctions as well as clarifications regarding evolved flow-based Allocation (EFB).

In the second chapter of this document main changes applied are highlighted to ease the understanding of the reader, in order to focus on the gap-analysis between the previous version of SAP Proposal and the TSO-Proposal.

II. Main changes

1 Collateral management

Under Long-Term Flow-Based Allocation (LTFBA), collateral requirements mechanically cumulate across borders, leading to a substantial increase in collateral requirements compared to per-border auctions. Ex-ante bid filtering based on Maximum Payment Obligations (MPO), including approaches complemented with bid-price caps, overestimates final payment obligations while still possibly exposes TSOs to some settlement risks. To enhance collateral management, TSOs and SAP commissioned a study to investigate possible improvements.

The study results showed that optimal bid filtering based on the auction final clearing prices (i.e. the final payment obligations) is technically feasible and can be embedded directly in the clearing algorithm. Furthermore, it demonstrated that optimal bid filtering:

- avoids unnecessary bid rejections for market participants,
- fully secures TSOs against settlement risk,
- preserves auction outcomes close to the no-filtering benchmark.

With the implementation of the optimal bid filtering, the calculation and application of the bid price cap will be removed. It also brings additional changes to how the credit limit is handled and how the outstanding payment obligations are determined and managed. In addition to the change in the clearing algorithm, the following new approach is proposed: registered participants will have the option to define a specific amount of collateral – referred to as "reserved collateral" - to be set aside for the long-term flow-based auction during the bidding period. In such case, the reserved collateral, which cannot exceed the registered participant's credit limit, will be blocked as outstanding payment obligation. If a registered participant chooses not to specify a reserved amount, the system will calculate the maximum payment obligation (MPO) based on all submitted bids at bidding period closure. In this case, the amount of collateral blocked for the auction will not exceed the registered participant's overall credit limit.

TSOs and SAP are making every effort to achieve go-live of the enhanced collateral management by November 2027. However, they wish to draw attention to the very tight timeline and the associated risk that the planned go-live date may not be met. In particular, the following risks have been identified:

- Unresolved detailed issues: Although TSOs and SAP have carried out a proof-of-concept study confirming the fundamental feasibility of the chosen collateral management approach, a number of detailed questions remain open and must still be clarified. The resolution of these issues may negatively affect the envisaged timeline.
- Vendor selection: SAP is initiating the vendor selection process at the earliest possible stage in order to identify and contract the most suitable IT vendor. As part of this process, SAP defines the go-live date of November 2027 as a binding requirement. Nevertheless, it cannot be ruled out that no IT vendor will be found who can implement all requirements within the prescribed timeframe.
- Regulatory uncertainty: While TSOs and SAP can already begin IT planning on the basis of their proposed amendments to the HAR and the SAP methodologies, these proposals will only become final from a regulatory perspective once approved by ACER. Any changes required by ACER to the proposed methodologies may modify the requirements in a way that adversely affects the implementation schedule and/or exceeds the scope of existing IT vendor contracts.

Article 2: Definitions and interpretation

Definition of "filtered" added in order to clarify our understanding of what is meant by the term in the context of bid filtering.

Article 33: Credit limit

Paragraph 2 is amended to clarify the different process of credit limit check for the two types of auctions: For cNTC-based auctions, maximum payment obligation is evaluated against the registered participant's credit limit after the bidding period closure. For flow-based auctions, bids are evaluated either against the credit limit or, if specified, against reserved collateral during the auction results determination.

Article 41: Mathematical formulation of the long-term allocation algorithms

In order to reflect the new bid filtering approach, the mathematical formulas have been updated. Thereby some formulas have been adjusted, and other formulas have been added.

Accepted bids quantity constraints:

Due to the new bid filtering approach for flow-based allocation the boundary condition for accepted bid quantity needs to be differentiated between cNTC-based and flow-based allocation. For flow-based allocations it is limited by the requested quantity multiplied by the newly introduced binary variable (filtered(x,y,b), either 0 or 1) representing the bid filtering status.

Clearing price calculation:

Mistake when referring to clearing price is fixed (cp instead of c).

Collateral budget constraints:

For flow-based allocation the credit limit verification will be done within the auction results determination. Therefore, a new boundary condition is introduced to the optimization problem that

depicts the check of final payment obligation (sum of accepted bids per market participant multiplied by clearing price) against the collateral budget (which is equal to reserved collaterals, maximum payment obligation or placed credit limit of market participant).

Merit-Order-Filtering Approach:

Bids should be excluded based on the Merit-Order-Principle meaning bids with lower bid price from one market participant for the same border should be rejected before bids with higher bid price. Therefore, a new boundary condition is introduced that constrains the relation between the binary variables filtered of all bids for the same market participant and border.

2 Evolved Flow-Based Allocation (EFB)

The Evolved Flow-Based (EFB) approach was originally designed for the Day-Ahead timeframe, with a strong focus on accurately reflecting the physical constraints of the transmission network. However, when applied to Long-Term Transmission Rights (LTTRs), the added value and the impacts of EFB differ significantly from those observed in Day-Ahead market coupling.

During the preparation of the implementation, a misalignment was identified between the Long-Term Capacity Calculation Methodology (LTCCM) and the SAP Methodology regarding the definition and scope of EFB. In order to ensure consistency between the methodologies and legal certainty for market participants and NRAs, an adaptation of the SAP Methodology is required.

Consequently, TSOs decided to adapt the SAP Methodology to fully align it with the terminology, scope and implementation principles defined in the LTCCM. This alignment ensures methodological coherence across capacity calculation and allocation, while allowing a robust and realistic implementation of EFB in the long-term timeframe.

Impact of the implementation of EFB

Long-Term Capacity Calculation (LTCC)

The implementation of EFB has several impacts on the LTCC process:

- Topology update:

  The network model is extended to include additional Bidding Zone Borders (BZBs) and hubs required by the EFB representation.

- New benchmark definition:

  A new benchmark is introduced for the newly defined bidding zones, based on the assumption that the Core LTCCM is approved by the concerned Capacity Calculation Regions (CCRs).

- Additional data inputs:

  New columns and corresponding PTDFs are added to reflect the extended topology and the EFB-based representation.

Long-Term Flow-Based Allocation (LT FBA)

From an allocation perspective, EFB implies:

- Common allocation process:

  The use of EFB requires a common allocation and therefore a common auction involving Core and potentially other CCRs.

- Tooling adaptations:

  Several adaptations of allocation tools are required, especially in the case of a stepwise implementation of EFB across borders.

Article 3: Implementation

Article 3 is updated to clarify that all requirements that need to be implemented by SAP regarding EFB will be done in a stepwise approach. EFB dealing with internal HVDC connections is to be implemented with long-term flow-based in November 2026. The rest of the requirements regarding EFB are to be implemented when developed within regional LTCCMs.

Clarification on EFB-related changes in the SAP

The adaptations of the SAP Methodology related to Evolved Flow-Based Allocation (EFB) are of a clarificatory and alignment nature. They do not introduce a new allocation concept nor modify the fundamental principles of the long-term flow-based allocation algorithm.

The term "Evolved Flow-Based Allocation" is used in the SAP consistently with its definition and scope in the Long-Term Capacity Calculation Methodologies. In this context, EFB refers to the modelling of HVDC interconnectors and specific non-meshed AC bidding zone borders through the introduction of virtual hubs and corresponding PTDFs.

As a consequence, the SAP changes related to EFB are limited to:

- supporting the extended network representation stemming from LTCCMs;
- enabling the allocation algorithm to process EFB-related inputs once they are introduced by regional methodologies; and
- ensuring consistency of terminology between capacity calculation and allocation.

No change is introduced to market participants' bidding behavior, pricing rules, or allocation logic beyond what already follows from the approved or future LTCCMs.