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3 May 2018

Dear Mark.

Statutory consultation on changes to the Capacity Market Rules 2014 ("the Rules")

Thank you for the opportunity to respond to the above consultation. We welcome this as part of Ofgem's standard annual review of possible Capacity Market (CM) Rule changes.

We continue to believe that the market-wide CM is fundamentally the right mechanism for promoting the necessary investment to maintain security of supply. However, it is important continue to assess if the current design (as reflected in the Rules) is fit for purpose in terms of delivering effective competitive outcomes based on a level playing field. This is vital to maintaining security of supply cost-effectively.

We summarise below key areas of current concern, whilst recognising that some of these matters may go beyond the Rule changes being consulted on. Some of these matters are likely to be considered later this year and into 2019 as part of Ofgem's planned 5 yearly review of the CM Rules under Regulation 82 of the Capacity Market Regulations 2014 ("the Regulations") Nonetheless, we consider that the importance of these issues merits early focus by Ofgem starting as soon as possible (and working with BEIS). In particular, we believe that the de-ratings assigned to interconnectors create a significant threat to security of supply, and that this needs to be addressed (as far as is possible) this year, ahead of the next T-4 auction.

We are broadly supportive of Ofgem's "minded to" position in specific Rule changes though we regret that Ofgem is not taking forward more quickly work on our proposal on the appropriate de-rating of batteries participating as Unproven Demand Side Response ('DSR') (CP353). In addition, we remain concerned that behind the meter (BTM) generation continues to benefit from hidden subsidies, and urge Ofgem to reconsider its reasons for rejecting our proposal aimed at addressing this issue (CP355). Annex 1 sets out in more detail our views on the specific proposals in the Consultation document.

(1) Interconnector De-rating Factors

Our greatest current concern is that the de-rating factors applied to electricity interconnectors when participating in the GB CM auctions is too high and that this creates a risk to security of supply. In particular, the approach taken to de-rating should fully recognise the actual scale of the security benefits delivered by interconnectors, for example, properly taking into account differences between the technical characteristics of interconnectors and generation.

¹ And indeed as part of the 5 year review of the Regulations, and the overall CM design, to be conducted by BEIS under Regulation 81 of the Regulations and Section 66 of the Energy Act 2013.

Current de-rating analysis of interconnectors looks at a broad range of hours rather than focussing on the most stressful. Poyry analysis from 2017² adopted an alternative modelling approach for the de-rating of interconnectors based on the 10 lowest capacity margin hours of every modelled year. This analysis suggests a lower average de-rating factor for interconnection than used in the CM for the last T-4 auction (eg 23% for a GB-France interconnector compared to 63% for IFA assumed in the last T-4 auction).

Moreover, as interconnection from GB to mainland Europe grows, the de-rating factors should decrease, since an extra MW of interconnector capacity may be competing to deliver the same MW of spare generating capacity from mainland Europe. Indeed, the need to take into account this saturation effect has been highlighted by the BEIS Panel of Technical Experts ("PTE"). This is also consistent with the results of Ofgem's earlier impact assessments which show a declining trend in interconnector project viability due to this effect. Recent work by consultants Lane Clarke and Peacock ("LCP") and the UK Energy Research Centre ("UKERC") 4 shows a similar result - the current approach to de-rating is putting too much reliance on interconnectors already holding agreements (estimated at ~1.7GW and 0.5 GW respectively) due to this effect. Moreover, this new analysis from LCP and UKERC suggests that very little reliance should be placed on additional interconnection capacity beyond the 7.4 GW already holding CM agreements.

In addition to these forward looking studies, analysis of historic data demonstrates that interconnector imports during periods of peak demand in GB have consistently failed to match the amount implied by their de-rating factors, falling short as much as 50% of the time from France and close to all of the time in the case of the East-West link to Ireland.

Given Ofgem's statutory responsibility in respect of security of supply, we consider that it has a full part to play in stress testing the analysis and evidence that is used by BEIS in setting the de-rating factors to apply to individual interconnectors. (We note that Ofgem submitted its own analysis on the de-rating of interconnectors in a letter to BEIS as part of the 2016 process). Transparency around this process would allow industry players to contribute effectively to it with a view to ensuring a robust and prudent outcome.

(2) The way in which Demand Side Response (DSR) participates

We are concerned that the overall framework around the participation of Demand Side Response (DSR) in the CM auctions is not as robust as it should be, leading to security of supply risks. In this context, we note that BEIS indicated in its response last year to its consultation on steps to improve the CM that it planned to work up and consult on measures to strengthen the delivery incentives for Unproven DSR (as well as improving the transparency around it). It would be best to progress these important matters ahead of the next T-4 auction (as was implied by the BEIS consultation response) rather than delaying them for a wider assessment in the upcoming 5 year review.

Any such wider assessment of the participation of DSR should include consideration of:

- the appropriate de-rating of the range of DSR options;
- credit cover (and associated penalties);
- the penalty regime and associated DSR delivery incentives at times of system stress - for those not exposed to energy spot prices, low auction clearing prices lead to limited incentives to deliver;
- the approach to baselining and testing is it open to gaming opportunities?

²https://www.ofgem.gov.uk/system/files/docs/2018/01/near-term_interconnector_cost_and_benefit_analysis_independent report .pdf

In its latest report on National Grid's Electricity Capacity Report (July 2017, see paragraph 100(b)). https://www.gov.uk/government/publications/electricity-market-reform-panel-of-technical-experts-2017-final-report-onnational-grids-electricity-capacity-report-2017

http://www.ukerc.ac.uk/publications/uk-energy-security.html

If not done this year, it is vital that any such work is concluded as soon as possible in 2019 ahead of the T-4 auction for delivery year 2023/24. Any further delay would be counter to sustaining investor confidence in the integrity of the CM mechanism.

(3) Participation of Renewable Technologies

We support the participation of unsubsidised renewable technologies in the CM (with an appropriate de-rating to reflect their contribution to security of supply) and encourage Ofgem (consistent with the terms of the EU Commission's State Aid approval for the CM) to enable the participation of renewable technologies, that are not currently in receipt of other subsidies. We would expect participation to be limited in the near term.

However, we also recognise that there is a need for Ofgem and BEIS to consider further (on a longer timescale) the broader questions around the CM testing and penalty regimes and if they are appropriate for all participants, and the complex questions around co-located technologies. We are committed to engaging constructively in that workstream with a view to taking this forward in a timely and effective way.

(4) The Calculation of Connection Capacity

We are disappointed that the new approach to calculating Connection Capacity will, again, not be implemented in time for the next T-4 auction. Given that the current arrangements result in an estimated 1-1.5 GW of under procurement (as estimated by Ofgem), we continue to believe that extra volume should procured for the T-4 auction to cover the likely shortfall. We continue to consider that this adjustment is best made for the T-4 volume rather than being left to the T-1 auction. If it is left to the T-1 auction, we would be concerned that more existing plant is likely to close, leaving less available at the T-1 auction, whilst new build is unable to compete to meet actual demand requirements at T-1.

In this context, we note that the reasons given by NG (as the EMR Delivery Body) for not adjusting last year's procurement volume are not persuasive. In essence, it was stated that, given the likely clearing prices, the slope in the demand curve means that an extra 1GW is likely to be procured anyway and that it will cost consumers less to procure incremental capacity at T-1 in a small marginal auction rather than in the wider T-4 auction. We believe that that the first reason given negates the whole point of a sloping demand curve, and that the second is nothing more than a re-run of the arguments around a market wide CM.

(5) System Operability

Lastly, whilst the product procured in the CM should continue to be defined as capacity, there is a need to consider the wider market framework and whether the future system can be managed in a robust and secure manner. Accordingly, we consider that the issue of system operability should be considered as part of the 5 year review being conducted by BEIS. This might consider whether ancillary services contracts (including any potential contracts for inertia) need to align more closely with the auctioning of CM agreements, so that capacity providers can make decisions based on greater certainty of overall future revenues.

If you have any questions in relation to our response, please do not hesitate to contact me. I am sending copies of this response to Charles Phillips at BEIS and to Duncan Rimmer at the EMR Delivery Body.

Yours sincerely,

Rupert Steele
Director of Regulation

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Annex 1

STATUTORY CONSULTATION ON CHANGES TO THE CAPACITY MARKET RULES - SCOTTISHPOWER RESPONSE

We set out below our thoughts on Ofgem's progress on its own rule changes and its consideration of number of other proposed rule change, including some of our own and other industry participants.

ScottishPower's Rule Change Proposals

ScottishPower - CP353 - De-rating of batteries participating as Unproven DSR (Ofgem is minded to consider this proposal further)

Whilst our proposed rule change is aimed specifically at addressing concerns around the derating of storage participating as DSR, we agree that there is a wider issue of the proper derating of the range of DSR options. However, we believe it would be desirable for Ofgem to consider the issues more fully and ahead of the next T-4 auction in order to provide some visibility of possible future Rule changes for those considering developing short duration DSR options.

ScottishPower - CP335 - BTM generation and the reward of 15 year CM Agreements (Ofgem is minded to reject this proposal)

In suggesting that our proposal should be rejected, Ofgem suggests that "some generators which are located behind the meter may run **regularly** and should rightly be classified as generation. Some of these generators may not be able to participate in the CM if required to participate as Demand Side Response." Our view is that generators that run **regularly** behind the meter benefit from a number of hidden subsidies that currently far outweigh CM revenues, including:

- ➤ Avoided environmental policy costs: These include the Renewable Obligation; Contracts for Difference Feed in Tariff and Feed in Tariff schemes, which we estimate will have a combined value of ~ £40/MWh in 2020.
- ➤ Avoided network charges: While these may be addressed by Ofgem's ongoing targeted charging review, they are currently worth up to £75/kW/year (based on 2020 and prudent assumptions around Triad management and the avoidance of red zone network charges).
- ➤ Avoided CM Supplier Levy charges: Whilst we support the changes that have already been implemented, BTM generation can still be used to avoid the cost of the CM Supplier Levy charges.

Based on the high level of hidden subsides that these investments could already receive, we do not believe that new projects should also be able to benefit from 15 year CM Agreements.

Other Industry Participants' Rule Change Proposals

CP263 (E.ON), CP313 (Innogy) and CP314 (Innogy) Participation of Unsubsidised Renewable Technologies (Ofgem is minded to consider these proposals further)

We note the European Comission's State Aid Decisioni regarding renewables participation in the Capacity Market is clear, and the treatment of biomass technologies to date has set a precedent. We support the participation of unsubsidised renewable technologies in the CM and believe that if appropriately de-rated they can provide both significant benefits for consumers and contribute towards security of supply. First and foremost we would encourage Ofgem to enable the participation of renewable technologies, that are not currently in receipt of other subsidies, within the Capacity Market by establishing appropriate technology classes within 'Schedule 3' of the Capacity Market rules and to work with the Delivery Body to assign appropriate de-rating factors to these technologies.

We believe that the de-rating should be done through the established Equivalent Firm Capacity approach (undertaken by the Delivery Body in their Electricity Capacity Report), which already takes into account how much wind capacity is expected to contribute to security of supply. The approach should include consideration of the likely levels of the technology on the system over the length of a 15 year new agreement. Moreover, the methodology should take into account the increased performance and efficiency of advanced, modern turbines.

We believe that is likely that only a limited number of unsubsidised projects would come forward in time for the next auction, and that there is limited risk in progressing this now rather than it forming part of a broader review of the capacity market. In the context of participation of renewable technologies, the broader review should consider if testing and penalties are fit for purpose (including if testing should be different for those already de-rated due to intermittency concerns and those de-rated based solely on reliability assumptions) and the complexities associated with hybrid sites.

CP271 (EDF) Distinguishing between DSR technology types (Ofgem is minded to consider these proposals further)

Having previously raised a similar proposal that also sought to provide greater transparency about the type of technologies delivering DSR, ScottishPower supports this proposal. We agree that increased transparency can provide valuable information for market participants, benefit policymaking, and result in better value for money for consumers.

CP293 EP (UK Investments) The prohibition on Existing CMUs which opted out of the T-4 Auction from the T-1 Auction (Ofgem is minded to progress this proposal)

We agree that this proposal should improve auction liquidity and market transparency on future plant availability, and therefore increase the competitiveness of the process. We agree with the proposer that circumstances may change in the three years between the auctions, and this change may enable additional genuine capacity to participate in the T-1 Auction.

Of15 (Ofgem) Amendments to the calculation of connection capacity

We are disappointed to see that the new approach to calculating Connection Capacity (requiring amendments to the Regulations) will, again, not be implemented in time for the next T-4 auction. Given that the current arrangements result in an estimated 1-1.5 GW of under procurement (as estimated by Ofgem), we continue to believe that extra volume should procured for the T-4 auction to cover the likely shortfall. We continue to consider that

this adjustment is best made for the T-4 volume rather than being left to the T-1 auction. If it is left to the T-1 auction, we would be concerned that more traditional plant is likely to close leaving less available at the T-1 auction, whilst new build is unable to compete to meet actual demand requirements at T-1.

Until such time that the new approach is implemented, additional volume will, in practice, be set aside for the T-1 auction that is not transparent to market participants. If BEIS is comfortable with this additional volume being set aside, this should, in our view, be made clear to the market. We remain concerned that additional traditional plant is likely to close, leaving less capacity available at the T-1 auction, and that new build will be unable to compete to meet actual demand requirements at T-4.

ScottishPower May 2018