

Long-Term Market Flow-Based Allocation (LTFBA) **High-Level Market Design document**

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From: Long-Term Expert Team

Objective/key message:	Internal stakeholders:	Deadlines:
This high-level market design	All TSOs and MIWG	22 November 2021
document provides the background and a first assessment of the	• JAO	10 December 2021
requirements for allowing the Long- Term Flow-Based Allocation, in terms		
of technical developments, impacted processes and regulatory amendments needed.	External stakeholders for final methodology:	
	ACER and NRAs	

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1. Introduction

The high-level market design describes a first assessment of the design for LT FBA implementation on all TSO level, following the implementation of flow-based in the long-term timeframe in at least two regions (Nordics and Core). This document has been drafted to inform all TSOs from all CCRs on the implementation of LT FBA. This document also provides a suggestion how the allocation and development of the allocation algorithm for long-term flow-based methodology can be implemented by November 2024. This document can be used a basis for further assessments and implementations of LT FBA in the regions.

2. Scope

This document describes an All TSOs first views on implementation of the Flow-based LT capacity allocation in the Single Allocation Platform (SAP).

Based on the FCA regulation Article 10 the approach used in the common capacity calculation methodology shall be either a coordinated net transmission capacity approach or a flow-based approach. When establishing the SAP, no CC region anticipated the use of the FB capacity calculation approach. That is why only the NTC approach was required from SAP.

This changed last year when Nordic CCR and Core CCR announced that the flow-based capacity calculation and allocation would be the target solution, thus the SAP and corresponding All TSOs methodologies must be adapted to fit the new way of allocation.

The all TSOs tasks are thus the following:

- Enable FB allocation in SAP to fit the CCR CCM implementation timeline.
- Enable use of SAP for testing of CCR CCM with market participants
- Update all TSOs methodologies to be also compatible with FB allocation

The CCRs that shall implement the FB capacity calculation are given a deadline from the concerned NRAs or ACER. Up to now we are working with the following assumptions:

- Core CCR shall implement the FB capacity calculation (and thus FB allocation) from November 2024, starting with yearly auctions.
- Nordic CCR shall implement a LT ATC Extraction (ATCE) (based on LT FB capacity calculation) 12 months after implementing the DA and ID CCM. Based on current regional planning, the go-live of LT ATCE is set to Q4/2023. The only LT transmission-product currently traded in the Nordic, is between DK1 and DK2. The Nordic CCR will switch to LT FB allocation when the SAP is able to manage the Nordic LT FB approach.

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Given the decision of ACER on Core LTCC methodology and many uncertainties in the Nordic CCR, the All TSOs conclude that the abovementioned tasks shall be delivered to enable go-live of LTFBA for Core LTCC by November-2024.

All TSOs shall not be engaged in capacity calculation methodology implementation. However, close cooperation on details of All TSOs methodologies is needed between CCRs and all TSOs.

3. Design of the Long-Term Flow Based Allocation (LTFBA)

The following sub-chapters describe the general understanding of the Long-Term Flow Based Allocation (LTFBA) design and its impact on current arrangements for LT allocation. Detailed descriptions shall be developed in methodologies or other documents by all TSOs and/or SAP.

A first, rough overview for basic understanding of LTFBA is given by the following figure, especially to guide those readers into that topic, who are not that familiar with this topic so far.



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The following figure is focusing on the most relevant parties involved to LTFBA:

2.1.Allocation process and products supported

The FB allocation design is driven by requirements from the regions where FB approach is to be implemented in the long-term timeframe. So far, the approach was generally to implement the LT FBA in the most efficient and lean way.

Long-term flow-based allocation process, for the CCRs where it applies, is foreseen to be conducted at least on annual and monthly basis. Such timeframes will be considered for CCR Core, nevertheless allocation process should be able to cover all timeframes listed in the FCA regulation. In CCRs where flow-based capacity calculation is in place, long-term capacity allocation should be done solely on FB parameters due to the fact that it is not possible to combine FB and NTC auctions at the same time within the same CCR¹. Each CCR performs its own separate implementation.

The general assumption is that the capacity parameters are unique for the whole validity period. In such a case just one round of allocation in the relevant timeframe will be conducted – just one annual auction for a given calendar year, one monthly per a given calendar month.

Reduction periods shall be anticipated based on the CCMs for the relevant timeframe calculation. Allocation of LTTRs within one CCR using the FB CCM will be done within one auction, i.e. CCR BZB allocations are evaluated together within a single process.

The allocation will be realized by reflecting adjacent BZ BZBs bids on FB parameters within the CCR, i.e. bids on each BZB containing price and value of demanded capacity will be translated via the PTDFs on RAM usage on every CNEC considered in FB domain. As a result, there will be allocated

¹ Apart from external constraints (maximum possible export/import) that would be applied at some borders of a FB CCR, and which to some extent correspond to the concept of NTC.

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LTTRs in full MW per hour², BZB and direction along with prices per LTTR. Please note that negative prices will not be allowed and LTTR Options - FTR/PTR are only considered, i.e. LTTR Obligations ³ are not foreseen to be supported at the starting phase.

On top of capacities available in the FB domain the allocation constraints with regards to a maximum possible BZ import/export need to be considered in each allocation process. This feature is to be implemented in allocation algorithm.

It needs to be noted that at that stage the allocation algorithm will cover CCR Core solely and not be able to optimize results and consider allocation constrains across other CCRs.

The CCRs using FB approach in long-term timeframe will provide the following capacity parameters:

• The final flow-based domain covering the Remaining Available Margin (RAM) and zone-tozone PTDFs for each Critical Network Element with Contingenies (CNEC) "(including allocation constraints).

The monthly capacity calculation takes into account the already allocated LT rights/values on a BZB, adjusted by any individual returns from LTTRs. The deadline for returns must be earlier compared to the explicit allocation of today. The SAP is not responsible for any adjustment of capacity parameters – returns are reflected by the CCR.

Splitting of annual capacity in line with the FCA Article 16 methodology is performed by the CCRs – the capacity parameters provided by the CCR will comply with the respective requirements.

Any other LTFBA features, such as peak/off-peak products, block bids, linked bids across timeframes or more BZBs, year-ahead monthly auctions, point-to-point (distant zones) bidding, are not foreseen to be implemented at this stage. Development of these advanced functions can be performed once the basic requirements are in operation.

2.2. Roles in the allocation process under FB approach

Implementation of the LTFBA does not affect heavily current distribution of roles within the preallocation, allocation and post-allocation processes. Since the FB capacity parameters are much more complex than for NTC, several roles of SAP are shifted to CCRs. The detailed tasks of RSCs and TSOs might depend on the agreements in the CCRs.

SAP Operator

• Allocate LT capacity

² Due to the anticipated switch of DA market to 15'min MTU it could be beneficial to switch to 15'min MTU in the LT market later on in time.

³ No TSO indicated that they foresee to change to LTTR obligations within the next years.

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- Calculate financial value of the returns, compensations, CID
- Settle all financial flows among market participants and TSOs
- Process financially curtailment of LTTRs towards MPs and TSOs
- Inform parties about results
- Publish FB domain and related data
- Publish allocation results at web pages and EMFIP
- Curtail LTTRs holders

TSOs/CCR RSC (following CCR arrangements)

- Calculate FB capacity parameters for each timeframe and make them finally available to SAP
- Reflect curtailment of yearly products in recalculation of monthly capacity parameters (e. g. curtailment of already allocated yearly capacity)
- Reflect returns of yearly products in recalculation of monthly capacity parameters
- Send allocation constraints to SAP
- Send curtailments results to SAP
- Send allocation constraints and capacity calculation data to CCR RSC
- Send curtailment to RSC CCR
- Validate capacity parameters

EMFIP (Electricity Market Fundamental Information Platform)

- Stops publishing LT NTCs for the relevant CCR
- Publishes remaining data

ARIS (ACER)

• No impact

Market Participant

- Adoption to new capacity data set
- No major changes in bidding

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2.3. Processes and interdependencies under FB approach



2.4. Impact on credit limit verification and curtailment

The Harmonized Allocation Rules must be checked thoroughly for compatibility with the FBA.

The major impact (except for the allocation itself) is expected in the credit limit calculation – the current rules are not efficient enough to fit a new situation when around 20-30 auctions are performed within a single step. FB will include complexities in how to assess bids against the available credit limit, which is currently done after the clearing, which can result in multiple iterations of results calculation if bids are rejected due to a breach of credit limit. Such an iterative approach is possible under FB, but it would be very complex to explain to market participants why their bid was eliminated in such an iterative approach, without keeping the results of each iteration and the credit limits which were applied for each iteration. Consequently, it is suggested to assess bids at the time of bid submission using the sum of the potential liabilities across all directional borders for which the market participant has submitted bids. The potential liability can be calculated as follows.

$$\sum_{\text{oriented border}} \sum_{\text{hour}} \frac{(1 \text{ or } 2)}{\text{Nb of months}} * RC_{\text{hour}} * Max(Bid price_1 * Bid amount_1; Bid price_2) \\ * \sum_{i=1}^{2} Bid amount_i ; ...; Bid price_{n-1} * \sum_{i=1}^{n-1} Bid amount_i ; Bid price_n * \sum_{i=1}^{n} Bid amount_i)$$

- For each oriented border, the bids placed by the market participant on this oriented border are ranked by bid price in descending order: bid 1 is the bid with the highest price, bid N is the bid with the lowest price
- Bid values are summed over each delivery hour of the auction product

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- x/N rule (1/N rule or 2/N rule where N is the number of months within the product delivery period, depending on the Contestation period end of given auction) shall be applied for long-term products (more than one month):
- Potential liabilities must be increased by the taxes and levies. The total value of these taxes is computed by applying the tax rate of the market participant to the potential liabilities

In the event the potential liability exceeds the credit limit at the time of bid submission, the whole bid submitted is rejected and the market participant would be expected to submit a new set of bids which respect their credit limit constraints. It should also be clear that potential liabilities are considered then as blocked amounts towards their credit limit until the allocation takes place, meaning that during the bidding window this will affect their credit limit on other auctions.

Credit limits as defined in the HAR today will be kept, meaning the applicability of bank guarantees and dedicated business account remain.

FB means a different allocation, but no brand-new approach in terms of settlement, payments and invoicing. The impact on the sharing of congestion income between TSOs will depend on the CID methodology.

Concerning the **curtailment**, it must be clarified how usage of FB CC impacts the allocated rights in the CCR. Based on the FCA Article 25 the curtailment shall be coordinated at CCR level – impact on allocated capacity at individual BZBs shall be calculated by the CCR. SAP will only process the results of the coordinated approach.

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4. LTFBA impact on algorithms

Implementation of LTFBA will affect many algorithms used today in the LT and also DA allocation timeframe. All TSOs shall provide as precise description of the algorithms as possible to be included in HARs and other methodologies that would allow SAP to implement them – including all the corresponding rules and constraints (integers, splitting, etc.).

During the implementation, SAP will translate the algorithms into full mathematical description and assignment to the IT supplier.

3.1. Algorithms in HAR

• Auction algorithm

So far, the following algorithm is suggested by ACER to be used in CCRs where LT FBA is in place.

- Market participants submit explicit bids for transmission capacity from zone x to zone y, with bid price P [EUR/MWh] and requested volume V [MW].
- In case of PTRs or FTR Options, the algorithm is:

$\max \{ \sum_{b(x,y)} P_{b(x,y)}^{off} \times v_{b(x,y)}^{acc} \}$	(x, y) Z: source, sink; bidding zones, where source and sink are adjacent bidding zones
	b(x, y) B: bid from source zone x to sink zone y
	P_b^{off} : offered price of bid b
$\sum_{b(x,y)} (PTDF_{b(x,y)}^+ \times v_{b(x,y)}^{acc}) \le \text{RAM}_l$	v_b^{acc} : accepted volume of bid <i>b</i> (optimization variable)
$\forall L L$	V_b^{req} : requested volume of bid b
	<i>l L;</i> all CNECs
$PTDF_{x,y,l}^+ = max(0, PTDF_{x,y,l})$	RAM _{<math>l: Remaining Available Margin of a CNEC l</math>}
	$PTDF_{x,y,l}$: zone-to-zone PTDF of bidding zones x and y, calculated at CNEC l
$0 \leq \boldsymbol{v}_b^{acc} \leq \mathbf{V}_b^{req}$	$PTDF_{x,y,l}^+$ provides that only the burdening effect of bids is taken into account (no netting of counter flows). This is so for Options (rights-without-obligations), as shall be applied at long-term level.
$\sum_{b(y)} v_{b(x,y)}^{acc} \leq EC_x$	EC _x : External Constraint of bidding zone x
$\forall x, y Z$	
$\forall b(x,y) B$	

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Open points for discussion on the allocation algorithm

- Price formation i.e. how a price of each LTTR is calculated
- Return pricing
 - In case of return between timeframes (Y->M) there should be a clear rule how to price such a returned LTTR
- Curtailment impact
 - Clear rules on how the curtailment of capacity within the CCR is reflected into individual LTTRs (rounding rules, compensation rules, etc.)
- Credit limits reflection

3.2. Other algorithms

With the LTFBA many processes are shifted from BZB level to the CCR level. Therefore, at least the following algorithms shall be developed and submitted to SAP for implementation.

- Congestion income distribution
- Algorithms for sharing of costs incurred to ensure firmness
- Remuneration of long-term transmission rights

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5. IT – organization

Implementation of the LTFBA on the EU level requires review of data flows towards TSOs and also CCRs where LTFBA is in place. Increased complexity of the capacity domain and corresponding processes requires SAP to update all operational procedures and relevant IT systems. As indicated above, many processes shift from SAP to the CCR level.





The following chapters describe first assumption on IT systems changes in relevant parties.

4.1. SAP Operator

It should be noted that well-elaborated rules, described processes and algorithms' descriptions are key for successful and timely implementation at all relevant parties. The major risk of the project is a need of approval of all major changes by ACER that will take up to 6 months. The process of implementation should be flexible enough to accommodate any possible changes ACER may introduce during the approval process. Changes in IT systems that are not impacted by ACER decisions shall be identified.

5.1.1. SAP - eCAT

- Handling of FB auctions
- Showing available capacity (new format for showing available capacity per domain, will be published in the future)

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- Bidding may need to be changed. Still to be assessed may an interface be needed for which bids over all directional borders can be submitted at the same time? Today a set of bids may not exceed the offered capacity, would the limit be the maximum bilateral exchange computed based on the FB domain
- Performance testing
- More time for auctions and verification of results to ensure correctness
- Return handling towards CCR
- Curtailment processing
- Procedures for auditing the allocation results
- New file formats

5.1.2. SAP Other IT

- CID calculation
- Return calculation
- Curtailment/compensation calculation
- Web pages
 - Update all rules and procedures
 - FB Domain publication new space
- Stop sending NTC values to EMFIP
- Update surveillance processes

5.1.3. SAP – simulation facility

- Simulate the auctions during external testing run for traders.
- Create a simple tool for traders to verify the FB capacity parameters and simulate LT auctions. The traders would have a possibility to input real orderbooks or simulate their own.

4.2. Transparency, ACER

- No more publication of NTCs for CCRs where LTFBA is in place. All FB parameters pursuant to ACER's decisions on Core and Nordic LT CCMs have to be published at JAO web pages
- No impact on ARIS/ACER reporting
- FB capacity parameters shall be ideally published at EMFIP. It is needed to get in touch with WG MIT and agree on the development of the platform.

4.3. RSC

• Implement monthly process to adapt the FB domain for returns from Y timeframe

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- Implement curtailment procedures
- New interface for sending capacity parameters to SAP
- Coordination of new file formats

4.4. TSOs

- No impact on LTTR results publication (still bilateral BZB rights as today)
- Curtailment procedures update (regional approach)
- New interface for sending return + curtailment to RSCs

4.5. Traders

- Impact on credit limit verification
- New web interface
- New timeline for returns
- No major changes in bidding
- Offered capacity much more complicated and published at a dedicated place

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6. Rules and contracts

The following 'All TSO' methodologies and CCR methodologies could be considered as most relevant ones for implementation of LT FB Allocation.

5.1. All TSO methodologies

5.1.1. FCA Article 49 and 59 – Requirements for the Single Allocation Platform and for the cost sharing methodology

The wording of a few articles (Whereas, Articles 2(d), 41, 50 and 59) could be slightly improved to better adapt the methodology to the new FB approach. Moreover, the algorithm requirements respecting flow-based will be included in the SAP methodology update.

5.1.2. FCA Article 51 – Harmonised Allocation Rules

The preliminary assessment showed the need for amending the current methodology. The amendment is to focus on:

- Article 31(3) and (4) Bids submission: Evaluation of bids against maximum available capacity
- Article 33(2) Bids submission: Evaluation of bids against maximum available capacity
- Article 35(3) Auction results determination: Algorithm definition to be added or to be referred to
- Article 35(5) Auction results determination: Provisions needed for non-single BZ border auctions
- Article 40(1b) Impact on remuneration of LTTRs
- Article 52 (3b) Auction cancelation allowing new additional reasons for it
- Other not critical aspects that could better adapt the methodology to the new FB approach (5(3,) 27, 28(3), 29(2), 29(3), 29(4), 34(2), 34(5), 35(4), 36(3) 37(5), 37(6), 38(4), 40(1a), 59 (1b), 60 (1a)).

In general, the following areas will be mostly affected:

- Timing (of returns, results publication, etc.)
- Allocation algorithm, price formation algorithm, return price algorithm
- Curtailment processes and impact on LTTRs holders
- Credit limits calculation
- Bidding rules (maximal bids, tick size, bid size, etc.)

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5.1.3. FCA Article 57 – Congestion Income Distribution

The **congestion income distribution methodology (CIDM)** is currently quite simple using in principle equal sharing of CI and cost by standard sharing key (or different sharing key under certain conditions). Based on the implemented products (structure of possible bids) and allocation process the preliminary assessment showed the need for amending the current methodology. The amendment is to focus on:

 Article 4 (3,4,5) – Sharing keys and decision whether different than 50:50 rule will be used

5.1.4. FCA Article 61 – Sharing costs incurred to ensure firmness and remuneration

Following Article 6.3 of the current FRC methodology, the methodology shall be revised and amended when the FCA CIDM is changed. The wording of a few articles (Articles 4 and 5) could be slightly improved to better adapt the methodology to the new FB approach. However, the amendment might not be considered as essential for allowing LTFBA if the reference to the FCA CID methodology is sufficient.

Remuneration of LTRs may also be dependent of updated FCA CID methodology (see above). The socialization scheme in FCA FRC methodology does not cover all borders (only those issuing LTTRs) and might consequently cause an issue.

In addition to the amendment of the methodologies, the allocation algorithm requirements and description will need to be developed.

5.2. CCR methodologies

5.2.1. FCA Article 16 – Splitting Long-Term cross-zonal capacity

The splitting rules might be amended by the following two CCRs:

Core CCR

In Core for a certain percentage of available LT-capacity shall be offered to Y-Product (Article 3&4). Therefore, an update of the methodology is needed considering the monthly capacity calculation methodology.

Nordic CCR

Implemented for Energinet (due to existing LTR DK1-DK2), amendment foreseen if LTRs are required in rest of Nordic CCR.

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5.2.2. FCA Articles 17 and 18 – Generation of load data provision and for a common grid model

There is no amendment foreseen by the regions at this moment related to LT FBA.

5.2.3. FCA Article 31 – Regional design of Long-Term Transmission Rights

There is no amendment foreseen by the regions at this moment.

5.2.4. FCA Article 42 – Establishment of fallback procedures

Establishment of fallback procedures. Based on the current FCA article 42, the fallback procedure shall be the postponement of the forward allocated capacity. However as in LT FBA all allocations are linked together, a fallback solution of individual BZBs would not work and a full replication of the first auction seems to be necessary as fallback.

In case the postponement of the forward capacity allocation is not possible, or the new deadline has been reached and the results are still not available, the CCC shall deliver the following fallback long-term FB parameters to the SAP:

- a) For the yearly capacity calculation, the FB parameters calculated for the equivalent
- b) CGMs of the previous year shall be used as a basis;
- c) For the monthly capacity calculation, the FB parameters calculated for the corresponding time horizon at the preceding yearly auction shall be used as a basis;
- Shall be managed by CCRs

5.2.5. FCA Article 52 – Regional annexes to the harmonised allocation rules

The **harmonised allocation rules** pursuant to Article 52 have to be accepted as EUregulation (HAR EU-body) as they are well prepared and accepted for explicit LT-allocation in EU CCRs. However, based on Article 52.3 HAR may also contain regional or BZB specific solutions especially for type of LTRs, their return and remuneration regime to be applied, coordinated regional fallback solutions and compensation rules defining regional firmness regimes.

There is an amendment foreseen by Nordic CCR and Core CCR. For Core CCR, a change could be needed because of technical profile for CZ-SK DE/LU PL borders.

5.3. Contracts

5.3.1. SAP Cooperation Agreement (SAPCA) contract

- o Operational procedures have to be updated
- o Cost sharing already agreed
- Participation Agreements between SAP operator and market participants might need to be updated

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5.3.2. RSC SLA

- Scope of services to be updated
- Shall be managed by CCRs

7. Costs for LTFBA

At its meeting held on 16 March 2021, SAP Council confirms that costs for development and implementation of LT FBA shall be considered as establishment costs because FBA is a fundamental FCA requirement. The sharing key is "per TSO" only, i.e., costs shared by all SAP CA TSOs equally.

Concerning the sharing key of direct costs for LTFBA operations, SAP Council will decide once the nature and structure of these costs are known.

Need to consider limited duration of SAP CA (2026) and impact on fees formation.

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8. Implementation governance

All TSOs methodologies shall be developed by all TSOs. ENTSO-E/ALL TSOs shall thus manage the process of drafting, consulting and submitting the methodologies. Since many changes should fit regional requirements, it is evident that the TSOs from the concerned regions shall actively contribute in respective WGs. The coordination of CCR requests and their translation into all TSOs methodologies shall take place at the ENTSO-E level. For the LT FBA process it expected that RSCs will deliver the FB domains, for this process there will be alignment with RSCs. The allocation process itself is independent of the RSCs.

SAP Cooperation Agreement does not provide a clear framework for steering implementation of such an immense change in SAP processes. The SAP Council have a full right to update the operational procedures and request SAP Operator to follow them. In a broad sense, we can conclude that the SAP Council should be responsible for SAP Operator involvement and should steer the implementation works in order to ensure that all TSOs requirements are implemented in time by the SAP Operator.

Core and Nordic CCR TSOs shall therefore ensure participation in the All TSO WGs and actively communicate with the SAP Operator/SAP Council. Especially in the following areas:

- Data formats, procedures and processes
- HAR, CID, curtailment, return rules
- Testing
- Data publication
- Simulation facility and parallel run
- Remuneration of LT rights

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9. Implementation timeline

Implementation of LTFBA demands from all parties to update relevant systems, contracts and operational procedures. The timeline of LTFBA implementation in SAP shall be compatible with the regional LTCC timelines. Based on the latest information, the Nordic CCR is going to be the first EU region implementing the LT FBCC with the anticipated go-live February 2024. The Nordic CCR will switch to LT FB allocation when the SAP is able to manage the LT FB approach (in case of interim phase ATC LT allocation shall be in place). The Core LT CCM will go-live in November 2024 with yearly auctions for the year 2025.

This scenario is critical from the following aspects:

- Very short time for development of all TSO methodologies.
- HAR shall contain all final changes already before annual auctions for 2025.

By then, the SAP operator shall update all relevant IT systems and procedures and all relevant TSOs shall update all necessary documents and contracts.

The LTFBA project can be split into several phases:

Phase 1 Definition of LTFBA

- In this phase all TSOs methodologies shall define the business description of LTFBA.
- Further, commercial and technical description are developed by the SAP Operator in order to allow procurement of the IT tools.
- Detailed data formats and processes among all parties are fully described.
- The HLMD will be the basis of the process description document and will also serve as a basis for the necessary amendments to be done by the relevant All TSO/Regional expert teams.

Phase 2 Implementation/Development

- Approval of all methodologies by ACER/NRAs
- Implementation/Development of IT tools in the SAP, RSC and TSOs
- Simulation facility development

Phase 3 Testing

- SAP testing with TSOs
- Core Parallel run with SAP support
- SAP testing with MPs

Go-live

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Constraints and risks

- HAR including all FB related issues shall be approved by Q3/2023 to allow monthly FB LTA during 2024
- All IT developments in SAP shall start before the methodologies are approved by ACER risk of changes during implementation





Timeline go-live November 2024, starting with annual products for 2025

*Timings may slightly vary from the planning above



10.List of acronyms

Abbreviation	Definition
CCR	Capacity Calculation Region, as defined in article 2(3) of the CACM Regulation
CID	Congestion Income Distribution
CCR	Capacity Calculation Region, as defined in article 2(3) of the CACM Regulation
FB	Flow-based
FTR	Financial Transmission Rights
HAR	Harmonized Allocation Rules
HLMD	High-Level Market Design
LTTR	Long Term Transmission Rights
LTFBA	Long-Term Flow-Based Allocation
NTC	Net Transfer Capacity
PTR	Physical Transmission Rights
RSC	Regional Security Coordinator
SAP	Single Allocation Platform
SAPCA	Single Allocation Platform Collaboration Agreement
SLA	Service-Level Agreement