



SEDC
Smart Energy Demand Coalition

SEDC Response to the Commission Consultation

Public Consultation on the Interim Report of the Sector Inquiry into Capacity Mechanisms

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The views expressed in this document represent the views of the SEDC as an organisation, but not necessarily the position of a specific SEDC member

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The central mechanism for price formation and investment signals in the electricity system is a fully competitive wholesale electricity market. It is important that this market enables the participation of both traditional and new market actors and solutions. In particular, this also includes the participation of demand-side flexibility and Demand Response Aggregators on a fair and open basis.¹

In competitive and increasingly decentralised markets with adequate information flows and the full participation of demand-side flexibility, price formation should be entirely market-driven, and price caps are no longer justified. On the contrary, price variability – both upward and downward, including scarcity prices – is a positive sign of an efficient market. This variability is essential to give the necessary signals for flexibility in the electricity system.

It is important to note that scarcity prices do not necessarily translate into price peaks for consumers. Energy users should be able to make their own choices regarding the level of risk management provided to them by the electricity retailer or by another service provider.

In this context, the availability of sufficient capacity and flexibility on the market at all times, can in principle be secured either through market-based hedging products or through regulated capacity mechanisms. In any scenario, Demand Response can provide highly competitive emergency capacity. It is fast to develop, even at high volumes.

Market-driven hedging products

In liberalised markets, hedging products have evolved in different forms. Long-term contracts are the most commonly used approach today. New derivatives, such as the intraday cap futures recently introduced by EEX, indicate the possibilities for products that allow retailers to insure their supply while providing investment signals for flexibility options. In a market with growing price fluctuations, such products can be expected to grow in their attractiveness.

The advantage of these market-based hedging products is their full complementarity with a competitive electricity wholesale market. Provided an appropriate regulatory framework is in place to enable the full market participation of Demand-Side Flexibility, hedging solutions can be exploited within short time-frames, as soon as scarcity on the system is starting to become more visible in the price signals.

¹ A standard framework should be implemented to provide Demand Response Aggregators access to the market and the consumer without prior agreement of the consumer's retailer/BRP.

Regulated capacity mechanisms

Where market distortions hamper the evolution of fully market-based capacity products and system security, different types of capacity mechanisms have been introduced or are being discussed.

The removal of entry barriers is crucially important to the proper functioning of any market and should be ensured as a first priority. Additionally, before any specific capacity mechanisms are introduced, a state-of-the-art system adequacy assessment should take into consideration the full potential not only of power generation capacity, but also demand-side flexibility, storage, interconnections and flexibility potentials in neighbouring countries. **If this assessment leads to the conclusion that a capacity remuneration mechanism is justified, the following criteria should be incorporated:**

- The capacity mechanism should be market-wide and reward the contribution of all the resources to security of supply. In particular, this must include demand-side resources and storage, including through aggregators.
 - The market should allow the participation of demand-side resources as a fully valued participant, meaning that it will also have a comparable capacity market obligation, and be eligible for remuneration comparable to that available to generation.
 - Demand-side resources and generation resources should be put into direct competition for the provision of capacity (instead of running separate auctions).
- The market should reflect the structural advantages provided by demand-side resources
 - Availability payments per MW of certified DR capacity should be at least equivalent to the payments for certified capacity for supply sources.
- Any capacity mechanism should be transparent and monitored so as to ensure the establishment of a clearly defined capacity valuation.
 - A clear and transparent capacity value lowers barriers to new entrants, avoids market manipulation and supports equal competition.
 - All resources should be paid the marginal price for capacity as determined through the market.
 - If a decentralised market is introduced, mandatory exchange-bound trading should be introduced to prevent abuse of market power and to reveal a clear capacity price signal to all market participants.
- Product requirements should be based on the system's needs, rather than the capabilities of particular technologies.
 - DR should be able to set the market value of capacity in the same manner as generation.
 - When certifying capacities, the specific characteristics of demand-side resources should be taken into account.
 - A market should notify participants when there is a "capacity event". Resources should be notified when they will be needed through a dispatch signal. This should include a ramp-up period (or time

to prepare) prior to a performance window. This allows the power plant to ramp up and the aggregator to prepare the consumer for a capacity event.

- The market should allow aggregation of demand-side resources
 - This means that the requirements for market participation are set at the aggregated level, as if the aggregated loads are a single power plant.
 - This pooled approach should apply to measurement and verification requirements, as well as registration and pre-qualification requirements, etc. The performance of the aggregation shall be the sum of the aggregated loads and will not be assessed at the level of the single consumer.
- Independent aggregators should be able to participate directly in the market.
 - This means they should not have to bid through, or seek the permission of, a retailer or BRP, but can act directly and as a full market participant.
- The market should allow a new Demand Response portfolio to participate, entering into an obligation, prior to being built.
 - Just as with generators, DR providers should be able to bid into the market and take on a capacity obligation, prior to having built their portfolio
 - New capacity requires the certainty of future revenues before it can be financed or contracted.
- Capacity products should be defined with a time-horizon of no more than 3 years.
 - This allows for a reflection of evolving market conditions, enables competition and avoids contractual lock-ins.
 - If capacity products of multiple durations are made available, this should be on a non-discriminatory basis, so that all resources have the same choice of durations.
- A pay-as-cleared market is strongly preferable to a pay-as-bid market.
 - This means that the market clears at a certain marginal price and everyone is paid the same, which is beneficial to lower cost resources. Over time, this mechanism therefore ensures that the maximum amount of low cost MWs are built and bid into the market.
 - Pay-as-cleared also sets a transparent price for the value of capacity.
- The market should also include secondary trading for resources to trade out of their capacity obligations.
 - This means that providers of capacity can trade obligations between each other. If one of them is having an issue meeting their commitments, they can ensure someone else can step in. This is also done between demand and generation providers.

The market should provide for both financial and physical trading.

 1. **Financial trade:** The obligated party keeps the physical capacity obligation, but pays another party to take over for a set period of time.
 2. **Physical trade:** When an obligated party gives up the right to provide the capacity obligation and sell their obligation to someone else.

- A market should notify participants when there is a “capacity event”
 - Resources should be notified when they will be needed through an ex ante dispatch signal.

- Measurement and verification should be appropriate and calculate the full performance of Demand Response.
 - Appropriate measurement and baseline methodologies measure the customer’s response or demand-side flexibility during a capacity event. This allows them to receive the full payment for their service.

- Stringent penalties for non-compliance with delivery obligations are preferable to onerous qualification criteria.
 - Penalties should not be lower than the actual benefits a resource can generate through the capacity mechanism – otherwise, there is no reason for unreliable resources not to participate.

The introduction of capacity mechanisms can be expected to interact with the price signals on wholesale markets. It is crucial to minimise such effects in order to safeguard the functioning of the Internal Energy Market. Depending on the design, approaches based on reliability options may interfere less with the market than other capacity mechanisms.

It is important to note that the interference with market prices will be lower, the more Demand Response is included in a capacity mechanism.