[#6]

Auction Design principles - Principles underlying price caps

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***Bid* caps and *Price* caps** are two different concepts that are sometimes confused, but both are considered useful.

Definition in BE law: the maximum price of bids permitted in auctions and/or the maximum capacity remuneration received by capacity providers after auction closure

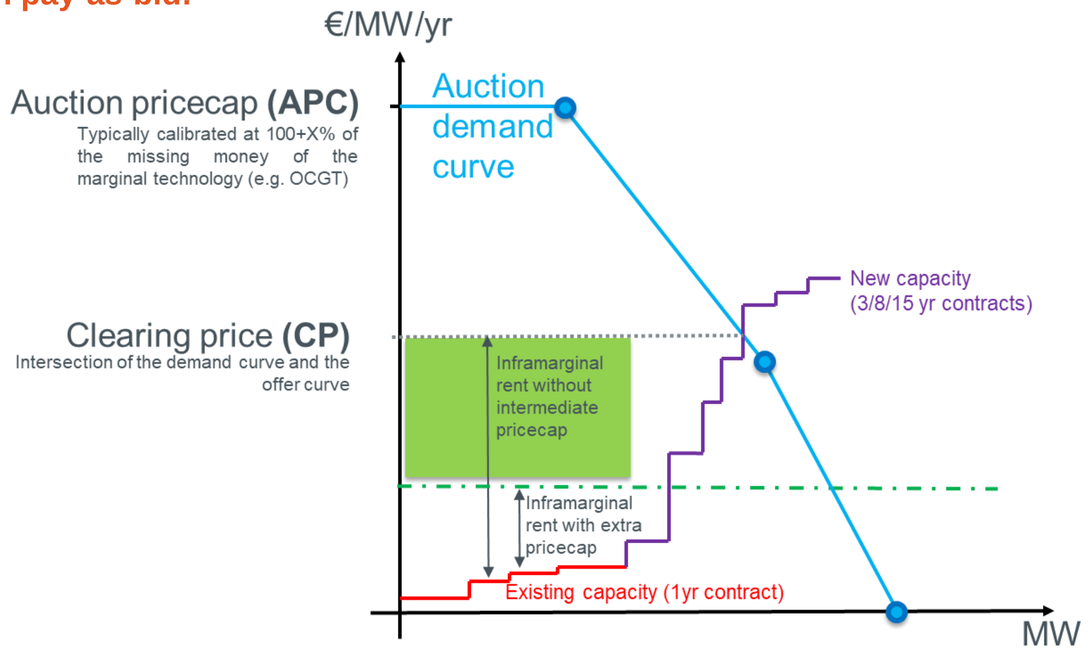
- **Bid caps:**
  - **What?** A *bid cap* is a **maximum offer price** that can be made for a bid in the CRM auction, typically laid upon existing capacity. However, if the clearing price would be higher than the bid cap (e.g. because capacity not subject to the bid cap sets the price), the offer receives this higher clearing price
  - **Goal: mitigate market power**, i.e. bid caps are often used as a mitigating measure against market power limiting the ability of incumbent capacity providers to withhold their capacity economically (by offering it at a high price), while allowing all cleared capacity to be remunerated at the same clearing price.
- **Price caps:**
  - **What?** A *price cap* is a **maximum remuneration** that can be received by a bid in the CRM auction. Price caps can apply to all capacity or to specific groups (e.g. existing capacity). A price cap obviously also acts as a bid cap.
  - **Goal:**
    - **avoid windfall profits**, i.e. by limiting the infra-marginal rent in the CRM auction, the profits of infra-marginal capacity are limited. This not only limits the overall cost of the CRM, it also avoids disproportionate remuneration. There is no economic rationale behind inframarginal rents in the CRM conceived as residual mechanism to the energy market.
    - **Reinforce market power mitigation:** if market concentration is such that there is a risk that strategic mothballing/closure decisions of existing capacity influence the probability of the market clearing at cost set by new capacity, a pricecap (rather than classical bid caps) are appropriate to avoid the “inframarginal CRM rent”-effect such strategy could realise for existing capacity

➔ **Conclusion:**

- **In any case, a bid cap is considered useful for mitigating market power concerns and already applied in other CRMs.**
- **Additional price caps are useful to limit the windfall profit for existing capacity.**

Intermediate price cap(s) are foreseen in the law and provide a way to avoid disproportionate remuneration

Illustration in a pay-as-cleared system, but equivalent reasoning applies in pay-as-bid:



Article 6 §2 states “Price Cap(s)” as part of a second report drafted by the TSO in preparation of the yearly ministerial decree to fix auction parameters according to Royal Decree Methodology.

The governing auction price cap has been presented in the topic “Economic Parameters”.

Calibration of intermediate price cap(s) is presented in the following slide.

- Intermediate price cap(s) should apply regardless of the clearing mechanism
- The capacity market is residual to the energy market, which should remain the main driver for competition
- In order to ensure that all technologies can still receive a sufficient and fair return, a good calibration is key

Principles for setting intermediate price cap(s)

Criteria base for intermediate price cap(s):

- PJM applies a technology-based differentiation of bid caps, however to safeguard neutrality of technology and limit complexity of the mechanism, this option is not further considered for Belgium.
- There is a fundamental difference between investments for existing (~1yr-contracts) and capacity requiring new investments (~3/8/15yr contracts).
- Note that this “1 ⇔ multiyear contract” approach is throughout European CRMs generally accepted to differentiate between capacities subject to bid caps or not.

➔A single intermediate price cap distinguishing 1yr contracts for existing versus 3/8/15 year contracts seems most appropriate

The calibration of such intermediate price cap could take into consideration:

- FOM (Fixed Operation & Maintenance) of existing capacity ➔ the market exit signal is driven by FOM
- Net CONE, as it is representative of the profitability of the energy market and it may make sense that (like for the overall auction pricecap) the intermediate pricecap follows a similar evolution over time as net CONE estimations.
- Energy & AS market revenues (which may be impacted by how strike prices are set)
- **…**