

Central Europe (CE) intraday capacity calculation methodology

31 July 2026

General comments

We support the continued development of capacity calculation methodologies (CCM) that enhance:

- efficient cross-zonal trade,
- system security, and
- the integration of European electricity markets.

We support the integration of Core, Ireland (I-SEM) and Italy North into a single Central Europe capacity calculation region for intraday capacity calculation. We emphasise that any amendment to the Central Europe intraday CCM must remain fully aligned with the core principles of the CACM Regulation, in particular the obligation to maximise cross-zonal capacity while ensuring operational security.

We welcome the inclusion of Switzerland (iTCP) in all paragraphs to ensure coordination in capacity calculation and consistency with ID capacity calculation. The inclusion of Switzerland in CE intraday capacity calculation should be accelerated.

We warn against the use of non-flow-based constraints (i.e. allocation and ramping) in the CCM. They can reduce capacity availability for the market and TSOs should aim to do away with them. In the meantime, their usage should be properly justified, monitored and transparently reported.

Full transparency on active flow-based constraints, operational security limits, individual validation adjustments and any additional non-flow-based constraints is necessary to ensure efficient intraday price formation and effective use of cross-zonal capacity.

CE TSOs should provide sufficient visibility on nature, justification, and expected duration of such measures.

In an increasingly volatile intraday market environment, these elements may materially affect the cross-zonal capacity available to intraday auctions (IDAs) and continuous intraday trading.

Therefore, they should only be used as last-resort measures, be proportionate to the operational security risk identified, and be transparently reported.

Detailed comments

Capacity maximisation

CACM requires maximisation of cross-zonal capacity unless it threatens system security. All constraints must be justified, transparent, and proportionate. Allocation and ramping constraints must remain last-resort tools, not default settings.

Flow-based capacity calculation already captures physical limits (CNEs), contingencies, and PTDF interactions. Adding external constraints risks double counting security margins and reducing economic efficiency unless their necessity and calibration are clearly demonstrated. This is particularly important in the intraday timeframe, where market participants rely on available cross-zonal capacity to adjust positions close to real time, especially under volatile renewable generation and demand conditions.

Any additional non-flow-based limitation should therefore be strictly limited to what is necessary for operational security and remain oriented towards maximising the capacity effectively available to the market.

Advance hybrid coupling

The future implementation of Advanced Hybrid Coupling (AHC) in intraday should avoid adding to much complexity on the algorithm that would risk the delay introduction of flow-based in IDAs in Q4 2027.

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In accordance with Art.3(d) of the CACM Regulation, TSOs and NEMOs should optimize the calculation and allocation of cross-zonal capacity. In this regard, the implementation of FB allocation in IDAs will enable to provide more capacities for trading in intraday.

Allocation constraints

A cost-benefit analysis of the impact of the Italian, Irish and Polish allocation constraints in art. 7 on capacity availability in the whole CE region should be performed. This impact assessment should also monitor all indicators of the XBID algorithm.

Attention should be paid to the implementation of allocation constraints within the flow-based calculation process for IDCC(a). If such constraints are incorporated directly into the flow-based domain prior to capacity extraction, they may reduce the capacities available across the CE region. TSOs should therefore assess whether alternative implementation approaches, including ex-post validation checks, could achieve the same operational objectives while minimising adverse impacts on cross-zonal capacity availability.

For Italy, maximising import capacity is critical for welfare and security of supply and constraints should not substitute for internal congestion management.

Given I-SEM's structural constraints, any additional limitations risk undermining market integration and the efficiency of new interconnectors such as Celtic.

Polish internal grid limitations should be resolved through redispatch and investment rather than limiting cross-zonal capacity. It is important to have a view on when allocation constraints can be removed, given the new initiatives in Poland to procure balancing capacity (balancing auction in the morning and PICASSO).

We object to any move that weakens reporting obligations for allocation constraints that can materially affect cross-zonal capacity, price formation and can result in higher

consumer prices. Namely, if a constraint is important enough to shape capacity allocation, then it is important enough to be monitored and publicly reported. This is not only a matter of principle, but a matter of practical market relevance.

As repeatedly observed in practice, only a limited number of active flow-based constraints may materially influence price formation and cross-zonal capacity across the CE region through their shadow prices, even where the relevant CNECs are geographically far from the bidding zones experiencing the strongest price effects.

In such situations, insufficient reporting makes it unnecessarily difficult for market participants and regulators to understand the drivers of price divergence. Full transparency will also help with the prioritisation of TSO investment in grid reinforcement or deployment.

Full transparency should concern:

- publication, sufficiently in advance, of any planned change to the PTDF threshold, including the implementation date and the new threshold value;
- continued reporting and justification of PTDF threshold changes, given their potential impact on cross-zonal capacity calculation outcomes

Accordingly, we would recommend that the CE ID CCM ensures:

- continued reporting for all allocation constraints with material market impact;
- ex-post publication of affected MTUs and borders;
- publication of the estimated impact on available intraday cross-zonal capacity, where feasible.

Italy North ramping constraints

We believe that ramping constraints should only be used as a measure of last resort for Italy North. So far we did not see proper justification and thus have to assume that ramping constraints ultimately increase costs for consumers. Ramping constraints should

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be dynamic, evidence-based, and only applied where strictly necessary to preserve system security, avoiding systematic capacity reductions.

Ramping constraints can artificially cap capacity, even when steady-state is safe. Terna should adopt adaptive ramping constraints based on system inertia, RES penetration and real-time conditions instead of fixed MW/hour limits. Ramping can alternatively be handled via the balancing markets, redispatch and countertrading.

Just like allocation constraints mentioned before, the potential application of ramping constraints in the day-ahead process makes a high level of transparency essential. Market participants need clear and timely visibility on how such constraints affect cross-zonal capacities and market outcomes.

In this regard, Terna should ensure a timely and dynamic publication (i.e. on a daily basis) of the operational constraints applied. This disclosure should include, at a minimum:

- the specific allocation and/or ramping constraints effectively applied, including their magnitude and geographical distributions;
- the concrete operational security reasons justifying their activation;
- the affected MTUs;
- the affected interconnectors or border groups;
- and the estimated reduction in cross-zonal capacity attributable to ramping constraints.

Such information is necessary to preserve an adequate level of informational granularity comparable to that available under the former NTC-based model and to maintain confidence in the market coupling process under the flow-based regime.

Maintaining this level of transparency is crucial to allow market participants to properly understand cross-zonal capacity outcomes and to perform consistent market simulations.

Moreover, as these constraints can reasonably be considered price-sensitive information, in accordance with REMIT provision publication of inside information, market participants

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are entitled to their immediate publication as soon as the constraints are definitively confirmed by the TSO, in order to properly assess market conditions and to be able to take prompt and informed decisions.

Finally, we would request at least 12 months parallel run instead of 6 months proposed to cover at least full seasonality.

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