



#### **Consultation response**

# **Ten-Year Review of the Capacity Market Rules**

Response from Regen and the Electricity Storage Network February 2024

### 1 Background and contacts

Regen is an independent centre of energy expertise with a mission to accelerate the transition to a zero carbon energy system. We have 20 years' experience delivering expert advice and market insight on the systemic challenges of decarbonising power, heat and transport. Regen has over 150 members who support our mission including clean energy developers, businesses, local authorities, community energy groups, academic institutions, and research organisations across the energy sector.

#### **Electricity Storage Network**

Since 2018, Regen has managed the Electricity Storage Network (ESN), the industry group and voice for grid-scale electricity storage in GB. The ESN has over 90 members who have a shared mission to promote the use of energy storage and flexibility to support the net zero transition. The ESN membership includes clean energy developers, owners, investors, optimisers, and academic institutions. This includes representation from publicly-listed specialist funds focusing on storage and independent developers that have raised several billion pounds to invest in this new technology class.

We have six active working groups across the key topics in our industry. These include Markets and Revenues Working Group, Sustainability, Safety and Supply Chain Working Group, Innovation and Technology Working Group, Grid Connections Working Group and the Electricity Storage Network/National Grid ESO strategic meeting.

The <u>Electricity Storage Network</u>, managed by Regen, has been engaging extensively in the topic of Capacity Market (CM) reform, and has hosted workshops with several members to garner feedback on previous CM consultations in March and November 2023. The points made in those workshops – as well as feedback from bilateral conversations with members – have fed into this response. This response also builds on Regen's response to the Review of Electricity Market Arrangements (REMA) initial consultation and further thought leadership work, such as our insight paper on CM reform.

#### 1.1 Continuing engagement

#### Electricity Storage Network Lead - Olly Frankland

Olly is an expert in effective stakeholder engagement, working closely with our members, chairing and facilitating working groups, presenting on key issues and writing consultation responses.

T: 07465 201596 E: ofrankland@regen.co.uk

#### Markets Lead - Ellie Brundrett

Ellie led Regen's response to DESNZ's REMA consultation, bringing together subject matter experts from across Regen's knowledge areas and helping to run two member events on the subject. She continues to lead Regen's work on market reform.

T: 07939 835 059 E: ebrundrett@regen.co.uk

### 3 The objectives of the Capacity Market Rules

The CM has been a critical element of the current electricity market arrangements since its introduction in 2013. Its key purpose is to ensure that there is sufficient capacity adequacy by providing a subsidy to existing capacity that would otherwise exit the market, and to encourage investment in new capacity. Over the next decade it will be especially important to incentivise investment in energy storage and dispatchable low carbon generation, which will be essential in a very high renewable energy system.

#### The Review of Electricity Market Arrangements reform programme

The consultation states that:

The Review of Electricity Market Arrangements ("REMA") programme is considering how our electricity market arrangements can enable the transition to net zero in the long term. DESNZ have also sought feedback in Part A of their Phase 2 consultation on a range of measures to support low carbon technology in the CM.11 In this context, we will not be seeking further feedback in this area.

Having engaged extensively with both REMA and the current CM review process, it is clear that significant changes are required to align the CM with the UK's net zero goals and stimulate the required investment to achieve these goals. We understand that REMA will be taking forward many of the reforms proposed to the CM and we are very much supportive of that process. We ask that the second REMA consultation be shared with industry as soon as possible, as the current policy uncertainty is impacting decisions on participation in future auction rounds.

**Recommendation:** Ofgem should encourage DESNZ to progress with the REMA process and publish the second consultation to provide clarity on possible CM reforms as soon as possible.

#### 3.1 Response questions

## Q1. Do you have any views on whether the objectives of the Rules, as set out above, remain appropriate? If not, please provide your reasoning.

In our initial REMA response we highlighted the need to move from a capacity neutral position (all MW are the same) to better align the CM with the delivery of an overall net zero system architecture and a set of system attributes and capabilities required for resilience and operability – such as duration, responsiveness, reliability, flexibility, power quality, stability, recovery, diversity of supply and low carbon. It is clear that assets that are low carbon, provide sustained response, two-way response and have fast ramp rates are under-rewarded by the CM for the value they provide at present.

While capacity adequacy is important, a focus only on capacity is a reflection of traditional energy security thinking, based on maintaining a certain capacity margin in order to meet a predicted winter peak evening demand. That thinking is in turn based on the logic that, provided there was some capacity headroom against the winter peak, other aspects of energy system resilience could be managed by the System Operator. The definition of a CM system stress event – four hour duration with sufficient pre-

warning for the system operator to issue a CM Notice at least four hours in advance to mobilise large generation capacity – reflects this thinking.

Maintaining an adequate peak demand capacity margin will still be important, and is still a useful benchmark to gauge security of supply. However, in the future, energy system stress events will be more varied and more dynamic, and will require different system attributes to deal with them. For example:

- With far more variable renewable generation on the system, we might expect to see greater volatility in supply caused by weather changes. This might be reflected to higher 'ramp rates' as generation rates change rapidly over relatively short periods.
- With a higher dependence on interconnectors the GB energy system may be subject to EU
  market fluctuations, as well as the possibility that interconnectors may come offline with little
  notice.
- Summer stress events may become more common as already seen in 2022 during periods of unexpectedly low renewable generation while other dispatchable assets are offline.
- We might expect to experience longer duration stress events, lasting days, caused by low wind generation combined with some other system constraints.
- We might also experience very short and unexpected stress events caused by, for example, sudden changes in demand responding to wholesale price changes.
- Low or falling demand may produce its own operability issues, including frequency fluctuations and loss of reactive power.

Even within traditional supply interruptions the ability to respond very quickly at the outset of a stress event may have additional value to the energy system and lessen the impact of 'bull-whip' effects. As seen in the area of frequency management, a fast response will likely often require less intervention. A good example of the need to have a rapid response capability were the lightning strikes of 9th August 2019 which knocked out two generators, producing a sudden frequency variation, which in turn had a knock-on impact on other generation assets.

Building resilience in the CM to cope with the different stress events of the future will require the mechanism to value and bring forward different types of assets and capabilities: assets that can respond very quickly and flexibly to 'hold the line', assets that can then provide extended capacity over several hours and assets that can provide resilience over even longer durations such as long duration storage. Assets in this context could mean generation assets but could equally mean demand flexibility solutions and storage solutions that are able to provide both supply and demand.

This reinforces the importance of the REMA process to bring forward a reformed CM that can better value and stimulate the growth of flexible, low carbon assets on the system.

**Recommendation:** Recognise that future stress events may become more dynamic than the traditional four-hour window, and prioritise valuing flexibility within the CM as part of the REMA reforms.

These reforms also need to be aligned with the Long Duration Energy Storage (LDES) cap and floor scheme consultation and further detailed design process, as the CM is one leading candidate for

bringing forward the capacity and operational behaviour that can meet the needs of future long duration stress events. The CM will need significant reforms in order to deliver on this outcome which we assume will be driven as part of the REMA reforms.

**Recommendation:** Ensure that CM reform is aligned with the development of LDES cap and floor scheme, to help drive operational behaviour that meets the systems needs over longer duration stress events.

## Q2. Do you believe that the current CM Rules achieve the objective of promoting investment in capacity to ensure security of electricity supply? How could they achieve this objective more efficiently?

We have heard from members that the high administrative burden, additional risks from new penalties, on top of the punitive de-rating factors and the associated methodology, may mean that asset owners simply stop bidding for new CM contracts in the future. This becomes particularly important at a time of capacity scarcity and very high clearing prices, and would clearly not be a good outcome for the industry as a whole.

Furthermore, it is imperative that CM Rules achieve the objective of promoting investment in capacity to ensure security of electricity supply in a manner that is consistent with achieving the UK's decarbonisation targets, as we discuss in our response to Question 4. Ensuring that the rules allow for continued investment in low carbon dispatchable assets such as BESS should therefore be considered a priority.

Broadly, we would like to see a level playing field for all technologies that participate in the CM. Our members have raised the following concerns with the existing rules:

#### **Extended Performance Test (EPT)**

The extended performance test only applies to storage CMUs and has to be undertaken every three years, unfairly penalising and adding costs to these projects looking to enter the CM. While we recognise that the CM should be a technology-neutral mechanism, when comparing the expectations placed upon different technologies, it becomes apparent that the EPT process arguably does treat storage CMUs differently from other technologies, going against the technology neutrality principles of the mechanism. This was explained by one member during our November workshop:

"On the legal risk and application to other technologies that compete in the in the CM, it's interesting to note [that] the de-rating factor for storage is reduced significantly. The 2023 T-1 de-rating factors for offshore wind and for [a] 1hr duration storage CMU are almost identical — 11.52% and 11.34% respectively. The EPT is also a test of the ability to get close to or very near to the connection capacity, and with a 100 MW 1hr storage CMU versus 100 MW offshore wind, the battery would be required to get to 95 MW for an hour, whereas the offshore wind would only be required to get to 11 MW."

This highlights the disparity between what is expected of storage CMUs in comparison to other technologies – as currently defined, the EPT requires storage providers to reach c.95% of their connection capacity, which is a requirement that other capacity providers do not have. Furthermore,

no equivalent mechanism exists for testing the durability of other technologies participating in the CM. In the above analogy, offshore wind would not be expected to prove it could deliver capacity for an extended period of time, nor would it incur penalties for missing said capacity by a MW. Meanwhile, if a storage CMU were to fail an EPT marginally (e.g. by 3%), they could potentially receive an intend to terminate notice.

As such, ESN members have repeatedly raised a concern that the current rules on Extended Performance Testing need reviewing. There is a need to address a wider challenge of how to ensure reliable delivery of capacity across all technologies, rather than simply asking the question of how EPT can be optimised for storage CMUs.

For example, one member highlighted that some older gas-fired generators might not be able to reliably deliver for more than 30 minutes, but currently no mechanism exists to test this technology's durability or penalise the CMU for non-delivery in the same way. Therefore, if the government considers assurance of durability to be a priority, then there should be an exploration of whether EPTs should be introduced for all technologies.

**Recommendation:** Review the requirements for an extended performance test, including whether an equivalent mechanism should be introduced for all technologies participating in the CM. If continued, reduce the frequency of extended performance tests in the CM for storage CMUs.

#### **Degradation**

The current process and systems in place to apply for CM contracts do not take into account the technology characteristics of the current dominant energy storage technology, Li-Ion batteries. This technology has a degradation rate that is well known and understood. Providers limit the number of cycles they do per day in order to maintain the health of the battery cells and to stay within their warranty guidelines. In the T-4 auction, a 15-year contract is available and a battery storage project will degrade by a certain percentage rate over that time (depending on a variety of operational factors). This means that if they submit any bids using their full capacity they will not be able to meet that requirement over the 15-year contract.

The alternative to this is to submit less than the stated connection capacity at the pre-qualification stage informally, which is not an ideal process and could be improved – we have seen many CMUs bidding with a capacity that is lower than actual to include the assumed degradation over the length of the contract. This is counterproductive for developers and the bodies involved and limits the potential for this technology to contribute to capacity adequacy to the best of its ability.

It is also a compromise for asset owners who are limiting the commercial potential of their asset, with this reduction of revenue potential often then priced into the business case in the form of higher clearing prices, driving up prices for consumers. In the last five T-4 auctions, the clearing price has consistently increased. While it is difficult to say whether this is a direct result of the treatment of storage CMUs, several of our members have pointed to a potential correlation between the de-rating of storage and rising prices. Furthermore, higher de-rating factors means more nominal capacity needs to be contracted, which can also drive up marginal price.

However, some members have suggested that if the need for storage CMUs to self-derate was removed, and the true available capacity was recognised, then they might be able to bid into the auction at lower prices for the same asset, due to the ability to provide more capacity to the system with the same asset, reducing the cost to consumer.

While we are aware of concerns around the need for the CM to remain technology neutral, it should be possible to introduce a mechanism that both recognises degradation curves for storage CMUs and is applicable across all technologies. For example, all technologies could be expected to provide a capacity profile for the contract duration, which could be flat for some technologies and represent a curve for others. There could also be flexibility to allow all technologies to update this and redeclare their capacity on a regular basis – annually, for example.

This would address the fact that storage CMUs are currently being treated differently when it comes to de-rating, accepting the uniqueness of storage CMUs in certain respects and allowing them to compete while still adhering to tech-neutrality.

We raised this in our response to the January 2023 consultation, with a recommendation that storage CMUs should have the ability to provide an expected capacity curve for the 15-year contract period that could be re-assessed at intervals (e.g. annually) to update with the actual level of degradation.

We believe that this recommendation should continue to be considered by the DESNZ team, as the ability of the CM to better recognise the degradation of technologies over time would allow for both a) improved visibility of future capacity adequacy, and therefore allow for more accurate auctions to procure additional capacity, and b) better cost reflectivity and, by extension, better value for consumers.

**Recommendation:** Explore the development of a mechanism that could be applied across all technologies to allow CMUs to provide an expected capacity curve for the 15-year contract period that could be re-assessed at intervals (e.g. annually) to update with the actual level of degradation.

#### **Self-nomination of connection capacity**

Finally, we would welcome clarity on plans to formalise the process for self-nomination of connection capacity. The government response to the January consultation stated that:

"The government welcomes the views shared on the option for applicants to self-nominate connection capacity, provided the value does not exceed TEC, MEC or Average Output. While feedback received was broadly supportive of the proposal, the government intends to explore this policy proposal further as part of phase 2, including undertaking further analysis and development in order to better understand interactions with wider arrangements."

However, this was not then raised in the second CM consultation, released last year. The introduction of an amendment to allow for self-nomination of connection capacity would mean that CMUs are able to prequalify a reduced capacity for the duration of the contract. As discussed above, self-nomination as a practice has been undertaken informally by CMUs, and has been allowed by the Delivery Body, but formal clarification has not been provided.

Whilst we recognise that this does not provide the best solution to the issue of degradation – and longer term would continue to advocate for the ability for all CMUs to provide a capacity profile, as discussed above – it would allow participants with storage CMUs some comfort that they can enter the CM knowing that a multi-year contract will not be subject to termination and allowing batteries to contribute to security of supply throughout the entire term of a 15-year contract.

**Recommendation:** In the short term, Ofgem should direct DESNZ to provide clarification on the plans to formalise the process for self-nomination of connection capacity, as explored in the January consultation.

## Q3. Do you believe that the current CM Rules achieve the objective of facilitating the efficient operation and administration of the CM? How could they achieve this objective more efficiently?

During the members workshop that took place to inform our response to the January consultation, several members raised concerns that the lack of flexibility within the portal, and the wider processes associated with qualification, are holding back longer term policy development in the CM and restricting the potential growth in this market, to the detriment of security of supply. For example, the need to submit paperwork for each CMU as part of the pre-qualification process represents a significant burden for those participants with a portfolio of assets. It is a time-consuming process and the highly manual nature of it increases the risk of error. As one member explained:

"[You can] can easily make a mistake... if you're copying over cover letter cover letter — miss over one CMU ID and they reject your whole application, [with] no flexibility. It's pretty harsh given how much paperwork there is and that they don't give any advice prior to the pre-qual process. It doesn't feel necessary to go through the admin of an account for each CMU — you should have it all on one account."

In this way, participants with a portfolio of assets should be able to link these CMUs to a single account, to save time and reduce the risk of error. This feeds into wider issues with the portal that were raised by members, such as the inflexibility with regards to allocating additional capacity or duration to a site. The inability to align different CMUs on the same site, and the additional complexity of the metering associated with such a task, led members to feel that the relatively archaic legacy portal, and the delays in transitioning fully to the new portal, are restricting the ability of participants to develop their sites, with a knock-on impact for security of supply.

**Recommendation:** Review the effectiveness of the portal and whether it is impacting progress in the CM. Work to streamline processes to allow participants to engage more efficiently.

Additionally, please see our response to Question 2 – many of the challenges identified that impact the investment case for participation in the CM also impact the ability of storage assets to operate efficiently in the CM once a contract has been procured.

Q4. Do you believe that the CM Rules are compatible with other subordinate legislation under Part 2 of the Energy Act 2013? How could they achieve this objective more efficiently?

#### **Prioritising the decarbonisation of the CM**

At this stage in the UK's net zero transition, dispatchable generation should be in the form of low carbon solutions such as battery storage, gas with carbon capture and storage (CCUS) and hydrogen fuelled power generation and storage. However, the CM arrangements, and the current carbon intensity limits within the CM, have not prevented unabated gas turbines and reciprocating engines from dominating the market.

This is highlighted when comparing the volume of (currently unabated) gas-fired generation awarded contracts in the most recent CM auction versus low carbon technologies, as seen in Figure 1. This includes two new CCGT plants at Eggborough (total 1552 MW) which were awarded 15-year CM contracts worth a massive £98m per annum. This new capacity that will be able to compete in the wholesale and balancing market, with no equivalent CfD clawback if energy prices and revenues are high and no imperative to switch to a low carbon alternative within their contract term.

Continuing to support new build and refurbished fossil fuel plants, including CCGT and gas reciprocating engines, in the CM risks locking GB into an expensive high carbon future and is fundamentally incompatible with the government's own decarbonisation commitments. In this regard, the current CM mechanism has prioritised security of supply to the detriment of its third objective, to *complement the decarbonisation agenda*.

**Recommendation:** Explore adjusting the wording of the CM Rules to more explicitly prioritise the decarbonisation of the CM.

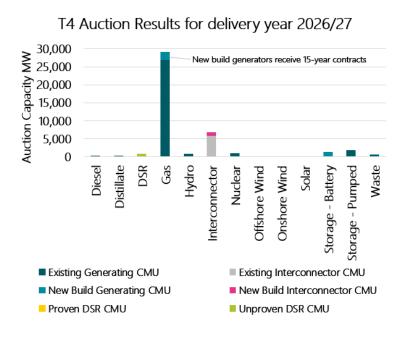


Figure 1: Capacity Market – T4 Auction Results for delivery year 2026/27

It was promising that in the January 2023 consultation DESNZ recognised that the CM as it is currently designed is inconsistent with net zero, and stated an aim to align the current rules on emissions limits with net zero targets, something which was also highlighted in the <u>Technopolis report</u> commissioned by DESNZ. However, in our response we highlighted our concern that the proposed changes to

emissions limits did not go far enough in preparing the CM for a net zero future, or in properly valuing the emissions avoided by participation of low carbon assets in the CM.

#### **Limiting contracts**

The 2021 Call for Evidence included a proposal to limit the award of multi-year agreements to exclusively low carbon plants, which has not been explored since in subsequent consultations. By continuing to offer fossil assets long-term contracts, there is a risk of perpetuating the link between energy bills and marginal price of gas by locking gas into the CM. This is likely to also reduce the potential growth in low carbon assets such as battery storage which are having to compete for agreements without the relative carbon saving being properly valued. Fundamentally, this decision appears inconsistent with the government's decarbonisation aims: by continuing to award 15-year contracts to fossil fuel assets today, the government is locking in a carbon intensive form of capacity adequacy into the late 2030s, with no guarantee that the required decarbonisation technology will emerge in that time.

**Recommendation:** Limit the award of multi-year agreements to exclusively low carbon assets, as part of more fundamental reforms to the CM.

#### **Flat emissions limits**

There is a risk that the implementation of a flat reduction in 2034 may effectively create a cliff-edge for decarbonisation, rather than a managed reduction in the carbon intensity of the CM function. If a flat limit is to be implemented, this should be adjusted annually in order to strengthen limits sooner and better value low carbon assets, rather than having a steep reduction so late in the day that, if the emissions limit is not achieved, it risks achieving the 2035 net zero power target.

Furthermore, we are concerned that continuing to allow fossil fuel generators to meet a yearly emissions limit, even after the intensity emission limit is tightened after 2034, risks creating a situation where unabated gas assets continue to participate in the CM. This is because, even if an unabated asset does not meet the intensity emission limit, it could still generate for a percentage of time annually in order to meet the yearly limit. By continuing to provide contracts under this principle, the financial incentive of participation might be greater than any penalties incurred for breaching the yearly emission limit, incentivising them to maximise their output in order to maximise revenues regardless of any emissions limit.

Therefore, we advocate for the removal of an annual emissions limit from 2034, to provide a stronger signal to fossil assets that they are required to decarbonise in order to participate in the CM.

**Recommendation:** Replace the flat reduction in the emissions limit from 2034 with an annual downwards adjustment, to strengthen limits sooner and better value low carbon assets.

**Recommendation:** Remove the annual emissions limit from 2034 to provide a stronger signal to fossil assets that they are required to decarbonise in order to participate in the CM.

#### **Valuing carbon**

Regen and the ESN have been raising the issue of accounting for carbon in operational signals for several years (e.g. see our position paper published in 2020). It is an area we have engaged closely with National Grid ESO on though the ESN's Markets and Revenues Working Group. Broadly, we are asking for better valuation of carbon in electricity markets, including clear carbon reporting on all markets and services. In our REMA response we asked for policy changes to deliver on these areas. We welcome the data being provided by the ESO from the Balancing Mechanism and new methodology for carbon reporting of DSO services. However, we would welcome further ESO actions to monitor the carbon intensity of the services and markets they deliver. We have been working with the ESO on how the new National Energy System Operator (NESO) could work more effectively in driving net zero delivery. Better monitoring and reporting of the carbon intensity of different markets, such as the CM, would highlight the extent to which the current structure renders it incompatible with decarbonisation targets, strengthening the case for reform.

**Recommendation:** Give NESO the mandate to monitor carbon intensity and prioritise low carbon assets in market services, such as the CM.

# 4 Capacity Market Rules that require further investigation

#### 4.1 Response questions

Q5. Do you have any concerns about CM Rules that are causing disproportionate administrative burden on CM participants? Please state the text of the rule(s) in your answer and explain why this is causing the disproportionate burden. You are not required to suggest a solution but may propose one if you wish.

See response to Question 3.

Q6. Do you have any views on CM Rules that may cause inefficiency in the operation of the CM in future? Please state the text of the rule(s) in your answer and explain how this is leading to inefficiency in the operation of the CM. You are not required to suggest a solution to the issue but may propose one if you wish.

See response to Question 2.

#### **Secondary trading**

While there is the potential for a successful secondary trading market in the CM, the secondary trading market as it currently stands is illiquid and there is no guarantee of finding an asset to trade with. We are supportive of the growth of a secondary trading market for CM contracts, as we do not feel that in its current form it is fit for purpose. The need for substantial reform in this market was raised by participants at the end of 2018 and more recently in the Technopolis report. This remains a priority for our members and we look forward to DESNZ undertaking a holistic review of secondary trading as announced in the most recent CMAG report.

There is the potential for a successful secondary trading market that could benefit providers, if some of the conditions were changed. For example, the battery storage sector has for some time been experiencing significant supply chain issues, which is causing delays to the construction of some newbuild units. A better functioning secondary trading market could allow those providers to pass on their contract to a site which does not have a CM contract in place but would like one, allowing for no loss in security of supply as that capacity obligation is being fulfilled by a third party.

We support the development of a secondary trading marketplace presented in the Technopolis report alongside the DESNZ consultation in December 2023. The current market is highly dysfunctional and this would remove a significant administrative burden for providers while helping to reduce the risk of penalties or terminations.

**Recommendation:** Work with providers to develop a more liquid secondary trading market that could better protect security of supply and support the development of new assets across a number of

technology classes. This could include a new secondary trading marketplace developed with industry input.

In addition, as part of the upcoming review of secondary trading we would like the maximum aggregation cap of 50 MW cap for a portfolio within the SPD process to be reviewed, as this limits the ability of providers to use this to full advantage. This would help with unintended outages, as currently if anything goes wrong there is immediate risk of a termination, which members did not feel was efficient or good value for consumers. Raising the cap would allow for flexibility across assets for providers, increasing security of supply.

**Recommendation:** Consider increasing the cap on portfolios for SPDs to increase security of supply and flexibility for providers with multiple assets to deliver the expected capacity.

Q7. Do you have any concerns that the CM Rules are driving inefficient outcomes in other markets (such as forward markets, the balancing market or markets for ancillary services)? Please provide any evidence you have for this and any suggestions for how to better align the markets and mitigate these inefficiencies

As interconnectors operate in other markets, it would be useful for this review to provide some clarity on their role in the CM, and whether they may negatively impact security of supply. During an actual stress event to what extent is the risk present that a) interconnectors could be flowing the wrong way, b) the 'turning of the dial' to EU/France could be prioritised due to economics, or c) an interconnector unexpectedly exporting or going down could be the trigger for the system stress event in the first place.

Furthermore, to what extent is it appropriate or cost effective to be providing interconnectors with CM payments, if the risk of them triggering or exacerbating system stress events is significant? The 2021 Call for Evidence sought views on the future of cross-border participation in the CM and the role of interconnectors within this. However, despite the summary of responses committing to "developing more detailed proposals on specific areas of potential Capacity Market design change", there appears to have been little progress on providing a public consultation to review the role of interconnectors within the CM.

**Recommendation:** Provide an update on the review process for interconnectors and cross-border participation within the CM since the 2021 Call for Evidence and, if possible, release a public consultation on this.

The recently launched <u>Long Duration Energy Storage consultation</u> has significant implications on the REMA reforms, CM and wider market reform. We feel that there is a need for additional CM reform to ensure the operation of any LDES project is aligned to longer system stress events, as the cap and floor scheme will help finance the development of projects but does not have any operational or dispatch implications. The early cap and floor design assumes assets will be active in all the existing ancillary services, balancing markets and CM, which could have significant unintended consequences on those markets depending on the scale of assets supported. There is also a risk that the cap and floor scheme simply supports projects to be built without the right operational and market signals for those assets to help the system in a stress event (similar to some interconnector behaviour).

**Recommendation:** Ensure the LDES cap and floor scheme does not have unintended consequences for other balancing services, ancillary services, and that the projects supported are available for operational support during longer system stress events via the CM or other mechanism.

#### Regen

Bradninch Court, Castle Street, Exeter, EX4 3PL 01392 494399