

~~ACER Decision on the Single Allocation Platform (SAP): Annex I~~

~~ACER's preliminary position on the TSOs' proposal
for amendments to:~~

**All TSOs' proposal for amendment of
Requirements for the Single Allocation
Platform (SAP) and the SAP cost sharing
methodology**

in accordance with Articles 49 and Article 59 of Commission
Regulation (EU) 2016/1719 establishing a guideline on forward
capacity allocation

10 June 2026

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Whereas

- (1) This document contains the requirements for the Single Allocation Platform ('SAP') and the SAP cost sharing methodology developed by all Transmission System Operators ('all TSOs') pursuant to Article 49 and Article 59 of Commission Regulation (EU) 2016/1719 establishing a guideline on forward capacity allocation (FCA Regulation'), collectively referred to as the 'SAP methodology'.
- (2) On 7 April 2017, all TSOs submitted to all regulatory authorities their common proposal for a set of requirements and for the establishment of the SAP in accordance with Article 49 of the FCA Regulation and for a methodology for sharing the costs related to the establishment and operation of the SAP in accordance with Article 59 of the FCA Regulation. On 18 September 2017, the regulatory authorities approved all TSOs' proposal.
- (3) In a letter dated 12 July 2021, ACER requested all TSOs under Article 4(12) of the FCA Regulation, to submit, as soon as possible, and no later than 1 June 2022, their proposals for amendments of the four methodologies listed in Article 4(6), points (c), (d), (e) and (g) of the FCA Regulation for ACER's approval. Amending the above methodologies, including the SAP methodology, was necessary to allow for a timely implementation of the long-term flow-based auctions in the Core and Nordic capacity calculation regions. The European Network of Transmission System Operators for Electricity (ENTSO-E') asked ACER, on behalf of all TSOs, to postpone the submission date for the relevant proposals, to which ACER agreed in a letter dated 26 January 2022. The new submission date for the proposed amendments to the SAP methodology was 1 October 2022.
- (4) On 28 September 2022, ENTSO-E, on behalf of all TSOs, submitted for ACER's approval their proposal for amendment of the SAP methodology. This document is based on all TSOs' amendment proposal of 28 September 2022, as amended and approved by ACER.
- (5) The SAP methodology applies to all TSOs, with the exception of the following categories of TSOs:
 - (a) TSOs active only on the bidding zone borders where regulatory authorities decided that long-term transmission rights shall not be issued by the respective TSOs or that other long-term cross-zonal hedging products shall be made available by the respective TSOs, according to Article 30(7) of the FCA Regulation; and,
 - (b) TSOs not commercializing their transmission capacity on the single day-ahead market or the long-term market.
- (6) The SAP methodology takes into account the objectives and principles set out in Regulation (EU) 2019/943 on the internal market for electricity ('Regulation (EU) 2019/943').
- (7) The SAP methodology takes into account the objectives and principles set out in the FCA Regulation, and is consistent with other methodologies based on the FCA Regulation.
- (8) The FCA Regulation aims to coordinate and harmonise forward capacity calculation and allocation in the long-term capacity markets. It sets requirements for the TSOs to cooperate on a pan-European level, within capacity calculation regions ('CCRs') and across bidding zone borders. Chapter 5 of the FCA Regulation provides for establishing European harmonised allocation rules for long-term transmission rights, including regional and bidding zone border specific requirements ('HAR'). Minimum content requirements for the HAR are specified in Article 52(2) of the FCA Regulation.

- (9) The SAP methodology lays down the functional requirements, governance, liabilities and the cost sharing methodology for the SAP. These rules are necessary for the SAP to perform the execution of the long-term auctions in accordance with the HAR and any associated tasks listed in Article 50 of the FCA Regulation (collectively ‘SAP tasks’).
- (10) In line with Article 49 of the FCA Regulation, when developing the SAP methodology, all TSOs examined the following options for the establishment of the SAP:
- (a) appointing one or more TSO(s), on a rotating basis, to operate the SAP on behalf of all TSOs. This option was considered challenging due to proportionality issues and also the associated costs; or
 - (b) appointing an existing entity to perform the SAP tasks as a vehicle of cooperation among the TSOs and on their behalf; or
 - (c) creating a new entity to perform the SAP tasks as a vehicle of cooperation among the TSOs and on their behalf; or
 - (d) delegating the development and operation of the SAP to a third party independent from the TSOs.
- (11) Since capacity allocation is a core task of the TSOs, all TSOs concluded that the SAP tasks have to be performed by the TSOs either among themselves or by a vehicle of cooperation solely composed of the TSOs. The TSOs consider that using an existing entity to perform the SAP tasks as a vehicle of cooperation among the TSOs and on their behalf is the most efficient and pragmatic approach. All TSOs therefore propose to appoint the Joint Auction Office (‘JAO’) for the following reasons:
- a) The TSOs are responsible for the operation of forward capacity allocation and have thus created a common entity, JAO, to perform this task;
 - b) JAO is the result of a merger of the former CASC.EU S.A. and CAO Central Allocation Office GmbH, both having a long history in the execution of long-term auctions and thus already executes long-term auctions on behalf of the majority of the TSOs to which the FCA Regulation applies;
 - c) JAO is currently a counterparty to the majority of the market participants applying the HAR and covers the majority of the bidding zone borders where forward capacity allocation is applicable.
- (12) Based on the above, all TSOs consider that they are able to meet the obligations and requirements of the FCA Regulation by operating the SAP through JAO (‘SAP operator’).
- (13) In line with Article 49 of the FCA Regulation, the SAP methodology covers the general tasks of the SAP and its functional requirements. These should be implemented and followed by the TSOs through the SAP.
- (14) In line with Article 49 of the FCA Regulation, the SAP methodology also covers the requirements for cost recovery in accordance with Article 59 of this Regulation. As JAO performs many tasks, there are also costs for tasks other than the SAP tasks that are commonly shared. The cost sharing methodology clarifies that all TSOs share the costs for the establishment and operation of the SAP only. Such costs include direct and indirect costs defined in the SAP cost sharing methodology. The SAP cost sharing methodology also follows essential general principles for cost sharing, which needs to:

- (a) be reasonable, efficient and proportionate to operational costs as required in Article 59 of the FCA Regulation;
 - (b) be fair and non-discriminatory;
 - (c) be fully transparent and auditable;
 - (d) reflect nature of costs and their relation to the establishment and operation of the SAP;
 - (e) be attractive for new and existing parties; and
 - (f) bring benefits and savings for all TSOs.
- (15) The following recitals provide a description of the expected impact of the SAP methodology on the objectives of the FCA Regulation, as required by Article 4(8) of the FCA Regulation. These objectives are listed in Article 3, points (a)-(g), of the FCA Regulation:
- (16) According to Article 3(a), the FCA Regulation aims at promoting effective long-term cross-zonal trade with long-term cross-zonal hedging opportunities for market participants. The SAP methodology serves this objective as the establishment of a single trading platform harmonises and simplifies the trading activities for long-term products across European borders.
- (17) According to Article 3(b), the FCA Regulation aims at optimising the allocation of long-term cross-zonal capacity. The SAP methodology is in line with this objective because the coordination in the auctions calendar is centralised and the allocation is based on transparent contractual and operational rules, with a single contractual framework which facilitates access for all market participants in a non-discriminatory way. Furthermore, by auctioning forward capacities through a vehicle of cooperation that also performs other tasks, in particular explicit allocation for other timeframes, the choice of the TSOs in this SAP methodology ensures cost optimisation.
- (18) According to Article 3(c), the FCA Regulation aims at providing non-discriminatory access to long-term cross-zonal capacity. The SAP methodology promotes this objective as it ensures non-discriminatory access through the long-term allocation algorithms and by centralising the process of entitlement to all European borders for all market participants.
- (19) According to Article 3(d), the FCA Regulation aims at ensuring fair and non-discriminatory treatment of TSOs, ACER, regulatory authorities and market participants. The SAP methodology contributes to this objective since, by setting the rules applicable to all TSOs, it ensures fair and non-discriminatory treatment of all affected parties. Additionally, the SAP methodology assures transparency in access to forward capacity allocation related information. Finally, equal treatment of market participants' bids is ensured through the long-term allocation algorithms defined in the methodology.
- (20) According to Article 3(e), the FCA Regulation aims at respecting the need for a fair and orderly forward capacity allocation and orderly price formation. The SAP methodology contributes to achieving this objective as it establishes a platform and procedure for efficient, fair and transparent long-term capacity allocation for all CCRs, with timely and comprehensive release of information about cross-zonal capacity allocation inputs and results, and respects the price formation principles as set in Article 28 of the FCA Regulation.
- (21) According to Article 3(f), the FCA Regulation aims at ensuring and enhancing the transparency and reliability of information on forward capacity allocation. In that respect, the SAP methodology assures a single and centralised source of information related to forward capacity allocation, which

promotes the objective of having transparent and reliable information on forward capacity allocation.

- (22) According to Article 3(g), the FCA Regulation aims at contributing to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union. In this respect, the SAP methodology should foster liquidity by easing access to the market in a non-discriminatory and cost-efficient manner, taking into account the existing allocation process. It also optimises the allocation of long-term capacity, reflecting congestion on all EU borders in an efficient way, hence promoting this objective.
- (23) In conclusion, the SAP methodology contributes to the objectives of forward capacity allocation listed in Article 3 of the FCA Regulation.

TITLE 1

GENERAL PROVISIONS

Article 1 Subject matter and scope

1. This SAP methodology lays down the functional requirements, governance, liabilities and cost sharing requirements for the SAP, in accordance with Articles 49 and 59 of the FCA Regulation. The SAP shall enable the TSOs to perform the tasks listed in Article 50 of the FCA Regulation.
2. This SAP shall apply to the TSOs listed in Annex 1 (hereafter referred to as “TSOs”), and this SAP shall cover all bidding zone borders where forward capacity allocation applies according to the HAR.
3. The TSOs agree to use JAO as the SAP operator and shall ensure through the SAP operator, as a vehicle of cooperation, that the SAP is operational and complies with the functional requirements of this SAP methodology, the HAR and the FCA Regulation.
4. The mutual rights, obligations and liabilities between the TSOs and the SAP operator for the development and operation of the SAP shall be laid down in a SAP cooperation agreement in accordance with Title 3 of this SAP methodology.
5. Any other task performed by the SAP operator on behalf of one or more TSOs which do not relate to the SAP tasks fall out of the scope of this SAP methodology.
6. The SAP methodology supports the allocation of financial transmission rights-options (‘FTR-options’) and physical transmission rights (‘PTR’). Prior to the application of financial transmission rights-obligations (‘FTR-obligations’) at any bidding zone border, all TSOs referred to in Article 4(12) of the FCA Regulation which are responsible for developing a proposal for the SAP methodology, shall propose an amendment to this methodology to enable the application of FTR-obligations.

Article 2 Definitions and interpretation

1. For the purpose of the SAP methodology, the definitions in Article 2 of the FCA Regulation, Article 2 of the CACM Regulation, Article 2 of the HAR, Article 2 of Regulation (EU) 2019/943, Article 2 of Directive (EU) 2019/944 and Article 2 of Commission Regulation (EU) 543/2013 shall apply.

The TSOs and the SAP operator shall use the same terms in the agreements to be concluded and other documents to be prepared in accordance with the SAP methodology.

2. In addition, in this SAP methodology, the following definitions shall apply:
- a) 'AC' means Alternating Current;
 - b) 'ATC' means Available Transmission Capacity;
 - c) 'allocation border(s)' means the bidding zone border(s) and/or their subsets as listed in the applicable HAR where the entity appointed as the SAP operator is auctioning the products for the long-term timeframe;
 - d) 'auction results' includes the determination of the total quantity of the allocated long-term transmission rights per oriented bidding zone border, identification of winning bids to be fully or partially satisfied and determination of the marginal clearing price per oriented bidding zone border;
 - e) 'CNEC' means Critical Network Element and Contingency;
 - f) 'GNEC' means Grouped Network Elements and Contingencies;
 - g) 'cNTC' means coordinated Net Transmission Capacity;
 - h) 'Eevolved flow-based' or 'EFB' means an approach to consider HVDC interconnectors (as well as special cases of radial non-meshed AC bidding zone borders) in flow-based capacity calculation and allocation, at bidding zone borders internal or external to a flow-based CCR. According to EFB, a cross-zonal exchange over an HVDC interconnector is modelled over virtual hubs. Such a cross-zonal exchange is modelled by the available capacity of the HVDC and by the physical impact that this exchange has on all CNECs of a considered flow-based CCR;
 - i) 'external constraint' or 'EC' is a form of allocation constraint (defined pursuant to Article 2(6) of the CACM Regulation) that represents a joint technical limit in a form of available transfer capacity, for the composite border and direction between two groups of bidding zones. External constraints are applicable for both cNTC approach and flow-based approach;
 - j) 'fee application report' means an annual report submitted by the SAP operator to the relevant SAP body in which the results of the fee calculation is provided for the TSOs in accordance with the SAP cost sharing methodology;
 - k) 'HVDC' means High-Voltage Direct Current;
 - l) 'KPI' means: key performance indicator;
 - m) 'message standards' means set of standardized messages required for the use of auction tool;
 - n) 'MTU' means Market Time Unit;
 - o) 'operational procedures' means the procedures defining the operational process in relation to respective tasks and for respective bidding zone borders and/or TSOs;
 - p) 'oriented bidding zone border' means a given direction of a bidding zone border;
 - q) 'PTDF' means Power Transfer Distribution Factor;
 - r) 'RAM' means Remaining Available Margin;
 - s) 'SAP council' means the communication and decision making forum between the TSOs and the SAP operator established with the SAP cooperation agreement for the monitoring and the

governance of SAP tasks dealing with the implementation of the SAP cooperation agreement and the HAR, with direct decision making power as per Article 6;

- t) 'SAP cooperation agreement' or 'SAP CA' means the agreement between the TSOs and the SAP operator for the provision of the SAP tasks;
- u) 'SAP CA parties' means the TSOs and the SAP operator;
- v) 'SAP operator' means the vehicle of cooperation providing the SAP tasks on behalf of the TSOs, in particular the operation of the SAP;
- w) 'shadow price' means the dual price of a CNEC or external constraint, representing the increase in the economic surplus if the constraint (RAM or EC, respectively) is increased by one MW;
- x) 'seasonal product' means a product with a six (6) calendar months delivery period either starting on October 1st and ending on March 31st of the following year or starting on April 1st and ending on September 30th of the same year;
- y) 'quarterly product' means a product with a 3 calendar months delivery period either:
 - i. starting on January 1st and ending on March 31st;
 - ii. starting on April 1st and ending on June 30th;
 - iii. starting on July 1st and ending on September 30th;
 - iv. starting on October 1st and ending on December 31st;
- z) 'monthly product' means a product with a calendar month delivery period starting on the 1st day of the calendar month and ending on the last day of the same calendar month;
- aa) 'weekly product' means a product with a five days delivery period starting on a Monday and ending on Friday of the same week;
- bb) 'week-end product' means a product with a two days delivery period starting on a Saturday and ending on a Sunday;
- cc) 'yearly calendar product' means a product with a delivery period starting on January 1st and ending on December 31st of the same year; and
- dd) 'yearly non-calendar product' means a product with a delivery period starting on October 1st and ending on September 30th of the following year.

ee) 'filtered' in the context of bids means that a given bid is kept and thus considered in an auction ('filtered in'), while a bid that is not filtered is discarded ('filtered out')

3. In addition, in this SAP methodology, unless the context clearly indicates otherwise:

- a) the singular also includes the plural and vice versa;
- b) the table of contents and headings are inserted for convenience only and do not affect the interpretation of this SAP methodology;
- c) the reference time zone is Central European Time (CET); and
- d) any reference to legislation, regulation, directive, order, instrument, code or any other enactment shall include any modification, extension or re-enactment of it then in force.

Article 3 Implementation

1) TSOs shall ensure that the SAP operator implements the requirements relating to the application

Requirements for the Single Allocation Platform (SAP) and the SAP cost sharing methodology of the Evolved Flow-Based Allocation of long-term cross-zonal capacities are implemented by the SAP operator approach as follows:

- a) EFB requirements applicable to HVDC interconnectors internal to a capacity calculation region applying long-term flow-based allocation shall be implemented by the SAP operator by the time of the yearly auctions for delivery in 2025, including the application of EFB approach for HVDC interconnectors internal of a flow-based CCR;
- b) by the time of the yearly auctions for delivery in 2026, including the application of EFB requirements approach at the applicable at bidding zone borders between a CCR applying flow-based allocation and a CCR applying cNTC approach for allocation of LTRs shall be implemented by the SAP operator when such requirements are introduced by the relevant regional long-term capacity calculation methodologies ;
- c) by the time of the yearly auctions for delivery in 2027, including the application of EFB requirements applicable to a single integrated flow-based allocation for involving multiple flow-based capacity calculation regions and EFB between them shall be implemented by the SAP operator when such requirements are introduced by the relevant regional long-term capacity calculation methodologies.

~~In a case that flow-based allocation is applied by two CCRs before the time defined under paragraph 1(c), the allocation algorithm shall apply EFB from the side of the CCR which first applied the flow-based allocation in the transition period.~~

2) The TSOs shall ensure that all other requirements of the SAP stemming out from this methodology, where applicable, are implemented by the SAP operator, by the time of approval of the SAP methodology in accordance with the applicable national regulatory regimes. Such implementation shall take place on the dates resulting from the applicable regulatory decisions and implementation planning, and in any case not later than November 2028. Until that date, the SAP approved by ACER Decision No 05/2023 shall continue to apply.

Article 4 Language

The reference language for this SAP methodology shall be English. For the avoidance of doubt, where TSOs need to translate this SAP methodology into their national language(s), in the event of inconsistencies between the English version published by the TSOs in accordance with Article 4(13) of the FCA Regulation and any version in another language the relevant TSOs shall, in accordance with national legislation, provide the relevant national regulatory authorities with an updated translation of the SAP methodology.

TITLE 2

GENERAL PROVISIONS ON GOVERNANCE RULES

Article 5 Designation of entity

1. In accordance with Article 48 of the FCA Regulation, the TSOs have the responsibility to establish and shall allocate long-term cross-zonal capacity on the SAP.
2. The entity designated as the SAP operator is Joint Allocation Office (JAO).
3. The SAP operator shall perform all tasks pursuant to Article 9 in accordance with the FCA

Regulation, the HAR, this methodology and the SAP CA. During the execution of these SAP tasks, the SAP operator shall act on behalf of the TSOs but in its own name. The SAP operator shall act as the counterparty to the registered participants regarding the rights and obligations arising from the HAR, including any contractual liability in relation to the obligations under the Participation Agreement and the HAR for all tasks related to the SAP.

4. Each TSO participating in the SAP council is accountable towards its national regulatory authority for the fulfilment of the requirements pursuant to Article 49(2) and Article 50 of the FCA Regulation and the requirements pursuant to this methodology and the HAR by the SAP Operator.
5. Paragraphs 3 and 4 shall also be applicable in case of delegation of tasks by the SAP Operator in accordance with Article 6(5)(c) and Article 12(1). In such case, the SAP operator shall ensure that the provisions of paragraphs 3 and 4 apply to the third party accordingly and that the third party is subject to regulatory oversight.

Article 6 SAP council

1. The TSOs and the SAP operator shall sign the SAP CA, in order to become SAP CA parties and members of the SAP council.
2. All SAP CA parties shall participate in the SAP council.
3. The SAP council shall follow the rules set out in the SAP CA in accordance with Article 8.
4. The concerned TSOs shall decide within the SAP council on operational procedures per bidding zone border or per CCR where applicable.
5. The SAP council shall be the sole competent body for deciding on matters related to the fulfilment of the SAP tasks in accordance with Article 50 of the FCA Regulation and as specified below:
 - a) all matters regarding the operational procedures related to the functional requirements in accordance with Article 49(2) of the FCA Regulation;
 - b) all matters mentioned in the SAP cost sharing methodology related to the establishment, the development and the operation of the SAP as defined in the Article 60 to Article 68;
 - c) any appointment of a third party with the tasks of financial clearing and settlement of auctions with regard to SAP tasks in accordance with Article 12(1);
 - d) regular reporting from the SAP operator to TSOs (regular written report, periodic meetings, calls and also extraordinary reports), including the content and regularity of the reports;
 - e) reporting and publication of information in accordance with Article 7;
 - f) monitor performance of the SAP and defining appropriate actions in accordance with Article 15(2); and
 - g) all matters related to the calculation and validation of the fees to be paid by the TSOs for the SAP tasks.
6. Decisions under paragraph 5(a) of this Article shall be taken unanimously per bidding zone border or per CCR where applicable by the concerned TSOs. In case unanimity cannot be reached at the first round between the concerned TSOs, alternative proposals shall be submitted for a second round. The SAP operator shall have an advisory role and shall be consulted on the proposals by the SAP CA parties. In case unanimity cannot be reached in the second round and where a decision can lead to significant risks and operational costs for the SAP operator, the decision on such operational procedures shall be taken by all TSOs and qualified majority principles in accordance with Article 4(2) of the FCA Regulation shall apply.

7. For decisions pursuant to paragraphs 5(b)-5(f) and Article 28(2), decisions shall be taken unanimously by all TSOs. In case unanimity cannot be reached, alternative proposals shall be submitted for a second round. In case unanimity cannot be reached in the second round, qualified majority principles in accordance with Article 4(2) of the FCA Regulation shall apply. The SAP operator shall have an advisory role and shall be consulted on the proposals by TSOs.

Article 7 Transparency, publication, monitoring and reporting

1. All SAP CA parties shall monitor, evaluate and report the following aspects of implementation and operation of the SAP at least on a yearly basis. The common report shall be published by the SAP operator on its website. Such report shall include:
 - a) The implementation progress in accordance with Article 3.
 - b) An assessment of long-term cross-zonal capacity allocation considering statistics on:
 - i. volumes of allocated LTTRs;
 - ii. congestion income generated and distributed;
 - iii. reduction periods, if relevant;
 - iv. flow-based allocation of LTTRs on oriented bidding zone borders of a CCR;
 - v. bid rejections; and
 - vi. return and transfer of LTTRs.
 - c) Performance assessments for long-term allocation algorithms:
 - i. assessment of the performance of the long-term allocation algorithm for cross-zonal capacity provided in the form of cNTC, considering the relevant KPIs in accordance with Article 15(2);
 - ii. the long-term flow-based allocation algorithm performance monitoring pursuant to Article 40(6).
 - d) An incident assessment on cases of insufficient collaterals for paying LTTRs, if any.
2. If the above mentioned report identifies inefficiencies, the SAP CA parties should include in the report the recommendation on how to deal with identified issues and where relevant, develop a proposal for an amendment to this methodology and submit it for approval.
3. The SAP operator shall publish on its website any data required in accordance with Article 47 of the FCA Regulation, the HAR and the requirements under TITLE 7, TITLE 8, TITLE 9 and Article 40(6).
4. The SAP operator shall publish on its website a non-confidential version of the SAP CA. The confidentiality of the non-published parts of the SAP CA shall be justified by the SAP CA parties towards regulatory authorities.

TITLE 3

SAP COOPERATION AGREEMENT (SAP CA)

Article 8 Parties and scope of the SAP CA

1. The SAP CA shall be consistent with the requirements and objectives of the FCA Regulation and the HAR.

2. The SAP CA shall set forth all rights and obligations of the SAP CA parties and contain all relevant operational procedures related to the SAP tasks listed in Article 50 of the FCA Regulation. The SAP CA shall supersede all previous agreements, whether oral or in writing, between the SAP CA parties relating to the same scope of SAP tasks and delivery period for long-term transmission rights. The SAP CA shall comply with the rules set out in the present SAP methodology, without limitation to other arrangements which may be necessary provided that those arrangements are consistent with the SAP methodology.

Article 9 SAP tasks

The SAP operator shall provide for at least the following tasks:

- a) registration of market participants in accordance with Article 31 and the HAR;
- b) providing a single point of contact to market participants;
- c) the operation of auction procedures in accordance with the operational processes provided in TITLE 7;
- d) the financial settlement of allocated long-term transmission rights with market participants in accordance with the HAR, including management of collaterals in accordance with Article 32;
- e) the organisation of a fallback procedure in accordance with Article 52 and pursuant to Articles 42 and 46 of the FCA Regulation;
- f) enabling the return of long-term transmission rights in accordance with Article 48 and pursuant to Article 43 of the FCA Regulation;
- g) facilitating the transfer of long-term transmission rights in accordance with Article 49 and pursuant to Article 44 of the FCA Regulation;
- h) the publication of information in accordance with Article 7 and the HAR;
- i) providing and operating interfaces for data exchange with market participants in accordance with Article 54; and
- j) Upon prior decision in the SAP council by TSOs, the publication on behalf of TSOs of additional information which is not explicitly required by the HAR and this methodology but the related to long-term cross-zonal capacity allocation.

Article 10 Change of SAP tasks' scope

1. The SAP CA shall provide rules to ensure that any change of the HAR or the FCA Regulation is communicated by the TSOs to the SAP operator in order to assess the change and prepare its implementation.
2. In case of inconsistency between this methodology, the HAR or the FCA Regulation and the SAP CA, this methodology, the HAR or the FCA Regulation shall prevail and the SAP CA shall be adapted accordingly.

Article 11 Remuneration of the SAP operator

1. The SAP CA shall contain rules regarding the financial contribution of each TSO to the SAP tasks, including the regularity of calculation and payment of the fee to be paid by the TSOs.
2. Each TSO shall be responsible solely for its own fee and TSOs shall not bear joint and several

liability regarding the fees payable to the SAP operator.

3. The SAP CA shall include a detailed process on calculating and adjusting the fee of the SAP tasks, in accordance with the SAP cost sharing methodology under Title 10.
4. The SAP CA shall regulate the content and issuance of invoices, deadline of payments and process for contestation and correction of invoices.

Article 12 Auction incomes and financial flows

1. The SAP operator operates the financial clearing and settlement of all auctions with regard to SAP tasks or appoints a third party with this task for all or some auctions subject to Article 14, furthermore the invoicing of the registered participants according to the conditions of the HAR and the operational procedures. In case of appointment of a third party, the SAP operator shall seek the approval of the SAP CA parties.
2. The SAP operator shall distribute the long-term congestion income from auctioning LTTRs to the TSOs in accordance with the operational procedures and the methodology for distributing long-term congestion income pursuant to Article 57 of the FCA Regulation.
3. The SAP CA shall regulate the process of triggering the collaterals by the SAP operator in case that registered participants fail to pay their debts or part thereof. The SAP CA parties shall agree on principles of debtor risks (e.g. which part of the collaterals can be triggered).
4. The SAP CA shall contain settlement rules in case of curtailment, off-setting and reconciliation in accordance with the FCA Regulation and the HAR.

Article 13 Cooperation of SAP CA parties

The SAP CA shall contain rules about the cooperation structures between the SAP CA parties. More explicitly, the SAP CA shall specify:

- a) rules for the creation of users' group(s): the users' groups shall serve as a consultation forum of the SAP CA parties, organised by the SAP operator on behalf of the TSOs to gather feedback. Different users' groups shall be created depending on the scope and topics; such as but not limited to a consultative user group with market participant associations, an operational and technical user group dealing with feedback and requests on the IT interfaces and the SAP tasks;
- b) rules for the **SAP** operator's organisation of topic specific public workshops;
- c) detailed tasks and organisational issues of the SAP council;
- d) rules about regular reporting by the SAP operator to the TSOs (regular written report, periodic meetings, calls and also extraordinary reports), including the content and regularity of the reports;
- e) rules about reporting and publications in accordance with Article 7;
- f) following a request that a specific TSO may submit at its own discretion, the SAP operator shall communicate to a regulatory authority the information indicated in the TSO's request and on its behalf;
- g) rules on which data shall be exchanged, by email or other defined means, including but not limited to the Auction Calendar, the offered capacity and the auction results; and
- h) rules on the working hours when the SAP operator shall be available for the TSOs.

Article 14 Audit rights of TSOs

1. Each TSO shall have the right to monitor/audit the fulfilment of the SAP operator's obligations related to the establishment, the development and the operation of the SAP by an independent, internationally recognised, certified public audit firm. The SAP CA shall contain the activities/processes, which shall be audited, the rules for calling for audit, the rules for the sharing of the audit costs as well as other detailed rules.
2. The SAP operator shall keep records to provide an accurate, complete, up-to-date and accessible reporting of all activities in case of audits pursuant to paragraph 1.

Article 15 Management of the SAP

1. The SAP CA parties shall agree in the SAP CA on the requirements for the availability of the auction tool, resolution of forced outage of the auction tool, test of relevant system updates and making available the manuals in English for the users of the auction tool.
2. The SAP CA shall contain KPIs for the long-term allocation algorithms and thresholds per KPI for the required level of performance. In case these thresholds are reached, the TSOs shall take appropriate actions covered in the SAP CA.

Article 16 Liability

1. The SAP CA shall state that each SAP CA party shall be liable for damages the SAP CA party is responsible for (Defaulting SAP CA party) and shall include rules of liability between the SAP CA parties and rules of liability in relation to third party claims.
2. Regarding the liability between the SAP CA parties, the following shall be determined in the SAP CA:
 - a) Except for cases of force majeure, SAP CA parties shall be entitled to claim compensation for any and all losses, damages, charges, fees or expenses, which were foreseeable and unforeseeable and which can be considered as direct damage, resulting from a breach of the SAP CA or the HAR. Loss of long-term congestion income shall constitute direct damage;
 - b) SAP CA parties shall fix a cap of liability for breaching confidentiality obligations;
 - c) parties shall fix a cap of liability for breaches of the SAP CA or the HAR (being understood that such a cap shall be different from the one set out for the breaches of confidentiality obligations);
 - d) SAP CA parties shall have no cap in case of gross negligence, wilful misconduct, fraud or intentional breach;
 - e) SAP CA parties shall not bear joint and several liability towards each other; and
 - f) SAP CA parties shall not be liable for indirect damages (loss of goodwill, loss of business, loss of profit, etc.), except in case of gross negligence, wilful misconduct, fraud or intentional breach.
3. Regarding the liability in relation to third party claims the following shall be determined in the SAP CA:
 - a) SAP CA parties facing a claim for damages (defending SAP CA party) suffered by a third party shall notify the other SAP CA parties promptly, and inform them to the possible extent

- about the content of the claim;
- b) affected SAP CA parties (defending SAP CA party and alleged defaulting SAP CA parties) shall cooperate in the defence set up by defending SAP CA party towards the third party claim; and
 - c) SAP CA parties shall agree on the rules for claiming compensation by the defending SAP CA party from the defaulting SAP CA parties.
4. The SAP operator shall have sufficient insurance coverage for the whole duration of the SAP CA, and upon request of any TSO, the SAP operator shall provide a report confirming this sufficient character.

Article 17 Confidentiality

1. The SAP CA parties shall be obliged to maintain confidentiality of the confidential information.
2. The SAP CA shall define confidential information (including exclusions such as public information, information disclosed by a third party, etc.), as well as the disclosing and receiving party.
3. The obligations of the SAP CA parties regarding confidentiality include but are not limited to:
 - a) obligation not to disclose confidential information to a third party,
 - b) obligation not to use information other than for the purpose of the SAP CA; and
 - c) obligation to safeguard the information with the same degree as its own confidential information.
4. The exceptions to confidentiality obligations include but are not limited to:
 - a) case of a request by an administrative/regulatory authority or a court; and
 - b) cases covered by national law, provisions of the FCA Regulation or other relevant EU legislation.
5. Confidential information remains the property of the disclosing party and shall contain rules for return/destruction of confidential information upon request/after termination of the SAP CA.
6. The SAP CA shall contain sanctions for breaching confidentiality obligations.
7. Confidentiality provisions survive the termination/expiry of the SAP CA.

Article 18 Assignment of rights and obligations

1. The SAP operator shall not transfer any SAP tasks pursuant to Article 9 to a third party without the prior, express and written consent of all other SAP CA parties.
2. Any TSO shall be able to transfer its rights and obligations under the SAP CA to a third party, after prior written notification to the SAP CA parties.

Article 19 Severability

The SAP CA parties shall agree that if any part or provision of the SAP CA becomes invalid, illegal, void or unenforceable, it does not affect the other parts or provisions of the SAP CA. The parties shall replace it/them with valid, legal and enforceable provisions in order to achieve the intended economic and legal effect of the SAP CA.

Article 20 Waiver

The SAP CA parties shall agree that no failure or delay by a SAP CA party in exercising any right or remedy provided by law or under the SAP CA shall impair such right or remedy or operate or be construed as a waiver or variation of it or preclude its exercise at any subsequent time, and no single or partial exercise of any such right or remedy shall preclude any further exercise of it or the exercise of any other remedy.

Article 21 Amendment

The SAP CA shall contain conditions under which the SAP CA may be amended and shall describe the process of such amendment.

Article 22 New parties

The SAP CA shall include the following conditions regarding the accession of new SAP CA parties to the SAP CA:

- a) the new party shall be a TSO;
- b) the new party shall sign an accession form a template of which shall be attached to the SAP CA as an annex; and
- c) the accession shall become valid when confirmed by the SAP operator and the TSO(s) of the bidding zone border(s) where forward capacity allocation takes place. Such confirmations shall not be unreasonably withheld.

Article 23 Language of the SAP CA

The SAP CA shall fix the English language as the language for all notices and legal proceedings to the extent permitted by relevant mandatory legislation.

Article 24 Notices

1. SAP CA parties shall agree on the form, delivery and effectivity of notices, and they shall list in an annex attached to the SAP CA the contact persons for all parties.
2. The SAP CA parties shall agree on the process of modification of contact persons.

Article 25 Applicable law

The governing/applicable law shall be the law of the country where the SAP operator is headquartered.

Article 26 Settlement of disputes

1. The SAP CA parties shall agree on a two-level settlement of disputes:
 - a) amicable settlement according to which the SAP CA parties shall first attempt to solve their disputes by mutual discussion in a certain timeframe. When the SAP CA parties reach an amicable settlement, they shall sign a settlement contract; and
 - b) arbitration to which the SAP CA parties shall resort their dispute only after failing to reach an amicable settlement. For this case, the parties shall agree on the place of arbitration, the rules to follow, the language of arbitration, number and proficiency of arbitrators. The SAP

CA parties shall agree that the arbitration decision is a final decision and cannot be subject to any appeal.

Article 27 Entry into force and duration

1. The SAP CA shall enter into force on the date it has been validly signed by each of the SAP CA parties and at the latest within the deadline set in Article 3. In the event that the SAP CA parties do not sign it on the same date, the date of last signature shall be considered as the date that this SAP CA comes into force.
2. The duration of the SAP CA shall be defined in the SAP CA. It is however understood that such duration shall be fixed in relation to the tasks performed by the SAP operator and especially the nature of such tasks.

Article 28 Termination and suspension

1. If a TSOs will no longer be required to issue LTTRs in accordance with the FCA Regulation, the TSO may terminate the SAP CA as from 1 January of any given year, with a 12 months' notice period with a registered letter sent to all other SAP CA parties.
2. TSOs shall agree on which cases the SAP CA can be terminated with "good cause". In these cases, TSOs may decide in accordance with Article 6(7) to terminate the SAP CA at the earliest to the last day of the next calendar month, while a six (6) month notice period shall be required.
3. The SAP CA shall contain that in case of termination by one or more TSO(s), the SAP CA remains in force and binding towards the remaining TSOs.
4. Any obligation originated from the time before termination shall continue until it is exercised/fulfilled.
5. The SAP operator shall have the right to suspend the provision of the SAP tasks it performs on behalf of a TSO, in case the relevant TSO breached its obligations towards the SAP operator (e.g. provision of information).

Article 29 Force majeure

1. The SAP CA parties shall not be held responsible for the non-fulfilment of the obligations affected by force majeure.
2. In case the situation of force majeure affecting the obligations of at least one of the SAP CA parties lasts for a period of at least six (6) months or if it is realised that it will continue for a period of at least six (6) months or if the suspension of the obligations due to force majeure makes the performance of the SAP CA impossible, then the SAP CA may be terminated by either SAP CA party by giving a written notice.

Article 30 Annexes to the SAP CA

1. The SAP CA shall contain the necessary annexes, to be an integral part of the SAP CA, covering at least the following:
 - a) a list of contact details of the SAP CA parties;
 - b) an overview of the SAP tasks agreed for a bidding zone border;
 - c) the operational procedures;

- d) the annual fee application report;
 - e) accession form to enable new parties to accede to the SAP CA.
2. The SAP CA shall define the hierarchy in case of contradiction between the terms of the main body and the annexes of the SAP CA. In case of inconsistency between this methodology, the HAR or the FCA Regulation and the SAP CA including the annexes pursuant to paragraph 1, this methodology, the HAR or the FCA Regulation shall prevail.

TITLE 4

HARMONISED CONTRACTUAL FRAMEWORK WITH MARKET PARTICIPANTS

Article 31 General provisions

1. The SAP shall, in compliance with the applicable HAR, enable participation in forward capacity allocation processes to all market participants who:
 - a) conclude a valid and effective Participation Agreement;
 - b) accept information system rules of auction tool and have access to the auction tool in accordance with the HAR; and
 - c) accept additional financial terms where needed in accordance with the HAR.
2. The SAP operator shall comply with the requirements and processes for participation in the auctions and transfer as specified in the HAR. The HAR shall stipulate the process for the conclusion of the Participation Agreement and its update, including deadlines for all relevant actions envisaged on both market participants' and the SAP operator's side.

TITLE 5

PRINCIPLES OF FINANCIAL SETTLEMENT AND RISK MANAGEMENT OF ALLOCATED PRODUCTS

Article 32 Collaterals

1. Collaterals provided by registered participants in order to secure payments resulting from auctions of long-term transmission rights shall be handled by the SAP operator.
2. The SAP operator shall comply with the rules of collateral management by considering at least the following elements which are further specified in the HAR :
 - a) the forms of accepted collaterals;
 - b) the currency of accepted collaterals;
 - c) the validity and collateral renewal process;
 - d) the modification of collaterals;
 - e) the deadline for collateral submission before relevant auction;
 - f) the specification of the confirmation or the refusal by the SAP operator about the acceptance of the collaterals;
 - g) the collateral incidents and the details of incident notification sent by the SAP; and
 - h) the procedure of calling on and restoration of collaterals.

Article 33 Credit limit

1. The SAP shall be able to verify the validity of collaterals and calculate and continuously update the credit limit of each registered participant according to the HAR.
2. In case of cNNTC approach, the SAP shall be able to check the maximum payment obligation and credit limit relation at bid submission and at closure of the bidding period according to the HAR.
3. In case of flow-based approach, at auction results determination the SAP shall check whether the maximum payment obligation exceeds the credit limit or, if specified by the registered participant, the reserved collateral, according to the HAR.

Article 34 Invoicing and payment

1. The SAP operator shall comply with the settlement of payments and invoicing procedures defined in the HAR with the following:
 - a) calculation of due amounts for all long-term transmission rights;
 - b) currency of all financial information, prices and amounts due including deviations required by applicable law or regulations;
 - c) deadline to settle the given amount and any interest for late payment;
 - d) taxes and levies at a rate and to the extent applicable when assessing payment obligations and issuing invoices;
 - e) rounding of due amounts;
 - f) calculation of monthly instalments;
 - g) application of tax deduction if required;
 - h) invoicing and payment conditions including the process of issuing invoices; invoicing in case of curtailment and return; deadlines for invoicing; invoice correction process; and application of bank fees;
 - i) process of payment in case of disputes and dispute resolution; and
 - j) late payment and payment incident situations.

Article 35 Remuneration of long term transmission right holders

1. The SAP operator shall pay out registered participants who returned long-term transmission rights a remuneration equal to the value of the returned long-term transmission rights according to the HAR.
2. The SAP operator shall remunerate the long-term transmission rights holder for the financial transmission rights and non-nominated physical transmission rights, which are reallocated at the relevant daily allocation in accordance with the HAR.

Article 36 Compensation for curtailments

1. In cases of curtailment to ensure operation remains within operational security limits before the day ahead firmness deadline, the SAP operator shall compensate the long-term transmission rights holder in accordance with the HAR.
2. In the case of force majeure before the day ahead firmness deadline, holders of curtailed long-term transmission rights shall be entitled to receive a reimbursement in accordance with the HAR.

3. In the event of force majeure or emergency situation after the day ahead firmness deadline, the SAP operator shall compensate holders of curtailed long-term transmission rights in accordance with Article 72 of the CACM Regulation.

TITLE 6

PRODUCTS, ALLOCATION METHODS AND ALGORITHMS

Article 37 General provisions

1. The SAP shall be able to allocate long-term transmission rights to registered participants by way of explicit allocation. Prior to the auction the SAP operator shall publish auction specifications on its website in accordance with the HAR.
2. The auctions shall be organised via the auction tool. Each registered participant fulfilling the requirements for participating in the auction may place bids in the auction tool until the relevant deadline for placing bids in the specific auction expires according to the respective auction specification.
3. The SAP operator shall comply with the applicable HAR regarding the following:
 - a) list of information to be provided within the auction specification;
 - b) minimum deadline for provision of all information relevant for specific auction, including publication of auction specification, offered capacity;
 - c) form and content of bids;
 - d) conditions upon which fulfilment bids are registered;
 - e) criteria of credit limit verification as specified in Article 33;
 - f) auction results determination;
 - g) notification of provisional and final auction results; and
 - h) procedure of contestation of auction results.
4. The SAP operator shall provide information on forthcoming auctions by publishing on its website a provisional auction calendar with the dates of auctions reasonably in advance before the auctions take place.

Article 38 Form of products and covered bidding zone borders

1. Unless stated otherwise in the HAR, the standard forward capacity allocation timeframes, subject to product availability, shall include at least the following:
 - a) yearly timeframe; and
 - b) monthly timeframe.
2. Unless the combination of the approved long-term transmission rights proposals pursuant to Article 31 of the FCA Regulation would lead to a shorter list (in which case the resulting shorter list shall be withheld for the purposes of the present Article), the SAP shall be able to allocate the following forms of products in accordance with the HAR:
 - a) yearly calendar product and yearly non-calendar product;
 - b) seasonal product;
 - c) quarterly product;

- d) monthly product;
 - e) weekly product and week-end product.
3. The SAP shall be able to allocate long-term transmission rights on all bidding zone borders covered by the HAR.

Article 39 General requirements for long-term allocation algorithms

1. In accordance with Article 28 of the FCA Regulation, long-term allocation algorithms shall determine auction results in a way which:
 - a) uses the marginal pricing principle to generate results for each oriented bidding zone border and MTU;
 - b) allocates no more than the offered long-term cross-zonal capacity; and
 - c) is repeatable, i.e. reproduce any time the same results with the same input data.
2. The SAP shall allocate cross-zonal capacity in the form of LTTRs with:
 - a) a single algorithm for cross-zonal capacity provided in the form of cNTC parameters; and
 - b) a single algorithm for cross-zonal capacity provided in the form of flow-based parameters¹.
3. The determination of the marginal clearing price per oriented bidding zone border depends on:
 - c) the last accepted bid price at an oriented bidding zone border, based on merit order of bids for that oriented border, in a case of allocation with cNTC approach; or
 - a) shadow prices of congested CNECs multiplied with PTDF values for those oriented bidding zone borders, in a case of flow-based allocation.
4. The optimisation function of the allocation algorithm shall aim to maximise the sum of accepted bids values entered into an auction, subject to constraints provided in Article 41. The accepted bid value is determined as the product of accepted bid quantity and bid price.
5. The sum of accepted bids quantity within an auction shall not be greater than the relevant constraints given by the allocation algorithm, as provided in Article 41.
6. An auction shall be able to optimize results for all oriented bidding zone borders of a CCR, taking into account constraints provided in Article 41. The algorithm shall allocate transmission rights only on borders of adjacent bidding zones.
7. The allocation algorithms shall only accept positive bid prices for FTR-options and physical transmission rights (PTR).
8. The marginal clearing price for an oriented bidding zone border shall be zero:
 - a) for cNTC approach: in case that offered ATC value is higher than the sum of requested bids' quantities on that oriented border;
 - b) for flow-based approach: in case that shadow price is zero on all CNECs with positive PTDF for that oriented border.
9. Only bids with a price higher or equal to the marginal clearing price at an oriented bidding zone border shall be accepted.
10. Partial acceptance of bids shall be possible.

¹ Including the cross-zonal capacities provided with evolved flow-based approach.

11. The allocation algorithms shall not net opposite effects of bids for FTR-options and PTR on relevant constraints (i.e. there shall be no netting of counter flows).
12. The allocation algorithms shall be able to consider the deterministic rule for considering partial acceptance of bids with the same price at a specific oriented bidding zone border in accordance with the HAR.
13. The long-term allocation algorithms does not consider reduction periods.
14. The long-term allocation algorithms shall be able to consider any possible market outcome and calendar specificities, such as summer/winter time shifts and leap years.
15. Detailed mathematical description and documentation of the long-term allocation algorithm shall be available on the SAP operator's website.
16. The calculation process and results of the long-term allocation algorithms shall be transparent, auditable and explainable.
17. The long-term allocation algorithms, including the data it processes, shall be properly secured from unauthorized access.

Article 40 Long-term flow-based allocation algorithm

1. For each bidding zone, the long-term flow-based allocation (hereafter referred to as "LTFBA") algorithm shall be able to:
 - a) facilitate bids for several oriented bidding zone borders on at least yearly and monthly timeframes;
 - b) support the products as described in Article 38; and
 - c) allocate cross-zonal capacities on a bidding zone border with one or multiple TSOs on any of the sides of the concerned bidding zone border.
2. In case the LTFBA algorithm finds two or more solutions with equal value to the objective function, it shall apply deterministic rules in order to define prices and capacity allocated for each oriented bidding zone border. The SAP operator shall publish these rules.
3. The LTFBA algorithm shall only accept bids in Euro and shall determine marginal clearing prices in Euros.
4. The SAP shall enable the application of evolved flow-based (EFB) principles. Accordingly:
 - a) the ends of the HVDC interconnector shall be modelled as virtual hubs in the PTDF matrix: one virtual hub in a case of an HVDC external to the CCR applying flow-based allocation, and two virtual hubs (source/sink) in a case of an HVDC internal to the CCR applying flow-based allocation; and
 - b) the AC bidding zone border where EFB is applied shall be modelled as virtual hubs.
5. The LTFBA algorithm shall be able to:
 - a) allow to define a composite border constraint, i.e. EC, as well as a combined (grouped) CNEC constraint, as provided in Article 41;
 - b) incorporate losses functionality on interconnector(s) between bidding zones during capacity allocation, and activate this functionality during allocation, if requested by the owner(s) of the relevant interconnector after the approval by the relevant national regulatory authorities.
6. The SAP operator shall publish on its website at least the following outputs² of the LTFBA

² Including the information for EFB lines and borders, where applicable.

algorithm:

- a) information per CNEC (for both directions, where applicable):
 - i. shadow prices;
 - ii. resulting non-netted flows³;
 - b) information per oriented bidding zone border (per LT product, and on MTU level⁴):
 - i. marginal clearing price;
 - ii. requested and accepted bids' quantities;
 - iii. aggregated non-netted exchanges⁵, reflecting losses where applicable;
 - iv. long-term congestion income;
7. The LTFBA algorithm shall be able to consider additional bidding zone borders or change of bidding zone configurations if needed.
 8. The SAP CA parties should develop an annual LTFBA algorithm performance monitoring report considering the relevant KPIs in accordance with Article 15(2) and publish it in accordance with Article 7(1)(c).

Article 41 Mathematical formulation of the long-term allocation algorithms

The objective functions for long-term cNTC and flow-based allocation algorithms are expressed in the mathematical notation as the following linear problems (LP):

cNTC-based allocation:	Flow-based allocation:	With:
Optimisation function		<i>x</i> : source bidding zone of <i>bid b</i> <i>y</i> : sink bidding zone of <i>bid b</i> , <i>b</i> : bid <i>b</i> within the long term auction <i>p_b(x, y, b)</i> : bid price for bid <i>b</i> [EUR/MW] <i>d_r(x, y, b)</i> : requested quantity for bid <i>b</i> [MW] <i>d_a(x, y, b)</i> : accepted quantity for bid <i>b</i> [MW] <u><i>filtered(x, y, b)</i>: Bid filtering status for bid <i>b</i>, = 1 if the bid is filtered (activated = kept), = 0 if the bid is not filtered (rejected = fully discarded)</u>
$\max \left\{ \sum_{x,y,b} [p_b(x, y, b) \cdot d_a(x, y, b)] \right\}$		
Accepted bids quantity constraints		
$0 \leq d_a(x, y, b) \leq d_r(x, y, b)$	$0 \leq d_a(x, y, b) \leq d_r(x, y, b) \cdot filtered(x, y, b)$	
Basic transmission capacity constraints		
for \forall oriented bidding zone border between bidding zones <i>x</i> and <i>y</i> (<i>x</i> → <i>y</i>):	for \forall critical network element with contingency (cneec):	<i>ATC_{x→y}</i> : available transmission capacity for the border and direction between the bidding zone <i>x</i> and bidding zone <i>y</i> [MW]

³ virtual flows, i.e. maximally possible physical capacities allocated on each CNEC, presented separately for each direction (where applicable). They are the result of $\text{sumcneec}(\text{Accepted Bids} * \text{PTDF}^+)$, for accepted bids from all BZ borders.

⁴ a single value for all MTUs of an LT product: dividing the value per product with number of MTUs

⁵ the exchanges on each BZ border, presented separately for each direction; a sum of accepted bids per each oriented border in a given direction.

Requirements for the Single Allocation Platform (SAP) and the SAP cost sharing methodology

cNTC-based allocation:	Flow-based allocation:	With:
$\sum_{x,y,b} d_a(x,y,b) \leq ATC_{x \rightarrow y}$	$\sum_{x,y,b} (PTDF_{x,y,b}^+ \cdot d_a(x,y,b)) \leq RAM_{c nec}$ $PTDF_{x,y,c nec}^+ = \max(0, PTDF_{x,y,c nec})$	<p>$RAM_{c nec}$: Remaining Available Margin of a CNEC⁶ [MW]</p> <p>$PTDF_{x,y,c nec}$: zone-to-zone PTDF of bidding zones x and y⁷, at a CNEC</p> <p>$PTDF_{x,y,c nec}^+$: positive⁸ zone-to-zone PTDF of bidding zones x and y, at a CNEC</p>
Composite border constraints (external constraints)		
<p>for \forall oriented composite border among the group of bidding zones xx and the group of bidding zones yy:</p> $\sum_{x,y,b} d_a(xx,yy,b) \leq EC_{xx \rightarrow yy}$		<p>xx: source group of bidding zones of bid b,</p> <p>yy: sink group of bidding zones of bid b,</p> <p>$d_a(xx,yy,b)$: accepted quantity for bid b</p> <p>$EC_{xx \rightarrow yy}$: external constraint⁹, i.e. joint available transfer capacity for the composite border and direction between the group of bidding zones xx and the group of bidding zones yy [MW]</p>
Grouped CNEC constraints		
<p>for \forall group of CNECs, i.e. \forall Grouped network element with constraints (g nec):</p> $\sum_{x,y,b} (PTDF_{x,y,b}^+ \cdot d_a(x,y,b)) \leq RAM_{g nec}$ $PTDF_{x,y,g nec}^+ = \max(0, PTDF_{x,y,g nec})$		<p>$RAM_{g nec}$: Remaining Available Margin of a GNEC constraint¹⁰ [MW]</p> <p>$PTDF_{x,y,g nec}$: zone-to-zone PTDF of bidding zones x and y, at a GNEC constraint</p> <p>$PTDF_{x,y,g nec}^+$ positive zone-to-zone PTDF of bidding zones x and y, at a GNEC constraint</p>
Clearing price calculation		
<p>$cp(x,y)_{MTU} = p_b(x,y,b)$; price of the last accepted bid</p> <p>$cp(x,y)_{LT} = c(x,y)_{MTU} \cdot N_{MTU}$</p>	$cp(x,y)_{MTU} = \sum_{c nec} PTDF_{x,y,c nec}^+ \cdot SP_{c nec}$ $cp(x,y)_{LT} = cp(x,y)_{MTU} \cdot N_{MTU}$	<p>$cp(x,y)_{MTU}$: clearing price at a border $x \rightarrow y$, per market time unit (EUR)</p> <p>$SP_{c nec}$: shadow price (dual value) of a congested CNEC [EUR/MW]</p>

⁶ HVDC interconnectors, both internal and external to a flow-based CCR may be considered as CNECs, applied under the evolved flow-based (EFB) principles.

⁷ The bidding zones also include virtual hubs where the evolved flow-based is applied.

⁸ Using positive zone-to-zone PTDF provides that only the burdening effect of bids is taken into account (without netting of counter-flows). This is so for the allocation of PTR and FTR-Options.

⁹ If such a combined constraint considers all borders of a bidding zone x ($xx=x$, $yy=all$ its neighbours), it is then an export/import constraint (limiting total net position of the bidding zone)

¹⁰ A form of such a constraint is envisaged in the Nordic LT CCM, as the ‘combined dynamic constraint’, i.e. the limit on the sum of power flows on a set of network elements or partial flows on a set of network elements for the purpose to respect dynamic stability limits.

cNTC-based allocation:	Flow-based allocation:	With:
		<p>$cp(x, y)_{LT}$: clearing price at a border $x \rightarrow y$, per auctioned long-term period (month, year) [EUR]</p> <p>N_{MTU}: number of market time units (MTU) per auctioned long-term period (month, year)</p>
Collateral budget constraints		
	<p><u>For each market participant mp:</u></p> $\sum_{x,y,b \in Bids_{mp}} d_a(x, y, b) \cdot cp(x, y)_{MTU} \leq CollateralBudget_{mp}/N_{MTU}$	<p><u>$d_a(x, y, b)$: accepted quantity for bid b [MW]</u></p> <p><u>$cp(x, y)_{MTU}$: clearing price at a border $x \rightarrow y$, per market time unit (EUR)</u></p> <p><u>CollateralBudget$_{MP}$: Placed credit limit or reserved collateral by each individual market participant mp</u></p> <p><u>N_{MTU}: number of market time units (MTU) per auctioned long-term period (month, year)</u></p>
<u>Merit-Order-Filtering Approach</u>	<p><u>For all bids of the same border and same market participant:</u></p> <p><u>if bid $b1$ has a bid price greater than the bid price of bid $b2$:</u></p> $filtered(x, y, b2) \leq filtered(x, y, b1)$	<p><u>b: bid b within the long-term auction</u></p> <p><u>$filtered(x, y, b)$: Bid filtering status for bid b, = 1 if the bid is filtered (activated = kept), = 0 if the bid is not filtered (rejected = fully discarded)</u></p>

TITLE 7

OPERATIONAL PROCESSES

Article 42 Publication of the offered capacity

1. The SAP operator shall receive the amount of long-term cross-zonal capacity to be offered in the respective auction directly from the TSOs or the coordinated capacity calculator.
2. The SAP operator shall publish the offered capacity including reduction periods (if applicable) in accordance with the HAR.

Article 43 Bids submission and registration

1. The SAP shall enable bids' submission including default bids in accordance with the HAR and in accordance with the information system rules of the auction tool.
2. Bids shall be submitted to the SAP in accordance with the formats defined in the documentation available on the SAP operator's website. The SAP shall be able to ensure that the bids, which are not submitted in the required format, shall not be taken into account.
3. Bids shall be accepted or rejected in accordance with the formats defined in the documentation available on the SAP operator's website and in accordance with the HAR and consequently be used

Article 44 Capacity curtailment and nomination

1. Long-term transmission rights may be curtailed in the event of force majeure, or to ensure operation remains within operational security limits in accordance with the FCA Regulation and the HAR.
2. TSOs, or the coordinated capacity calculator, shall submit the long-term cross zonal capacity curtailment request to the SAP, which shall be able to reduce the held rights accordingly, and the SAP operator shall compensate the holders of curtailed long-term transmission rights in accordance with the HAR.
3. In case of curtailment of nominated physical transmission rights, TSOs shall send the curtailed nominations to the SAP after having sent the non-curtailed values. The SAP shall be able to calculate the compensation to be paid to holders of curtailed nominated physical transmission rights based on the curtailed nominations in accordance with the HAR.
4. The SAP operator shall publish as soon as possible information that there is a curtailment of long-term transmission rights.

Article 45 Auction results determination

After the bids' submission and allocation, the SAP shall be able to determine the auction results (allocated quantity per oriented bidding zone border, auction price and winning registered participants) in accordance with the HAR.

Article 46 Notification of provisional auction results

The SAP operator shall publish as soon as possible the provisional auction results in accordance with the HAR.

Article 47 Contestation of auction results

The SAP operator shall enable contestation of the auction results in the event registered participants believe the auction results to be erroneous. The SAP operator shall process the contestation in accordance with the HAR.

Article 48 Return of long term transmission rights

1. The SAP shall enable returns of long-term transmission rights in accordance with the HAR. The SAP shall make the returned capacity available in the subsequent auction.
2. The SAP operator shall, on behalf of TSOs, compensate the registered participant for the return of long-term transmission rights in accordance with the HAR.
3. The details regarding the required information and format of the return that are to be accepted by the SAP operator are further defined in the HAR.

Article 49 Transfer of long term transmission rights

The SAP shall enable transfer of long-term transmission rights in accordance with the HAR and in accordance with the information system rules of the auction tool.

Article 50 Notice board

The SAP operator shall make a notice board available to registered participants, free of charge in accordance with the HAR.

Article 51 Use and remuneration of long term transmission rights

1. The SAP shall provide registered participants and respective TSOs with a rights document containing the long-term transmission rights that the registered participant holds and is entitled to nominate in accordance with the relevant nomination rules, in a case of physical transmission rights.
2. The SAP operator shall remunerate financial transmission rights or non-nominated physical transmission rights in accordance with the HAR.

Article 52 General provisions of the fallback procedures

The SAP operator shall, to the extent reasonably practicable, organise fallback procedures in line with the HAR for the following cases:

- c) failure at the site of the SAP of the standard processes for data exchange via the auction tool;
- d) technically no feasibility to hold an auction;
- e) technically no feasibility to return long-term transmission rights;
- f) technically no feasibility to notify a transfer of long-term transmission rights; and
- g) technically no feasibility to notify who will be nominating the long-term cross-zonal capacity.

Article 53 Auction cancellation

1. The SAP operator may cancel an auction:
 - h) prior to the auction results are final, in a case of technical issues, provided that adequate fallback procedures have been available at the time of the incident and that these procedures have been initiated pursuant to Article 52; or
 - i) after the auction results are final, in case the auction results were erroneous, or due to incorrect offered capacity values, in accordance with the HAR.
2. The SAP operator shall inform registered participants and the TSOs about the auction cancellation.

TITLE 8

DATA INTERFACES

Article 54 Information system rules

The information system rules shall set down the terms and conditions for access to, and use of the auction tool by the registered participants and its users. The SAP operator shall develop and operate the auction tool in accordance with the information system rules.

Article 55 Message standards

1. The SAP operator may define which message standards are required for the use of the auction tool.
2. Each message standard shall be available on the SAP operator's website, by way of a link to the

relevant ENTSO-E standards as published on ENTSO-E's website. Registered participants' messages shall comply with the message standards, failing which they shall be rejected.

3. The SAP operator is entitled to modify message standards. The SAP operator shall notify the registered participants of the new message standards, together with the date on which they come into force on its website with reasonable prior notice.
4. The date and time generated by the auction tool, as appearing in the messages received or sent by the SAP, shall be the only date and time taken into consideration for evidence purposes.
5. The SAP shall be able to archive data logs and messages for the purpose of any dispute in accordance with the information system rules and applicable legislation.

TITLE 9

TECHNICAL AVAILABILITY AND RELIABILITY OF PROVIDED TASKS

Article 56 Participants' support

1. The SAP operator shall offer the support in relation to the auctions to the registered participants during working hours. Contact details of the SAP operator for this purpose shall be published on the SAP operator's website. The SAP operator shall inform registered participants on any change of working hours or contact details via email.
2. All communications shall be in English.

Article 57 On-call support

The SAP operator shall provide an on-call support for the TSOs in order to manage possible curtailments outside working hours. This support shall be available for curtailment only and shall be specified in the SAP CA.

Article 58 Training of TSOs' operators and registered participants

In case of substantial changes of the auction tool, the TSOs may ask the SAP operator to organise training sessions for TSOs' staff related to long-term auctions organisation and registered participants. The SAP operator shall comply with any such request, subject to its reasonableness and urgency.

Article 59 Management of participants' claims

1. The SAP operator shall be the operational contact for registered participants for all potential claims. Unless stated otherwise in the HAR, the SAP operator shall send to the registered participant a notification of the receipt of this claim within five (5) working days following the receipt of the claim.
2. The SAP operator shall consult the TSOs regarding the participant's claim and potential answer.
3. Unless otherwise required in the HAR, the SAP operator shall provide an answer to the registered participant's claim within twenty (20) working days following the day of the receipt of this claim.

TITLE 10

COST SHARING METHODOLOGY

Article 60 Subject matter and scope

1. The TSOs shall remunerate the SAP operator with a fee for the provision of the SAP tasks in accordance with this SAP cost sharing methodology.
2. The SAP cost sharing methodology shall apply to the SAP tasks, while interaction with costs of other tasks provided by the SAP operator not covered by the SAP methodology shall be taken into account for a fair distribution reflecting the operational costs incurred by each SAP Task.
3. The following parameters shall at least be taken into account in the determination of the fee for the SAP tasks for the next budget year:
 - a) the SAP tasks, as defined in Article 9;
 - b) the number of the TSOs;
 - c) the number of bidding zone borders where LTTRs are auctioned by the SAP Operator;
 - d) the total costs budgeted by the SAP operator;
 - e) the allocation of the SAP's costs to each SAP Task; and
 - f) the cost-plus margin that the SAP operator charges for the use of the SAP tasks only if required by the national tax authorities where the SAP operator is headquartered and at the minimum level possible.

Article 61 Costs of establishment, development and operation of the SAP

1. The total budgeted costs for operations of the SAP shall be allocated per each SAP task taking into account all tasks performed by the SAP operator. A regular reconciliation between the budgeted and the realised costs shall be proposed by the SAP operator and verified by the SAP council.
2. The distribution of the budget for operation of the SAP to the SAP tasks shall be based on direct costs and the allocation of indirect costs where:
 - a) direct costs of SAP tasks are directly assigned to the different SAP tasks; and
 - b) indirect costs are assigned to the cost of each SAP task, based on time spent and usage according to the cost allocation proposal described in Article 61.
3. Indirect costs shall include costs such as:
 - a) IT supplies and IT general maintenance costs;
 - b) rent for the SAP operator;
 - c) audit accounting/IT;
 - d) insurances;
 - e) personnel costs in financial department, human resources department;
 - f) other costs related to human resources (such as recruitment);
 - g) office operating costs;
 - h) training;
 - i) consultancy; and

- j) all other costs incurred by the SAP and not directly pertaining to a SAP task
4. The costs related to the establishment of the SAP incurred after the regulatory approval of this SAP methodology shall be borne by the TSOs in accordance with this SAP cost sharing methodology. Such costs shall include at least the investments related to forward capacity allocation, which are related to the SAP tasks, including the introduction of products listed in Article 38(2) and any related depreciation costs following the approval of the SAP methodology.
 5. The following costs related to the further development of the SAP after its establishment shall be shared between the TSOs in accordance with this SAP cost sharing methodology:
 - a) costs for the development of additional products different from those listed in Article 38(2);
 - b) costs for the development of additional functions following a change in the HAR; and
 - c) costs for the development of possible new features aiming at improving the performance of the SAP.

Article 62 Cost allocation proposal

1. The allocation of the costs to all SAP tasks (“cost allocation proposal”) shall be based on the allocation of direct and indirect costs. The SAP operator shall provide every year the allocation of the indirect costs to different tasks, first to include new cost items and secondly to adapt the sharing key based on the time spent on each SAP task, according to the updated processes. The cost allocation proposal for the coming year is part of the annual fee application report in accordance with Article 65.
2. The cost allocation proposal shall be based on:
 - a) allocation of direct costs to the appropriate SAP task;
 - b) allocation of IT costs related to the auctioning IT systems needed to perform the SAP tasks to the appropriate auction
 - c) the relative IT usage of each SAP task;
 - d) split of indirect costs to the appropriate tasks based on a workload assessment per department dedicated in each task performed by the SAP operator only for SAP tasks; and
 - e) allocation of a proportionate share of the minimum required cost-plus margin applied on earnings before tax of the SAP operator to the appropriate SAP tasks, if required by the national tax authorities where the SAP operator is headquartered.

Article 63 Cost sharing arrangements

1. The cost sharing per SAP task shall be based on different combinations of the two following keys:
 - a) the cost sharing key per bidding zone border in accordance with paragraph 2; and
 - b) the cost sharing key per TSO in accordance with paragraph 3.
2. The cost sharing key per bidding zone border shall be the individual ratio of a TSO, which is equal to the number of bidding zone borders of that TSO where LTTRs are issued, divided by the total number of bidding zone borders where LTTRs are issued by the SAP operator. For allocation borders where there is more than one TSO on one side, the allocation border is counted once as a total and split according to the sharing key used to distribute the long-term congestion income between the concerned TSOs.
3. The cost sharing key per TSO means the individual ratio of a TSO for a SAP task, which equals to

one divided by the total number of TSOs using this SAP task.

4. In combination of the two cost sharing keys depending on the respective SAP task, the SAP operator shall define the final ratios per SAP task per TSO by taking into consideration the nature of the associated costs. The combination of the cost sharing keys applicable to each SAP task shall be defined in the SAP Fee Structure described in Article 64 and published in the fee application report described in Article 65.

Article 64 The SAP fee structure

1. For the SAP tasks, the SAP fee structure shall be based on the SAP cost sharing methodology, and shall define the combination of the cost-sharing keys applicable to each SAP task. The SAP fee structure shall also define the process for any fee adjustment in accordance with the SAP cost sharing methodology.
2. The SAP fee structure shall be approved by the SAP council. If no agreement is reached by October 31st (for the invoicing period from 1 January to 31 December of the following year), the existing cost sharing keys apply (as set out in Article 63).
3. In case of discrepancy between the SAP fee structure and the SAP cost sharing methodology for the SAP tasks, this latter shall prevail.
4. An amendment of this SAP cost sharing methodology for the SAP tasks may require a review of the cost sharing arrangements and the SAP fee structure accordingly.

Article 65 Proposal of the fee application report

1. The SAP operator shall provide to the SAP council the proposal for the yearly fee application report including the individual yearly fee per TSO with a break-down per SAP task in accordance with this SAP cost sharing methodology, at least once per year before end October of the year preceding the year of application.
2. The SAP council shall check the proposal for the yearly fee application report and to notify any discrepancy to the SAP operator.
3. In case a discrepancy is notified by the SAP council to the SAP operator, the SAP operator shall assess the notification and provide the results of this assessment to the SAP council without undue delay.
4. The fee application report shall include at least the following information:
 - a) SAP tasks categories (e.g. long-term auctions detailed per form of product, clearing and settlement), fee per SAP task category;
 - b) applied cost sharing keys per SAP tasks defined in the SAP fee structure;
 - c) overview of TSOs to which each SAP task category applies if relevant;
 - d) overview of the number of allocation borders per TSO to which the SAP tasks category applies if relevant;
 - e) cost allocation proposal with the distribution of the costs, including indirect costs, to all SAP tasks according to the final ratios per SAP task;
 - f) in total the yearly fee per TSO with a breakdown per SAP task; and
 - g) all the related supporting tables and documents.

5. The proposal for the fee application report shall provide a transparent overview of the cost allocation and the split of costs over the respective SAP tasks.

Article 66 Extraordinary update of the fee application report

1. The SAP operator may, in exceptional circumstances adjust the fees during the year of application of the fee application report and shall provide TSOs with detailed justification for the fee adjustment. The SAP operator shall inform in such a case the SAP council by providing a proposal for an updated fee application report.
2. After the proposal for the updated fee application report is provided, the SAP council shall check within ten (10) working days as defined in the SAP CA whether the application of the SAP cost sharing methodology and the SAP Fee structure resulted in a correct calculation of the individual TSO's fee and to notify any discrepancy to the SAP operator.
3. In case a discrepancy is notified by the SAP council, the SAP operator shall then assess the notification and provide the results of this assessment to the SAP council without undue delay and at the latest within ten (10) working days as defined in the SAP CA. After the checking procedure described above is completed, the final updated fee application report shall be attached to the SAP CA.
4. The fee adjustment shall always comply with the latest SAP cost sharing methodology approved in accordance with the FCA Regulation.
5. In case one or more of the following changes occur:
 - a) a change in the number or list of the allocation borders;
 - b) number of TSOs acquiring a fulfilment of a SAP task; and/or
 - c) yearly adaptation based on budget for next year and different allocation for indirect costs,the SAP operator shall perform a recalculation of the fees and shall propose the adaptation of the fee structure including a date from which the recalculation comes into force. The SAP operator shall notify the SAP council about the decision. When notified the members of the SAP council shall check within ten (10) working days the correct application of the updated individual contribution.

Article 67 Amendments of the SAP cost sharing methodology

1. In case of a request for amendment of the SAP cost sharing methodology in accordance with the FCA Regulation, the TSOs shall consult the SAP operator on any such amendment.
2. After the amendment of this SAP cost sharing methodology in accordance with the FCA Regulation, the TSOs shall notify the SAP operator of the amendment as well as describe how the input provided by the SAP operator was considered.

Article 68 Relationship to other rules

In case of inconsistency between the HAR and the SAP cost sharing methodology or the SAP operator fee structure, the HAR and the FCA Regulation shall prevail and the SAP cost sharing methodology or the SAP fee structure shall be adapted accordingly.

ANNEX 1

List of TSOs subject to the approved SAP methodology:

1. 50Hertz - 50Hertz Transmission GmbH
- ~~2.~~ 2. [AST - AS "Augstsprieguma tīkls"](#)
- ~~3.~~ 3. Amprion - Amprion GmbH
- ~~3.~~ 4. APG - Austrian Power Grid AG
- ~~4.~~ 5. BCAB - Baltic Cable AB
- ~~5.~~ 6. ČEPS - ČEPS a.s.
- ~~6.~~ 7. EirGrid - EirGrid plc
- ~~7.~~ 8. Elering - Elering AS
- ~~8.~~ 9. ELES - ELES, d.o.o.
- ~~9.~~ 10. Elia - Elia Transmission Belgium S.A.
- ~~10.~~ 11. Energinet - Energinet
- ~~11.~~ 12. ESO – Electroenergien Systemen Operator EAD
- ~~12.~~ 13. Fingrid - Fingrid OyJ
- ~~13.~~ 14. HOPS d.d. - Croatian Transmission System Operator Plc
- ~~14.~~ 15. IPTO - Independent Power Transmission Operator S.A.
- ~~15.~~ 16. MAVIR ZRt. - MAVIR Magyar Villamosenergia-ipari Átviteli Rendszerirányító Zártkörűen Működő Részvénytársaság ZRt.
- ~~16.~~ 17. PSE - Polskie Sieci Elektroenergetyczne S.A.
- ~~17.~~ 18. REE - Red Eléctrica de España S.A.
- ~~18.~~ 19. REN - Rede Eléctrica Nacional, S.A.
- ~~19.~~ 20. RTE - Réseau de Transport d'Electricité S.A.
- ~~20.~~ 21. SEPS - Slovenská elektrizačná prenosová sústava, a.s.
- ~~21.~~ 22. SONI - System Operator for Northern Ireland Ltd
- ~~22.~~ 23. TenneT GER - TenneT TSO GmbH
- ~~23.~~ 24. TenneT TSO - TenneT TSO B.V.
- ~~24.~~ 25. Terna - Terna S.p.A.
- ~~25.~~ 26. Transelectrica - Compania Nationala de Transport al Energiei Electrice S.A.
- ~~26.~~ 27. TransnetBW - TransnetBW GmbH