REA Response: Capacity Market Consultation - Consultation on proposals to improve security of supply and align with net zero (Phase 2) and call for evidence on Ten-year Review

The Association for Renewable Energy & Clean Technology (REA) is pleased to submit this response to the above consultation. The REA represents a wide variety of organisations, including generators, project developers, fuel and power suppliers, investors, equipment producers and service providers. Members range in size from major multinationals to sole traders. There are over 500 corporate members of the REA, making it the largest renewable energy trade association in the UK.

The REA includes member forums focused on a wide range of low-carbon generation technologies and energy storage developers. As such, our response primarily focuses on proposals concerned with ensuring access to the CM for such market participants.

Question 1: Do you agree with the proposed changes to the timelines for ESC Volume Ve-allocation activities and the Volume Re-allocation window? Are there any unintended consequences of these changes?

REA are not intending a response.

Question 2: Do you have any comments on supporting changes to other settlement activities that may be required following the changes to Regulation 41(2)? Do you have any comments on the correction to Regulation references in Rule 10.5?

REA are not intending a response.

Question 3: Do you agree with the proposed temporary rule change to operational requirements for Existing Generating CMUs which are mothballed? Does this proposal create any unintended consequences?

The REA are supportive of continuing the temporary amendment, as previously implemented, to allow mothballed CMUs to demonstrate performance from their most recent operational 24-month window, when more immediate data is not available. We would also encourage Government to quickly develop policy that would allow such arrangements to become permanent without the need for continuing extensions to temporary measures.

Question 4: Do you agree with the proposed amendment to Regulation 50 so that it aligns with the policy intent and CM Rules, in that failure to meet EPTs are to be treated in the same ways as failure to meet SPDs across suspension of payments? Does the proposed amendment have any unintended consequences?

The REA are supportive of this change, believing it brings clarity to the relationship between EPTs and SPDs.

Question 5: Do you agree with the proposed amendment to add further detail to Regulation 16 (2) to clarify that that a CMU can only be prequalified where no CfD has been awarded in respect of it, even if the CfD is for a later delivery period, unless the CfD in question has expired or been terminated? Does the proposed amendment have any unintended consequences?

Given the evolution of the Government approach to CfD's, further clarity is now required to futureproof such changes to the Capacity Market.

The proposed addition is ambiguous, and we have concerns it may unnecessarily prevent future projects from participating in the capacity market.

Firstly, The CfD model is now being used by the government as the basis for several different supporting business models that CMUs may consider applying for in the future. Not all of these relate to payments for power production.

For example, current proposals for the Greenhouse Gas Removal Business Model utilise a CfD model and will exclusively pay for negative emissions, while a Power BECCS asset will also be producing power that could be used in the capacity market.

As such, the amendment should be clear it is referring to CfD's that pay for low carbon power generation, where there maybe risk of the same power being paid for twice.

Such a distinction could prove important in allowing sites to stack support mechanisms that pay for different services. This may in turn be crucial to enabling the decarbonisation of existing CMUs.

Secondly, there is also concern about projects coming to the end of existing contract arrangements, such as the RO. There could well be overlap in the timelines between the delivery year end of those contracts and the start of the CM pre-qual process. The proposed clarification implies that projects still receiving payments from the CfD won't be able to pre-qualify. It should be made clear that such projects can pre-qualify if their CfD contracts are to be terminated by the start of the CM delivery year. This is crucial to being able to maintain existing generation assets, thereby reducing overall cost for energy security or decarbonisation.

In addition, there must be a clear and efficient pathway by which a site may choose to switch from a CfD to a Capacity Market contract or vice versa. With so many policy work streams underway, and both mechanisms continuing to evolve, it may well prove beneficial for an operator to surrender one contract to take advantage of a new of support mechanism. This includes being able to switch to business models that enable the installation of CCS, having come of a capacity market contract.

We also note, given the focus on flexibility within REMA and government considering how flexibility could be better rewarded both within the CfD and Capacity Market, it may well be advantageous in the future for a site to be able to have both a power CfD and a capacity market contract, with one paying for the power, while the other pays for

flexibility services provided. We would encourage the Government to be open to this idea while recognising the need to ensure that the same power is not paid for twice.

Question 6: Do you agree with the proposals that we have put forward to help address barriers faced by storage CMUs in managing battery degradation? Specifically:

- **The introduction of a definition of Permitted Augmentation under Rule 4.4.4; and**
- **Enabling the level of EPT requirement to be appropriately reduced when secondary trading occurs.**

In general the REA support the introduction of a definition of Permitted Augmentation under Rule 4.4.4 , recognising that this will create an improvement on the current situation and will enable storage providers to supplement their capacity as batteries degrade during the contract length.

However, we warn that government should recognise that this approach is likely to increase storage costs for those bidding into the capacity market. Developers will not have certainty over future battery prices which will be needed to be costed into the operational costs of the site.

This may also increase risk for investors as it will add an element of revenue uncertainty. This may well be costed into the cost of capital. To help de-risk this situation for investors, the guidance for the implementation of the new rule should make clear that storage CMU units will not be automatically ejected from the capacity market for failing an EPT without first being given the chance to make the necessary augmentation. While most will look to do this before the EPT test, some flexibility should be provided in case of mitigating factors to avoid the potential unnecessary loss of a CMU for something that can be fixed relatively quickly.

As we stated in the previous consultation, we would still prefer an approach that sees the removal of automatic termination for failing a EPT accompanied by changing the applicable de-rating factor so that it reflects the change in available capacity over time. This approach would see less impact on developer costs and bidding levels, while still preventing good volumes from being prematurely ejected.

We also support the enabling the level of EPT requirements to be reduced when secondary trading occurs. This will resolve an unintended gap in the current secondary trading arrangements which unfairly exposes battery storage operators to contract termination because the effect of secondary trading is not accounted for in the current EPT test requirements. This change will bring the treatment of EPT under secondary trading in line with SPT as well as existing provisions in rule 13.4A.4(b) which provides adjustments to the EPT in the case of providers not having fully achieved their Substantial Completion Milestones at the start of their first Delivery Year. We think this is an important measure to provide battery capacity providers with more options to suitably manage their contractual obligations without risking termination.

Question 7: Do you foresee any unintended consequences which could arise from the proposals set out in question 6?

As stated is question 6, while we support the approach, its should be recognise that it will likely add additional storage costs that will need to be built into capacity market bids. In addition, given the uncertainty of future storage prices, the requirement for augmentation will create price-risk for investors that may have an impact on cost of capital.

Question 8: Do you believe that other supporting changes are required to accommodate the proposals set out in question 6, for example changes to testing arrangements?

Proposals in Question 6 will add a level of policy risk, as storage sites could still be automatically ejected from the capacity market contracts if they fail an EPT, having not carried out sufficient augmentation activities. To help de-risk this, it is important that guidance allows time for a CMU to react and make augmentations if they fail a EPT, rather than automatically immediately being ejected. This will ensure that projects are given the chance to maintain capacity.

Therefore, it is important that alternative options to effectively manage this through Secondary Trading are also provided.

Question 9: Noting the considerations outlined in section 6.1 of the consultation, do you have any further comments or concerns regarding the retention of the EPT framework for storage CMUs? Are there any further required changes which have not been identified or considered?

The REA would still support an approach that sees the removal of automatic termination for failing an EPT, accompanied by a changing applicable de-rating factor that reflects the change in available capacity over time. This approach would see less impact on developer costs and bidding levels, while still preventing good volumes from being prematurely ejected. The REA understands DESNZ's concern that taking this approach may create additional challenges in sizing the procurement need in T-1 auctions to compensate for consequential reductions in long term capacity contracts. However, this is a risk that the Capacity Market already deals with - for example, there already exists a possibility that providers with T-4 contracts fail to reach completion milestones or have their contracts terminated for a bunch of other reasons. The relative adjustments in capacity as a result of battery storage providers shifting to a lower duration class are likely to be relatively minor. We ask DESNZ to continue to keep this option under consideration.

Question 10: Do you have any further views on the proposed 3-year or 9-year agreement proposals?

The REA are supportive of the proposal to bring forward 3-year and 9-year agreements. However continue to make the following points, raised in the previous consultation, but not yet addressed in the current proposals.

- The current design of 3-year agreement for low carbon, low capex CMUs will likely only really benefit DSR application, rather then help delivery of new low carbon capacity.
- Given the expected shortfall in capacity resulting from decarbonisation activities in the CM, the proposed 3-year agreement should be extended to low carbon refurbs. This 3-year agreement could, therefore, be used to extend the lifespan of a low-carbon asset where the main capex has already been invested several years before the auction. It is recognised that appropriate eligibility criteria would need to be developed to ensure further investment is focused on decarbonisation activities and it is helping to meet the shortfall in capacity.
- This could also have positive interaction with low-carbon assets coming to the end of their existing support mechanisms, such as the Renewable Obligation, with projects starting to come to the end of their contracts in 2027. A three-year CM agreement could potentially be used as a useful mechanism for repowering and extending the life of such assets, where much of the capex has been spent in the year prior.
- Given the wide range of projects that may be eligible for 9-year agreements, the CAPEX threshold is set too high. The projects that could utilise the 9-year route can vary significantly, i.e. anything from small scale new build or refurbs to CCUS and Hydrogen conversions, therefore, their cost requirements are expected to vary materially. This can be addressed by either setting a threshold lower in order to avoid precluding some 'quick-win, no regret' projects from pre-qualifying, or introducing a range of capex that could address the spread of capex requirements. The 9-year agreements are aimed at procuring low-carbon capacity, so there is no risk of locking in a lot of carbon or emitting projects. The thresholds for the 9-year agreements should be lowered to incentivize more low-carbon capacity. The capacity eligible for the 9-year agreements could provide firm, low-carbon capacity quickly and safely.
- Additional multi-year offerings, specifically for low carbon technologies should be introduced, which this 9-year capex requirement could form part of the eligibility criteria for.
- With the above in mind, its crucial that the development of both 3 and 9-year agreement aligns with the developmnet of CCUS business models, so that those who utilise these support mechanisms are neither excluded from bidding into the CM, or existing CMUs are not excluded from applying for CCUS support.
- In relation to the emission limit, further review and guidance of the yearly emission limit should be done, with the possibility of seeing this reduced over time. This could include publication of a future ratcheting down trajectory, providing a clear market signal. This needs to be based on the emissions of low

carbon generation needed by 2035, rather than gas generation, as is currently the case. This should include consideration of the future carbon intensity of the gas grid itself, given the likely decarbonisation potential as biomethane and hydrogen enter the gas grid, as well as reductions in overall gas demand. This could mean the emission thresholds could allow for an increase in the running hours of gas-peaking plants, even if the yearly emission limit is kept at the same level today.

Question 11: Do you agree with the proposed introduction of Declared Long Stops, both 12- and 24-month options, to accommodate low carbon projects with long build times in the CM?

The REA are supportive of the introduction of declared long stop dates to assist the delivery of low carbon capacity projects that have long build times. Such provision will help to de-risk projects that may otherwise find it hard to commit to capacity contracts.

Question 12: Does the option to declare a (12-month) Long Stop Date provide developers with any benefits versus relying on the existing Long Stop Date process?

Yes, it will provide greater certainty that there is a further 12-month window for building out the project from the moment of financial close, rather than having to rely on existing mechanism that only kick in later on and could be subject to change or specific circumstance.

Question 13: Does a Declared Additional (24-month) Long Stop Date, Rule 6.7.7 (if applicable) and the existing 120 working days from a Notice of Intention to Terminate provide sufficient time for slippage, and if not, what would be an appropriate amount of time which would need to be considered?

The REA believe the additional declared 24 month long stop date to be helpful, and will cover the majority of situations where further build time are required.

There will, however, be situations where a further long stop date could be helpful. For example, we note that the 24-months long stop should help long duration energy storage to be able to participate in the CM. However, such projects are highly complex and very capex-heavy with many construction milestones and interactions between construction stages. There are numerous connections and supply chain risks that have been affecting projects in the UK. As such, it is possible that the 24- month extension will not be sufficient to build such projects with a long lead time project, without enough de-risking. To take these risks into account and avoid the risk of non-delivery, such projects should still be able to make use of the existing, non-declared, 12 month long stop date, if required beyond the 24 month window. Such a move would provide further confidence to investors and allow for their delivery.

Question 14: Do you foresee any unintended consequences which could arise from the introduction of the declared long stop dates?

REA are not intending a response.

Question 15: Do you agree with the proposed eligibility criteria for CMU's seeking to utilise the Declared Additional (24-month) Long Stop?

Yes, however, we note that there may need to be some element of flexibility provided to first of a kind application in regard to the requirements of IET reports. In such situations it may not be possible to reference build out timeframes from directly comparable projects. It should still however be possible to demonstrate a sensible timeline with key developmnet and build milestones. Such milestones will need to be specific to each project, to ensure they remain realistic to the relevant technology being built out.

Question 16: Do you agree with the proposed operational conditions for a Declared Additional (24-month) Long Stop?

We do not agree with the parameter that in the event of early delivery, the agreement would still only take effect at the start of the declared long stop date. Such a requirement removes any incentive for a develop to deliver earlier and gain the chance of making use of the full capacity market contract length.

Question 17: Do you have views on the relationship between a CMU utilising the Declared Additional (24-month) Long-Stop and its role as Price Maker versus Price Taker in the CM auction(s)?

REA are not intending a response

Question 18: Are there any further required changes for the implementation of a Declared Additional (24 month) Long-Stop which have not been identified?

REA are not intending a response

Question 19: Do you agree with the proposal for partial redaction of addresses on the CM registers for domestic DSR CMU components?

Yes, we believe this to be a sensible precaution. Care however should be taken to ensure that the postcode does not unintentionally become a key identifier for any one registered DSR CMU. This is to avoid any issue of there being multiple, but sperate, DSR CMUs being registered at the same postcode, which could well happen, especially in cities and within flats.

Question 20: Do you agree with our proposed changes to component reallocation? If so, what percentage do you propose would be appropriate to set as the new limit?

The REA agree with proposals to consider changes to component reallocation and suggest that it is made as flexible as possible. We understand that the current reallocation limit was imposed to minimise the administrative burden for the EMR DB. However, it is apparent that for domestic DSR that such a limit is wholly not fit-for-purpose in view of the barrier it creates to domestic scale DSR participation. Rather than attempting to seek a balance between administrative burden and finding an acceptable compromise on limiting innovation in domestic flexibility, we urge DESNZ to instead review the arrangements to avoid this administrative burden in the first place. Given all the other barriers to market participation faced by aggregated domestic DSR, and the limited market value that can currently be gained outside of trial / pilot programs (like DFS or the current BM Power Responsive trial) the CM should orient towards enabling the service that DSR models can offer to system flexibility and security of supply.

In practice, especially at this nascent stage of the aggregated DSR market, it is important that the CM should not impose any arbitrary component reallocation limits for domestic DSR as these will continue to hinder their development. As such, we urge DESNZ to consider entirely removing the requirement to individually identify components in the CM Register in respect of domestic DSR portfolios. Instead, providers should be able to produce a full list on request where that is necessary for audit / verification purposes.

Question 21: Do you agree with the above proposed changes to the Extended Years Criteria? Are there any unintended consequences of these changes?

We support the principle of exploring further GTCs to provide more tailored options for DSR portfolios. This should aim to recognise the growing diversity of arrangements that are possible and provide a more tailored assessment of the contribution that they can provide to system security.

Question 22: What are your views on the creation of new GTCs for DSR and which new classes should be created? Please provide evidence to support your response. Further member feedback is welcome.

Question 23: Do you have any comments or concerns regarding our proposal to publish the fossil fuel emissions data (as stated above), disclosed in the Fossil Fuel Emissions Declaration on the Capacity Market Register?

The REA are supportive of seeing fossil fuel emissions data published, as disclosed on the Fossil Fuel Emissions Deceleration on the Capacity Market Register. It is essential that approaches to emission calculation and methodology are consistent across government schemes, importantly aligning with the UK ETS.

More detail is however needed in relation to how this data will be published and in what format. For example, will this be per delivery year or per auction? Clarity is also needed as to whether this will apply to only new capacity providers or existing as well, including those expected to deliver in a future year.

We would also recommend it is made clear against the emission values where decarbonisation activities are being pursued by a CMU, with the data updated when emission values are reduced, so that the register is appropriately reflective through the operational lifetime of the asset.

Part B: Ten-year Review call for evidence

Question 1: To what extent, how and why has the CM been contributing to its intended objectives?
The objectives of the CM, as set out in its original impact assessment, are:
• Security of Supply: to incentivise sufficient investment in capacity to ensure security of electricity supply
• Cost-effectiveness: to implement changes at minimum cost to consumers
• Avoid unintended consequences: to minimise design risks and complement the decarbonisation agenda

Overall, the REA believes that the Capacity Market has met its objectives, primarily having secured additional capacity and helped deliver energy security. The competitive nature of the auctions has also been seen to deliver cost-effective measures that in turn have also helped to drive down additional costs.

However, as described in question 4, there have been unintended consequences, particularly when it comes to aligning with wider energy policy and the decarbonisation agenda. We recognise that these issues are starting to be rectified through some of the proposed reforms consulted earlier in the year, as well as through REMA.

Question 4: Have these objectives been equally achieved or has the CM performed better against some objectives than others, and if so, what are the main reasons for your view?

The Capacity Market has not always been well aligned to delivery of the decarbonisation agenda. It has taken time to tweak the capacity market rules to better enable low carbon technologies to participate and bring in emission limit requirements. This has been crucial for ensuring that we are delivering energy security that is also aligned with the UK's net zero ambitions.

There remain some barriers to wider low carbon capacity providers, such as appropriately enabling entry of a wide range of storage technologies. However, we recognise that some of these issues are starting to be addressed via both the consultation earlier in the year and within this document.

Overall, we believe REMA will provide recommendations for how further decarbonisation could be best delivered across the energy market, including interactions with the capacity market. However, it remains critical that the evolution of

the capacity market continues to ensure that contracted capacity is aligned to net zero and enables existing CMUs to decarbonise.

Question 5: Do you agree that the objectives of the CM are still appropriate?

Yes, the objectives remain valid, however, it is clear that the design and objectives of the capacity market will need to change as the energy market evolves, becoming both more decentralised and decarbonised.

We would expect supporting low carbon generation, aligned to net zero, to become a stronger objective. While the evolution of the energy market will also mean a need for the capacity market to better support attributes like flexibility and contract firmness. See question 14 for further details.

Question 8: What are your views on the resilience of the CM to both longer term and shorter term energy trends?

REMA is expected to demonstrate how the energy market will likely need to change in the future in terms of energy trends. Particularly given the need for more renewables, greater flexibility, firm contracts, higher overall demand following electrification and the need for a wide range of renewable and low-carbon technologies.

In particular, we highlight the following trends that the capacity market will need to be able to adjust to:

- Wide range of storage technologies: The capacity market needs to give greater consideration to the wide range of energy storage technologies, and durations, that are going to be needed in decarbonised and decentralised energy systems. This includes technologies like compressed air or liquid storage, lithium batteries, thermal storage, gravitational storage, hydrogen and pumped hydro storage, as well as others. All these technologies can deliver different services to the grid or energy storage solutions for large energy uses, which support energy security. The capacity market must not be a barrier to such systems, by directly supporting them or by working in conjunction with future government support policies. For example, the capacity market must complement the committed to support mechanism for Long Duration Energy Storage that is expected to be operational in 2024.
- Existing Low carbon assets coming to the end of their existing contractual arrangements. Low carbon generation assets will start to come to the end of their existing RO contracts from 2027 onwards. Failure to ensure the repowering of these sites will see the loss of needed low-carbon capacity, placing yet greater demand on the capacity market. The capacity market could be used as a mechanism for avoiding the loss of such capacity, such as through the delivery of the 3 year agreements for refurbished sites.
- The need to enable decarbonisation and delivery of negative emissions. The energy sector will increasingly be expected to see delivery of CCS, including

on bioenergy installations. Government have been developing supporting business models to support the delivery of these technologies, many of which are based on CfD-type contracts. The capacity market must be able to work with the evolution of the CfD mechanism, including the potential for stacking support mechanisms that pay for different services being supplied by the same asset.

- Growing number of flexibility providers, including interaction with domestic DSR and interactions with the electrification of heat and transport. It should be expected that there will be an increasing number of market participants providing flexible services to the grid. This will include domestic properties, as well as Vehicle to grid services. This range of storage and demand side response providers will need to be increasingly recognised by arrangements in the capacity market.

Question 13: What are your views on the effectiveness and operation of the existing rules within the CM to support the transition to net zero? (You may want to consider emissions limits, and barriers faced by low carbon technology in accessing the CM). Please provide evidence to justify your answer.

While current sufficient, we believe the capacity market will need to continue to evolve to ensure the capacity supported remains aligned with net zero. This includes:

- Ratcheting down the emissions Limit. Overtime the capacity market should be ensuring generation that is contracted is decarbonising. While the existing threshold is appropriate, this will need to be kept under review. It could also be used to send a stronger market signal if there was a clear trajectory for the emissions limit to decrease.
- Ensure a wide range of renewable and clean technologies are supported by the capacity market. The capacity market must avoid over relying on a narrow set of technologies. A full range of generation and storage technologies will be needed.
- Ensuring that battery degradation issues with EPT testing are resolved to better facilitate their inclusion in the capacity market.
- The capacity market must work in conjunction with other support mechanisms being developed by the Government, including Power BECCS , the GGR business Model and the low carbon hydrogen business model. Time frames in delivery of the capacity market should be aware of how projects may also be looking to enter into allocation rounds for such support, while also making it possible to stack support mechanisms that enable CMUs to decarbonise.
- Delivery of the capacity market should also be aware of existing capacity assets coming to the end of their contract arrangements from 2027 onwards, under the RO, as well as in the future under CfD arrangements. It is important that such assets can enter CM auctions, with the ability to secure CM contracts for when existing arrangements end. This could prove crucial to maintain low carbon capacity and contributing to the decarbonisation of the capacity market.

Question 14: Are there any other improvements to the CM that would help support the transition to net zero? Please provide evidence to justify your answer.

REMA is expected to consider how both the capacity market and CfD, could better deliver a decarbonised and secure energy system.

In June 2023 the REA produced a REMA report, authored by Dr Chris Harris from the university of Bath, examining some of the options that could be considered to evolve the energy market. Chapter 4 of the report (page 31) focuses on options for the capacity market that we believe should be further considered. In particular, the report argues that the capacity market could be tweaked to better reward both contract firmness and flexibility, while operating in conjunction with the CfD.

Key proposals include:

- Providing a firmness option within the capacity market contracts. This goes beyond just responding to moments of stress to deliver energy security, but actively rewarding generators for being able to produce energy at specific times, specific durations, and specific volumes, at expected high demand periods.
- Having a strike price, determined through a clock mechanism (ascending and descending), within the auction. This would improve the efficiency of the mechanism – to optimise cost and achieve target volume.
- The report explores several ways in which different reliability option frameworks could be designed within the capacity market contract. This includes developing a one-way CfD were plant owners set their strike price at their production cost and pay the difference to the market operator when the market price is higher.
- Harmonise the capacity mechanism with its adjacent markets so that the same service gets the same price at the joins. The key adjacent markets for storage are reserve and balancing.
- Provide a scarcity uplift to a CM reference price when the market is within designated regimes of scarcity.
- Exploring how the capacity market and CfD could be combined, rather then being mutually exclusive as in the current scheme. This would allow generators to bid into both, on an annual basis, if the same power is not paid for twice. This would allow generators to be rewarded for flexibility, firmness and receive a green premium. This would help mitigate the issue that the current capacity market really only works for those that can make the most of one- and four-year time horizons.
- Develop a deficiency mechanism and secondary markets, enabling non punitive non delivery if declared early and in addition enabling offering of overlapping services

For further detail on the above read the full report here: https://www.r-e-a.net/resources/rea-rema-report/

Question 15: To what extent do the current institutional arrangements support an effective change process? Please provide suggestions on how issues with governance arrangements can be addressed and evidence to support your views.

We would support a review of the CM change process as we believe the governance arrangements need to be more streamlined and clearer, ensuring the roles and responsibilities of different parties are better defined to avoid confusion.

Question 16: To what extent do the defined and allocated roles and responsibilities support effective administration and delivery of the annual CM prequalification, delivery, and payment processes? Please provide suggestions on how any issues can be addressed and evidence to support your views.

The delivery body can improve certain aspects of its performance. There have been instances of incorrect legal guidance being provided or CM rules being interpreted incorrectly by the delivery body.

We also note that CM rules remain very complex which acts to frustrate effective administration and delivery of the CM. This is compounded by the many different old or original set of rules which are applicable to different CM agreement holders, resulting in additional complexity for CM agreement holders, prospective secondary traders, and the delivery body.

December 2023