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RE: Capacity Remuneration Mechanism (CRM) State Aid Update, 2019/20 T-1 Capacity Auction Parameters and Enduring Storage De-rating Methodology Consultation: innogy response

Innogy Renewables Ireland Ltd and Innogy SE's wholly owned subsidiary BELECTRIC welcome the opportunity to respond to this CRM consultation.

By way of introduction, Innogy SE is Germany's leading energy company, with revenue of around €43 billion (2017), more than 42,000 employees and activities in 16 countries across Europe. With its three business segments Renewables, Grid & Infrastructure and Retail, innogy addresses the requirements of a modern, decarbonised, decentralised and digital energy world. Energy storage will make an important contribution to the stability of future power grids which have a significant share of renewable energy. It will become more important as the renewable energy share will get larger in the future energy mix. BELECTRIC offers building-integrated and unit-based battery solutions which are designed for maximal scalability and flexibility. It can be adapted for today's and tomorrow's needs at local or national power grids, guaranteeing a stable grid, and even allowing more renewable energy in the near future.

Our key asks are:

- 1) Adjust the timing of the first T-4 auction to September 2019 – this avoids a clash with the ECP-1 timelines and the DS3 procurement cycle.**
- 2) EIRGRID should use interpolation between storage sizes as this would be a better, fairer approach to calculating the DRFs of storage units that are not a multiple of 30 minutes.**
- 3) Units that are contracted to provide both DS3 and CRM services should not be exposed to the risk of clashing between these two obligations. The CRM and DS3 Rules need to ensure any incentives that would have a perverse outcome on overall system security are avoided. We do not support the DECTOL proposal. DS3 products which would reduce the likelihood of a CRM warning and system stress event emerging need to take priority. The CRM Rules should exempt units that respond to such services from CRM penalties.**

If you have any questions please do not hesitate to get in touch,
Kind Regards,

F.Kemenes

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Main Consultation Questions- response:

Q1) Do you have any comments on the indicative auction timetable set out in this section?

It is very helpful to see a medium term programme for capacity auctions. It provides potential market participants with a longer term horizon on investment planning and avoids unnecessary peaks and troughs in development activity. To be of further value an indication of the capacity volumes to be procured in each round would be very helpful.

Adjust the timing of the first T-4 auction to September 2019 – this avoids a clash with the ECP-1 timelines and the DS3 procurement cycle.

We have a very critical point of feedback on the actual timetable. There is a mismatch between different policies that needs to be addressed, otherwise the contradictions will impact on the success of the CRM. The CRM auction cycle does NOT fit with the DS3 cycle or the ECP-1 timetable. Final ECP-1 grid connection offers will not be made until June 2019. Participants therefore would need to take the risk of bidding into the capacity market without having a grid connection offer. Furthermore those going for DS3 volume capped auction would not expect to be contracted in May 2019. All such parties would be deterred from bidding into the first T-4 auction because of its timing (scheduled April 2019).

2) Do you agree with the SEM Committee's minded to position to keep the parameters (excluding capacity requirement and de-rating factors) for the CY2019/20 capacity auction consistent with the CY2018/19 parameters?

No comments.

3) Do you agree with our revised proposals for Long Stop Dates and Substantial Financial Completion dates as set out in the section, and summarised in Table 4.

The proposed LSD and SFCs look reasonable.

ANNEX- Storage De-Rating - response

A. Do participants have any comments on the methodology for calculating DRFs for storage units as described in this paper?

We do not have any comments on methodology. The steps appear logical.

B. In the absence of significant historical data, do participants consider it reasonable to apply system-wide outage statistics to new technologies (such as batteries)? If not, please provide alternative with justification.

EIRGRID can consider augmenting historical system data with new storage technology data from markets where the technologies are well established. For example storage has been widely used on the PJM

market. Alternatively manufacturer data could also be used to inform modelling.

In terms of using pumped-hydro system outage historical data – this may underestimate the availability of new storage assets that will have far greater reliability and uptime than Ireland’s ageing pumped hydro portfolio.

C. Regarding Storage Units with Storage Volume sizes that are not a multiple of 30 minutes: Do participants have any comments on the TSO’s preferred methodology for calculating DRFs for such storage units, i.e. interpolating between storage sizes? What other options do they believe may be more appropriate?

Using 30 minute intervals is not a science based modelling approach, yet disappointingly it is used by policy makers in other countries too. Storage discharge is not aligned to 30 minute time blocks, but manufacturers can end up calibrating the technologies to fit with the time buckets that regulators set. This is inefficient.

Interpolation between storage sizes would be a better, fairer approach to calculating the DRFs of storage units that are not a multiple of 30 minutes.

Battery storage is further penalised in multi-year contracts, due to the fact that the de-rating factor applied throughout the contract duration is based on the degraded capacity of the battery at the end of the contract obligation. Therefore, we are also open to amending the contracted de-rating of the storage technology class (per unit size group) on a yearly basis as the battery degrades. The only factor to bear in mind is the need to do annual re-tests of the duration of the storage system. (This is part of the guarantee obligations anyway so no added hassle for the site operators). We caveat that the impacts of degradation should also then be factored in for other CRM technology types.

D. Should storage units be allowed to apply a DECTOL (i.e. a downwards adjustment to the capacity they submit) to their De-rated Capacity? Please provide arguments to support your response.

Commitments to deliver system services may lead to storage units and other energy-limited units expending all of their energy in a short time-frame, leaving them exposed during other trading periods. The current TSO proposal for DS3 interference with CRM is that providers will have to manage the risk of CRM provision leading to unavailability in DS3. We believe that this is not a fair approach as it does not reflect the fact that both CRM and DS3 are ultimately aimed at ensuring security of supply.

Units that are contracted to provide both DS3 and Capacity Market services should not be exposed to the risk of clashing between these two obligations.

The CRM and DS3 Rules need to ensure any incentives that would have a perverse outcome on overall system security are avoided. For example the rules should not drive units to sit idle just to provide response in the CRM system stress events. Units with the capability of providing services into other services for stabilising the system as well as being able to deliver in a system stress event should be used as effectively as possible for overall system stability.

The option to provide apply for a DECTOL – a downwards adjustment to the capacity they submit into the CM is not sufficient as a solution.

In GB if you participate in relevant balancing services such as Firm Frequency Response, Enhanced Frequency Response and Reserve – then these take priority over the capacity market provision. Units are exempt from the obligation to provide capacity if you have already been called for certain system stabilising services by the System Operator– as these services are essential for avoiding the occurrence of a system stress event in the first place.

The I-SEM Committee need to decide from system security perspective what is priority – DS3 or CRM? In our view certain products under DS3 should be priority, similarly to EFR/FFR in the GB, as these are more dynamic and fast responding products, which would reduce the likelihood of a Capacity Market warning emerging.

There will be a relatively small volume of assets providing DS3 services, targeted at only 300 MW in the coming years. The preference should be for these specialised assets to continue providing frequency response services to ensure security of supply to the grid. Allowing DS3 service providers to capture revenue from the CRM, will reduce the price required from DS3 services and therefore the decrease the overall costs of the TSO ensuring security of grid.

- E. Should specific DRF values be published for units with energy storage volumes of 6.5 hours or greater? Are participants aware of potential projects that might make such a change appropriate?**

No comment

- F. Do participants consider that a unit's run-hour limitations (due to emission restrictions or otherwise) should be reflected in the Capacity Market Auction? If so, what mechanisms should be applied. If not, please provide rationale.**

Yes this is a reasonable proposal– in effect such plant are duration limited too. It is fair to consider the duration limits on plant of all technologies in the de-rating methodology.

- G. Do participants have any comments on the proposed approach for de-rating DSUs with limited Maximum Down Time?**

No comment.