DR4EU
DEMAND RESPONSE FOR EUROPE

GOBIERNO DE ESPAÑA
VICEPRESIDENCIA CUARTA DEL GOBIERNO
MINISTERIO PARA LA TRANSICIÓN ECOLÓGICA Y EL RETO DEMOGRÁFICO
SECRETARÍA DE ESTADO DE ENERGÍA

Contribution to the **Spanish Ministry** regarding draft order on a Capacity Market

from

DR4EU

a pan-European coalition to develop Demand Response in Europe

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Introduction

- This response is provided by DR4EU, a pan-European coalition of companies operating demand response in more than 20 countries in Europe and beyond.

- Within DR4EU, regarding Spain, the contact persons most involved in discussions are :
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Focus

This contribution focuses on the issues regarding

demand response aggregation and participation in the capacity market.

It refers to the Draft Order on the creation of a capacity market (*Proyecto de orden por la que se crea un mercado de capacidad en el sistema eléctrico español*)

And the consultation proposed by the Spanish ministry *(Ministerio para la Transición Ecológica y el Reto Demográfico / Secretaría de Estado de Energía*)

https://energia.gob.es/es-es/Participacion/Paginas/DetalleParticipacionPublica.aspx?k=409

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All consumers should be allowed to participate, including via (independent) aggregation

- The draft order provides for the participation of Demand Response in the capacity market, but only from installations able to contribute over 1 MW and with additional restrictions to electro-intensive industry as per art 21-1
- An earlier decree (*Decreto Real-Ley 23/2020 del 23 de junio*) set forth the new role of DR aggregators, who should now be allowed in all markets, without discrimination versus production
- The Clean energy package, namely the directive on electricity market (EMD) EU 2019/944, provides for the participation of **all consumers' DR (not only big ones), including via aggregation, to all electricity markets**
  - As per recital 39: *All customers groups (industrial, commercial and households) should have access to the electricity markets to trade their flexibility […] Customers should be allowed to make full use of the advantages of aggregation […]. […] Products should be defined on all electricity markets, including […] capacity markets, so as to encourage the participation of demand response.*
  - As per article 13: *Member States shall ensure that all customers are free to […] sell electricity services, including aggregation […] from an electricity undertaking of their choice.*
  - As per article 17: *Demand response through aggregation: Member States shall allow and foster participation of demand response through aggregation. Member States shall allow final customers, including those offering demand response through aggregation to participate alongside producers in a non-discriminatory manner in all electricity markets.*

➢ **Demand response aggregators should be allowed to participate in the capacity market**

- ✓ Demand side capacity offered by DR aggregators should be included in the capacity market as an alternative to generation (be they independent from the supplier or not, and this without the need for any agreement with the supplier or his BRP)
- ✓ Demand response should simultaneously be allowed to participate in all electricity market, including via independent aggregation; this is necessary both to offer a level playing field for all capacities and to provide a similar way to prove availability of capacity (as per art.5.2 - *mantener une disponibilidad […] mediante su participacion efectiva en los mercados diario, intradiario y de balance*)
- ✓ Any requirement from capacity owners including technical criteria should apply to DR aggregators at aggregated level (not on an individual basis, "per consumer / site") and should include any kind of asset (DR, storage, etc.)
- ✓ In particular *titulares de instalacion* should be changed into *titulares de capacidades* so as to included installations providing capacity through aggregators.
- ✓ Conditions such as the "1 MW" threshold should apply at aggregated level, and be verified at aggregated level.
- ✓ The aggregator committing as *titular de capacidad* should be responsible for meeting pre-registration requirements, bidding in the market and bearing all responsibilities for contractual commitments

Timeframe should not favour generation versus Demand Response

- The Draft Order sets forth timeframes for capacity auctions:
  - Standard timeframe would be: 5y/5y (up to 5 years in advance – then 5 year contract)
  - Complement could occur on a 12 month basis
  - Alternative schedules could be used by REE if needed
- These timeframes seem based on the standard durations regarding traditional power plants (permitting, building, etc.)
- Demand response can be made available within 2 years, and remain available for up to 10 years
  - Thanks to aggregators investing and bearing all responsibility,
  - **demand response capacities can be quicker to build** (e.g. within 1-2 years),
  - **and able to commit for various durations** (e.g. from 1 year to 10 years)
  - by involving appropriate consumers and loads and replacing those who would opt out by others
- The Draft Order should not favour generation through the choice of timeframe
- A too rigid (e.g. 5y/5y) approach would lead to an inefficient capacity market
  - Increased costs because needs may vanish in the advanced 5y period
  - Reduced reliability because if needs appear in the short term, for instance within 2y, DR aggregators could deliver capacities without waiting for 5 years, and such capacities could commit to be available for 10 years, thus providing long term reliability

➢ **Timeframe should meet the needs of the Spanish electricity system, and include any capacities able to deliver accordingly**

- If standard timeframes are to be including, a '2-year before delivery' should be considered alongside the 5-year format

The purpose of the capacity mechanism should lead to qualify 'stress situations'

- Draft Order suggests capacities should help improve reliability in stress situations
- However, it does not define which stress situations are considered, hence which kind of availability requirements should be met by participating capacities
  - For instance, when would participants be informed (by REE?) of a stress situation, and how many seconds/minutes/hours should prior notice be sent before delivery time
  - Would the capacity market aim at providing some kind of marginal reserve (hence be limited to a couple of GW), or would it intend to match peak demand with capacities (therefore be extended to tens of GW)
- Such key features should be clarified in the draft order, at least in principle, so as to give a framework for further regulation and REE to establish the capacity market

➢ Stress situations must be qualified further in the Order, & notified to participants

Measurement and verification of the availability of DR capacities

- Capacities should be required to be available during qualified stress situations only
  - For instance, if the purpose of the capacity market is to secure peak periods, then capacities should be required to be available during peak periods
  - Obviously, Demand Response capacities are at full potential during peak demand periods, not off-peak – and thus should be verified during such periods only
  - As a complement, a corelation with system situations could be taken into account, such as thermosensitivity for those demand side capacities based on heating & cooling loads
- Conversely, no obligations should be added regarding other periods (such as the 51% in draft art.21-1)
- Demand response capacities should not be assessed on the basis of expected consumption, but as the difference between the actual load (should DR be activated) and a counterfactual estimate (or baseline)
  - As stated by the Clean energy package (recital 15 of the Electricity Regulation (UE) 2019/943):
    For demand response aggregators, the allocated volume consists of the volume of energy physically activated by the participating customers' load, based on a defined measurement and baseline methodologies.
  - This difference must be calculated; using only a forecast of the total load does not reflect the capacity available
- A variety of baseline methodologies should be used, depending on the kind of demand side capacities
  - As is, the Draft Order requires an hourly consumption forecast to be provided by the 15th of the month before (and update it later if needed)
  - This is not proportionate to the aim of the capacity market, i.e. to ensure security of supply during peak times.
  - Other baseline methodologies have proved efficient and reliable in other countries, such as those using historical data (for large consumers) or a real-time individually determined baseline (for small consumers).

➢ While a baseline need be used to prove the delivery of demand response activation, various baseline and measurement methodologies should be allowed – as opposed to requiring an hourly forecast one month ahead, which would be an inappropriate way to check DR capacities and a discriminatory barrier vs generation

Appendix

Key provisions on DR from the CEP

Allow aggregated DR to participate to all electricity markets without prior consent from other market parties

- Demand response should be allowed to participate

(39) All customer groups (industrial, commercial and households) should have access to the electricity markets to trade their flexibility and self-generated electricity.

Article 17

Demand response through aggregation

1. Member States shall allow and foster participation of demand response through aggregation. Member States shall allow final customers, including those offering demand response through aggregation, to participate alongside producers in a non-discriminatory manner in all electricity markets.

2. Member States shall ensure that transmission system operators and distribution system operators, when procuring ancillary services, treat market participants engaged in the aggregation of demand response in a non-discriminatory manner alongside producers on the basis of their technical capabilities.

3. Member States shall ensure that their relevant regulatory framework contains at least the following elements:

(a) the right for each market participant engaged in aggregation, including independent aggregators, to enter electricity markets without the consent of other market participants;

- … without consent from supplier/BRP nor any third party
- As also confirmed by article 13

1. Member States shall ensure that all customers are free to purchase and sell electricity services, including aggregation, other than supply, independently from their electricity supply contract and from an electricity undertaking of their choice.