Department of Energy & Climate Change

Electricity Market Reform: Capacity Market

Consultation on Capacity Market supplementary design proposals and Transitional Arrangements

URN: 14D/356

September 2014

Department of Energy and Climate Change
3 Whitehall Place
London
SW1A 2AW
Telephone: 0300 068 4000
Website: www.decc.gov.uk

For further information on this consultation, contact:
Security of Electricity Supply
Department of Energy and Climate Change
3 Whitehall Place
London
SW1A 2AW
Telephone: 0300 068 4000
Email: secondarylegislationemr@decc.gsi.gov.uk
The consultation can be found on DECC's website:
https://www.gov.uk/government/consultations/consultation-on-capacity-market-supplementary-design-proposals-and-transitional-arrangements
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Contents

General information

Purpose of this consultation:

The Department of Energy and Climate Change (DECC) is seeking views on a range of supplementary design proposals for the Capacity Market. These cover proposals to include interconnected capacity in the GB Capacity Market and proposals on Metering Configuration solutions. We are also consulting on changes to enable capacity Obligation Trading and seeking views on proposals to implement price duration curves. This consultation also covers other technical amendments which seek to clarify the policy intent.

Also within this consultation we are setting out proposals for the transitional arrangements for demand side response (DSR) and small scale generation as previously described in the Government's response to the Implementing EMR consultation. Any changes to secondary legislation as a result of this consultation process will not apply to the first Capacity Market auction.

This consultation is particularly relevant to electricity generators, electricity suppliers, interconnector owners/operators, electricity consumers and their representatives, network operators, Ofgem, the Delivery Body (National Grid), environmental and energy efficiency organisations, electricity service companies, the construction sector, financial institutions and other stakeholders with an interest in the energy sector. Government invites interested parties to submit comments and evidence.

The Department plans to review the first round of pre-qualification and the first auction to capture lessons learnt in light of experience. It is expected that, based on evidence from running the first auction, the need for further policy design changes may be identified in addition to those set out in this consultation. Government therefore anticipates launching a further consultation in spring 2015 on possible changes that are also intended to be legislated before the four-year ahead auction for the 2019/20 delivery year.

The Department recently consulted on potential amendments to the Capacity Market Rules 2014 in order to clarify eligibility for fifteen-year capacity agreements. Government is currently considering responses to this consultation.

Issued: 25 September 2014

Respond by: 5 November 2014

Enquiries to:
Security of Supply Team
Department of Energy & Climate Change,
4th Floor Area A,
3 Whitehall Place,
London, SW1A 2AW
Email: secondarylegislationemr@decc.gsi.gov.uk

Consultation reference: URN: 14D/356 – Capacity Market Supplementary Design Proposals and transitional arrangements

Territorial extent:

Great Britain

How to respond:

Your response will most useful if it is framed in direct response to the questions posed, though further comments and evidence are also welcome. These questions are captured within orange boxes throughout the document.

Electronic responses should be enclosed to the email above.

If you disagree with any of the proposals within this document and have alternative suggestions, it would be helpful if you can provide supporting analysis to explain your position.

Stakeholder engagement

Government will continue to engage with stakeholders throughout the consultation period. Workshops will be held as appropriate and aimed at identifying key stakeholders issues as early as possible. Government will continue to communicate with stakeholders through the EMR stakeholder bulletin and existing EMR Groups, Delivery Body events, and other meetings set up by EMR policy teams.

Additional copies:

You may make copies of this document without seeking permission. An electronic version can be found at https://www.gov.uk/government/consultations/consultation-on-capacity-market-supplementary-design-proposals-and-transitional-arrangements

Other versions of the document in Braille, large print or audio-cassette are available on request. This includes a Welsh version. Please contact us under the above details to request alternative versions.

Confidentiality and data protection:

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information legislation (primarily the Freedom of Information Act 2000, the Data Protection Act 1998 and the Environmental Information Regulations 2004).

If you want information that you provide to be treated as confidential please say so clearly in writing when you send your response to the consultation. It would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded by us as a confidentiality request.

We will summarise all responses and include this in the Government Response. This will include a list of names or organisations that responded but not people's personal names, addresses or other contact details.

Quality assurance:

This consultation has been carried out in accordance with the Government's Code of Practice on consultation, which can be found here:
http://www.bis.gov.uk/files/file47158.pdf

If you have any complaints about the consultation process (as opposed to comments about the issues which are the subject of the consultation) please address them to:

DECC Consultation Co-ordinator
3 Whitehall Place
London SW1A 2AW
Email: consultation.coordinator@decc.gsi.gov.uk

Executive Summary

1. The Capacity Market is designed to provide incentives for investment in the overall level of reliable capacity (supply and demand side) and ultimately secure supply of electricity. The Capacity Market has also been designed to support the development of more active demand management in the electricity market. Full details of how the Capacity Market operates are set out in the Electricity Capacity Regulations 2014[1] and the Capacity Market Rules 2014[2].

2. The Capacity Market works by determining how much capacity is needed to ensure future security of supply. Competitive auctions are held four years and one year ahead of the year that capacity is expected to be in place. Successful bidders are assured of a steady payment in that year; however they face penalties if they fail to deliver energy when needed. In this way, we can have confidence that sufficient supply will be in place to meet demand.

3. The Capacity Market encourages investment by giving capacity providers certainty over part of the future revenues they will receive. The Capacity Market operates alongside the electricity market and the existing services National Grid contracts to ensure moment to moment balancing of the system.

4. Government consulted on proposals for the Capacity Market in October 2013 and published its response to that consultation on 23 June 2014[3]. This confirmed the final design for the Capacity Market. In parallel, Government laid before Parliament for approval the implementing Regulations and the Rules. Following parliamentary approval and State Aid approval the Capacity Market came into force on 1 August 2014.

5. This consultation seeks views on supplementary proposals on the Capacity Market design that follow on from previous consultations and stakeholder engagement. This will fulfil Government's commitments to complete the policy. Government is planning to implement changes as a result of this consultation for the delivery year 2019/20 onwards.

6. This consultation covers proposals to amend the Electricity Capacity Regulations 2014 ("the Regulations") and includes proposals:

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[1] The Electricity Capacity Regulations 2014: http://www.legislation.gov.uk/uksi/2014/2043/contents/made
[2] Capacity Market Rules 2014: https://www.gov.uk/government/publications/capacity-market-rules
[3] The Government's response to the October 2013 EMR consultation can be found at https://www.gov.uk/government/consultations/proposals-for-implementation-of-electricity-market-reform

- To include interconnectors in the Capacity Market;
- To develop metering configuration solutions for resources that are not party to the Balancing Settlement Code (BSC) and those that are subsets of Balancing Mechanism Units (BMUs);
- on technical changes to enable Obligation Trading; and
- on price duration curves to evaluate bids by capacity providers based on contract duration as well as price; and number of other ancillary technical amendments to the codifying legislation are included.

7. This consultation is published alongside separate consultations on changes to the CFD supplier obligation and the introduction of non-delivery disincentives for the CFD. Following the consultation we will consider responses. We intend to publish Government responses to these consultations and lay amending secondary legislation before Parliament in early 2015. Subject to Parliamentary approval, the amended secondary legislation will come into force before the four-year ahead auction for delivery year 2019/20.

8. The Department also recognises the importance of evaluating the performance of the policy and has put in place plans to review how effectively the policy is working as a matter of practice, and whether changes to the implementing legislation might be necessary. This is to ensure that lessons learnt from each auction feed into subsequent auctions, so that the mechanism runs smoothly. The first phase of the review will cover the first pre-qualification round and the auction for the delivery year 2018/19. If necessary, the Government will launch a further consultation on proposed amendments to secondary legislation based on the results of this review, in spring 2015.

Context of this consultation

9. The Secretary of State is required by Section 41 of the Energy Act 2013 to consult on the proposed changes to the Capacity Market Regulations and Rules with interested parties. It should be noted that there is no parliamentary approval required before any amending Rules are brought into force.

Next steps

10. Following the close of the consultation, the Secretary of State will consider responses and make any appropriate changes to the proposals. Our final policy decision will be announced in a Government response to the consultation, which we plan to publish at the same time as any amended Regulations are laid in Parliament in early 2015. If it is necessary or desirable to make any changes to the Rules then these will be made so that they come into force at the same time as any amending Regulations come into force.

Chapter 1: Aims of the Consultation

Consultation scope

11. Government is committed to allowing interconnector participation in the GB Capacity Market and believes that their inclusion would contribute to security of electricity supply and provide value for money for consumers. Chapter 2 of this consultation covers our proposals for the inclusion of interconnectors and invites views on various matters including the bidding party for interconnection, the length of capacity agreement and de-rating of interconnectors. As this would be the first time interconnection is included in a Capacity Market, wider views on the inclusion of interconnection are also welcome.

12. Chapter 3 sets out our proposals for metering configuration solutions. We have previously consulted on metering arrangements and these proposals are hereby updated and are likely to be mainly of interest to resources that operate outside of the Balancing and Settlement Code (BSC) or to those where their existing metering is insufficient to pick up the complexities of electricity generated and used on the site.

13. This document also outlines our proposals to enable Obligation Trading and associated impacts of this on settlement and penalty or over-delivery payments. These are described in Chapter 4. Chapter 5 includes proposals on price duration curves under which bids can be formulated and evaluated for various tenors of capacity agreements. Chapter 6 covers other technical amendments to the policy.

14. Finally, this document sets out our plans for the timing of the transitional arrangements auctions, in Chapter 7.

What the consultation does not cover

15. This consultation does not seek any additional suggestions for changes to the policy and as such, any responses that are outside the scope of this consultation will not be considered. We do, however, welcome comments and evidence on the policies set out in this document, in addition to direct responses to the questions posed.

Chapter 2: Proposals for the participation of Interconnection in the Capacity Market

Introduction

16. The participation of interconnected capacity in the Capacity Market is expected to increase the pool of competitors and ensure fair and equitable treatment for interconnection. This is important because the introduction of the Capacity Market is expected to have an effect on the wholesale electricity price in GB, thereby potentially affecting the revenue that may ordinarily have been expected.

17. Eligibility for the first Capacity Market auction to be held in December 2014 includes GB located capacity only. This is because, notwithstanding widespread consultation, a workable solution to incorporate non-GB capacity proved elusive. We considered simply extending eligibility to non-GB capacity but the necessary international agreements to permit this could not be put in place in the timescale available. Furthermore, the value for money and security of supply issues could not be resolved. This is because EU rules governing the internal energy market make it impossible to guarantee flows of electricity to GB during stress events.

18. Nonetheless we were, and remain, committed to finding a means to include interconnection and the proposals below include an interim proposal to be implemented from the second capacity auction held in December 2015 for delivery in 2019/2020 – and an agenda for developing a more enduring solution. The decision of the European Commission on the lawfulness of the State Aid[4] cites the preferred option outlined in this chapter but it is important to note that the Department is keen to consult on whether there might be other viable options, which are consistent with the policy objectives underpinning the preferred option.

Summary of proposals

We will continue to work towards a common approach with other Member States on the participation of external capacity in capacity remuneration mechanisms. In the interim, we propose the following measure:

- That interconnector owners participate in the capacity auctions in exactly the same manner as domestic capacity i.e. they will be the bidding party; they will hold the obligation to deliver energy to GB (at the de-rated level of capacity for the

[4] http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_35980

Summary of proposals

interconnector) with penalties for non-delivery against their capacity agreement in return for a capacity payment based on annual Capacity Agreements.

Key considerations

19. In developing the preferred option set out below, we have considered three key questions:

- Who is the bidding party?
- What is the nature of the obligation?
- What is the appropriate length of the capacity agreement?

For further analysis on policy options and key considerations, please refer to the report by Frontier Economics, *Participation of Interconnected Capacity in the GB Capacity Market*[5], on the Department's website.

Bidding party

20. When including interconnected capacity in the Capacity Market, the question of who holds the capacity obligation is central. There are two possibilities - either the interconnector owner, or the non-GB generator/resource (e.g. DSR). As outlined above, we are proposing an interconnector-led solution.

21. Under this proposal, the interconnector owner would become the counterparty to a capacity agreement up to the level of its de-rated capacity (the realistic long-run expectation of what reliance can be placed on the interconnector at times of stress), receive the clearing price in the auction and by definition hold the capacity obligation.

22. Government had considered the option of valuing the contribution of interconnection through another method other than the Capacity Market, or by simply paying the auction clearing price, i.e. a passive role. Both were deemed to be suboptimal as they were not aligned with the rationale for intervention nor the principles of the Delivered Energy Model.

23. We had also examined the option of non-GB generators bidding into the Capacity Market auction. This option seems more intuitive in that it is consistent with the current Capacity Market design for domestic capacity providers and is aligned with the current direction of thought at EU level. However, it creates significant complexity as it potentially means many non-GB parties bidding into the auction which in turn means many non-GB generation sites to verify, which would require enhanced cooperation with neighbouring Transmission

[5] https://www.gov.uk/government/consultations/consultation-on-capacity-market-supplementary-design-proposals-and-transitional-arrangements

System Operators (TSOs) on data-sharing platforms, measurement and testing. It would also require a change to a number of aspects of the Capacity Market auction parameters, pre-qualification (development of a method to pre-qualify non-GB generators in the countries to which GB is currently connected - Ireland, France and the Netherlands), the auction design (changes to take into account these different bidding zones up to the capacity of the interconnector), secondary trading, and further work on the nature of the obligation and nature of the product that a non-GB plant can offer.

24. It is therefore not possible to simply extend the current GB arrangements to external generators, nor is it an easy option to include external generators with special arrangements in to the GB Capacity Market.

25. As explained above, a generator-led solution will require a significant amount of international cooperation to bring to fruition. Also, should the EU end up pursuing a different approach, it would be very complicated to remove or change. We therefore believe that a transitional measure in the form of an interconnector-led approach is appropriate in the interim.

Nature of the obligation

26. The nature of the capacity obligation is important when considering the delivery aspect of the policy design – whether the obligation is based on “delivered energy” or “declared availability”.

27. A Delivered Energy Model is the basis of the current GB Capacity Market obligation for capacity providers, meaning that there is a requirement to generate when a Capacity Market warning is called, and penalties are imposed if a capacity provider is not delivering during a stress event. This design choice was made because it was considered an appropriate and proportionate way of ensuring that plant bidding in to the Capacity Market provide a real benefit to security of supply. This model is also quite resilient to gaming. In addition, under the current design of the Capacity Market, we have a single product auction where only one product – delivered energy – is secured.

28. Given that we are consulting on an interconnector-led approach, under the delivery model the interconnector would be contracted to deliver up to the level of its de-rated capacity in the case of a stress event. Considering the uncertainty around interconnector flows, this approach reduces the exposure to consumers in that it allows Government to levy penalties for non-delivery against the capacity agreement, ensuring that consumers do not pay for something that they end up not receiving. This is consistent with the current arrangements for domestic capacity providers. It may also incentivise the interconnector owner to hedge the risk in the non-GB market and encourage them to secondary trade up to the level of their obligation. We acknowledge that we are asking interconnector owners to accept a market risk but it is also worth noting that the penalty will not exceed the Capacity Market revenues in any given year. This approach is fair and accounts for the uncertainty of flows

until a solid evidence base on the impact of market coupling on interconnector flows is available.

29. There are interactions with some aspects of market coupling and Government is drawing on the expertise of National Grid and Ofgem to fully explore all of the issues. We believe the introduction of a delivered energy model has a low probability of any negative impact on market coupling but this is a complex issue and Government welcomes further views.

30. Government is aware that a Declared Availability Model is preferred by some industry groups. An availability model would require capacity providers to be operational and available to the market but does not require them to despatch – it trusts that the market will respond as needed at times of system stress. "Availability" is a different and arguably less secure product (capacity that has to be available) than what GB currently secures in the capacity auction (capacity that has to be delivered). It requires different obligation arrangements (i.e. to be available at least x per cent of the time etc.) and a testing regime to enforce this. It is more complicated to monitor and enforce and creates a significant vulnerability to gaming, a problem that has been observed in other markets. These problems are well documented and a comprehensive spot and routine testing and monitoring regime would be necessary to mitigate gaming risks. Additionally, there would be no way to levy penalties if consumers do not end up getting what they have been paying for in a stress event. If it was considered for interconnectors, the impact on the auction design would also be significant as it would mean paying the same price in the auction for a different, less secure product or redesigning the auction completely to take account of different products.

31. It is worth noting that neither delivered energy nor declared availability for interconnected capacity would guarantee that electricity would flow to GB over interconnectors at times of system stress. This is because the direction of flow is determined solely by price differentials between the markets. That said, following the reform of imbalance pricing by Ofgem (the Electricity Balancing Significant Code Review (EBSCR)) and the full implementation of market coupling, we do expect the support of more efficient trades over interconnectors at times of system stress because GB prices should be higher. See paragraphs 36-40 for more details.

Length of agreement

32. Under the current Capacity Market arrangements, all capacity providers have access to one year agreements. We propose the same for interconnectors. Access to the Capacity Market will ensure that interconnectors are valued for the security of supply benefits they provide. It will also allow an annual de-rating exercise to be conducted, meaning that forecasting accuracy can be improved and consumers do not pay a fixed amount long-term in a sector which is undergoing a lot of change.

33. For GB capacity, however, there are exceptions for new build or refurbishing plant to address market issues specific to GB. For new build, eligibility for capacity agreements of up to fifteen years was permitted partly in order to facilitate access to project finance for independent generators. Where interconnectors rely on project finance, it may help to have longer contracts to secure their financing. There are however reasons to suggest that different treatment may be justified:

    a. As described in paragraph 42, Ofgem has announced the introduction of a new regime for new electricity interconnector projects called Cap and Floor. This provides some assurance that revenues will not fall below the floor, which is based on an observed market cost of debt, taking away some downside revenue risk for investors. In return, the cap returns value to consumers in the event of high revenues. We do note that project finance interconnectors would still need to secure equity. However, the aim of this Capacity Market policy is not to duplicate Ofgem's objective, rather it is intended to ensure fair and equitable treatment for interconnectors.
    b. The evidence about how interconnectors respond to stress under the new EU market coupling rules is developing. It may not be in the interests of interconnector projects to lock in a longer capacity contract with a high de-rating factor based on early experience. It may also not be in the interests of consumers if it led to over-procurement of capacity. One year agreements would mitigate these risks.
    c. Interconnector projects take a significant time to develop and implement, potentially more than generation, meaning that it may be harder for interconnector developers to time their projects to deliver in time for the delivery year, or to time their projects to hit times when capacity may be tight. This suggests that shorter contracts that mean that interconnectors receive payments reflecting the actual profile of capacity value may be better.
    d. Finally, the interconnector-led approach is intended to be a transitional measure. We will work closely with the European Commission and other Member States on agreeing a common approach to cross-border participation in capacity mechanisms in the coming years. Given the current direction of travel on this at EU level, we expect that an enduring solution will be a generator-led approach and wish to be in a position to transition to an enduring EU scheme when appropriate – without being encumbered by long-term capacity agreements as this would mean that consumers potentially pay twice for the same product.

34. In terms of the exception for refurbishing plant, GB has quite high levels of aging generation assets and therefore domestic capacity providers that wish to refurbish to extend the life of a plant can access three-year capacity agreements. However, the engineering conditions are different for interconnectors and the applicability of this exception for interconnectors is not as clear cut. Government would welcome evidence on whether three year capacity agreements could assist in bringing forward a refurbishing project to extend the life of an

interconnector, whilst being mindful of the risk to consumers in offering agreements longer than one year.

35. In light of the arguments above, the Government is minded to conclude that the best solution is for an agreement length of one year, on the basis that this should be fair and equitable to interconnectors, enable continuing improvement of forecasting accuracy and have the least distortive effect on the operation of cross-border markets. However, we also recognise that this is a complex area and would welcome views on whether these risks can be mitigated and, if so, the case for longer contract durations, for example three and five years, and how in practice the capacity auction would operate if such contracts were offered.

Regulatory Context

The EU context

36. The need for a consistent approach to cross-border participation in capacity remuneration mechanisms has been identified at EU level. Coordination between the European Commission, Member States, TSOs and the National Regulatory Authorities will be required to develop a solution. A lot of work has gone in over the past two decades on enabling electricity to be traded internationally and now “capacity” must be defined and specified to enable it to be similarly traded.

37. Once this is agreed, implementation can begin. This requires the delivery of at least the following objectives:

    a. determination of how much capacity to auction in the interconnected countries i.e. to identify a common approach to de-rating interconnectors;
    b. agreement on how to prequalify and de-rate plants in interconnected countries;
    c. inter-TSO agreements on how to test and verify/monitor these plants;
    d. the implementation of a zonal auction which is likely to have different clearing prices in different countries; and
    e. international cooperation on the enforcement of penalties.

38. Government is fully committed to working with all the European partners to facilitate this effort. Indeed, we have considered the trade-offs and practical design implications associated with a generator-led model which may form part of the longer-term work at EU level. Our initial views on of these is as follows:

    a. Measuring delivered energy is complex as it depends not only on the generator but also on the flow over the interconnector. Should the obligation not be met (i.e. the electricity delivered to GB is not up to the level of the capacity auctioned for that bidding zone), a determination would be needed as to where the fault lies and penalty should be levied i.e. if the generators were not generating, if there was a fault on the non-GB grid, if there was a fault on the interconnector or if the market

signals were simply not strong enough to ensure imports. Furthermore, if the obligation is exactly the same as in GB and generators are required to despatch when a four hour capacity market warning is called, it could result in out of merit dispatch in another market. This would be for no additional security of supply benefit to GB in a world where market coupling is fully implemented with electricity flows already responding to scarcity pricing. The practical implementation issues as outlined in paragraphs 23 to 25 would also need to be addressed.

b. Should a cross-border declared availability model be agreed at EU-level, meeting the capacity obligation under this model would not require that electricity flows to GB over the interconnector. It would simply require non-GB generators to be available and despatch should the market conditions mean that it is profitable to do so. As mentioned above, this system is vulnerable to gaming and robust mitigation measures and testing regimes would need to be implemented in the non-GB markets to protect consumers. Furthermore, as declared availability is not the same product as delivered energy (and arguably less secure), we would need to consider if the same clearing price is appropriate for both or if a separate auction or zonal auction to establish a price for this different product in the different interconnected markets is needed. Again, the practical implementation issues as outlined in paragraphs 23 to 25 would also need to be addressed.

39. It is also worth noting that the landscape is also changing as the internal energy market is completed and especially as experience is gained in the operation of cross-border markets as the European Network Codes are implemented. As a result, following the implementation of these Codes and as experience of market coupling is gained, GB policy will remain under review. We need to be mindful of this when finalising a design at this stage. Any design must operate within the framework of the rules governing the EU internal energy market (electricity target model). These rules are being implemented via a series of Network Codes and Guidelines in European Regulations that determine how energy is traded across borders for all timeframes i.e. in the forwards market, day-ahead market and the intra-day market.

40. This is important because, under these rules, interconnector operators are not allowed to control the direction of flow. Instead this is determined purely on the basis of price (i.e. from a lower to a higher priced market). These factors would override trades agreed in the forward market or any cross-border capacity agreements with non-GB resources.

Ofgem's Integrated Transmission Planning and Regulation (ITPR)

41. Government has a role in supporting new interconnection by designating them as Projects of Common Interest[6]. Projects are brought forward by developers, who then engage with

[6] PCI status enables them to benefit from potentially faster planning and permitting procedures, potential regulatory incentives, and possible access to financial support from the Connecting Europe Facility. http://ec.europa.eu/energy/infrastructure/pci/pci_en.htm

Ofgem. Currently, GB has 4GW of interconnection and several mature projects in the pipeline.

42. To support further investment in interconnection, Ofgem has introduced a new regime for projects with connection agreements in 2020 or earlier, called "Cap and Floor"[7]. This will give regulatory certainty to new projects and support their financing by providing a revenue guarantee for 25 years (providing the developer meets minimum availability requirements).

43. The interaction with the arrangements for existing interconnectors (e.g. revenue caps) and the new Cap and Floor regime has been an important consideration when developing the proposals in this chapter.

Lead option: Interconnector-led interim measure

44. It is proposed that the lead option – an interconnector-led interim measure – would operate as follows:

Eligibility and pre-qualification:

45. Interconnectors would pre-qualify by application to the Delivery Body for the auction in the same manner as any other prospective Capacity Market participant. Each interconnector would form a Capacity Market Unit (CMU) with the interconnector owner being the party eligible to take on a capacity obligation.

46. An interconnector owner may elect to opt-out of the auction by submitting an opt-out notification to the Delivery Body during the pre-qualification window, as with existing generation. The capacity that has pre-qualified will be assumed to be present in the relevant delivery year (unless the interconnector has notified National Grid that it is to cease operation by the commencement of the relevant delivery year).

47. Interconnector CMUs would be de-rated to derive the capacity that may be submitted into the auction by the interconnector owner.

48. It is proposed to retain the same consumer safeguards for new interconnectors in the T-4 auction as exist in the Capacity Market currently for new plants – that is milestone planning checks for new build and £5,000/MW collateral (in summary a Financial Commitment Milestone at 18 months after award of a capacity agreement demonstrating either a minimum level of expenditure or that major contracts and financial commitment to the project are in place; with a Termination Fee of £5,000/MW applicable if this milestone is not achieved. Collateral for this fee would be required to be in place ahead of the auction. In addition, construction reports are required at intervals during construction).

[7] Cap and Floor Regime: https://www.ofgem.gov.uk/publications-and-updates/decision-roll-out-cap-and-floor-regime-near-term-electricity-interconnectors

49. If a new interconnector is planned but not built in time for the delivery year, it leaves a large capacity deficit that needs to be filled in the T-1 auction. Given the capacity of interconnectors, this places a risk on consumers of potentially paying more in the T-1 for the same capacity, or the risk of enough capacity not being available in the T-1 to meet this deficit. The termination fee/collateral requirements will incentivise on time delivery of the project and provide a tool to protect consumers in the event of non-delivery.

50. In the case of late delivery of a project, it is proposed to terminate the capacity agreement for the delivery year and disqualify application for a capacity agreement for the subsequent year or first delivery year of operation, as applicable.

51. All other pre-qualification criteria must be met and, in addition, a certificate demonstrating the maximum transfer capacity to GB as agreed with the two system operators at either end of the interconnector for the relevant delivery year.

De-rating interconnectors

52. As with domestic generation, interconnectors would be individually de-rated at the level of the realistic long-run expectation of what reliance can be placed on them at times of stress.

53. The de-rating factor itself is crucial due to the inability to guarantee the direction of flow over the interconnector under market coupling rules. It links directly to the amount of capacity to be secured in the auction. If a certain amount of capacity, say 3GW, is assumed to come from interconnection, it means that we are relying on that 3GW capacity to be there at times of stress, and have not secured it elsewhere. However, the methodology for this type of work is difficult, and neither Ofgem nor National Grid has experience in de-rating interconnectors individually. It is complex and there are two variables that need to be considered:

- **Technical reliability:** This varies widely from interconnector to interconnector and depends on factors like the type of technology used, the age of the interconnector etc.

- **Contribution of interconnected market to GB security of supply at times of system stress:** An interconnector should be further de-rated according to the contribution of its connected market to GB grid at times of system stress. If a GB plant is generating, it will generate electricity for the GB grid 100% of the time. For interconnectors, however, the contribution to the GB grid is dependent on the dynamics of the connected market.

54. This calculation will need to be done on an annual basis as we expect the contribution to security of supply to change as market coupling is implemented. Developments related to the EBSCR would also need to be taken into account – sharper electricity prices should lead to interconnectors becoming more reliable as a source of capacity during peak

periods, the benefits of which could materialise in different ways, such as improved de-rating factors for interconnectors.

55. For an interconnector to a newly connected market, a methodology would need to be devised to de-rate the interconnector by modelling the newly connected market's contribution to GB peak demand.

56. De-rating interconnectors is a challenging and necessary calculation, which will be needed to inform a cross-border solution and we will be welcoming further views from stakeholders. Government will consult on a proposed methodology in due course, which will be implemented following approval by the Secretary of State.

Auction

57. The interconnector owner will participate in the auction in the same way as any other prospective capacity provider. Should it be successful then it will receive a capacity agreement. It will be eligible to receive monthly capacity payments based upon its de-rated capacity and the auction clearing price.

58. All other rights and obligations of a capacity obligation apply to interconnectors. For example, it may not be simultaneously used to access both low carbon support and payments under a capacity agreement.

59. All pre-qualified but not opted out interconnector capacity will only be assumed to offer capacity to GB if they are successful in the capacity auction. If they fail to secure a capacity obligation in the auction they will still be eligible for the T-1 auction and eligible to participate in secondary trading.

Testing

60. The testing regime under the current Capacity Market Rules is not suitable for interconnectors. GB generators must nominate three settlement periods in the previous winter where they can demonstrate that they have delivered up to the level of their capacity obligation. If this is not possible, then ability to deliver must be verified by the Delivery Body in the summer.

61. This is not applicable for interconnectors. What we are interested in is their technical availability (any level of flow will demonstrate this) and the maximum transfer capacity that they are allowed to flow to GB (as agreed between the two TSOs at either end of the interconnector).

62. It is therefore not proposed to have specific testing requirements. Interconnectors instead should demonstrate that they have flowed the previous winter at times of peak demand and, during prequalification, submit a certificate stating the maximum transfer capacity to GB for the relevant delivery year.

Delivery of obligation in system stress events

63. An interconnector CMU that has successfully secured a capacity obligation will have its delivery performance monitored during periods of GB system stress. In common with all CMUs with a capacity obligation, should the electricity delivered across the interconnector during a stress event be less than its load following capacity obligation then the interconnector owner as holder of the capacity obligation will be liable for penalties. Likewise if the energy delivered is in excess of the capacity obligation then it will be eligible to receive over-delivery payments.

64. Furthermore, Capacity Market penalties will not exceed the capacity payments in any given year and interconnector owners may trade in the secondary market up to the level of their obligation.

Secondary trading

65. Secondary trading for interconnectors in the GB Capacity Market would work the same way as with domestic generators. We do not propose special provisions.

Box 1 Consultation Questions	Interconnection
Question IC1	• Do you agree with the proposed approach of an interconnector-led interim measure until an international solution is developed at EU level?
Question IC2	• Do you have views on a common approach at EU level to cross-border participation in national capacity remunerations mechanisms?
Question IC3	• Do you have any views on how this proposal interacts with the implementation of market coupling and the electricity target model?
Question IC4	• Do you have any views on the proposal to integrate interconnectors into the existing auction design i.e. a single product auction to secure one capacity product?
Question IC5	• What are your views on the length of capacity agreements for interconnectors? Where possible, please provide evidence based answers.
Question IC6	• What are your views on de-rating interconnectors?

Box 1 Consultation Questions	Interconnection
	Specific views are invited on: A) principles i.e. technical reliability and the likelihood of flowing to GB at times of system stress B) Are you aware of any best practices, useful data sets or other evidence to contribute to assessing the de-rated capacity of interconnectors? D) Are there any particular challenges or risks to de-rating interconnectors that you wish to highlight?
Question IC7	• Do you have any views on penalty liability? Is it appropriate to apply the same regime as for domestic generation given that interconnectors may be exporting?
Question IC8	• Do you have any comments on Chapter 2 of the Consultation?

Chapter 3: Metering Configuration Solutions

Introduction

66. Government is committed to establishing a broader and more flexible electricity sector. The initial design of the Capacity Market relied upon CMUs using pre-existing processes and standards as set out in the Balancing and Settlement Code (BSC) for metering, data collection, storage and transfer. This was to ensure that robust processes were put in place, building on established arrangements.

67. However, the Government acknowledges that non-BSC CMUs may not wish to become a party of the BSC for financial reasons and that they have different business priorities from traditional electricity providers. As such, to enable and encourage the participation of the non-BSC sector, DECC has provided a choice of three alternative 'metering configuration solutions' (MCS). The choice offers greater flexibility to potential capacity providers whilst seeking to maintain the robustness of the BSC and therefore provide confidence of security of supply and value for money to consumers.

68. In addition to the non-BSC sector, there are also BSC resources for which existing metering arrangements are insufficient to pick up the complexities of electricity generated and used on the site. These resources will either need to implement additional metering to differentiate the Capacity Market generating units from other units within the Balancing Mechanism Unit (BMU) or to separate their BMU into further BMUs.

69. This chapter sets out our general metering requirements and the approved Capacity Market MCS options. CMUs are responsible for installing, commissioning, testing, maintaining and repairing metering equipment in accordance with the governing documents for each MCS and for ensuring that metered data is appropriately stored and transferred to the Electricity Settlement Company (ESC).

70. Our proposals will be of interest to resources that are demand side response (DSR), non-Centrally Metered Registration Service (CMRS) or a subset of a BMU. To ensure parity between all CMU resources, the requirements set out in this chapter have been developed to provide confidence that:

    - each metering set up accurately reflects the energy use on site so that the performance of the capacity obligation can be observed; and
    - metered data is appropriately assured and regularly submitted to the ESC in a suitable format.

Detailed metering proposals

General requirements

Metering configuration solutions

71. It is proposed that during pre-qualification CMUs will also be asked to confirm the metering configuration of each of their resources and that these comply with the requirements set out in the relevant governing document, included in Box 2. This will provide parity between the options as both the balancing services and bespoke guidance documents are based on the BSC Metering Codes of Practice.

Box 2: Summary of the three metering configuration solutions

Meter Configuration Solutions	Relevant governing documents	How data will be sent to the ESC
Supplier Settlement (HHDA) Use of existing half hourly settlement meter and the meter data is collected by Half Hourly Data Aggregators.	BSC Metering Codes of Practice. Under BSC arrangements the supplier is responsible for ensuring that the metering arrangements comply with the BSC metering codes of practice, however, in the Capacity Market requirements are placed on the provider.	HHDAs will submit metered data to the ESC.
Balancing Services Use of existing Balancing Services metering for Short Term Operating Reserve (STOR), Frequency Control by Demand Management (FCDM) and Firm Frequency Response (FFR).	STOR Despatch Procedure version 1.3. FCDM – Bilateral Agreements between provider and National Grid. FFR – Framework Agreement or Bilateral Agreement.	Third party data collector or self-submission via a CSV file to the ESC.
Bespoke Use of additional metering to demonstrate performance behind the pre-existing site boundary meter.	Bespoke Technical Requirements - a draft version has been published alongside the consultation document	Third part data collector or self-submission via a CSV file to the ESC.

72. The Bespoke Technical Requirements have been developed for the Capacity Market and are based on the CFD Private Network Requirements and the BSC Metering Codes of Practice. The requirements contain the technical information relating to the installation, operation and maintenance of the Bespoke Metering Configuration. A draft version has been published alongside the consultation document and will subsequently be incorporated into the Capacity Market Rules.

Requirements applying to all metering solutions

Time, date and storage of meter data

73. As set out in the existing Electricity Capacity Market Regulations 2014[8] all CMUs are required to use half hourly meters. CMUs must ensure the metered output is appropriately date and time stamped and therefore it is proposed that CMUs must make sure that the clock in their meter is reset to UTC (co-ordinated universal time) on a regular basis, which must be in accordance with the requirements of the metering configurations governing documents. This is required to ensure that capacity output is allocated to the correct Settlement Periods.

74. CMUs are responsible for accurate submissions of meter data to the ESC as set out in Rule 14.5. In order to safeguard against missing data or to resolve queries about inaccurate data submission, CMUs will be required to ensure that that the data storage facilities in the meter can hold data for a minimum of 50 days, which must be in a settlement period format. A minimum of 50 days is suggested as it will cover the baseline period as well as a system stress event or test. This does not remove the need for CMUs to regularly read the meter and store data readings.

Where a change is made to metering configurations

75. The reporting of metering faults and any associated repairs, replacement and removal of equipment must be undertaken in accordance with existing Rule 8.3.3 (f). To ensure that Rule 8.3.3 (f) is followed, it is proposed that any failure to comply with this rule may result in CMUs invalidating their Metering Test certificates and possibly their DSR Tests certificates. This would result in the return of any capacity payments received during the period that the certificates were not valid or termination of the agreement for successive failures by providers with long term agreements.

76. CMUs will be required to ensure that any replacement metering equipment is installed and tested in accordance with the documents governing the metering option. This will help to ensure that any changes to the metering set up have not reduced the accuracy of the metered data. CMUs will be required to keep records and these may be requested by the ESC at any time.

[8] Generating units – Regulation 4(2)(c) and 4(3)(d) and for DSR components – Regulation 5(3)(b)

77. CMUs using supplier settlement metering are subject to the BSC metering codes of practice for changes to metering configurations. It is proposed that CMUs using Bespoke metering must follow the guidance on changes to metering equipment as set out in the Bespoke Technical Requirements, which are also based on the BSC metering codes of practice.

78. CMUs using Balancing Services metering will be required to comply with the change procedures set out by National Grid. If National Grid no longer operates the Balancing Services product, the provider will be required to amend their metering configuration to one of the other approved metering solutions.

79. We intend to simplify the prequalification process for subsequent auctions by amending the Rules to allow Metering Tests Certificates to remain valid once passed, unless the metering arrangements of the provider's components are changed. In successive applications, CMUs must confirm that the metering configurations for each of their components has not been amended and they will not need to undertake a Metering Test. It is also proposed that CMUs who are subsequently found to have changed their metering set up may have their Metering Test certificate invalidated and may need to return any capacity payments received.

Data flows

80. For all metering options, once the meter data begins being sent to the ESC (either before the auction for proven and existing CMUs or after the auction for unproven and new CMUs), the flow of data should remain in place before and throughout the delivery year. This requirement aims to prevent any delays in reactivating the flow of data and to ensure it is in place prior to and throughout the delivery year. CMUs that change their supplier remain responsible for ensuring that the data flow is reconnected to the ESC.

81. If the capacity provider believes there is an error with the data they are submitting or have submitted, it is proposed that they must inform the ESC within one working day of discovering the fault and within five working days either correct the fault or submit a rectification plan outlining how and when the fault will be corrected.

82. CMUs using Balancing Services metering will be unable to use National Grid's existing communication system to transfer data to the ESC due to insufficient bandwidth capacity on the system. This is outside Government's control, but in order to ensure that such resources are able to participate we propose that such CMUs should use the same data transfer arrangements as Bespoke metering.

83. CMUs using both Balancing Services and Bespoke metering are required to send their meter data to the ESC in settlement period format as set out in Rule 14.5.2.

84. It is intended that during the transitional arrangements CMUs can submit their own data directly to the ESC or can arrange for their data to be collected and submitted to the ESC

by a third party data collector. The data is to be submitted via secure file transfer protocol (SFTP) in a CSV (comma separated value) format. Secure file transfer protocol is a secure and standard protocol for transferring files from the provider to ESC.

85. Whilst this may be a suitable interim approach during the transitional arrangements, Government does not believe this is an appropriate long-term solution. As such, it intended that an enduring method for sending data to the ESC will be subsequently developed and it is intended CMUs will be asked to implement the system prior to the delivery year in 2018. This method will need to ensure that data submitted is robust, accurate and mitigates against possible data manipulation. We envisage an approach where provider's data is submitted by a third party data collector or readings are automatically taken from the CMUs meters and submitted to the ESC.

86. It is proposed that there is no grandfathering provision for the process of submitting meter data to the ESC. CMUs are required to ensure that updates are undertaken as requested by the ESC as soon as possible to ensure that data is available following a stress event or test.

87. The ESC will check that all data flows are being received on a monthly basis and will inform CMUs of any missing flows. The provider is responsible for resolving any issues and for data provision.

Validation of metering configurations and data

88. As set out in Rule 13.3.3 the ESC will undertake site visits to provide assurance that the metering set-up is correct and data being submitted is accurate in advance of the delivery year. It is proposed to widen site visits so that random 'spot tests' may be undertaken during the delivery year. Such inspections are likely to be focused on CMUs that have submitted their own data.

89. CMUs may be notified by other parties that the meter equipment is faulty and/or that the meter is potentially recording incorrect data for example HHDAs or third party data collectors. CMUs will be required to inform the ESC within one working day of discovering the fault and within five working days either correct the fault or submit a rectification plan outlining how and when the fault will be corrected.

90. Disputes regarding the metering set-up will be resolved using an expert determination process similar to Schedule 5 of the Capacity Market Rules and disputes relating to meter data will be resolved via the ESC dispute process as set out in Part 10, chapter 2 of the Capacity Market Regulations.

91. It is proposed that CMUs found to have submitted incorrect data or information could have their Metering Test and possibly their DSR Tests certificates invalidated, and repay any capacity payments dating from the point at which the inaccuracies were submitted. CMUs

with long term agreements who have successive failures, may have their agreements terminated. Fraud or suspected fraud will be dealt with under criminal procedures.

Metering arrangements for a CMU that is a subset of a BMU

92. There are four main types of CMUs:

- Transmission system connected;
- Centrally Metered Registration Service Distribution (CMRS) connected to the Distribution System;
- Non-Centrally Metered Registration Service Distribution; and
- DSR.

93. Transmission CMUs and CMRS Distribution CMUs operate within the BSC. In some cases these CMUs will have a capacity resource which is a subset of an existing BMU – in which case its meter data will not immediately be visible to the ESC and the CMU will either need to:

a) have their BMU metered volume separated to demonstrate their capacity output through additional metering in accordance with the bespoke metering configuration solution set out in this Chapter; or
b) divide their BMU into smaller BMUs representing their CMU.

94. The meter data collected from CMUs using option (a) would be non-BSC data as it is not provided under the Balancing and Settlement Code, irrespective of whether the capacity provider is a party to the Balancing and Settlement Code.

95. Examples of a CMU that is a subset of a BMU:

Box 3: Metering configuration solutions, example 1

If the generating units that make up the CMU are not individually metered, but the remaining generating units on site are metered to the requirements of the Capacity Market's Bespoke Technical Requirements, the ESC can determine the CMU output by deducting the output of the non-CMU units. This could, for example, apply where specific units are already metered in order to gain Renewable Obligation certificates (figure 1 below). Where the other units on site are not separately metered, the CMU must ensure additional metering is installed in accordance with the Bespoke Technical Requirements to determine the actual CMU output.

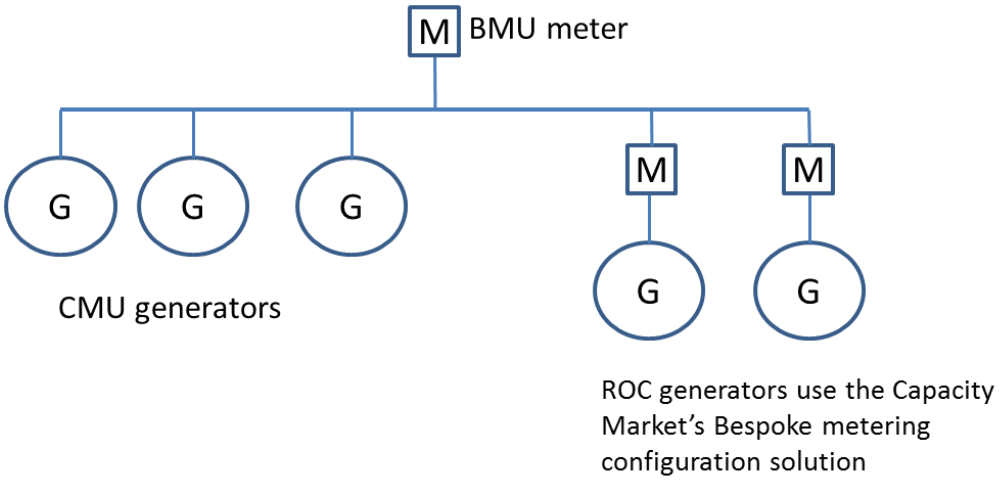

Figure 1: CMU that is a subset of a BMU using Bespoke metering configuration solution

Box 4: Metering configuration solutions, example 2

Where the CMU generating unit is already individually metered, the BMU can be split into two BMUs. The metering configuration would not need to be amended as the metering arrangements remain within the BSC.

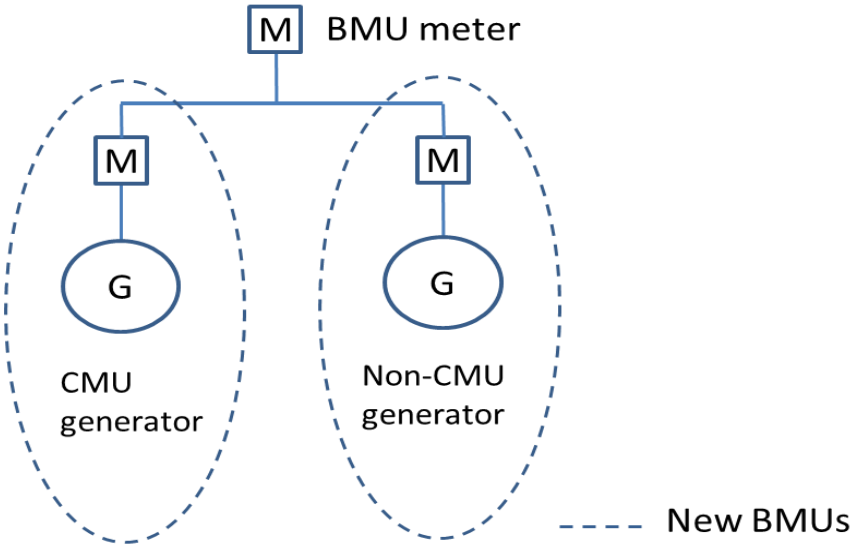

Figure 2: CMU that is a subset of a BMU can be divided into further BMUs

Box 5: Consultation Questions	Metering Configuration
Question MC1	• **Do you have any views on the proposed Technical Requirements for Bespoke Metering? A draft version has been published alongside the consultation document.**
Question MC2	• **Do you agree that data storage facilities in the meter should retain data for a minimum of 50 days?**
Question MC3	• **Do you agree with the proposals for change of metering equipment provisions set out in this chapter?**
Question MC4	• **Do you agree that Metering Test Certificates should remain valid for subsequent auctions?**
Question MC5	• **Do you have any views on whether the proposed data transfer methods for transitional arrangements is suitable as an interim approach?**
Question MC6	• **Is it necessary to develop more robust data submission arrangements in the longer term?**
Question MC7	• **Do you agree with the proposed sanctions for CMUs that have incorrectly or falsely submitted data or information?**
Question MC8	• **Do you have any views on the two options set out for CMUs that are a subset of a BMU?**

Chapter 4: Capacity Obligation Trading and Settlement

Introduction

96. In the June 2014 Government Response to the October 2013 EMR implementation consultation we set out our intention to make changes to the Regulations to include Obligation Trading. Obligation Trading is an important element of the secondary trading design of the Capacity Market to enable providers to manage the risks associated with holding a capacity obligation. Capacity providers are able to transfer their capacity obligations between Capacity Market Units and to a certain limited number of other parties. This section sets out the policy intent of the proposed amendments to the Regulations to enable Obligation Trading and provides examples of calculations based on different scenarios.

Revisions to Regulations in relation to Obligation Trading, payment and reconciliation

97. In order to give statutory backing to the provisions for Obligation Trading - as currently set out in Chapter 9 of the Capacity Market Rules 2014 - it is necessary to amend the settlement calculations set out in Schedule 1 of the Electricity Capacity Regulations 2014.

98. In addition, the Regulations will also need to be amended to ensure that payments to and from capacity providers are reconciled and any interest accrued on payments is distributed correctly. This section covers what we believe needs to be changed in the current set of Regulations to enable Obligation Trading and provides examples of calculations based on different scenarios.

Payments and reconciliation

99. A separate set of regulations, the *Electricity Capacity (Supplier Payment) Regulations 2014*, will make provision for the payments to be made by electricity suppliers to cover the costs of the Capacity Market. These provisions are not considered as part of this consultation document as they were covered by the Implementing EMR Consultation in October 2013. These regulations, which are expected to be laid in Parliament in October 2014 and come into force in November 2014, will include provisions for the reconciliation of payments made by and to electricity suppliers. Similar provisions will be added to the *Electricity Capacity Regulations 2014* to ensure that payment to and by capacity providers are also subject to reconciliation in order to take account of revised data, dispute decisions and penalty charges.

100. This reconciliation will happen according to the same timetable set out for suppliers, which in turn is intended to reflect existing BSC processes. We are now also proposing a minor amendment to *the Electricity Capacity Regulations* to clarify that any interest accrued on collateral or bid bonds posted by prospective capacity providers as part of the prequalification process should be returned to the capacity provider along with the principal sum.

Modifications to payment calculation formulae and detailed calculations to be added to Schedule 1

Obligation Trading

101. Enabling Obligation Trading requires three principal amendments to Schedule 1 of the Regulations to address the interaction with i) the level of monthly capacity payments ii) the penalty rate and over-delivery rate applied at times of system stress and iii) the level of monthly and annual penalty caps.

Detailed proposals

102. It is the policy intent that the level of capacity payments and penalty liability adjusts to reflect the mix of capacity obligations held by a capacity committed CMU over the delivery year. It is proposed that Schedule 1, paragraph 3(3) of the Regulations will be amended to enable an increase or decrease in a capacity provider's scheduled monthly capacity payments for a CMU depending on whether they had taken on additional obligations, or traded out of their obligations, the amount of the transfer and the period for which the transfer applies.

103. It is the policy intent that a single penalty rate applies to a CMU failing to deliver as per their obligation(s) at a time of system stress. Each individual obligation has an associated vintage penalty rate (£/MWh), which is the product of the relevant auction's clearing price divided by 24. It is proposed that Schedule 1, paragraph 5 of the Regulations is amended so where a CMU holds two or more obligations of different vintages, the penalty rate applied to the CMU's delivery failure would be the weighted average of the penalty rates for those vintages of obligations held by the CMU at that time. This means that the penalty rate applied at times of system stress may fluctuate across a delivery year based on the mix of obligations held by the CMU, with a commensurate impact on how long it would take to reach their monthly penalty cap. The penalty rate may also fluctuate across a system stress event should the event span the period for which obligations are transferred. It would however remain constant within individual settlement periods.

Box 5: Obligation Trading, example 1

A CMU holds obligations of three different auction vintages at the time of a system stress

Box 5: Obligation Trading, example 1

event. They have 5MW of obligation 1, with an associated penalty rate of £1,000/MWh, 10MW of obligation 2, with a penalty rate of £2,000/MWh and 15MW of obligation 3, with a penalty rate of £3,000/MWh.

The resultant penalty rate for the CMU would be ((5 x 1,000) + (10 x 2,000) + (15 x £3,000)/(30)= £2,333/MWh.

104. A similar approach is proposed in respect of calculating a CMU's overdelivery rate, which will be the lower of this weighted average or the total penalty revenue divided by the total overdelivery volume. As with the penalty rate, the weighted average may fluctuate over the course of the year, and individual system stress events (but not within settlement periods), although the overdelivery rate actually paid will not be determined until the end of the delivery year (where the total penalty revenue and amount of overdelivery will be known).

105. Under the existing Capacity Market regulations a CMU's monthly and annual penalty cap will be specified on the Capacity Market register as 200 per cent of their monthly capacity payments and 100 per cent of their annual capacity payments respectively. From a policy perspective we propose amending Schedule 1, paragraph 6 so that a CMU taking on additional obligations would be exposed in any one month to potential penalties of twice the full monthly capacity payments for those obligations. This position is to apply, even if the CMU does not hold the obligation for the entire month.

106. The discounted alternative would be to only expose the transferee CMU to an increased monthly liability cap of twice the capacity payments they received for holding the additional obligation. However this would result in very weak and unequal incentives should the transferee only hold the transferred obligation for a short period – for example a provider taking on a 500MW obligation for one day would be exposed to potential penalties of twice that day's capacity payment should there be a stress event on that day, whereas another provider holding a commensurate obligation obtained in the auction, rather than via a transfer, would be exposed to potential penalties of twice their monthly capacity revenue for the same stress event.

107. However we recognise that there is a balance to be struck between ensuring appropriate delivery incentives, risk exposure and the associated auction premia likely to be applied by applicants. We therefore want to focus the penalty cap on the obligations held at times of stress and not to simply expose the CMU to increased liabilities for the remainder of a month even where the transferred obligation has reverted to the original CMU. We propose that the monthly penalty cap for a CMU which has taken on additional obligations will rise by twice the scheduled full monthly capacity payments associated with the transferred obligation, rather than twice the monthly capacity payments actually

received by the CMU taking on the obligation, only where a system stress event occurs in the period for which the transferred obligation applies. This applies irrespective of the duration for which the transferred obligation is held in the month, whether the CMU is delivering as per its obligation at the time of the stress event and whether the stress event lasts for one settlement period or the entire period of obligation transfer.

Box 6: Obligation Trading - example 2

CMU A takes on a 50MW obligation, at a monthly capacity payment of £4/kW, for two days in which there is one settlement period of system stress. Its monthly penalty cap rises by twice the scheduled full monthly capacity payment for the transferred obligation- i.e. £0.4m (50x 4,000x2).

108. If there is no incidence of a system stress event in the period for which the transferred obligation is held then the monthly penalty cap of the CMU transferee would be adjusted to reflect their actual capacity payments for that month, which by definition reflects the duration for which the transferred obligation is held.

Box 7: Obligation Trading - example 3

CMU A takes on a 50MW obligation, at a monthly capacity payment of £4/kW, for two days in which there are no periods of system stress. Its monthly penalty cap remains at twice its actual monthly capacity payments, where the payments will have increased by c. £13.3k (50 x 4,000 x 2/30) due to holding the transferred obligation for two days in the month. Their monthly penalty cap therefore increases by £26.6k.

109. Where a CMU holds the same obligation (identified by the obligation's unique reference number) for different periods in a month in which there are system stress events, the monthly penalty cap can only be increased by a maximum of 200 per cent of the scheduled full monthly capacity payments for that obligation – i.e. the liability is not cumulative in respect of the same obligation.

Box 8: Obligation Trading - example 4

CMU A takes on the same 50MW obligation, at a monthly capacity payment of £4/kW, for two days at the beginning of the month in which there is one settlement period of system stress, and for two days at the end of the month in which there are no system stress events. Its monthly penalty cap rises by twice the scheduled full monthly capacity payment for the

Box 8: Obligation Trading - example 4

transferred obligation – i.e. £0.4m (50 x 4,000 x2).

Box 9: Obligation Trading - example 5

CMU A takes on the same 50MW obligation, at a monthly capacity payment of £4/kW, for two days at the beginning of the month in which there is one settlement period of system stress, and for two days at the end of the month in which there are several periods of system stress. Its monthly penalty cap rises by twice the scheduled full monthly capacity payment for the transferred obligation – i.e. £0.4m (50 x 4,000 x 2).

110. However if a CMU takes on separate, distinct obligations, either for different periods in a month or for overlapping periods in which there are system stress events, their monthly penalty cap would rise by the aggregate of twice the scheduled full monthly capacity payments for the individual obligations. This is the case even where the separate obligations are for the same volume.

Box 10: Obligation Trading - example 6

CMU A takes on two different, overlapping obligations, one of 50MW obligation at a monthly capacity payment of £4/kW, and another of 50MW obligation at a monthly capacity payment of £5/kW, for two days in which there are system stress events. Its monthly penalty cap rises to the aggregation of twice the scheduled full monthly capacity payments for the transferred obligations- i.e. £0.9m (50 x 4,000 x 2+ 50 x 5,000x 2).

Box 11: Obligation Trading - example 7

CMU A takes on a 50MW obligation, at a monthly capacity payment of £4/kW, for two days at the beginning of the month in which there is a single system stress event, and a different obligation of 50MW, at a monthly capacity payment of £5/kW, for two days at the end of the month in which there are several periods of system stress. Its monthly penalty cap rises to the aggregation of twice the scheduled full monthly capacity payments for the transferred obligations – i.e. £0.9m (50 x 4,000 x 2 + 50 x 5,000 x 2).

111. To confirm, any adjustments to a CMU's monthly penalty cap will be self-contained in the month in which they are incurred and have no impact on the monthly penalty caps of subsequent months.

112. From a policy perspective we wish for a CMU's annual penalty cap to be adjusted to reflect the mix of transferred obligations held throughout the year. We propose that the annual cap is increased, or decreased, from the point of the obligation transfer forwards, with the volume of change reflecting adjustments to the CMU's monthly payments or their adjusted monthly penalty cap where a stress event occurs. This is required to ensure that delivery incentives for CMUs participating in obligation trading are not diluted, as they would be if the monthly penalty caps were adjusted to account for transferred obligations but the annual penalty caps were not.

113. A CMU's annual penalty cap will therefore be adjusted in direct proportion to any changes made to the level of their monthly capacity payments as a result of obligation trading, save for the exception referenced in the following paragraph. It should be noted that any increase in monthly capacity payments as a result of acquiring additional obligations will feed through to an increase in their monthly penalty cap of twice this level. However the annual penalty cap will increase by the magnitude of the changes to the monthly capacity payments, rather than the times two impact on the monthly penalty cap. This is in line with the concept of the annual penalty cap being calibrated at 100 per cent of capacity payments.

Box 12: Obligation Trading - example 8

CMU A takes on a 50MW obligation, at a monthly capacity payment of £4/kW, for two days in which there are no periods of system stress. Its monthly penalty cap remains at twice their actual monthly capacity payments, where the payments will have increased by c. £13.3k (50 x 4,000 x 2/30) due to holding the transferred obligation for two days in the month. Their monthly penalty cap therefore increases by £26.6k, whilst its annual penalty cap increases by £13.3k from this month going forwards.

114. A CMU's annual penalty cap will, however, increase by the full magnitude of any increase in the monthly penalty cap where triggered by an incident of a system stress event (i.e. twice the scheduled full monthly capacity payments). This is to focus increases in the annual penalty cap, in effect to create penalty headroom for the raised monthly penalty cap, on periods in which a system stress event has occurred. To do otherwise would dilute delivery incentives.

Box 13: Obligation Trading - example 9

Box 13: Obligation Trading - example 9

CMU A takes on a 50MW obligation, at a monthly capacity payment of £4/kW, for two days in which there is one settlement period of system stress. Its monthly penalty cap rises by twice the scheduled full monthly capacity payment for the transferred obligation – i.e. £0.4m (50 x 4,000 x 2). The CMU's annual penalty cap will also increase by £0.4m from this month going forwards.

115. It is proposed that any adjustments to the annual penalty cap only apply from the month in which the obligation transfer took effect and apply for the remainder of the delivery year, or until another adjustment as a result of a subsequent obligation transfer occurs. Amendments to the annual penalty cap are not backdated, and a zero floor will be placed on the result of the formula in Schedule 1, paragraph 6(5), meaning that no monies will be repaid to a provider which had previously incurred capacity penalties in excess of the level their annual penalty cap drops to in the following month as a result of transferring their obligation.

Box 14: Consultation Questions	**Capacity Obligation Trading and Settlement**
Question OT1	• **Do you have any questions on the proposed amendments to the regulations in relation to reconciliation of payments or interest?**
Question OT2	• **Do you agree with the proposal to adjust, and the manner of adjusting, a capacity committed CMU's monthly capacity payments based on the obligations held?**
Question OT3	• **Do you agree with the proposal to adjust, and the manner of adjusting, a capacity committed CMU's penalty rate and overdelivery rate based on the obligations held?**
Question OT4	• **Do you agree with the proposal to adjust, and the manner of the adjusting, a capacity committed CMU's monthly penalty cap based on the obligations held?**
Question OT5	• **Do you agree with the proposal to adjust, and the manner of the adjusting, a capacity committed**

Box 14: Consultation Questions	Capacity Obligation Trading and Settlement
	CMU's annual penalty cap based on the obligations held?

Chapter 5: Price Duration Curves

Introduction

116. We recognise there is a justification for new build or refurbished generation capacity requiring a longer capacity agreement than existing generation capacity. This is because new generation capacity has to secure finance for its capital expenditure, often requiring a greater degree of certainty than an existing plant in which investment has already been made.

117. By offering long-term capacity agreements, Government (and ultimately the consumer) is taking on the price risk (that the clearing price falls in the future and the consumer pays a higher price to a capacity agreement with a longer duration) and volume risk (that the capacity may not be required in the longer term). Conversely, if capacity prices are anticipated to rise in the future, it would be preferable to lock-in capacity for a longer period at current prices.

118. The Capacity Mechanism Rules and Regulations contain provisions which allow the Secretary of State to set price duration curves, i.e. the price 'discount' applied to capacity agreements of different lengths, which would render Government indifferent between those agreements and a single-year capacity agreement. Government has confirmed that for the first auction the capacity will be effectively selected on price basis only (i.e. we dis-applied any price duration).

119. This Chapter proposes a methodology for setting price duration curves for future auctions by which the Government can express its preference between capacity agreements of different lengths and make them comparable. If there were already a robust and liquid futures market for capacity agreements, then information from this market could be used to establish and define the trade-off between price and agreement length. However, such information is unlikely to be available until the market is mature. Therefore, in the absence of this market information, Government will have to set the parameters of this trade-off through 'price duration curves'.

Detail

120. Regulation 11 of the Regulations defines "Price Duration Equivalence" as:

> *"the price at which for a capacity obligation for a specified duration of 2 or more delivery years is to be treated as equivalent to a bid for a capacity obligation for one delivery year, for the purposes of determining-*

i. In respect of which bids capacity obligation are to be awarded; and
ii. The capacity cleared price applying to those capacity obligations."

121. This means that a CMU bidding for a capacity agreement with a duration of longer than one year will receive the auction clearing price, adjusted by the length of the agreement it is awarded in accordance with Price Duration Equivalence of that tenor.

122. The Regulations give the Secretary of State the power to set the "price duration equivalence" as an auction parameter to be determined prior to the pre-qualification window.

123. Under this power, the Secretary of State can set out the Price Duration Equivalence that define the differences in price for a given agreement length that would render the Government indifferent between that agreement length and a single-year offer. The discount on longer agreement durations could change (and even switch direction) at different clearing prices – for example, Government may potentially prefer single-year agreements when faced with high clearing prices but preferring longer-term agreements when faced with very low clearing prices.

124. This is illustrated in Figure 3 below. This diagram shows sets of prices and agreement lengths between which the Government could define itself as being indifferent (with welfare being improved by moving to a lower price duration curve – i.e. at lower prices and shorter agreement lengths).

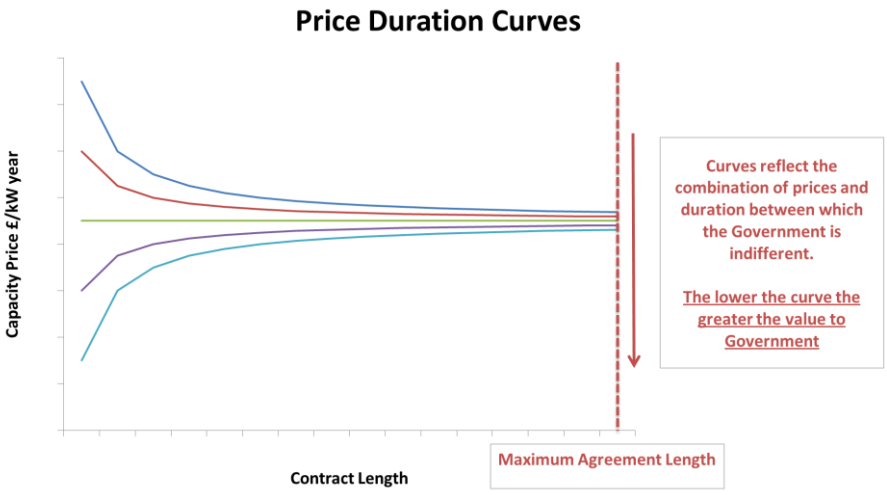

Figure 3: Illustrative Price Duration Curves

125. For the generators, it identifies the capacity clearing price *payable* for each possible clearing price in the auction, if the bid duration is for two or greater years. The Price Duration Equivalence determines the one year equivalent Bid for a generator equal to that of single year agreement/auction clearing price.

Proposed methodology

126. The purpose of Price Duration Curves is to allow the Government to express the combination of prices and agreement lengths between which it would be indifferent – for example, a short agreement length at a price of x and a long agreement length at a price of y. Therefore, when setting Price Duration Curves we need to define the Government's preferences for this price-duration trade-off.

127. The key parameter is the **estimates of future clearing prices** – for example, if clearing prices are expected to fall in future auctions, we may rather not make binding long-term agreements in the first few auctions. Conversely, if clearing prices are expected to be higher in future auctions, we may rather make binding long-term agreements in the first few auctions to take advantage of these lower prices.

128. Government will be indifferent between a long term agreement for years *y* or *y* single year agreements as long as the NPV of both types of agreement equate:

$$\sum_{i=1}^{y} \frac{FCP_i}{(1+DR)^{i-1}} = \sum_{i=1}^{y} \frac{LTA\_Price_y}{(1+DR)^{i-1}}$$

Where:

FCP_i= Estimates for Future Clearing Prices in year *i* including the current auction.

LTA_Price_y= Payment to a Long Term Agreement of a tenor *y*

DR = discount rate

y = tenor of a Long Term Agreement, (2 ≤ y ≤ 15[9])

129. If we solve for LTA_Price_y, we get

$$LTA\_Price_y = \frac{\sum_{i=1}^{y} \frac{FCP_i}{(1+DR)^{i-1}}}{\sum_{i=1}^{y} \frac{1}{(1+DR)^{i-1}}}$$

Where:

PDE_y = Price Duration Equivalence for a tenor y.

130. The LTA_Price_y price is the Price Duration Equivalence (PDE) where the Government is indifferent between a long-term agreement of tenor y and y single year agreements at prices FCP_i.

[9] Maximum Agreement Length

$$\therefore\ PDE_y = LTA\_Price_y = \frac{\sum_{i=1}^{y} \frac{FCP_i}{(1+DR)^{i-1}}}{\sum_{i=1}^{y} \frac{1}{(1+DR)^{i-1}}}$$

Where:

PDE_y = Price Duration Equivalence for a tenor y.

131. PDE_y is the capacity price payable to the capacity providers with an agreement for a tenor y rather than the auction clearing price. The bidder of a longer than 1 year tenor would use the reverse of this formula to calculate the single year equivalent bid in the auction:

$$Bid\_Price = FCP_1 = \sum_{i=1}^{y} \frac{PDE_y}{(1+DR)^{i-1}} - \sum_{i=2}^{y} \frac{FCP_i}{(1+DR)^{i-1}}$$

Where:

FCP_1 is the possible clearing price for the current auction subject to the auction price cap[10] and floor of 0.

132. The calculation needs to be made for every possible clearing price (FCP_1) for a particular auction, as each possible clearing price will lead to a different PDE_y for a particular tenor *y.*

133. The accompanying spreadsheet (Annex - Price Duration Curve Methodology) provides the calculations for PDE_y for the 2019 auction based on:

a. Capacity Clearing Prices as per the Impact Assessment published on the 4th of September 2014[11].
b. Considers possible clearing price at £5/kW intervals.
c. With a possible discount rate of 3.5% as in line with the Green Book.

Box 15: Price Duration Curves - Example 1

If the future clearing price for Y2 is expected to be £70/kW, and if the possible clearing price for current year's auction is £75/kW, then the Government is indifferent between a 2-year agreement priced at £72.54/kW or single-year agreement of £75/kW in Y1 and £70/kW in Y2

[10] Auction parameter published by the SoS- it is £75/kW for the 1st auction.
[11] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/354677/CM_-_revised_IA_and_front_page__September_2014__pdf_-_Adobe_Acrobat.pdf

Box 15: Price Duration Curves - Example 1

at a discount rate of 3.5% as the NPV of both agreement is £142.63.

For the possible clearing price at the auction of £75/kW, the generator bidding in for a 2–year agreement will receive the adjusted clearing price of £72.54/kW.

In the above example if a generator's exit bid for the capacity for a two year agreement is £72.54/kW, it needs to bid into the auction at the Price Duration Equivalent for a single year agreement at the price of £75/kW.

134. From the calculation above, we can infer that if the capacity payment payable to the new plant for a 15 year agreement will be £38.83/kW if the clearing price is £75/kW, with FCP_ibased on the recently published CM Impact Assessment[12].

135. We propose to use clearing price estimates from annual updates to DECC's electricity market modelling, using DECC's central case input assumptions available before each auction as a part of the auction parameters.

136. We will equate the Net Present Value of the cost of longer agreement against the NPV of single year agreement at FCP at a discount rate of 3.5 per cent, in line with the Green Book guidance.

137. There are other factors to consider such as taking account of volume and price risk – i.e. the fact that long-term agreements lock consumers into buying a certain volume of capacity. This leads to a risk of over-procuring which could in the future lead to lower clearing prices in the future and under-procuring which could lead to higher clearing price in the future. Some of this risk is reflected in the FCP_i.

Box 17: Consultation Questions	**Price Duration Curves**
Question PDC1	• **Do you agree with our overall methodology of deriving Price Duration Equivalence? Are there alternative methodologies that you would suggest?**
Question PDC2	• **Do you agree that the future estimates of clearing prices should be based on annual updates to DECC's electricity market modelling? Do you think**

[12] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/354677/CM_-_revised_IA_and_front_page__September_2014__pdf_-_Adobe_Acrobat.pdf

Box 17: Consultation Questions	Price Duration Curves
	that there other possible sources of future estimates of clearing prices that we need to consider?
PDC3	• **Do you think we should take further account of the volume and price risk surrounding the FCP_i? If so, how should be model for this risk?**
PDC4	• **Do you think that it would be in the interest of security of supply, a liquid auction, simplicity or otherwise to continue to dis-apply price duration curves and if so for how long?**

Chapter 6: Other technical changes

Introduction

138. This Chapter covers technical changes that we are proposing to make to the Capacity Market Rules and the Regulations. These are mainly minor and drafting corrections that need to be made to ensure clarity on the issues below.

139. The discussion which follows, under particular headings, sets out the existing position and then sets out how and why the Department proposes the existing position should be amended. Subject to considering consultation responses the intention is to implement the proposals by making the necessary amendments to the Capacity Market Rules or Regulations as appropriate.

EDR Pilot resources

140. The Electricity Demand Reduction (EDR) pilot scheme will provide organisations with financial support to install more efficient electrical equipment which reduces their peak electricity demand. The pilot has two objectives:

- To examine the viability of electricity demand reduction in the Capacity Market; and
- To learn lessons for Government and wider stakeholders on the delivery of EDR schemes.

141. We propose that applicants that have or will have a valid EDR participant agreement issued under the Electricity Demand Reduction Pilot Scheme will be excluded from participating in the Capacity Market, which will impact applicants for the Transitional Arrangements in 2015, who will deliver in 2016/17. By participating in both schemes the provider would benefit from double payment and would be in conflict with the aims of each scheme. For example, DSR providers that switch off their EDR technology to meet their capacity obligation would be in breach of their EDR participant agreement.

142. The EDR pilot is a learning opportunity to understand how efficiency savings are best achieved and measured for its wider implementation, and this proposal is aimed to ensure sufficient learning is obtained. Further information on the EDR Pilot can be found at https://www.gov.uk/electricity-demand-reduction-pilot.

Use of an unproven unit in T-4 and Transitional Arrangement auctions

143. The aim of the Transitional Arrangements is to support the growth of the DSR sector and small scale generators, and to prepare new resources to subsequently compete in the main capacity market auctions. To ensure that the new resources fully benefit from the Transitional Arrangement, it has always been our policy intent that an applicant cannot enter the Transitional Arrangements if they hold or have ever held a capacity agreement for the prospective CMU or CMU component. However, the Rules as they currently stand are incomplete insofar as they might allow unproven CMUs (who by definition hold a capacity agreement for yet to be specified CMU components) to subsequently take on components which were used in the Transitional Arrangements, thereby circumventing stated Government policy[13]. Therefore we propose to add a new provision to the Rules to prevent this from occurring. It should be noted that these amendments will continue to allow Transitional Arrangements providers to obtain new capacity agreements in auctions following the Transitional Arrangements.

Application of line loss factors

144. As energy is transported from the point of production to the end user, some of it is 'lost'. Under the BSC arrangements there are two ways in which these losses are accounted for:

- Losses on the Distribution Networks are allocated through the use of Line Loss Factors (LLFs).
- Losses on the Transmission System are allocated across BSC Parties through the use of Transmission Loss Multipliers (TLMs).

145. Line Loss Factors (LLFs) are multipliers which are used to scale energy consumed or generated in order to account for losses on the UK's Distribution Networks. The definition of meter point in the Capacity Market Rules 2014 does not allow line loss adjustments to be made for Distribution CMRS CMUs as the definition of meter point is at the Distribution System boundary and not the Transmission System boundary. This was not the policy intention and to further clarify, we propose that all generators including permitted on-site generating unit (DSR) will have line loss adjustments made either through the existing BSC systems, via HHDAs or by the ESC.

Ownership and representation of aggregated generators

146. Regulations 4(3)(b) only allow the aggregation of generating units if the units are the same type of resource and are owned by the same person. This regulation prevents generating units under 2MW from aggregating to meet the eligibility threshold. This is not an outcome which we want. Therefore, we propose amending Regulations to allow

[13] Paragraph 595, page 201 of the EMR consultation document published in October 2013.

generating units below 50MW that have different owners to aggregate. The units will still be required to be of the same type.

Prequalification decision

147. It is the policy intent that both applicants and obligation trading entrants can challenge a Delivery Body reviewable decision in respect of a prequalification decision to which they are the subject. The current definition of 'Prequalification decisions' in Regulation 2, however, ties the decisions to a specific capacity auction, which prevents secondary trading entrants (for whom specific auctions are not of relevance) from raising a dispute in this regard.

148. We therefore propose amending the definition of prequalification decisions to cover decisions in respect of Obligation Trading entrants in line with the policy intent.

Pro-rated termination of capacity agreement

149. It is the policy intent that capacity providers subject to a termination event should repay any capacity payments received between the date of the termination event, under Rule 6.10.1, and the actual termination of their agreements under Rule 6.10.2(e). It is arguable whether the current drafting delivers this policy intent.

150. It is therefore proposed that CMUs subject to termination events referenced in rule 6.10.1(a) (insolvency) or 6.10.1(d) (general eligibility criteria) will be required to repay any capacity payments received in the period between the termination event and the termination of their agreement. This repayment will be in addition to any termination fee liability and will be triggered by an invoice from the ESC. CMUs subject to a termination event referenced in Rule 6.10.1(g) (TEC surrender) will be required to repay any capacity payments received between the verified date of the TEC surrender, rather than the date of the notification of the termination event, and the point of termination under rule 6.10.2(e). In such periods capacity providers will not be obligated to deliver in any periods of system stress.

151. The repayment proposal is not relevant to other termination events which are subject to a termination fee (e.g. Rule 6.10.1(b) financial commitment milestone, Rule 6.10.1(c) – minimum completion requirement, Rule 6.10.1(e) – connection offer, Rule 6.10.1(f) – TEC confirmation and Rule 6.10.1(h) – metering assessment) as they can only occur in advance of the provider starting to receive capacity payments.

Transmission Entry Capacity (TEC) derogation and planning permission derogation

152. Under the current draft of the Rules an applicant for an existing generating unit may declare that it has not secured Transmission Entry Capacity (TEC) for the relevant delivery year but that it will have secured the required TEC at least 18 months ahead of the relevant delivery year (rule 3.6.3 refers). This derogation from the requirement to demonstrate TEC at prequalification was originally applied in respect of the first capacity auction only to

enable plant that had already relinquished their TEC for the 2014/15 year to participate in the first auction, and thereby helping to facilitate a more liquid auction.

153. A similar argument may be made in respect of the second auction, given the deadline for confirming TEC requirements for 2015/6 elapsed in March 2014. It is therefore proposed to extend the TEC derogation in Rule 3.6.3(b) to the second full capacity auction. It is not proposed to extend the derogation beyond the second auction, as the deadline for confirming TEC requirements in respect of 2016/7 onwards has not yet been reached and prospective applicants still have the opportunity to get themselves in a position to comply with the requirement to hold TEC at prequalification under Rule 3.6.3(a).

154. Applicants in respect of new build CMUs are required to demonstrate they have obtained all relevant planning consents in their prequalification applications. For the first capacity auction, however, there is a derogation under Rule 3.7.1(a) for applicants to declare that they will have obtained relevant planning consent at least 17 working days ahead of the first auction, rather than by the deadline to submit their prequalification applications.

155. This derogation was originally made in respect of the first auction only to reflect planning applications submitted prior to the Regulations and the Capacity Market Rules coming into force and who were still undergoing the planning consent process – and for whom an additional couple of months may make a difference to their ability to prequalify.

156. Additionally we recognise there could still be projects awaiting a final consent decision which had submitted their planning applications prior to the finalisation of the Regulations and the Capacity Market Rules. We therefore propose to extend the planning consent derogation under Rule 3.7.1(a) to the second full capacity auction. It is not proposed to extend the derogation beyond the second auction, as after this time the requirement to evidence planning consent (Rule 3.7.1(b)) would have been in the public domain for a longer period than the planning timelines and prospective applicants should have accommodated the CM's prequalification timelines in their planning cycle.

Achieving the Substantial Completion Milestone

157. Under the current drafting of the Rules a Refurbishing CMU will be considered to have met its Substantial Completion Milestone where it is operational, as defined in the Rules, and capable of delivering at a level which, when multiplied by its de-rating factor, equals or exceeds 100 per cent of its capacity obligation (Rule 6.7.3 refers). Stakeholder representation has indicated that this requirement is in conflict with Grid Code/Connection Use of System Charges (CUSC) requirements due to the way in which the connection capacity is determined for refurbishing units (i.e. their Connection Entry Capacity (CEC) under Rule 3.5).

158. It is therefore proposed to recalibrate the Substantial Completion Milestone to at least 90 per cent of a CMU's capacity obligation. This will practically enable Refurbishing CMUs

to achieve the milestone whilst aligning the treatment of Refurbishing CMUs with New Build CMUs, which are considered to have met their equivalent milestone where they are capable of delivering at least 90 per cent of their capacity obligation (Rule 6.7.2 refers).

Delay in achieving the Substantial Completion Milestone

159. The current drafting of Rule 6.7.7 provides for a CMU's Long Stop Date, where relevant, to be extended for any delay in achieving the Substantial Completion Milestone where the transmission licensee, DNO or their subcontractors have failed to provide an active connection to the timescales stated in the connection agreement. It is recognised that in some cases the capacity provider releases the transmission licensee or DNO from the date to provide the active connection, and in such circumstances we propose disapplying the ability to extend the Long Stop Date.

General eligibility criteria

160. The policy intent of Regulation 15 was that both Generating CMUs and DSR CMUs would have to maintain a minimum capacity of at least 2MW (the minimum capacity threshold) or otherwise have their capacity agreements terminated. The current drafting however, only references the requirement to have a connection capacity in excess of 2MW, which is only of relevance to Generating CMUs. It is therefore proposed to expand this criterion to reference the requirement for 'DSR capacity' (equivalent of connection capacity for DSR CMUs) to be at least 2MW in order to align with the policy intent.

Definition of registered trading unit

161. Regulation 4(8) references the concept of a 'registered trading unit', which is defined as a trading unit, other than a base trading unit, registered in accordance with the Balancing and Settlement Code. It is proposed that this definition is tightened up to specifically exclude 'sole trading units' (as defined in the BSC) as per the original policy intent. This class of units are not allocated a Trading Unit ID in Elexon's systems, they are not reported as Trading Units in settlement reports and they are not registered by anyone – as required under the current definition of registered trading units.

Failure to demonstrate satisfactory performance

162. The policy intent is that capacity committed CMUs unable to demonstrate their capacity ('Satisfactory Performance Days') over the winter period will forfeit their capacity payments from the beginning of May until such point that they demonstrate their capacity on three occasions. The original intent was that capacity providers in such a position would forfeit a minimum of one month's capacity payments (i.e. May's payment), irrespective of when they actually demonstrated their satisfactory performance. This is to provide suitable incentives for providers to demonstrate their capacity over the winter period.

163. The current drafting of the Regulations (Regulation 50) and Rule 13.4.1(b), however, does not implement this policy intent – instead prorating the restarted payments on the

basis of when the provider demonstrates the three satisfactory performance requirements. We propose to amend these provisions in line with the policy intent.

Box 18: Consultation Questions	Other technical changes
Question TC1	• **Do you agree with the proposal to amend the definition of prequalification decisions to enable appeals by secondary trading entrants?**
Question TC2	• **Do you agree with the proposal and circumstances for capacity providers to repay capacity payments received between the notification of a termination event and the actual termination of their capacity agreement?**
Question TC3	• **Do you agree with the proposal to extend the TEC and planning consent derogations to the second full capacity auction?**
Question TC4	• **Do you agree with the proposal to amend the Substantial Completion Milestone criteria for refurbishing CMUs?**
Question TC5	• **Do you agree with the proposal to not extend Long Stop Dates where a transmission licensee or DNO has been released from their obligation to provide an active connection by a specified date?**
Question TC6	• **Do you agree with the proposal to amend the General Eligibility Criteria to account for DSR capacity?**
Question TC7	• **Do you agree with the proposal to amend the definition of registered trading unit to exclude sole trading units?**
Question TC8	• **Do you agree with the proposal to introduce a minimum forfeiture period for capacity committed CMUs failing to demonstrate satisfactory performance requirements over the winter period?**
Question TC9	• **Do you agree that recipients of the EDR pilot should be excluded from the participating in the Capacity**

Box 18: Consultation Questions	Other technical changes
	Market at the same time?
Question TC10	• **Do you agree that generating units that have an output below 2MW should be able to aggregate with units owned by different parties?**

Chapter 7: Transitional Arrangements

Introduction

164. Government has previously proposed and consulted on 'Transitional Arrangements' to provide the emerging DSR sector and small-scale generation with a pathway to the Capacity Market. The Transitional Arrangements are designed to limit risk for these providers, encourage enterprise and build confidence for emerging sectors to participate in the one year ahead auction in 2017 and future auctions. In the June 2014 Government Response to the EMR consultation on proposals for implementation, it was confirmed that there will be two 'Transitional Arrangements' auctions to procure capacity for delivery in winter 2016/17 and 2017/18, and that a further stage of Transitional Arrangements post-2019 may be undertaken if required.

165. Both the *Electricity Capacity Regulations 2014* and the *Capacity Market Rules 2014* make provision for the Transitional Arrangements auctions to take place. This chapter sets out the next steps the Government intends to take in relation to the Transitional Arrangements auctions and invites general comment from stakeholders.

Transitional Arrangements plans

166. The Transitional Arrangements have been designed to help new DSR providers and small scale generators (Non CMRS[14] under 50MW) that are not yet mature enough to compete against generation in the main Capacity Market, and in so doing help grow the sector. New providers will have an opportunity through less restrictive terms to participate in the Transitional Arrangements auctions and then use that experience and learning, to enable them to better compete against generation and more established DSR providers in both the four year ahead auctions (the first of which will be held in 2014) and one year ahead auctions, which commence in 2017.

167. Regulation 29(9) of the Electricity Capacity Regulations requires the Secretary of State to determine the following auction parameters in advance of each Transitional Arrangements auction:

a) the target capacity, which includes price cap, the tolerance around the target capacity and the net cost of new entry (net-cone);

[14] Non-Central Meter Registration Service (CMRS) distribution CMU: A distribution-connected generating unit that does not participate in the balancing mechanism. This type of CMU is of a smaller scale (possibly non-licenced) and could include small scale CHP and storage

b) the demand curve;
c) the price cap;
d) the price taker threshold.

168. DECC has already confirmed through the *Electricity Capacity Regulations 2014* that for the 2015 Transitional Arrangements auction, capacity payments for time banded capacity obligations will be 70per cent of the clearing price achieved at the 2015 Transitional Arrangements auction.

169. In keeping with the operational timelines for each activity as the enduring Capacity Market, the Government intends to set out the auction parameters for the 2015 Transitional Arrangements auction in draft around 22 weeks ahead of the auction taking place. This will enable decisions about the parameters to be informed by the outcome of the 2014 T-4 auction, including an assessment of how much, if any, capacity was successful at this auction, and which will therefore not be able to participate in the Transitional Arrangements. The target capacity will also be informed by data on the amount of DSR participating in the balancing services including the Demand Side Balancing Reserve (DSBR) and also triad avoidance.

170. The target capacity for each Transitional Arrangement will be set to help develop new resources and prepare them for the one year ahead auction in 2017. The set a side capacity amount for the one year ahead in 2017 is 2.5GW; and we therefore expect to set the target capacity for each Transitional Arrangements auction in order to build towards achieving this amount.

171. To support resources through the Transitional Arrangements' prequalification process, DECC would like to include a similar regulation to Regulation 87(7), which currently allows applicants to submit information to the Delivery Body as part of the first appeal stage for the first T-4 auction only. Regulation 87(7) was included to support applicants in the first year as a means by which applicants who had failed to provide some documents, are given a further opportunity to submit these missing items. Transitional Arrangements applicants will also be new to the Capacity Market process and therefore DECC believes they may also benefit from this provision.

Timetable

172. Government's 'Implementing Electricity Market Reform' publication outlined that the first Transitional Arrangement auction will take place in 2015, and this remains the intention. It is however important that the Transitional Arrangements' pre-qualification and auction timetable takes into account the possibility that reviews will be undertaken by DECC and Ofgem following the 2014 T-4 auction process, which could result in changes to the Capacity Market Rules and/or Regulations during 2015. Government is seeking to avoid a situation in which the Transitional Arrangements pre-qualification process is underway whilst – potentially relevant - changes to Rules/Regulations are in train. As such, Government intends to run the first Transitional Arrangements auction alongside the

second T-4 auction – which we expect to take place to a similar timeline as the 2014 auction, and so in Q4 2015.

173. As set out above, the proposed timetable will also enable the learning from the first auction to help determine the Transitional Arrangements auction parameters.

Box 19: Consultation Questions	Transitional Arrangements
Question TA1	• **Do you have any general comments on our proposals for the Transitional Arrangements?**
Question TA2	• **Do you have any comments on the indicative timetable and that the Transitional Arrangements auctions will run in parallel with the T-4 auction in 2015?**

Catalogue of consultation questions

1. Consultees are invited to respond to the following questions by 5 November 2014 and can direct responses to secondarylegislationemr@decc.gsi.gov.uk.

2. Alternatively, responses may be submitted in hard copy to the address specified on p.6 of this document.

Chapter 2: Proposals for the participation of Interconnection in the Capacity Market	
Question IC1	• Do you agree with the proposed approach of an interconnector-led interim measure until an international solution is developed at EU level?
Question IC2	• Do you have views on a common approach at EU level to cross-border participation in national capacity remunerations mechanisms?
Question IC3	• Do you have any views on how this proposal interacts with the implementation of market coupling and the electricity target model?
Question IC4	• Do you have any views on the proposal to integrate interconnectors into the existing auction design i.e. a single product auction to secure one capacity product?
Question IC5	• What are your views on the length of capacity agreements for interconnectors? Where possible, please provide evidence based answers.
Question IC6	• What are your views on de-rating interconnectors? Specific views are invited on: A) principles i.e. technical reliability and the likelihood of flowing to GB at times of system stress B) Are you aware of any best practices, useful data sets or other evidence to contribute to assessing the de-rated capacity of interconnectors? D) Are there any particular challenges or risks to de-

Chapter 2: Proposals for the participation of Interconnection in the Capacity Market	
	rating interconnectors that you wish to highlight?
Question IC7	• Do you have any views on penalty liability? Is it appropriate to apply the same regime as for domestic generation given that interconnectors may be exporting?
Question IC8	• Do you have any comments on Chapter 2 of the Consultation?

Chapter 3 : Metering Configuration Solutions	
Question MC1	• **Do you have any views on the proposed Technical Requirements for Bespoke Metering? A draft version has been published alongside the consultation document.**
Question MC2	• **Do you agree that data storage facilities in the meter should retain data for a minimum of 50 days?**
Question MC3	• **Do you agree with the proposals for change of metering equipment provisions set out in this chapter?**
Question MC4	• **Do you agree that Metering Test Certificates should remain valid for subsequent auctions?**
Question MC5	• **Do you have any views on whether the proposed data transfer methods for transitional arrangements is suitable as an interim approach?**
Question MC6	• **Is it necessary to develop more robust data submission arrangements in the longer term?**
Question MC7	• **Do you agree with the proposed sanctions for CMUs that have incorrectly or falsely submitted data or information?**

Chapter 3 : Metering Configuration Solutions	
Question MC8	• **Do you have any views on the two options set out for CMUs that are a subset of a BMU?**

Chapter 4 : Capacity Obligation Trading and Settlement	
Question OT1	• **Do you have any questions on the proposed amendments to the regulations in relation to reconciliation of payments or interest?**
Question OT2	• **Do you agree with the proposal to adjust, and the manner of adjusting, a capacity committed CMU's monthly capacity payments based on the obligations held?**
Question OT3	• **Do you agree with the proposal to adjust, and the manner of adjusting, a capacity committed CMU's penalty rate and overdelivery rate based on the obligations held?**
Question OT4	• **Do you agree with the proposal to adjust, and the manner of the adjusting, a capacity committed CMU's monthly penalty cap based on the obligations held?**
Question OT5	• **Do you agree with the proposal to adjust, and the manner of the adjusting, a capacity committed CMU's annual penalty cap based on the obligations held?**

Chapter 5 : Price Duration Curves	
Question PDC1	• **Do you agree with our overall methodology of deriving Price Duration Equivalence? Are there alternative methodologies that you would suggest?**
Question PDC2	• **Do you agree that the future estimates of clearing**

Chapter 5 : Price Duration Curves	
	prices should be based on annual updates to DECC's electricity market modelling? Do you think that there other possible sources of future estimates of clearing prices that we need to consider?
PDC3	• **Do you think we should take further account of the volume and price risk surrounding the FCP_i? If so, how should be model for this risk?**
PDC4	• **Do you think that it would be in the interest of security of supply, a liquid auction, simplicity or otherwise to continue to dis-apply price duration curves and if so for how long?**

Chapter 6 : Other technical changes	
Question TC1	• **Do you agree with the proposal to amend the definition of prequalification decisions to enable appeals by secondary trading entrants?**
Question TC2	• **Do you agree with the proposal and circumstances for capacity providers to repay capacity payments received between the notification of a termination event and the actual termination of their capacity agreement?**
Question TC3	• **Do you agree with the proposal to extend the TEC and planning consent derogations to the second full capacity auction?**
Question TC4	• **Do you agree with the proposal to amend the Substantial Completion Milestone criteria for refurbishing CMUs?**
Question TC5	• **Do you agree with the proposal to not extend Long Stop Dates where a transmission licensee or DNO has been released from their obligation to provide an active connection by a specified date?**

Chapter 6 : Other technical changes	
Question TC6	• **Do you agree with the proposal to amend the General Eligibility Criteria to account for DSR capacity?**
Question TC7	• **Do you agree with the proposal to amend the definition of registered trading unit to exclude sole trading units?**
Question TC8	• **Do you agree with the proposal to introduce a minimum forfeiture period for capacity committed CMUs failing to demonstrate satisfactory performance requirements over the winter period?**
Question TC9	• **Do you agree that recipients of the EDR pilot should be excluded from the participating in the Capacity Market at the same time?**
Question TC10	• **Do you agree that generating units that have an output below 2MW should be able to aggregate with units owned by different parties?**

Chapter 7 : Transitional Arrangements	
Question TA1	• **Do you have any general comments on our proposals for the Transitional Arrangements?**
Question TA2	• **Do you have any comments on the indicative timetable and that the Transitional Arrangements auctions will run in parallel with the T-4 auction in 2015?**

Department of Energy & Climate Change
3 Whitehall Place
London SW1A 2AW
www.decc.gov.uk
URN: 14D/356