PRIOR PUBLIC CONSULTATION ON THE IMPLEMENTATION OF CAPACITY MECHANISMS IN THE SPANISH ELECTRICITY SYSTEM

The European Union's Clean Energy Package (also known as the 'winter package') has led to the adoption of a set of EU rules designed to help meet environmental and economic decarbonisation targets.

Among the rules that make up this package, Regulation (EU) No 2019/943 of the European Parliament and of the Council of 5 June 2019 concerning the internal market in electricity establishes, among other things, a set of rules aimed at ensuring the functioning of the internal market in electricity. As stated in its explanatory memorandum, "*the Union's energy system has been undergoing its most profound transformation in several decades, and the electricity market is at the heart of this transformation. The common objective of decarbonising the energy system creates new opportunities and challenges for market participants.*" To this end, a number of principles have been established that seek to ensure the functioning of the electricity market, taking into account the paradigm shift brought about by the massive penetration of electricity generation facilities from renewable energy sources, as well as the deployment of other transformation levers in the sector such as flexibility services, demand side solutions or storage. All this without ignoring the necessary requirements from the point of view of security of supply.

In this respect, Regulation (EU) 2019/943 of 5 June 2019 pays particular attention to covering demand, to which it devotes its Chapter IV and, specifically , to **regulating capacity mechanisms** (Article 21 of the Regulation), bearing in mind that these are configured as a measure of last resort which makes it possible to eliminate residual coverage problems after a series of prior alternatives have been analysed (Article 20 of the Regulation), and which at the same time must be fully compatible with Articles 107, 108 and 109 of the Treaty on the Functioning of the European Union.

The Community standard thus sets out a set of guiding principles for capacity mechanisms, including that they should be temporary, should not create unnecessary market distortions or limit inter-zone trade, should not go beyond what is necessary to address the coverage problem at hand, and should be selected on the basis of transparent, non-discriminatory and competitive processes. In addition, the capacity mechanisms which are implemented, where appropriate, must respond to a real demand coverage requirement resulting from the application of a series of methodologies approved by the Agency for the Cooperation of Energy Regulators -ACER-, which highlight the need to put these instruments into practice.

It is within this European framework that measures can be developed, where appropriate, in the form of capacity mechanisms that will allow solutions to be found to the problems of coverage that arise, while at the same time accompanying the energy policy priorities set at national level.

Thus, and in the first place, the profound transformation of the generation mix of the Spanish electricity system and the forecasts and objectives of the Integrated National Energy and Climate Plan 2021-2030 (PNIEC) must be taken into account: A total installed capacity in the electricity sector of 161 GW1 is forecast for 2030, of which 50 GW would be wind energy; 39 GW would be solar photovoltaic; 27 GW in gas combined cycles - which correspond to the combined cycles already existing today; 16 GW in hydro; 9.5 GW in pumping; 7 GW in solar thermoelectric; 3 GW in nuclear, as well as smaller capacities in other technologies. With regard to storage, the Plan envisages an increase in this technology, with an additional capacity of at least 6 GW, providing greater management capacity for generation, demand and the electricity system as a whole. In short, renewable electricity generation is expected to account for 74% of total energy supplied to the Spanish electricity system by 2030, a figure which is consistent with a path towards a 100% renewable electricity sector by 2050.

These forecasts, which are in line with the environmental and decarbonisation commitments of the energy sector, nevertheless require the effective availability of a series of production technologies and means of managing demand response and storage, which will make it possible to guarantee security of supply, given the inherent variability of generation attributed to renewable sources.

This effective availability of means to cover demand in periods with a lower contribution of energy from renewable generation sources may be affected by a short term, and insufficient, price signal in the electricity market, given the impact of the strong penetration of renewable energies expected in the Spanish electricity system, if price signals are not sufficient to maintain sufficient firm capacity installed. Similarly, in order to fulfil the objectives established in the PNIEC linked to the deployment of storage, it may be necessary to articulate complementary instruments to the income from the electricity market, given that the market price signal may be an insufficient inductor to justify the return on investment in this type of technology.

Finally, other elements intrinsic to the Spanish electricity system must be considered, such as the reduced exchange capacity with the Central European electricity system - thus, in 77.5% of the hours in 2019, the interconnection between Spain and France was used 100% in the daily market, due to the price difference between these two supply areas -, or the reduced capacity for covering demand that the Portuguese electricity system can provide to Spain.

[1] The specific distribution by generation technology in 2021 and 2030 will depend, in any case, on the relative costs of these technologies, as well as on the viability and flexibility of their implementation, so that their relative weight may vary, within certain margins, with respect to the path foreseen in the PNIEC.

For these reasons, the present public consultation is being carried out to answer, among others, the following questions:

1. From the perspective of all market participants involved, are capacity mechanisms considered necessary to ensure the existence and availability of the means of production, demand response management and storage needed to guarantee the security of electricity supply, while meeting the targets for decarbonisation? If so, why might the mechanisms provided for in Article 20 of the Regulation on the internal market in electricity prove insufficient to ensure that demand is met?

2. If so, what type of scheme is considered most appropriate, taking into account the guiding principles set out in Community regulations (strategic reserves, competitive capacity mechanisms, new capacity tendering models, others...) ? why? Is the model you propose similar to any of those existing or planned in other European countries?

3. In relation to the storage and demand response sector, what limitations to the penetration of these options are observed from the point of view of access to electricity markets, and to what extent is the implementation of capacity mechanisms necessary to achieve the storage objectives of the NEIP, while maintaining full compatibility with Regulation (EU) 2019/943?

4. In the design of these mechanisms, how do you consider that the principles of technological neutrality and avoidance of overcompensation enshrined in Community legislation should be combined with the objectives of decarbonisation and the particular needs of the Spanish electricity system? How should the different time horizons be taken into account to combine predictability and certainty of investment with optimisation of costs for consumers?

5. In the case of developing new capacity mechanisms in our country, how could these be designed to allow cross-border participation of installations from other Member States, as provided for in Article 26 of Regulation (EU) 2019/943?

6. What actions, if any, are considered necessary to ensure the continuity and availability of a sufficient and firm generation park with a view to being able to count on its contribution in the scenarios envisaged in the PNIEC?

7. Is any additional regulation on generation facilities considered necessary in case they are not needed for a period of time, but can be reincorporated when their contribution is required?

8. What measures, other than capacity mechanisms, can enable environmental and energy objectives to be achieved (flexibility, other specific demand-side and storage solutions, ...)?

Any other contributions deemed appropriate in relation to the possible implementation of capacity mechanisms in the Spanish electricity system may be made in response to this consultation.

The deadline for receiving comments and proposals is 10 September 2020 to 25 September 2020. Any contributions and comments may be sent by e-mail to the following address: bzn-informes.sgee@miteco.es, stating "Consultation on capacity mechanisms" in the subjectline.