
ENTSO-E POLICY NOTE ON TSO CAPACITY BUY- BACK SCHEMES

Market Integration Working Group

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1. INTRODUCTION

This note refers to the buy back-schemes as described by EURELECTRIC and EFET in several documents¹. The procedure described in the papers by EFET requests that TSOs buy back capacity in the secondary market (which is currently organised in terms of bilateral transfer) instead of just curtailing in case of unexpected operational circumstances. EURELECTRIC calls for TSOs to arrange a reverse auction in cases where too much capacity has been sold. According to their position, the reasons for the buy-back should be published in a platform and the reverse auction has to be notified well in advance (at least one day) to market parties. Rules for reverse auctions are to be transparent, subject to stakeholder consultation and NRA approval. Reverse auctions are pertinent, particularly for cases in which the curtailment need is known well in advance. The maximum undisclosed purchase price for TSOs should be communicated to NRAs. If there is insufficient time left for organizing the reverse auction, TSOs could participate in the Secondary Market, subject to issuance of a prior warning to market players (a minimum of two hours in advance) and notification to NRAs. Mixed systems combining buy-back via reverse auctions (in the first instance) and curtailment (as a last resort) on the basis of efficiency could also be possible.

According to our understanding of the available descriptions of TSO buy-back schemes by EFET and EURELECTRIC, in principle, the buy-back of capacity by TSOs may constitute a means of secondary markets for market participants, while for TSOs it is meant to be a possible means to maintain system security. However, as we understand it, capacity buy-back could in theory only be applied with sufficient lead time and could therefore only address cases where the operational problems become obvious well in advance of real time. This paper therefore only relates to this situation. Since we perceive that there are still many open issues, market parties need to describe in more detail their approach(es) towards capacity buy-back to allow for a thorough assessment. However, in order to facilitate and prompt further discussion we present a first analysis of different buy-back configuration schemes in the following paragraphs.

¹ Comparing for example the EURELECTRIC Response to ACER Consultation on Forward Risk-Hedging Products and Harmonisation of Long-Term Capacity Allocation Rules, 2012; EFET Response to ACER consultation on Forward Risk-Hedging Products and Harmonisation of Long-Term Capacity Allocation Rules, 2012; EFET paper “More transmission capacity for European cross border electricity transactions without building new infrastructure“, 2006 ; or “Key principles in the treatment of electricity transmission capacity rights and their linkage to day ahead allocation mechanisms“

2. OPEN ISSUES

According to TSOs' understanding, Stakeholder papers currently recommending the capacity buy-back market design feature still leave open many important features, mainly:

- Is it a reverse auction or bilateral secondary trading?
- Is participation for TSOs obligatory or voluntary?
- Is participation for traders obligatory or voluntary?
- Partial or full buy-back of allocated capacities?
- Fixed maximum price or unlimited prices?

In view of these uncertainties, TSOs have decided to focus on the following design schemes for further analysis (without closing the list to other possible suggestions coming from stakeholders).

- In terms of participation:
 - Voluntary schemes
 - Compulsory schemes
 - For the total capacity
 - For a part of the capacity
- In terms of price formation
 - Auction buy-back systems
 - TSOs determining the price
 - Disclosed
 - Undisclosed -> Hybrid: reverse auction system

3. GENERAL IMPLICATIONS

All versions of TSO buy-back schemes imply that the buy-back price would have to exceed market players' expectations of market price spread in order to incentive them to sell back their capacity to TSOs.² Since TSOs would only buy back capacity for purposes of operational security, it is questionable in terms of incentives whether market parties should be enabled to make extra profit from such situations.

For an efficient buy-back to happen, i.e. where costs for the buy-back are equal to the value that the day-ahead market price spread will be in the future, TSOs would, unless it was organised as a reverse auction without maximum prices, need (at least) to have at their disposal an adequate day ahead market spot price forecast (with a reasonable level of accuracy). This would imply a good inherent knowledge of market

² Normally agents will not sell back capacity at prices lower or equal to the actual expected market spread at the time of the buy-back, even if the actual expected spread will have changed with respect to its initial estimation at purchase time and under the assumption that all parties would have at their disposal equally efficient means to predict market prices.

fundamentals and price drivers in the day ahead spot market. Even if simulated, this information and these models (going further than merit orders used for Generation Shift Keys and generalised macro trends for the demand levels in the market) are not available to TSOs. Obtaining them would require TSOs to invest heavily to get these models and operate them. Even with adequate tools, there would always be an element of speculation in TSOs' decisions regarding when, how much and at what price to buy back capacity. The efficiency of TSOs' measures would be difficult to assess for regulators under these circumstances.

Furthermore, it is arguable if TSOs should have price forecasting tools at their disposal at all, since their regulated role obliges them to be neutral entities in terms of the market. This neutrality could be affected since TSOs' decisions to buy-back capacity would have the potential to influence the whole day-ahead and real-time market results and TSOs would be in an advantaged position to forecast exactly how (by using the involved price forecasting and risk optimisation methods). As TSOs we feel this is not reconcilable with our role as market-neutral entities.

Besides, further design problems would be present for TSOs since, many contracts for inter-TSO cross-border provision of emergency power and redispatch are often based on indexes related to day-ahead market outcomes that are meant to be cost-reflective and neutral. If day-ahead market prices start to be influenced by capacity buy-back price decisions taken by TSOs (at times of curtailment), then we would also be pricing TSOs energy sourcing costs (at times of curtailment) on the basis of curtailment itself, entering a circularity problem that would oblige to redesign all of these contracts.

Another difficulty with a buy-back system is the fact that often the Force Majeure or Emergency Situation nature of the event will not allow for sufficient time to organise a reverse auction or even to make the announcement that the TSO will buy back capacity via bilateral transfer.

Finally, any buy-back mechanism would entail additional costs for implementation and operation. In particular for operation it needs to be considered that the buy-back mechanisms have to be provided on a stand-by basis, as the actual operation cannot be planned in advance. These additional costs have to be taken into account in every efficiency analysis of buy-back mechanisms.

Besides these general implications of TSO buy-back schemes, we analyse the following design schemes more in detail below.

4. ANALYSIS OF POTENTIAL DESIGN SCHEMES

Voluntary buy-back schemes would allow TSOs to decide if a buy-back (either via bilateral transfer or in a reverse auction) could provide a more efficient solution than potential curtailments. TSOs however see the general difficulties of introducing a buy back scheme which are outlined below (such as coordination with existing policies, additional costs and the fact that market participants should not profit from operational problems) .

A compulsory buy-back approach for the total capacity that needs to be curtailed would *de facto* substitute almost all existing Firmness Regimes applicable for curtailments with sufficiently long lead time and thus invalidate local derogations granted by the Framework Guidelines. For the time being, however, these derogations are essential due to existing product differences, regional differences in coordinated capacity calculation processes and their impact on the regional arrangements for the balanced protection of

market parties and end consumers and, ultimately, in order to avoid unlimited risks for TSOs: as market participants know TSOs depend on buying back this capacity to ensure system security and therefore have an unlimited willingness to pay, they have an incentive to offer back capacity at very high prices.

Furthermore, as described above, capacity buy backs necessitate the payment of a premium in order to motivate market participants to sell back their capacity. It needs to be specified how this additional expenditure, if deemed to increase efficiency, should be funded and it needs to be assessed whether it would create an incentive to market parties to provoke such situations (since many of these parties are generators). Curtailment should be neutral and not specifically benefit any party (non-discrimination principle).

A compulsory buy-back approach for a partial amount of the capacity would be rather complex to implement. Firstly, because the maximum and/or minimum amount of capacity to buy-back has to be determined (in a harmonised manner to ensure non-discrimination both for all TSOs and for all market agents). Secondly, because this regime should have to be coordinated with the firmness regime and this would entail, in turn, two different alternatives in order to avoid discrimination among market parties by TSOs: a) either neglecting the possibilities for derogations as foreseen in the Framework Guidelines everywhere (in which case we would be back to similar problems as with the total compulsory buy-back, above), b) establishing a system of pro-rata access to the partial buy-back scheme (in which case we would have problems of coexisting firmness regimes and the pricing and signal-related problems described above).

Auction buy-back systems, where price formation is left to the market (even with an undisclosed cap and under a reverse auction), there is an inherent risk of manipulation. If market actors can foresee system problems (i.e. due to published information on restricted capacity on lines or problems in power plants, or more directly: because the buy-back is announced), capacity holders can demand higher prices knowing that TSOs' willingness to pay will be higher when it comes to keeping the lights on. The issue of gaming applies regardless if the buy-back scheme would be voluntary or compulsory for TSOs.

Alternatively, **TSOs could determine the price** at which they are willing to buy back capacity (disclosing it or not). The disclosed version would be a fixed price approach, the undisclosed one could be a **reverse auction capacity buy-back** (somehow in-between this one and the prior auction approach). All these approaches would require TSOs to have a sound estimation of the expected market price spread for the reduced capacity at the time of the capacity buy-back.

5. CONCLUSIONS

The current FCA NC formulation does not preclude the possibility of capacity buy-backs taking place. The above considerations, however, show that buy-back schemes are not recommended from a TSO perspective in any of the described scenarios due to the drawbacks outlined above.

Any appropriate buy-back mechanism from the TSOs' point of view should at least comply with the following six conditions: 1) allow for sufficient time for its organisation and complete execution 2) be neutral towards market price expectations, 3) avoid forcing TSOs into having to anticipate in a detailed manner the outcome of future market results (for the (un)-disclosed buy-back price), since it is not within their role to do so (and having this information may affect their market neutrality image and credibility), 4) interact with the existing and future (as foreseen in draft FCA NC) Firmness Regime in a clear way, 5) Consider and solve any market power issue that the buy-back scheme may entail, and ultimately 6) create an efficiency gain which at least outweighs its costs for implementation and operation. In absence of compliance with all the above, the following drawbacks have been detected:

- Market participants could profit from operational problems on the TSO side.
- TSOs would need to build up expertise on market price forecasting
- Neutrality of TSOs would be affected
- Possible influence on market participants' price expectations and possibility for gaming
- Additional costs for implementation and operation (i.e. premium)
- Review of firmness regime

As of today, we do not see how the approaches described by EFET and Eurelectric would solve these drawbacks. We cannot confirm that the various TSO buy-back schemes described above could enhance system security, the provision of adequate price signals and efficient market operations. It is not evident that buy-back schemes enable TSOs to reduce their risk exposure in case of potential firmness problems. On the contrary, we do see the risk of lower efficiency if TSOs start engaging in trading activities on capacity rights and are forced to give up their neutral role on markets.