REA Response to Call for Evidence on new technologies in the Capacity Market

Background for members

BEIS recently issued an open letter as a Call for Evidence on the potential for including new technologies in the Capacity Market and for amending the treatment of collocated sites. Following feedback from members, REA will be submitting a high-level response to this consultation.

Our response

On hybrid Capacity Market units (collocated sites such as storage + solar or wind)

Knowing the increasing demand for flexibility from electricity storage as we progress the energy transition, we strongly recommend BEIS include hybrid capacity in the Capacity Market – including two or more different technologies operated together, but not necessarily located on the same site given land and other issues (renewable resource availability) around grid connections that may hinder the possibility to share one location. For instance, this may be useful in regards to offshore wind shore farms that wish to develop storage at their onshore connection to the electricity grid.

We do not wish to make any objections to the current approach to de-rating. Although storage is allowed to participate and the approach to de-rating is correct, storage is unable to participate fully because the capacity market is geared towards energy trading, while storage is geared to trade balancing, stability, ancillary, and other services. Modifications to the design of the Capacity Market will facilitate the participation of storage.

On existing technologies

We would welcome a renewables incentive for gas peakers to shift to low carbon fuels, or for a ratcheting downwards emissions limit on every CM contract over time.

On new technologies

Ocean Energy

We support the inclusion of tidal flow, wave, and ocean current power in the Capacity Market. If Britain's energy transition is to be successful, we will need to harness the power of a range of renewable sources. These technologies have advanced significantly in recent years and estimates suggest that wave, tidal and ocean current power could supply at least 10% of the UK's electricity. Furthermore, harnessing marine power potential will enhance the UK's competitiveness in the European energy market, as around 50% of Europe's global tidal resources are located around the coastlines of the UK.

Hydrogen

We support allowing green hydrogen produced via electrolysers at renewable generation sites to compete in the Capacity Market. In the short term, there is scope for embedding

electrolysers in the grid for providing flexibility and helping to balance the grid when renewable generation is high and electricity demand is low. During low electricity demand periods, the renewable generation above the electricity demand can be used to produce green hydrogen using electrolysers. France and Germany have set electrolyser deployment targets for 2030 of 6.5GW and 5GW and the UK Government should set a similar or higher target for green hydrogen. The recent announcement of a planned extra 10GW Offshore Wind by 2030 means the UK can achieve a target higher than other European nations. This amount of new flexible load could be a very useful part of the solutions required in the electricity grid.

In the medium term, there is potential for hydrogen gas turbines, provided with green hydrogen associated with renewable energy generation, to be part of the Capacity Market. Green hydrogen can be used to support the grid during periods of low renewable generation. However, this technology is not presently built at sufficientlya large scale for inclusion in the Capacity Market.

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