



Department  
of Energy &  
Climate Change

# Electricity Market Reform: Allocation of Contracts for Difference

The Government response on the use of technology groupings, minima and maxima

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# Part 1: Executive summary

## Introduction

1. The Government's Electricity Market Reform (EMR) programme provides an ambitious package of measures to incentivise the investment needed to replace the UK's ageing electricity infrastructure with a more diverse and low-carbon energy mix. Up to £100 billion of capital investment is needed from now until the end of the decade.
2. The Government's objectives for EMR are to:
  - ensure a secure electricity supply;
  - ensure sufficient investment in sustainable low-carbon technologies;
  - minimise costs to, and ensure value for money for, consumers.
3. The decisions and policy set out in this document have been designed with State Aid<sup>1</sup> requirements in mind and we are in on-going dialogue with the Commission.

## Overview

4. The EMR consultation on 'Competitive Allocation: the use of technology groupings, minima, and maxima'<sup>2</sup> ("the consultation") was launched on 13 May 2014 and ran until 10 June 2014. This document contains the Government response to that consultation and forms part of the progress towards the first CFD allocation round in October 2014, building on previous publications including the EMR Delivery Plan<sup>3</sup>, CFD contract terms<sup>4</sup>, and draft Allocation Framework.
5. The consultation set out proposals on three areas, building on the January consultation<sup>5</sup>:
  - Biomass conversion plants - will be included in a separate group (Group 3) and subject to competition. This will ensure competition is maximised in Group 1, if budget is available.
  - Scottish island onshore wind projects – to be considered as a 'non-established' technology in either group 2 or in a separate group (Group 4); and
  - Minima and Maxima – a 100MW minimum for wave and tidal stream technologies (i.e. not including tidal lagoon or tidal barrage) across both the RO and CFD schemes until the end of the first Delivery Plan period.

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<sup>1</sup> [http://ec.europa.eu/competition/sectors/energy/eeag\\_en.pdf](http://ec.europa.eu/competition/sectors/energy/eeag_en.pdf)

<sup>2</sup> <https://www.gov.uk/government/consultations/electricity-market-reform-further-consultation-on-allocation-of-contracts-for-difference>

<sup>3</sup> <https://www.gov.uk/government/publications/electricity-market-reform-delivery-plan>

<sup>4</sup> <https://www.gov.uk/government/publications/electricity-market-reform-contracts-for-difference>

<sup>5</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/271919/Competitive\\_allocation\\_consultation\\_formatted.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/271919/Competitive_allocation_consultation_formatted.pdf)

## Structure of this Document

6. Part 1 sets out the Government response to the consultation, including decisions on the technology groupings for biomass conversion projects, Scottish island onshore wind projects and minima and maxima. Part 2 provides detail of stakeholder responses received.

## Summary of responses

7. We received 56 consultation responses from a range of sectors including industry, generators, electricity suppliers and trade bodies (c.75%), investment community (c.7%), and NGOs (c.11%), other government bodies and individuals. A list of non-confidential respondents is in Annex A. As part of the consultation process a stakeholder engagement event was held on 30 May 2014.

### Question A: Biomass conversion projects

8. Stakeholders responded on three issues in relation to this question, specifically whether biomass conversion should be in its own Group, Group 3; whether biomass conversion should be subject to Competitive Allocation; and whether biomass conversion is an 'established' technology. Of those that provided a definitive view (33 respondents), the majority (58%) agreed that biomass conversion projects should be in its own technology grouping. Most respondents (78%) agreed that biomass conversion projects should be subject to competitive allocation although not necessarily by virtue of being in Group 3. Of those agreeing with the use of Group 3, 58% agreed with constrained allocation.
9. Those supportive of a Group 3 noted that biomass conversion would otherwise disproportionately use available budget allocated to Group 1. Some preferred Group 1 with a minimum. Others noted that this is likely to have the same result as inclusion within an established grouping (i.e. Group 1) with a maximum. A number of those commenting doubted whether true and fair competition can exist if biomass conversions sat within their own grouping due to the large size and limited number of projects. Others felt there were possible advantages to including in Group 1 through providing competitive pressure to the established grouping but that the technology's unique characteristics should also be noted.
10. Fifty-eight percent of respondents agreed that biomass conversion should be considered an 'established' technology. Reasons provided as to why biomass conversions are an established technology included: it would be likely to be able to compete on a cost basis with other technologies in the established category; the biomass conversions strike prices announced as part of the first Delivery Plan (£105/MWh) are comparable to other established technologies; and there is no depression over the period. Others believe it is not an established technology on the basis that such projects have only recently begun operation in the UK and so lessons are still being learned and operating experience accumulated - technology optimisation, operating efficiencies, and fuel diversification opportunities are still being secured.

Question B: Scottish island onshore wind projects

11. Thirty-one respondents provided a definitive view on this issue, of which a large majority supported the proposal to treat wind generation on the Scottish islands as a new and innovative technology, distinct from onshore wind located elsewhere in the UK. Forty-five percent would be content with placing Scottish island onshore wind projects into Group 2. By comparison 26% would be content if included in Group 4 (adding the proportions who stated a preference for either Group 2 or 4 with those stating 'either').
12. Twenty-three percent of respondents preferred 'neither' group 2 nor group 4, raising concerns about geographical precedents and disagreed that Scottish islands is a special case. Those arguing against the use of Group 4 included the argument that the use of minima and maxima would deliver the stated policy objectives in a more efficient manner; whilst any technology should only be placed in one technology grouping. Some stakeholders believe Government should avoid 'preferential treatment' for any area of the UK such as the treatment of Scottish island onshore wind. There was concern that Scottish island onshore wind projects could deploy significant capacity, further constraining the ability of other technologies in group 2; and requested a maximum; whilst others supported the use of a minimum to ensure sufficient capacity would be brought forward.

Question C: Minima and Maxima

13. Of the 27 respondents that directly answered this question 89% agreed that a minimum for wave and tidal stream was appropriate. One respondent disagreed with the use of a minimum for wave and tidal stream because they believe these technologies are not necessary for the UK to meet its decarbonisation targets. Some advocated separate 100MW minima for each technology, i.e. 100MW each for both wave and tidal stream instead of 100MW to cover both.
14. A number of respondents believed minima/maxima should also be applied more widely across technologies many from the perspective of supporting that sector's development and to minimise the risk of displacement by inclusion in a group with other technologies with different strike prices. Some believed they should be used instead of the use of Groups whilst some noted that minima/maxima deliver similar outcomes to groupings and that since groupings are being used no further minima/maxima are required. Some respondents consider the use of minima as an interim measure and that options should be kept open for future use. One respondent suggested a minimum for generation sites below 50MW to support smaller generators.

## Final Policy position

15. After taking into account the consultation responses, the Government has decided:
  - A. Biomass conversion plants will be included in a separate group (Group 3) where they will be subject to competition, if there is budget allocated. Putting biomass conversions in group 3 will ensure that, competition is maximised in Group 1 where a competitive bidding process takes place for group 1 technologies.
  - B. Scottish island onshore wind projects will be included in Group 2.

C. The only minimum or maximum will be a 100MW minimum for wave and tidal stream technologies (i.e. not including tidal lagoon or tidal barrage) which can be achieved with capacity from both the RO and CFD schemes to the end of the first Delivery Plan period.

16. The consultation responses broadly supported the Government's position and where there were other views the evidence provided in the consultation was not, in the Government's view, sufficient to justify changing the proposed approach.

17. The CFD budget for the first allocation round will therefore be divided into 3 Groups, building on the policy decisions set out in the response document published on 13 May<sup>6</sup>:

I. Group 1 - a group of 'established' technologies (Onshore Wind (>5 MW), Solar Photovoltaic (PV) (>5 MW), Energy from Waste with CHP, Hydro (>5 MW and <50 MW), Landfill Gas and Sewage Gas.

II. Group 2 - a group of 'less established' technologies (Offshore Wind, Wave, Tidal Stream, Advanced Conversion Technologies, Anaerobic Digestion, Dedicated biomass with Combined Heat and Power and Geothermal), Scottish island onshore wind (subject to state aid approval).

III. Group 3 – Biomass conversion.

18. The Government's intention is to move to a competitive price discovery process for all technologies as soon as practicable. The strike prices for a number of current and emerging technologies, including large hydro, tidal range (including tidal lagoon and tidal barrage), nuclear and CCS were not set in the Delivery Plan<sup>7</sup>. The intention is for competition to be built into the allocation arrangements for these technologies where this is feasible, although in this Delivery Plan period prices for these technologies will be determined on a case-by-case basis where projects are identified for support.

19. The Government has received state aid clearance for the Contract for Difference, including the proposals to use technology groupings as set out in this document, but the current approval does not include the treatment of Scottish island onshore wind. We will continue to work with the European Commission to secure approval for our position. The Government's policy intent in relation to Scottish island onshore wind has not changed.

## Next Steps

20. For further detail on the Contracts for Difference programme timetable please see the 'EMR Contracts for Difference Implementation Plan' published<sup>8</sup> on 7 April, which sets out detailed implementation activities and milestones. On 23 June the EMR policy handbook

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<sup>6</sup> <https://www.gov.uk/government/consultations/electricity-market-reform-allocation-of-contracts-for-difference>

<sup>7</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/268221/181213\\_2013\\_EMR\\_Delivery\\_Plan\\_FINAL.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/268221/181213_2013_EMR_Delivery_Plan_FINAL.pdf)

<sup>8</sup>

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/301464/CFD\\_implementation\\_plan.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/301464/CFD_implementation_plan.pdf)

'*Implementing EMR*' was published<sup>9</sup>, which brings together an overall summary of the EMR policy. An updated and near final Allocation Framework was also published on 23 June<sup>10</sup>.

21. The indicative CFD budget available to National Grid for allocation under the enduring regime is also published today and CFD applicants will be able to submit applications to National Grid in October 2014 following confirmation of the budget at the end of September. The final guidance for supply chain plans will be published once secondary legislation is in force. The Government response document to the consultation on changes to financial support to Solar PV<sup>11</sup> is due to be published later this summer.

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<sup>9</sup> <https://www.gov.uk/government/news/encouraging-investment-in-our-electricity-system>

<sup>10</sup> <https://www.gov.uk/government/publications/electricity-market-reform-contracts-for-difference>

<sup>11</sup> <https://www.gov.uk/government/consultations/consultation-on-changes-to-financial-support-for-solar-pv>



# Part 2: Policy decisions on technology groupings, minima and maxima

## Introduction

1. This section sets out the Government response to the May consultation 'Competitive Allocation: the use of technology groupings, minima, and maxima'.
2. Three consultation questions were asked, with explanation and evidence requested to support responses:
  - A. Do you agree that biomass conversion should be placed in a separate grouping and subject to immediate competition through a constrained allocation process, if budget is available?**
  - B. Do you believe that onshore wind projects on the Scottish islands should be placed in Group 2 or a separate grouping (Group 4)?**
  - C. Do you agree that wave and tidal stream are the only technologies that warrant a minimum or maximum?**
3. We received 56 consultation responses from a range of sectors including industry, generators, electricity suppliers and trade bodies (c.75%), investment community (c.7%), and NGOs (c.11%), other government bodies and individuals.

## Summary

4. After taking into account the consultation responses the Government has decided:
  - A. Biomass conversion plants will be included in a separate group (Group 3) where they will be subject to competition, if there is budget allocated. Putting biomass conversions in Group 3 will ensure that competition is maximised for Group 1 technologies through a competitive bidding process.
  - B. Scottish island onshore wind projects will be included in Group 2.
  - C. The only minimum or maximum will be a 100MW minimum for wave and tidal stream technologies (i.e. not including tidal lagoon or tidal barrage) which can be achieved with capacity from both the RO and CFD schemes to the end of the first Delivery Plan period.
5. The CFD budget will therefore be divided into three Groups:
  - I. Group 1 - a group of 'established' technologies (Onshore Wind (>5 MW), Solar Photovoltaic (PV) (>5 MW), Energy from Waste with CHP, Hydro (>5 MW and <50 MW), Landfill Gas and Sewage Gas.

- II. Group 2 - a group of 'less established' technologies (Offshore Wind, Wave, Tidal Stream, Advanced Conversion Technologies, Anaerobic Digestion, Dedicated biomass with Combined Heat and Power and Geothermal), Scottish island onshore wind (subject to state aid approval).
- III. Group 3 – Biomass conversion.

## Consultation response detail

### Question A: Biomass conversion projects

**Question A: Do you agree that biomass conversion should be placed in a separate grouping and subject to immediate competition through a constrained allocation process, if budget is available?**

#### Summary of Government's view

6. Having taken into account the consultation responses to this question the Government has concluded that the evidence provided did not provide sufficient rationale to depart from the policy proposal set out in the consultation document. The Government believes that biomass conversion should be in a separate technology grouping and subject to immediate competition through a constrained allocation process<sup>12</sup>, if there is budget allocated. Accordingly, consistent with the majority viewpoint on this question, the Government has decided to put biomass conversion in a Group 3. Government continues to believe that biomass conversion is a cost-effective transitional technology for which support will be dependent on meeting sustainability criteria.
7. The Government believes that biomass conversions should not be placed in the established group of technologies (group 1) as this would be likely to distort competition by lessening the competitive pressure on the other Group 1 technologies which, predominantly, have lower strike prices. The potential for competition to be distorted within Group 2 could also occur given the size and relative strike prices of biomass conversion projects. Accordingly, for these reasons the Government has concluded that it is appropriate to put biomass conversions in Group 3 to avoid the negative impact on competition that would follow if biomass conversions were placed in Group 1 or 2.

#### Summary of responses

8. Stakeholders responded on three issues in relation to question A, specifically whether biomass conversion should be in its own Group, Group 3; whether biomass conversion should be subject to constrained allocation; and whether it is an 'established' technology. Of those that provided a definitive view (33 respondents), the majority (58%) agreed that Biomass conversion projects should be in its own technology grouping. Most respondents (78%) agreed that biomass conversion projects should be subject to competitive allocation although not necessarily by virtue of being in Group 3. Of those

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<sup>12</sup> In summary, a constrained allocation process is one where the budget available for a grouping is less than the value of all the projects in that grouping seeking a CFD. An eligible CFD applicant will be required to submit a bid reflecting a price it is prepared to accept as its strike price for a CFD. By virtue of the constrained budget, competition results.

agreeing it should be under constrained allocation, 33% would prefer biomass conversion to be in Group 1 rather than Group 3. Of those agreeing with the use of Group 3, 58% agreed with constrained allocation. Fifty-eight percent of respondents agreed that biomass conversion should be considered an 'established' technology.

### **Biomass conversion should be in its own Group**

9. Of those that provided a definitive view (33 respondents), the majority (58%) agreed that Biomass conversion projects should be in its own technology grouping.
10. Those supportive of a Group 3 noted that biomass conversion would otherwise disproportionately use available budget assigned to Group 1. General concerns were raised about biomass not contributing to Government's security of supply or decarbonisation objectives as a result of the fuel supply coming from sources abroad whilst its processing and transport costs being unknown. Others commented that its transitional nature means its deployment needs to be carefully managed. Representatives of the wood pellet supply chain in the United States expressed concern that upstream investment as well the development of associated ports and rail infrastructure would falter if it was included in Group 1, or if insufficient visibility was provided of the budget available over the Delivery Plan period.
11. Some of those agreeing with including the technology in its own grouping made that view conditional on budget being made available, otherwise preferring Group 1 with a minimum. Others noted that putting biomass conversions in its own group is likely to have the same result as inclusion within an established grouping (i.e. Group 1) with a maximum.
12. One respondent suggested that a distinction should be made between new entrants and companies who are seeking to convert 'further' units - new entrants should be allocated CFDs from their own grouping (Group 3), subject to competition with each other through a constrained allocation process whilst 'established' plants would be allocated from Group 1. The Government does not propose to distinguish between types of conversion for the same reason it does not distinguish between different characteristics of individual plants of any other generating technology. The allocation process is designed to be as simple as possible and the process would be undermined through additional complexity as well as increasing costs from taking into account plant-specific metrics. Competitive pressures would potentially be reduced by separating out different types of biomass conversion project.
13. Around 30% of respondents against the use of a separate group believe that placing biomass conversions in the 'established' Group with an appropriate minimum and/or maximum would be a more appropriate approach and deliver the same outcome. Around 10% question whether true competition can exist if biomass conversions sit within their own grouping, mainly due to the large size and limited number of projects. It was suggested that groups for different technologies adds complexity to the allocation process and increases the risk that budgets are not used efficiently; and that an immediate move towards technology neutral auctions without any technology groupings should be made. It was also suggested that including biomass conversion in its own

group could lead to the UK not ending up with the optimal renewable energy mix or the most cost effective outcome for consumers and would undermine DECC's long-term objective of moving to technology neutral auctions. Whilst the Government has taken into account these views it is not persuaded that a robust case has been made for placing biomass conversions in group 1 or 2. Government believes that competitive tensions will be fundamentally reduced if biomass conversions were included in Group 1 or Group 2.

14. Some respondents believe that biomass conversions should be in Group 1 in order to comply with State Aid requirements. The Government has taken into account State Aid rules and the Environmental and Energy State Aid Guidelines ("EEAG") as part of designing the allocation process and believes that the EEAG enable biomass conversions to be placed in a group 3 (see further the Government response to the January consultation on Competitive Allocation pages 12-13<sup>13</sup>).
15. Some consultees did not set out a clear position due to a 'lack of clarity regarding policy objectives and budgetary arrangements'. One respondent felt that by including biomass conversions in Group 1 additional, beneficial, competitive pressure would be introduced to the established technologies but that the technology has unique characteristics. It was suggested that the auction for the separate grouping should be run before the main auction and any unallocated budget should be passed to the remaining auctions. Others suggested that Group 3 budget should be the lowest priority i.e. only if all other budgetary needs have been fully met. It was also suggested that no support should be provided through the CFD and that deployment should be through the RO and FIDeR only.
16. The auction has been designed to deliver an efficient and effective outcome. Budget is able to be transferred between Groups between rounds but the transfer between Groups during an auction has implications for both its timely completion and certainty for bidders on available budget. These significant practical downsides have led Government to conclude that it is not appropriate to adopt these suggestions and the Government has decided not to allow a transfer of budget during an allocation round.
17. The Government recognises the importance of flexibility in an auction process which will help to deliver an effective spend of all available budget and has introduced the ability for applicants to make flexible bids. Guidance will be offered in advance of the first allocation round on the use of flexible bids. Current details of the auction design including treatment of minima and maxima, tie-breaker rules and flexibility can be found in the updated draft Allocation Framework<sup>14</sup>. A final version of the Allocation Framework will be published in advance of the first allocation round opening for application.

### **Biomass conversion should be subject to Competitive Allocation**

18. Most respondents (78%) agreed that biomass conversion projects should be subject to competitive allocation although not necessarily by virtue of being in Group 3. Of those

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<sup>13</sup> <https://www.gov.uk/government/consultations/electricity-market-reform-allocation-of-contracts-for-difference>

<sup>14</sup> <https://www.gov.uk/government/publications/electricity-market-reform-contracts-for-difference>

agreeing it should be under constrained allocation, 33% would prefer biomass conversion to be in Group 1 rather than Group 3. Of those agreeing with the use of Group 3, 58% agreed with competitive allocation.

19. Around 10% of consultees question whether true competition will exist in Group 3 if biomass conversions sit within their own grouping, citing concerns that competitive tensions may not result due to the large size and limited number of projects. Biomass conversion was seen by others as a mature technology and stated that competition and price discovery will not result if biomass conversions are put in Group 3. Some consultees argued that the Government was 'picking winners' and that other technologies, such as roof mounted solar and other solar photovoltaic would also not be competitive in Group 1 and could demand a separate group.
20. The Government's decision is to include biomass conversions in its own grouping to protect and enhance competitive pressures in the other groupings. Biomass conversions will not be protected from competition (Group 3 will be subject to constrained allocation if budget is available). Government believes this is the most effective approach to delivering a constrained allocation process that delivers value for money for consumers and an efficient auction process.
21. One consultee suggested that competition should not be through constrained allocation but on the ability of the project to deliver despatchable renewable energy quickly. The Government has concluded to rank auction bids on the basis of price rather than other metrics such as speed of despatch.

### **Biomass conversion is an established technology**

22. Fifty-eight percent of respondents agreed that biomass conversions should be considered an 'established' technology.
23. Reasons provided by respondents that biomass conversions are an established technology include: it would be likely to be able to compete on a cost basis with other technologies in the established category; the biomass conversions strike prices announced as part of the first Delivery Plan (£105/MWh) are comparable to other established technologies; and there is no degeneration over the period. One respondent believes that once one conversion has taken place at a plant, any subsequent conversions could be considered 'established'.
24. Other consultees felt that biomass conversions are not an established technology. These included members of the fuel supply industry who suggest that it should be considered established once a total of 4GW has been converted. The fuel supply industry also suggested that each station is unique and fuel preparation, boiler and burner technology cannot be transferred to another biomass unit. The establishment of a highly innovative and competitive fuel supply chain is considered a necessary part of any biomass conversion, whilst the size and scale of the conversions in progress in the UK and elsewhere are first-of-a-kind technological advancements. Others suggested that as such projects have only begun operation in the UK in recent years lessons are still being learned and operating experience accumulated - technology optimisation, operating efficiencies, and fuel diversification opportunities are still being secured.

25. More broadly the supply chain for large-scale biomass conversions was described as 'embryonic' and that continued deployment is required to drive cost-efficiencies and longer-term applications as well as being critical to the development of a 'sustainable, liquid and reliable biomass fuel supply'. It was also noted that such fuel supply could be used in efficient energy generation including Combined Heat and Power (CHP) and high efficiency Carbon Capture and Storage (CCS) plants.
26. Members of the fuel supply chain commented that further development of biomass conversion is required before there will be competition and liquidity in the market; whilst current policy uncertainty is causing instability in the supply chain and lack of investor support. It was suggested that this could be addressed through a specific budget in the first allocation round with support at the top end of the Delivery Plan projection i.e. only if the number of eligible projects applying for a CFD exceeds the High Biomass Scenario from the Delivery Plan, should competitive allocation be initiated. The Delivery Plan published a range of possible deployment scenarios, which are not discrete targets or projections.
27. The Government has further considered whether biomass conversions technology could be considered as 'less established' in light of the comments received but continues to believe that the technology should be considered 'established'. The cost-analysis of the technology, illustrated through the level of the administrative strike price, has evidenced zero degeneration over this Delivery Plan period. Even if individual plants have unique characteristics and challenges, the technology is considered to be developed and well understood. The Government believes that the forthcoming levels of deployment<sup>15</sup> suggest market liquidity and competition will quickly develop further.

### Other comments

28. Some respondents, from both industrial and environmental perspectives, set out their disagreement with the Government's consultation proposal to provide support for biomass conversion in the form of a potential CFD. There was a request for a formal restriction to prevent generators from purchasing domestic wood to burn and that subsidies should not be provided. It was also suggested that biomass conversion should not receive any support unless legislation shows life cycle greenhouse gas emissions are compatible with a 50g/kWh Committee on Climate Change target or if there is evidence that they can make carbon reductions.
29. The possibility of significant negative impacts on biodiversity and the need to prioritise technologies (such as onshore wind and solar PV) that are more easily accessible to community organizations to develop community led electricity generation were suggested as reasons not to support biomass conversions. Also, support should be prioritised for the deployment of technologies that are more easily accessible to community organizations to develop community led electricity generation. A biomass conversion maximum of 0GW was suggested.

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<sup>15</sup> Currently the UK has around 1.3GW of biomass conversion on line with more in the pipeline and the FID Enabling for Renewables process is expected to deliver a further 1GW of conversion

30. Government continues to believe that biomass conversions are a cost-effective transitional technology and support will be dependent on meeting sustainability criteria. The Government believes that the impact on other industries that use domestic wood from the planned pipeline on biomass conversion projects will be minimal, not least because much of the fuel will likely be sourced from international sources<sup>16</sup>. The recent Community Energy strategy<sup>17</sup> set out the Government's strategy for supporting communities in helping to meet the UK's energy and climate change challenges.

### **Question B: Scottish island onshore wind projects**

**Question B: Do you believe that onshore wind projects on the Scottish islands should be placed in Group 2 or a separate grouping (Group 4)?**

#### **Summary of Government's view**

31. Having taken into account responses to this question, the Government has concluded that it is appropriate to put such projects in the "less established" technology group (Group 2).
32. The Government continues to believe Scottish islands are a special case and is not minded to produce a framework to determine the criteria for location-specific strike prices. Wind generation on the Scottish islands will continue to be treated as a new and innovative technology. There are particular characteristics which set Scottish island onshore wind projects apart from projects elsewhere in the UK. For example, Scottish island onshore wind projects will have high costs of transmission based on novel technologies, they are likely to be large projects and they are likely to have high load factors. Such onshore wind projects have long-term potential and will deliver wider benefits across the renewables sector including the development of transmission links (see further the Government response<sup>18</sup> to the January consultation<sup>19</sup> pages 10-11, paragraphs 12-16).

#### **Summary of responses**

33. Thirty-one respondents provided a definitive view to this question, of which a large majority supported the Government's proposal to treat wind generation on the Scottish islands as a new and innovative technology, distinct from onshore wind located elsewhere in the UK. Of these, 45% would be content with placing Scottish islands onshore wind projects into Group 2. By comparison 26% would be content if included in Group 4 (adding the proportions who stated a preference for either Group 2 or 4 with those stating 'either'). Some positions were provided conditionally, subject to further information on budgets becoming available.

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<sup>16</sup>[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/66181/Renewables\\_Obligation\\_consultation\\_-\\_impact\\_assessment.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/66181/Renewables_Obligation_consultation_-_impact_assessment.pdf)

<sup>17</sup> <https://www.gov.uk/government/publications/community-energy-strategy>

<sup>18</sup> <https://www.gov.uk/government/consultations/electricity-market-reform-allocation-of-contracts-for-difference>

<sup>19</sup>[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/271919/Competitive\\_allocation\\_consultation\\_formatted.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/271919/Competitive_allocation_consultation_formatted.pdf)

34. Sixteen percent preferred Group 2 alongside a minimum; whilst 23% preferred 'neither' Group 2 or 4. Respondents preferring 'neither' raised concerns about geographical precedents and disagreed that Scottish islands is a special case. Views expressed by consultees against the use of Group 4 included the argument that the use of minima and maxima would deliver the stated policy objectives in a more efficient manner; whilst any particular technology should only be placed in one technology grouping. Some stakeholders also felt that Government should avoid 'preferential treatment' for any area of the UK such as the treatment of Scottish island onshore wind, which could be used as a precedent for support other generation areas, including outside of the UK<sup>20</sup>.
35. Other respondents considered 'Groups' to be a flawed approach and that there is no evidence that a separate Group will advance transmission technology. One consultee against the use of additional groups because of the additional complexity they believe they bring to the allocation process stated that a Group 4 would be justified in the case of Scottish island onshore wind projects. It was suggested that location-specific strike prices require a set of objectives and criteria; and that a clear process is needed where a technology might transition from "less established" to "established".
36. There was concern that Scottish island onshore wind projects could deploy significant capacity, further constraining the ability of other technologies in group 2; and requested a maximum; whilst others supported the use of a minimum to ensure sufficient capacity would be brought forward. One respondent requested a minimum for each Scottish island to ensure inter-island links develop. Another respondent suggested that sufficient funds are held back to 2019 for island projects and then released post 2019 in an environment where competition may prevail between the offshore and island onshore technologies.
37. Two responses raised concerns about the potential environmental impact of large scale onshore wind on Scottish islands. It was requested that Government needs to ensure the impacts of CFDs on the environment are subject to review, and which is especially pertinent to Scottish islands. Whilst noting these concerns the Government is satisfied that existing planning requirements include sufficient safeguards to ensure that environmental impacts of a project are assessed and, where necessary, mitigated. Accordingly, the Government does not feel that there is a need to implement new environmental safeguards for Scottish island projects which may come forward.
38. The Government has not been persuaded that it is appropriate to apply a minimum or maximum to Scottish island onshore wind projects in this Delivery Plan period. Further information is provided in the following section.

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<sup>20</sup> The Government intends to progressively open the CFD to projects from outside the UK in due course and to publish an update on CFDs for non-UK for renewable projects in the coming months.



## Question C: Minima and Maxima

### Question C: Do you agree that wave and tidal stream are the only technologies that warrant a minimum or maximum?

#### Summary of Government's view

39. Having taken into account the consultation responses on this question the Government has not been persuaded to alter the proposal as set out in the May consultation.
40. The Government believes that wave and tidal stream technologies are the only technologies that warrant a minimum in this Delivery Plan period. As such, a 100MW minimum for wave and tidal stream technologies (i.e. not including tidal lagoon or tidal barrage) will be set across both the RO and CFD schemes to the end of the first Delivery Plan period, and no other minima or maxima will apply.
41. The Government believes that, because of the low level of current development of wave and tidal stream technologies, they require a minimum to ensure their contribution is realised over the longer term. These technologies have the potential to make a significant contribution to our decarbonisation targets and our energy security post-2020 but are in a particularly unique position.
42. These technologies are in a unique position as they remain at such an early stage of development and their current cost is comparatively higher than other technologies. Early projects are likely to need a combination of capital grant support, revenue support and reserved allocation to enable them to deploy. The UK, as a world-leader in this field, can help ensure that the first pre-commercial projects proceed so that future economic benefits can be realised in these new and innovative technologies.
43. The widespread use of minima and maxima could also undermine the delivery of a cost-effective technology mix whilst less efficiently using the available budget. Widespread use of minima that would divide the overall budget into many smaller amounts (e.g. for each technology) could result in allocation rounds underutilising the available budget. It also leads to expensive projects being selected over cheaper projects. A lack of allocation in any one allocation round would carry through into subsequent years and lead to a reduction in overall capacity brought forward. The use of multiple maximums would undermine the availability of funds for certain technologies and could lead to a dilution in competitive tensions as a result of developers deciding not to participate. It could also prevent us from picking cheaper projects over more expensive ones, The overall outcome would be inefficient budget utilisation, lower value for money for consumers and an increased risk of a less diverse technology mix.

#### Summary of responses

44. Of the 27 respondents that directly answered this question 89% agreed that a minimum for wave and tidal stream was appropriate. One respondent disagreed with the use of a minimum for wave and tidal stream because they believe these technologies are not necessary for the UK to meet its decarbonisation targets. Some advocated separate 100MW minima for each technology. Government believes wave and tidal stream technologies will make an important contribution to decarbonisation targets beyond 2020

but does not consider that the current pipeline warrants the complexity of two separately reserved allocations or a capacity beyond 100MW across both types of technologies.

45. Many respondents believe minima/maxima should also be applied more widely across technologies and/or instead of the use of Groups. Some noted, however, that minima/maxima deliver similar outcomes to Groups and that since groupings are being used no further minima/maxima are required. Others would prefer a single grouping with multiple minima to provide appropriate support to the majority of technologies.
46. It was also commented that minima help provide certainty for sector investment and 'prevent damaging waves of potentially wildly variable deployment levels'. Some believe that a level of guaranteed capacity would reduce auctioning uncertainty and therefore reduce the cost of finance. Several respondents agreed with the use of minima or maxima but stated that criteria for whether one should be applied were not clear and that a robust framework by which to assess how a technology will be treated under the CFD would provide clarity to industry, investors and innovative technologies. Government does not plan to publish either a set of criteria or framework at this time but will continue to work with stakeholders on measures that could deliver further clarity and certainty.
47. Some respondents consider the use of minima as an interim measure and that options should be kept open for future use. It was suggested that multiple technology groupings and excessive use of minima / maxima will make a move to competitive auctions harder to achieve; whilst others felt that minima could be used as a mechanism to transition technologies to technology neutral auctioning. Another believed the best way to encourage development of emerging technologies is to allow access to research or capital grants and that maxima and minima ran counter to Government's aim to move towards competitive bidding across all technologies. The Government agrees that minima could be used to assist in the transition to a technology neutral auction and will consider the appropriateness of minima and maxima for future periods.

### **Technology-specific minima and maxima**

48. Specific minima were suggested for most technologies, many from the perspective of supporting that sector's development and to minimise the risk of displacement by inclusion in a group with other technologies with different strike prices. Some believed minima should be used for any technology supporting long term industrial interests and/or delivering affordable low carbon energy at scale in the 2020s.
49. Where some respondents disagreed with the use of Group 3 for biomass conversions, preferring Group 1, they suggested a minimum or maximum could be applied. In general, a minimum was suggested by those who believe biomass conversion needs a certain level of deployment; a maximum by those who believe the Budget needs to be protected from biomass conversion projects absorbing excessive resource from the budget allocations. It was also stated that minima would help "jump start" the supply chain by giving a positive signal to developers, Tier 1 suppliers and others considering greater investment. Placing biomass conversions in Group 1 with a maximum could have a similar outcome to the use of a separate group, but competitive tensions in Group 1

could be negatively impacted if developers believe a higher allocation risk exists than if biomass conversions were in a separate group.

50. Having considered these ideas the Government believes that putting biomass conversions in a Group 3 will negate the need for a minimum, whilst ensuring competitive tensions can be maximised in other Groups. A minimum for biomass combined heat and power (CHP) was suggested on the grounds that there is a great deal of uncertainty, in particular with the need to secure heat offtake arrangements, and that this can make meeting other CFD eligibility requirements difficult e.g. grid connection agreements and planning consent. Government recognises the specific challenges facing biomass CHP projects, in particular those associated with securing suitable heat off-take contracts. However, these are project specific challenges and are not alleviated more generally by ensuring deployment of some projects via the setting of a minimum.
51. A maximum for biomass CHP was also suggested. The Bioenergy Strategy identified biomass CHP as a more efficient route for use of available sustainable biomass in view of its high efficiency. Such projects face significant challenges compared to other technologies, principally around securing suitable heat customers. Given the challenges which these types of project face, the Government does not believe they are likely to deploy at very high rates and therefore does not believe that a maximum is warranted.
52. A minimum was requested for Solar PV for at least the first two auctions. The sector believes that projects greater than 5MW due to commission after March 2015 have made significant investments and have experienced significant disruption due to the RO eligibility changes. Government does not believe that a minimum is appropriate for the sector given the high level of deployment and continues to work with the Solar Trade organisation and others in the industry to assess the RO grace periods, and other issues raised, to attempt to ensure they can participate fully in the CFD auctions. Solar projects greater than 5MW in size can still apply for support through the RO until April 2015.
53. The Advanced Conversion Technologies sector suggest that minima (advanced gasification of 200-300MW and for all ACT projects of 600MW to 1GW) are required to develop its long-term potential, in particular as it will be competing against offshore wind in Group 2. An alternative proposal was that a maximum should be introduced for offshore wind. The Government is encouraged by promising pipeline of projects currently being developed, and recognises that there is long term potential for the technology group. The Government accepts that the allocation of successful projects, including ACT, in Group 2 is uncertain. However, given the wide range of potential project costs across the sector, Government do not consider a minimum to be essential to achieve deployment. The Government will continue to monitor levels of deployment.
54. Some respondents suggested that a minimum should be put in place for offshore wind. Government believes a minimum for offshore wind is not required. There is a healthy pipeline of projects and deployment levels for offshore wind do not suggest a minimum is warranted. Offshore wind is in the less-established technology grouping, which means that those projects do not face the prospect of competing against more established technologies. One respondent commented that Government should include floating or 'innovative' offshore wind. The Scottish Government has put in place support for floating

offshore wind. If further proposals come forward for projects in England and Wales, the Government will consider whether support might be required.

55. One respondent welcomed the fact no maximum was in place for onshore wind in this Delivery Plan period.
56. One respondent requested a maximum of 0GW for new nuclear. New nuclear is vital to help the UK secure its energy supply, meet our climate change targets and produce affordable energy and the Government disagrees with this suggestion.
57. One respondent requested a 'modest' minimum for hydroelectric generation technologies. Government's position is that this technology is established with a well-developed supply chain and does not need the protection that a minimum would provide.
58. It was argued for a minimum for tidal lagoon alongside clear budgetary provision in the first Delivery Plan period, on the basis that the technology may have the potential to generate electricity a third cheaper than current wave and tidal stream technologies. The strike prices for a number of current and emerging technologies, including tidal lagoon were not set in the Delivery Plan<sup>21</sup>. Government's position is that a minimum is not appropriate in order to ensure budgets support the delivery of a cost-effective technology mix and are used as efficiently as possible. Prices for tidal range projects, including tidal lagoons, will be determined on a case-by-case basis where credible, well-developed projects are identified for support.
59. It was suggested that a minimum volume of Carbon Capture and Storage (CCS) capacity would be necessary to deliver cost reductions in early 2020s. In the absence of a CCS minimum, a maximum for offshore wind was suggested in order to avoid a shortfall in investment in additional CCS projects beyond those in the Competition.
60. The Government sees an important role for CCS in future electricity generation provided it is reliable and cost effective, and set out its vision to 2030 in the EMR Delivery Plan published in December last year. Through the CCS Competition, we intend to award CFDs to up to 2 projects in the current LCF period whilst support for additional CCS projects will be assessed against other priorities for support. Government does not therefore believe a minimum is required.
61. The first CfDs for CCS are under negotiation with the two projects under the Government's CCS Commercialisation Programme, although these will only proceed if the Government considers them to be affordable and value for money. In order to continue to make progress on CCS in the course of the remainder 2014 and 2015, DECC will engage with developers on the design of a generic CCS CfD and options for the criteria which it might apply in future allocation frameworks. Without prejudice to future decisions on the Levy Control Framework or any future allocation processes under the EMR enduring regime, this work should enable an appropriate suite of enabling architecture to be in place for CCS by 2016.

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<sup>21</sup>[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/268221/181213\\_2013\\_EMR\\_Delivery\\_Plan\\_FINAL.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/268221/181213_2013_EMR_Delivery_Plan_FINAL.pdf)

62. One respondent suggested a minimum for generation sites below 50MW to support smaller generators. Government does not believe it is appropriate to use a minimum in this way for the same reason plant-specific characteristics will not be taken into account through the generic regime. Government is keen to provide support for all generators, irrespective of size, so they are able to engage with the CFD regime. A key measure where Government is taking action is with the Offtaker of Last Resort and route to market (see pp 11-12 of the Government response<sup>22</sup> document to the January consultation).

### **Offtaker of Last Resort**

63. There was general support of the Offtaker of Last Resort policy, which the Government welcomes. Some concerns were raised in relation to auctions taking place before the OLR is fully established and operational; small generators possibly not being able to access a CFD, blocking their route to market; and generators not being aware of the PPA and OLR terms before CFD allocation and so being less able to compete with VIUs for CFDs.

64. The OLR will see backstop PPAs being available to generators from April 2016 at the very latest, and we are working closely with Ofgem to bring this date forward. We are on track to introduce the OLR enabling regulations ahead of the first allocation of CFDs, giving applicants a high degree of clarity about the arrangements well in advance of the first auctions.

65. Regarding PPAs, Government is keeping abreast of how the market is developing. We anticipate that generators will look to attain indicative PPA and financing terms ahead of CFD allocation in order to price their bid efficiently. We are exploring these issues with the PPA Market Readiness group and expect generators to be able to secure such indications ahead of the first allocation round.

### **The Levy Control Framework**

66. A number of comments were raised concerning investor certainty and a lack of clarity on budget setting and decisions. Further detail was requested on how the budget will be administered, how and when budget information will be released, and an increased level of visibility.

67. Several respondents requested clarity on the size of the LCF after 2020 with one suggesting rolling 5-year budgets. Others requested that budgets for the first allocation round are confirmed in August and that the date of the second allocation round is announced prior to the opening of the first allocation round. More generally, it was requested that DECC schedule future allocation rounds immediately to provide industry with the certainty it needs for planning.

68. Some comments strongly supported the release of only part of the LCF budget during the 2014 allocation round to help maximise value for consumers and ensure that potential projects at an early stage of development will have a chance to compete. Others felt that if budget is held back some groupings may have no budget released in 2014 which could

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<sup>22</sup> <https://www.gov.uk/government/consultations/electricity-market-reform-allocation-of-contracts-for-difference>

significantly impact projects already substantially developed and reduce the potential for projects at earlier stages to attract investment.

69. The indicative CFD budget detail published today provides greater clarity and visibility on the current position. The LCF cap beyond 2020/21 will be set after the General Election 2015. The Annual Update to the Delivery Plan in 2016 will provide strike prices for 2019/20 and 2020/21 in due course. The CFD budgets for the first allocation round will be confirmed in a budget notice, in accordance with the CFD (Allocation) Regulations 2014 at least 10 days before the start of the auction.

### **CFD Allocation process and eligibility criteria**

70. Comments were received in relation to the design of the allocation process. These included specific issues relating to grid connection requirements, delays and withdrawals.

71. These consultation responses have been taken into account in the final design of the allocation process.

72. DECC first published grid connection agreement requirements as part of the eligibility criteria in August 2013. They were tested extensively with the CFD expert group and other stakeholders and were subjected to public consultation in December 2013. Grid connection requirements for eligibility for a CFD have been updated to reflect private networks and applicants do not necessarily need a grid connection agreement in order to be eligible to apply. The policy has been designed to maintain robust eligibility criteria to ensure applicants are committed throughout the allocation process.

73. Applicants need to specify the Target Commissioning Date (TCD) in their application. In a typical allocation round, there will be between three and five months from when the application is made to when a CFD is offered. There are several important processes that must be completed before any CFDs are offered in an allocation round including eligibility checking, resolution of eligibility disputes, auction process and audit of the auction process and it is therefore not possible to reduce this timeline without compromising on the time between applications being received and an offer of a CFD being made. In exceptional circumstances this timeline may be longer, which may delay the offer of CFDs. The CFD (Allocation) Regulations 2014, when made, will include provisions that will allow applicants to adjust the TCD in their initial application if there are significant delays in the allocation round. If the time from the application window closing to the submission of sealed bids is greater than 5 months applicants will be offered the opportunity to postpone the TCD by one day for each additional day of delay.

74. Further announcements and publications have been made since the consultation launched, most notably on 23 June with publication of an updated Allocation Framework and a summary of the Allocation Process<sup>23</sup>. A Stakeholder event took place on the 24 June.

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<sup>23</sup> <https://www.gov.uk/government/publications/electricity-market-reform-contracts-for-difference>

# Annex A List of Respondents

*The following table lists all non-confidential companies and organisations which responded.*

2020 Renewables Ltd
Air Products
Banks Group
Biofuelwatch
British Solar Renewables
Crown Estate
Dogwood Alliance
Dong Energy Limited
DRAX
Ecofin
Ecotricity
EDF Energy
EDP Renewables
Eggborough Power Ltd
Element Power
Energos
Energy UK
Ennoviga Solar Ltd
Enviva LP
EON
Friends of the Earth
Friends of the Earth Scotland
GDF SUEZ
Good Energy
Greenpeace
Helius energy
Highlands and Islands Enterprise (HIE)

Independent Renewable Energy Generators Group (IREGG)
Low Carbon
Natural Resources Defence Council
Navitus Bay
New Earth Group
Pinnacle Renewable Energy Inc
Progressive Energy Limited
Ranelagh International Ltd
Renewable Energy Association
Renewable Energy Systems Ltd
Renewable UK
Rentech Inc
RSPB
RWE Innogy UK Ltd
Scottish and Southern Electricity
Scottish Renewables
ScottishPower
Smartest Energy
Solar trade
Southern Environmental Law Centre
Statoil ASA
Sustainable Shetland
The Carbon Capture & Storage Association
The Earth Partners
Tidal Lagoon power
UISENIS
US Industrial Pellet Association

## Annex A List of Respondents

Viking Energy Shetland
Welsh Government
Woodfuels



# Glossary

ACT	Advanced Conversion Technologies
AD	Anaerobic Digestion
Allocation	The process by which CFD contracts will be awarded to applicants
AF	Allocation Framework
CFD	Contract for Difference
CHP	Combined Heat and Power
DECC	Department of Energy and Climate Change
EC	European Council
EU	European Union
EMR	Electricity Market Reform
FCFS	First Come First Served
FID	Final Investment Decisions
FITs	Feed-in Tariffs
LCF	Levy Control Framework
MW	Megawatt
PPA	Power Purchase Agreement
PV	Photovoltaic
R&D	Research & Development
RO	Renewables Obligation
SA	State Aid
ssFITs	small scale Feed In Tariffs
SO	System Operator, National Grid

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[www.gov.uk/decc](http://www.gov.uk/decc)  
URN 14D/194