SECTOR INQUIRY INTO CAPACITY MECHANISMS
COMMENTS ON *ANNEX 2* TO THE STAFF WORKING DOCUMENT
PARTICIPATION OF CROSS-BORDER RESOURCES IN CAPACITY MECHANISMS

by
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1. Introduction

On 29 April 2015 the Commission launched a sector inquiry into the existence and functioning of capacity remuneration mechanisms (hereinafter CRMs).

On 13 April 2016 the *Interim Report of the Sector Inquiry on Capacity Mechanisms* and the annexed *Staff Working Document* were published reporting the Commission's preliminary findings and conclusions from the inquiry.

In particular *Annex 2* of the *Staff Working Document* (hereinafter *Annex 2*) proposes a model for the explicit participation of foreign capacity into the national CRMs that relies on availability obligations rather than delivery obligations, imposed on capacity providers and interconnector operators.

This document is intended to identify and to comment on certain aspects of *Annex 2* which we believe to have particular significance for cross-border participation of foreign capacity into CRMs. More specifically, the present submission focuses on:

- ✓ the notion of adequacy and in particular the physical requirements that should be taken into account when designing the rules for the participation of cross-border capacity into CRMs (section 2);
- ✓ a proposed approach for foreign capacity participation into a reliability option model (like the Italian CRM) consistent with the conclusions drawn in section 2, where the suggested capacity product is based on delivery rather than availability (section 3).

In summary, AEEGSI's submission maintains that system adequacy can only be satisfied through the delivery of capacity to the relevant system during scarcity events (the "relevant system" is the electrical system where capacity has been contracted through CRMs). However, as an individual foreign capacity provider has no influence over the direction of the energy flows across borders, in order to ensure physical delivery of capacity a set of interdependent obligations must be imposed upon both foreign capacity providers (to make available their contracted capacity to the domestic TSO) and neighboring TSOs (to guarantee that the amount of energy delivered across borders after the market coupling gate closure is at least as equal as the contracted capacity in the foreign CRM).

For the reasons that will be better explained in the following sections, the proposed model would have the advantage of allowing the internal market to function unimpeded while avoiding distortions of the market coupling. In fact, potential corrective interventions to redirect energy flows across borders would only take place if need be after the closure of the market coupling.

We thank the Commission for the opportunity to provide comments on its *Interim Report* and we hope that our response will be helpful to the final outcome of the inquiry.

2. Necessary conditions for cross-border capacity contribution to the relevant system adequacy

The "energy-only markets" deliver a suboptimal result in terms of adequacy due to the failures identified by the Commission in its *Interim Report* (see paragraph 2.2.2). This justifies the need for CRMs that are able to ensure, among other things, that contracted capacity is delivered into the

relevant system during scarcity events. In order to achieve this goal, the following conditions must be fulfilled:

a) availability of capacity providers to deliver electricity at TSO's request;
b) availability of network capacity across each border;
c) ability of the TSO to use the capacity contracted through CRMs for balancing purposes in the relevant system.

Against this background, the proposed model for cross-border participation of foreign capacity into domestic CRMs described in *Annex 2* does not seem to reflect the need for physical delivery of contracted capacity but it rather favors a *"relatively simple availability obligation imposed on the foreign capacity providers and the interconnector operator"*. Such model relies on the assumption that in coupled markets (day-ahead and intraday) the direction of energy flows across borders should only be driven by the price resulting from the market coupling without any external intervention aimed at correcting the electricity flow on the basis of the real time needs of the relevant system.

In AEEGSI's view, the mere availability of foreign capacity in coupled energy markets does not guarantee that contracted capacity is physically delivered into a given system during scarcity events so as to meet its adequacy requirements. In this respect, it should be clarified that the said delivery of capacity does not entail the remuneration of the electricity (MWh) supplied by capacity providers into the relevant system but the mere compensation for the provider's commitment of being available to deliver electricity at TSO's request.

In support of the above allegation, two examples are illustrated to show the inability of the energy markets (day-ahead and intraday) to deliver capacity when a scarcity event occurs close to the real time. Such examples depict a case where capacity located in system B is contracted in system A ("the relevant system").

Example 1: Assuming that the market coupling equilibrium triggers energy to flow from B to A and in real time a scarcity event affects both systems A and B, under the current rules TSO in B could cut exports to system A so as to meet its adequacy requirements with the result of leaving system A without its contracted capacity.

Example 2: Assuming that the market coupling equilibrium triggers energy to flow from A to B and in real time a scarcity event affects system A, day-ahead and intraday price signals would be misaligned with the real time value of electricity in each system; in fact, for such alignment to occur, the price differential between the two systems should be inverted following the scarcity event (i.e. electricity should be higher priced in A than in B). Contrary to what happens within the national system, under the current rules TSO in A would not have means to secure contracted capacity from B in real time.

Under the scenarios represented in the previous examples, the above mentioned condition *sub* c) would not be satisfied.

It follows from the above that, without the active involvement of neighboring TSOs, the participation of cross-border capacity in national CRMs cannot serve the real purpose of the

aforementioned mechanisms, namely system adequacy by means of physical delivery of capacity. To the contrary, in a mechanism entailing only capacity availability, foreign capacity providers would only be subject to a financial obligation to pay for their unavailability as they could not ensure delivery of energy across borders. This can raise concerns for the system adequacy particularly when spot energy market prices are unable to reach the real Value of Lost Load.

3. Proposed model for participation of cross-border capacity into CRMs

Following the conclusions expressed in section 2, the proposed model which will be illustrated hereinafter welcomes the Commission's approach aimed at enabling the explicit participation of cross-border capacity into CRMs. However, in AEEGSI's opinion, the capacity product in a reliability option model (as the Italian one) should be based on delivery rather than availability.

The proposed model is built on the assumption that in order to allow the physical delivery of foreign capacity in the relevant system, interdependent obligations upon both cross-border capacity providers and TSOs must be in place. This is the case as the obligation upon the foreign provider to deliver capacity across borders cannot be satisfied without the commitment of the TSO of the area where such capacity is located. As a result, the direct relation between the foreign capacity provider and the neighboring TSO purchasing cross-border capacity must be complemented with a twofold relation involving:

- ✓ on the one hand, the capacity provider and the TSO of the area where the contracted capacity is located;
- ✓ on the other hand, the neighboring TSOs of the interconnected systems.

Against this background, the following conditions are deemed necessary for an efficient and effective cross-border participation into a reliability option CRM.

3.1 Obligations on foreign capacity providers

According to the reliability option mechanism, foreign providers should be required, on the one hand, to make available their contracted capacity to their domestic TSO (e.g. by placing a bid in the spot market) and, on the other hand, to pay the neighboring TSO (namely the TSO in the relevant system) the difference between the value of the price formed in its own spot market and the value of the strike price set according to the foreign CRM rules.

3.2 Obligations on cross-border TSOs

Following the gate closure of the energy markets, TSOs should be required to ensure that an amount of energy at least as equal as the contracted capacity in the foreign CRM is delivered into the relevant system at TSO's request. This delivery could result either from the market coupling rules (when the energy market prices reflect scarcity conditions) or from transactions carried out (at a pre-defined price) by cross-border TSOs after the market coupling gate closure. These transactions can take place either in the integrated balancing markets (where such integration exists) or result from bilateral agreements between TSOs.

In AEEGSI's view, the above aspect, which is missing in the model developed in *Annex 2*, is crucial for foreign capacity participation into CRMs.

Moreover, TSOs should agree on a common method to fix the value of the imbalance price according to the spot market value at the time when a mismatch between the cross-border scheduled flow and the actual flow occurred.

3.3 Remuneration of interconnection capacity

Cross-border TSOs which are responsible for the development and maintenance of their interconnections with neighboring systems should be remunerated with the congestion rent (€/MW year) resulting from the CRM auction. In exchange for such premium, they should make available interconnection capacity and return a share of the spot congestion rent to the TSO of the relevant system.

3.4. Interconnection de-rating

Contrary to the proposed approach in *Annex 2* (paragraph 5.1.a) that suggests a statistical evaluation of the de-rating of interconnection capacity across borders, in the present model (that is based on the delivery of capacity where cross borders imbalances are explicitly valued) the methodology used for interconnection de-rating should be agreed upon by the neighboring TSOs.

3.5 Eligible foreign capacity providers

The eligibility conditions for participation of foreign capacity into the CRM as well as the methodology used for de-rating the eligible cross-border capacity should be agreed upon by the neighboring TSOs. This is in particular the case as the TSO active in the area where the contracted capacity is located is responsible for the delivery of such capacity into the neighboring system.

3.6 Conclusive remark

The proposed model (as well as the main conditions above identified for its implementation) represents, in AEEGSI's view, the most appropriate design for cross-border participation of capacity into national CRMs as it would ensure that the premium paid to capacity providers reflects the real contribution each makes to the adequacy of the relevant system. However, such model is not readily implementable in the short term as it requires, *inter alia*, cooperation between neighboring TSOs to establish common rules on a number of topics with a view to secure the delivery of contracted capacity into the relevant system whenever it is needed to meet its adequacy requirements.