

To **PLEF SG2**  
From MPP  
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Subject Input for the survey on XB participation in CRMs:  
Tentative answer to PLEF's questionnaire on market  
designs for capacity mechanisms

This note presents tentative answers of the MPP to the questionnaire elaborated by TSOs in the framework of the PLEF SG2. It aims to provide a contribution approved by the market parties to the design of cross-border (XB) participation schemes in regional capacity mechanisms (CMs).

The MPP would like to remind that cooperation between countries on security of supply is crucial and therefore, welcomes the initiative to study cross-border participation and interactions between the different market models in a coordinated way.

## **1. Introduction**

As a general remark, the MPP notes that valuing the contribution of XB resources to security of supply of a region requires an ex-ante regional adequacy assessment. This assessment should be coordinated at the regional level based on a common set of scenarios.

Furthermore, the MPP considers that PLEF realisations should be more focused on designing a regional target model that could lead to ensuring that security of supply criteria of all its members are fulfilled at the least cost, with a fair allocation of the associated costs to the consumers.

To achieve such a market model, the most efficient way would be to couple regional capacity mechanisms, as developed in question 4.17. To this end, the MPP believes that key contributions should be targeted:

- 1 Agreements on common scarcity situation management: developing under which operational conditions some consumers can be curtailed instead of consumers in another region.
- 2 Common assessment of the system needs: this encompasses the development of a common set of scenarios for load demand evolution, weather conditions, and most likely generation portfolio.
- 3 A common market for capacity products to ensure an economically efficient procurement of the capacity that can be contracted cross-border: this may be organized as a common shared auction in case of centralized or partly decentralized capacity mechanism, as detailed in question 4.17.

**4.16. In your opinion, what should be adequate eligibility criteria for the participation of foreign capacities and/or interconnectors (e.g. Should only neighbouring countries be allowed to participate? Should participation be restricted to a certain amount of capacities? Should participation be restricted to selected types of technologies?...)?**

Capacity mechanisms are to ensure the required level of available capacity and accurately value the contribution of the resources contributing to security of supply (SoS). From this perspective, the development of CMs shall create a level playing field for all technologies (generation capacities, demand response and storages), along a market-based and technology neutral approach. This applies to XB contribution as well.

The XB contribution should be valued as long as it provides the same service as domestic resources. All resources (national or foreign) participating explicitly in the same mechanism should be subject to the same obligations, same rules of certification, same control and penalties.

In any case, the contribution to security of supply of foreign resources in one region is limited by:

- their own availability at critical periods for the region. Only resources that are not committed to support SoS in another region at the same time, according to XB agreement on the management of common scarcity periods, can be proposed for XB participation;
- the availability of the interconnection capacity at critical periods. The explicit participation of XB resources requires therefore a strong involvement of foreign TSOs and clear rules for the management of common scarcity situations. However, the MPP does not support the explicit certification of interconnectors as the single XB resource able to participate in a CM.

**4.17. How should the participation of foreign capacities and/or interconnectors be determined, and how far in advance?**

It should be firstly considered that well functioning coupled energy markets allow the contribution of all resources to security of supply of all regions as energy price differentials and the subsequent cross-border flows accurately reflect the supply-demand balance conditions in each region.

As mentioned earlier, to achieve an efficient XB participation in CMs, the most efficient way would be to couple regional capacity mechanisms based on a common assessment of the system needs to fulfil the expectations of each Member State with respect to security of supply. This applies to both centralized and decentralized<sup>1</sup> capacity markets but can hardly be derived for countries relying on strategic reserves to enforce security of supply. Anyway, if regional CMs share key features (products, delivery/availability modes, timing, etc.), the achievement of an economically efficient procurement of the required capacity would be facilitated.

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<sup>1</sup> In the French decentralized markets, the shared capacity could be procured by the TSO when assessing the security coefficient.

Examples on how the coupling can be done are presented in Eurelectric's position paper "Options for coordinating different capacity mechanisms" (Dec 2013). In particular, the approach named "shared capacity" solution is considered promising by the MPP. It consists of a two-step approach to procure the required capacity.

In a first step, each region separately procures the required internal capacity. The required internal capacity is the capacity that needs to be procured internally because of limited cross-border transport capacity. It corresponds to the peak load minus the (reliable) cross-border transport capacity. For example, if a country has a peak load of 100 GW and cross-border transport capacity of 20 GW, the required internal capacity is 80 GW.

In a second step, different regions (in the explanation and examples we limit ourselves to two regions) procure the remaining required capacity together, forming the shared capacity. This is the capacity that can be situated in any region because of the availability of cross-border transport capacity. The amount of shared capacity to be procured collectively by the regions accounts for (a)synchronism of load between the different regions and differences in capacity product definitions. It is sized by taking the difference between the combined peak load and the sum of the required internal capacity. If for example, the combined peak of two regions is 210 GW and the required internal capacity is 180 GW, the shared capacity would be 30 GW.

The benefit of the shared capacity solution is twofold. On the one hand, it automatically takes into account the available cross-border transmission capacity. On the other hand, a maximum amount of capacity is procured across all bidding zones, leading to an economically more efficient solution. In some decentralized mechanism (in case there is no LOLE target associated with the CM) would be chosen at regional level, the principles described above cannot be applied as such. But the following principles should remain:

- agreements on the management of common scarcity situations
- regional adequacy assessment to determine the overall needs of the region and those that needs to be fulfilled at the national level, taking account the available interconnection capacity and peak synchronicity
- full harmonization of the capacity products
- a rule to allocate the benefits of pooling resources among participating countries

While CMs cannot be coupled (or in an intermediary phase), the MPP considers that the following criteria should apply.

The XB contribution to security of supply of region A depends on two factors:

- 1 Availability of XB transmission capacity;
- 2 Availability of XB resources (generation of demand response capacities) that are not committed to ensure security of supply in their own region according to the XB agreements on the management of common scarcity situations

The entity in charge of security of supply in region<sup>2</sup> A may internalize risks associated with the availability of both interconnectors and XB resources by reducing accordingly the volume of capacity that needs to be procured through a capacity mechanism. This (implicit) approach is currently in use in the French capacity market, as well as for the procurement of strategic reserves in Belgium and Germany.

These kinds of implicit schemes encompass advantages and drawbacks. In particular, it may not provide any economic signals on the top of energy market prices<sup>3</sup> to XB resources, which could lead to inefficient long term (des)-investment decisions. Yet the progressive harmonization and coupling of national capacity mechanisms will probably lead to an evolution of CM designs valuing capacity resources according to their mutual contribution to security of supply in other regions.

The explicit participation of XB resources should be allowed:

- when specific agreements between the involved member States and TSOs (validated by NRAs) specify the conditions under which XB resources are not committed to ensure security of supply in their own region (in particular during common scarcity situations), and can effectively participate in the CM of region A;
- if the resources are not committed to fulfil the needs of their own region according to this agreement;
- by certifying their available capacity margins (i.e. the capacity that is not committed elsewhere to cope with simultaneous scarcity issues) according to the same rules as domestic resources.

**4.18. Should there be any difference of treatment between domestic and foreign capacity providers and/or interconnectors (e.g. criteria for participation, duration of contracts, obligations imposed on capacity providers, monitoring of the effective contribution to the security of supply, settlement of imbalances...)?**

All resources procured in the CM of region A should be able to offer the same service, subject to the same obligations, rules of certification, control, and penalties.

From this perspective, there is no reason to apply different contract duration as long as specific agreements between Member states, TSOs and NRAs guarantee the availability of interconnection capacity during critical periods over the course of the whole contract duration.

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<sup>2</sup> For the sake of simplicity, we will consider a CM in region A. Cross-border (XB) capacities can be located in region B or C, which are directly interconnected with region A, or further in region D, which is interconnected with C only.

<sup>3</sup> Capacity mechanisms are to complete the market design based on energy markets by providing an additional signal in order to achieve the level of security of supply selected by the Member state.

#### **4.19. How should the participation of foreign capacities and/or interconnectors be activated?**

MPP favours an availability based model. Therefore, a capacity mechanism should not lead to any obligation to produce (or shed load in case of demand response) coming from the TSOs.

In any case,

- 1 The availability of the XB resources participating in the CM of region A should follow the same rules as for resources located in region A.
- 2 The availability of the interconnectors should be considered in the sizing of the participation of XB capacities from B to CM in A.

In case of explicit participation of XB resources in the CM of region A, the respective interconnection management procedures (from B to A) necessary to guarantee the availability of foreign capacity when region A is in a scarcity situation should be designed by TSOs, and exchange should be enforced even when a simultaneous scarcity situation occurs in region B. These actions should not have any impact on prices in coupled energy markets of regions A and B, as simultaneous scarcity in region A and B means energy prices are at the cap (if any) anyway. This requires agreements between the TSOs and NRAs of the interconnected regions. Hence, XB participation in CMs should not imply ex-ante reservation of cross-border capacity that would affect the outcome of coupled energy markets.

#### **4.20. How should the effective contribution of foreign capacities and/or interconnectors be monitored?**

In case of explicit participation of foreign capacities in the capacity mechanism of region A, the monitoring of the XB contribution should tackle the two levels of participation:

- 1 the availability of the XB resources (that are not committed to ensure security of supply in their own region) should be monitored according to the CM rules in region A.
- 2 the availability of the interconnectors can be monitored considering the limitations on XB exchanges during scarcity events of region A (including cases of common scarcity) according to the commitments taken by TSOs.

#### **4.21. How should the possible final imbalances (regarding the fulfilment of commitments) be calculated and settled? If there is not such a settlement, should there be any other incentive regime?**

The MPP considers there should be an imbalance settlement scheme for CMs addressing the availability of XB resources that are not committed to fulfil the needs of their own region and interconnection.

In case of explicit participation, the foreign capacity that bids directly in the CM of region A is the only responsible of its availability. If the owner of this foreign capacity cannot prove its availability, it should be penalized according to the rules of the CM in region A. In case the capacity provider cannot make available the volume committed in the foreign CM because of the unavailability of the interconnectors, the TSOs that had committed to guarantee this availability should be penalised.

**4.22. Should it be possible for a foreign capacity and/or an interconnector to participate in two different CMs? If yes, should there be particularly rules to avoid overlapping commitments?**

The MPP is against the simultaneous explicit participation of the same capacity in various CMs with the aim to avoid an undue double remuneration of capacity owners.

However, it acknowledges that, if critical periods for SoS of interconnected regions are fully decoupled (i.e. there is zero risk of simultaneous scarcity), it might be relevant to consider such common participation.

**4.23. Should foreign public authorities or TSOs be involved in cross-border participations (e.g. Should the foreign capacity providers be obliged to inform the relevant foreign public authorities about their participation in a foreign CM? Should the foreign TSOs be involved in the certification of the foreign capacities and/or interconnectors? Should the foreign TSOs be involved in the monitoring of the effective contribution of foreign capacities and/or interconnectors?...)?**

The MPP considers that Member States, TSOs and NRAs of regions A and B should necessarily be involved in the participation of resources located in B in the CM of region A.

This involvement encompasses the assessment and commitment of the interconnection capacity necessary to guarantee the contribution of resources in region B to security of supply in A, the identification of resources considered as XB margins and the monitoring of their availability when selected in the CM of region A (this may also involve PXs), and the settlement.

In addition, the Member States, TSOs and NRAs of region B should agree with their counterparties in a region A on the availability XB capacities in simultaneous stress situations. Harmonized products are essential to guarantee the effectiveness and cost efficiency of the explicit XB participation process.

**4.24. Should there be cooperation frameworks or legislations which ensure imports from the area where the foreign capacity participating to the CM is located, especially in case of simultaneous scarcity situations?**

In the view of the MPP, cooperation in case of simultaneous scarcity is a necessary to allow for explicit valuation of XB resources.

This might require a legal framework to ensure that XB scarcity management procedures will not impede XB resources to contribute to SoS in region A under common scarcity conditions. In addition, a contractual framework should be set to transfer responsibility on certifying capacity resources according to the standard used in region A.

**4.25. Is there anything else you want to add concerning cross-border participations?**