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Project Manager
Energy Market Investigation
Competition and Markets Authority
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Dear Sir/Madam,

The Competition & Markets Authority Energy Market Investigation: Provisional Findings and Possible Remedies

1. The Carbon Capture and Storage Association (CCSA) welcomes the opportunity to respond to the Provisional Findings and Possible Remedies notices published by the Competition & Markets Authority (CMA) as part of its ongoing investigation into the energy market.
2. The CCSA brings together a wide range of specialist companies across the spectrum of Carbon Capture & Storage (CCS) technology, as well as a variety of support services to the energy sector. The Association exists to represent the interests of its members in promoting the business of CCS and to assist policy developments in the UK and the EU towards a long term regulatory framework for CCS, as a means of abating carbon dioxide emissions.

Summary of response

3. The CCSA provided comments to the CMA in response to the Updated Issues Statement in March 2015 within which it reiterated its support for the EMR framework and, in particular, the move from the ROC regime to CfDs. The response further discussed the value proposition of CCS to the UK and emphasised the importance of maintaining flexibility for the Secretary of State to allocate CfDs outside of the generic auctioning framework. The response provided below builds on the evidence provided previously by the CCSA and should be taken in conjunction with its previous submission.
4. Within the context of the Provisional Findings and Possible Remedies notices, the CCSA would like to offer further, specific comments on:
 - DECC's powers to award further CfDs outside the auction and possible remedy 2(a)
 - The structure of CfD "pots" and possible remedy 2(b)
5. In summary, the CCSA welcomes recognition from the CMA that there are likely to remain circumstances where it would not be appropriate for particular projects or technologies to compete for CfDs within auctions. In such circumstances, the CCSA supports the principle of requiring the Department for Energy and Climate Change (DECC) to undertake and consult on a clear and thorough impact assessment before awarding any CfD outside the CfD auction mechanism. However, the CCSA believes that the timing for such a consultation will have to be carefully considered to ensure

that the process does not introduce undue additional risks and uncertainty for developers that could ultimately impact on the cost-efficient delivery of projects.

6. Additionally, the CCSA notes that the current analysis offered by the CMA is very much limited to comparing technologies purely on the basis of their Levelised Cost of Electricity (LCOE) and Strike Price, and does not take into account the effect of different technologies on the whole systems cost of the energy system. The CCSA believes this to be a fundamental flaw in the CMA analysis and would strongly recommend that further whole systems analysis is conducted before conclusions are reached with regard to CfD auctions and the true cost of different technologies to consumers.

CCS in the context of technology-neutral CfD allocation

7. The CCSA welcomes the recognition from the CMA that “certain projects may be unable to compete in CfD auctions” and that “bilateral negotiations between DECC and the parties may be the only way of securing investments in these projects”. Evidence from the CCS industry suggests that this will be vital to developing CCS in the UK; achieving early cost reductions and delivering the Government’s “Outcome” from the CCS Commercialisation Programme:

"As a result of the intervention, private sector electricity companies can take investment decisions to build CCS equipped fossil fuel power stations, in the early 2020s, without Government capital subsidy, at an agreed CfD Strike Price that is competitive with the strike prices for other low carbon generation technologies"¹.

8. CCS has clear potential to become cost-competitive with the other low-carbon technologies by the 2020s and deliver electricity below £100/MWh^{2,3}. The ETI estimates that CCS is worth well in excess of £200bn⁴ to the UK energy system and that it could reduce the cost of decarbonisation by more than £32bn per annum in 2050⁵.
9. CCS is valuable to the UK not just through its ability to provide both baseload and flexible low carbon electricity but also through its application to other sectors such as steel, cement, refineries, chemicals and Hydrogen production. For these industrial sectors CCS presents the only viable option for large-scale emissions reductions⁶. It therefore needs to be recognised that infrastructure and other benefits (e.g. reductions in risk and cost of capital) delivered by CCS in the power sector have important ancillary benefits for the wider economy.
10. Delivering CCS in the power sector will establish essential CO₂ transport and storage infrastructure and deliver benefits not only to consumers of electricity but also to consumers of industrial products, such as steel and cement. However, in order to deliver these benefits, it is essential to ensure that the Secretary of State retains the ability to allocate CfDs outside of the generic auctioning framework.
11. On a LCOE basis, the first CCS projects in the UK are likely to look more expensive than the clearing price achieved in the first auction for Pot 2 technologies (£114-£119 range for successful offshore wind projects), with Strike Prices expected to be in the region of £150-£200/MWh for the two projects involved in the Government’s CCS

¹ Carbon Capture & Storage Commercialisation Programme Invitation to Participate in Discussions, DECC, 2012

² CCS Cost Reduction Task Force Final Report, May 2013

³ CCS sector development scenarios, Element Energy and Poyry for the ETI, 2015

⁴ Targets, technologies, infrastructure and investments – preparing the UK for the energy transition, ETI, 2015

⁵ Carbon Capture and Storage: Potential for CCS in the UK, ETI, 2013

⁶ Industrial decarbonisation and energy efficiency roadmaps to 2050, BIS, 2015

competition⁷. Following the first projects, it is expected that the cost of CCS projects in the power sector could rapidly reduce to below £100/MWh with around 2.5GW of installed capacity⁸.

12. On the basis that CCS is:

- at a relatively early stage of deployment;
- required for multiple industrial sectors beyond the power sector;
- critical to significantly reducing the medium to long term costs of decarbonisation to consumers; and,
- that individual projects can make significant contributions to infrastructure that supports follow-on projects,

it would not be appropriate to determine the merits of investments in CCS on the basis of Strike Price alone. Each project is expected to have different risk profiles relative to other low carbon electricity technologies and offer value to the UK energy system beyond its immediate electricity output. Being forced to compete in technology-neutral CfD auctions before the technology is commercialised could be detrimental to achieving the Government's objectives for the technology and ultimately increase the cost of decarbonisation to consumers.

13. During the early phases of CCS deployment bilateral negotiations and tendering are the most appropriate mechanisms for introducing competition into the allocation of CfDs for CCS projects. This process has thus far been successful in the Government's current approach to CCS commercialisation, with two preferred bidders (the Peterhead and White Rose projects) having been through a competitive tendering process in order to receive government support for Front End Engineering Design (FEED) studies. These projects will submit final bids to Government in late 2015 before final investment decisions are taken by both the project partners and Government in early 2016. It is important for the CMA to recognise that the CCS commercialisation programme projects have been through a rigorous and competitive tendering process and that any final recommendations it may make do not create undue delay or uncertainty around the delivery of these projects.

14. It is also important to recognise that CCS is one of the few low carbon technologies that offers dispatchable low-carbon electricity generation. Whilst the current CfD regime will reward CCS generation through a baseload CfD, in the longer term may be required to operate flexibly and provide dispatchable generation to support the further integration of renewable technologies. Running flexibly will decrease operating hours and could therefore increase the LCOE from generation with CCS, whilst still reducing the whole systems costs for the wider energy system. Rather than focusing on delivery of the lowest Strike Price technologies, the CMA should take a whole systems approach to energy costs and ensure that an approach is taken across the whole energy system to delivering lowest cost to consumers. The CCSA believes this whole systems focus is currently lacking from the CMA analysis and should be considered further ahead of its final report.

CCSA response to questions relating to possible remedy 2(a)

15. The CCSA supports the CMA proposal for DECC to consult on its intention to offer a CfD outside of the generic allocation process, supported by a thorough Impact Assessment. To a certain extent, this regime is already in place, as evidenced by the recent consultation on Government's intention to offer a CfD to the Swansea Bay

⁷ Delivering CCS: Essential infrastructure for a competitive, low carbon economy, CCSA, 2015

⁸ *ibid*

Tidal Lagoon project⁹.

16. However, the CCSA also believes that the introduction of a consultation process based on a thorough impact assessment will have to be carefully designed to ensure that it does not have undue adverse impacts on the delivery of projects. In this regard, the CCSA would like to see further detail around how the remedy would work in practise, particularly with regard to the timing of the proposed consultation in relation to the project development and CfD allocation processes.

17. CCS projects take a number of years and require 10s, if not 100s, of millions of pounds of development expenditure to reach the stage where an investment decision can be made. It is also expected that these projects will have been through an extensive period of negotiation with DECC. It is critical that the consultation process does not introduce excess risk or uncertainty to this investment which could result in long delays, additional costs and delivery of projects. Further consultation on how the remedy might be implemented would be welcomed.

(a) Would the remedy ensure that CfDs that are allocated outside the auction mechanism are awarded only when the benefits of doing so outweigh the costs?

18. The CCSA is confident that the existing mechanisms in place ensure that projects are only awarded when the benefits of doing so outweigh the costs. Based on the CMA proposal it appears that the remedy would not make a material difference in this regard, but it would help to increase transparency around CfD allocation outside of the generic framework, which could have benefits in terms of good governance and wider public acceptance of energy policy decisions.

(b) How much discretion should DECC retain in terms of weight it places on each factor that it takes into account in coming to a decision on which projects to award CfDs outside the CfD auction mechanism? Should DECC be required to consult on and determine these factors and their relative importance in advance to enhance transparency? Should the weighting of each factor be constant across projects?

19. The CCSA believes that it would not be appropriate to introduce a constant methodology for determining the relative weighting of factors across projects. Different energy technologies offer different value to the energy system in terms of factors such as LCOE, jobs, emissions, ancillary benefits to other sectors, dispatchability, etc., and the CCSA believes that DECC should retain its discretion to weight factors according to its objectives and priorities for particular technologies. Furthermore, consulting on and determining these factors and their relative importance in advance of each transparency would seem to be excessive, providing that the impact assessment and consultation achieve their objective of increasing transparency around the value and benefits associated with projects.

(c) In which exceptional circumstances should DECC be able to allocate CfDs outside the auction process? For example, for reasons of industrial policy, where there are wider market failures, or where there may be insufficient competitors to hold an auction?

20. The CCSA considers that all of the circumstances suggested in the consultation question would constitute acceptable reasons for DECC to allocate CfDs outside the

⁹ Swansea Bay Tidal Lagoon: potential support for the project through the CFD mechanism, DECC, 2015

auction process. Furthermore, it notes that Government clarified in its response to the consultation on CfD regulations that the immediate objective for its powers to allocate CfDs outside of the auctioning framework was to “maintain the Secretary of State’s flexibility and discretion to determine how best to allocate contracts, this flexibility is particularly valuable in the early stages of the implementation of the CFD framework”¹⁰.

21. The CCSA strongly supports retention of this flexibility in the early stages of the CfD framework and whilst a number of promising low carbon technologies are yet to reach commercial maturity.

CCSA response to questions relating to possible remedy 2(b)

22. The CCSA welcomes the proposed remedy 2(b) for DECC to undertake and consult on a clear and thorough assessment before allocating technologies between pots and the CfD budget to different pots.

(a) *Would the remedy ensure that future decisions by DECC on the allocation of technologies and the CfD budget to the different pots are taken in a robust and transparent manner?*

23. Yes, the CCSA believes that the remedy would increase transparency and improve confidence in the decision making process around how budget and technologies are allocated to different pots.

(b) *Is the remedy likely to result in a positive change in how DECC makes decisions regarding the allocation of the CfD budget to the different pots?*

24. The remedy would increase the transparency around the allocation of budget to different pots, which in turn would increase confidence of investors and project developers. This remedy would result in a positive change.

(c) *How regularly should DECC review the allocation of technologies between pots? What information should DECC publish when deciding to amend the allocation of technologies between pots? Should it also on a regular basis consult and/or publish reasons for not amending the allocation of technologies between pots?*

25. As noted in para.15 above CCS projects take a number of years and substantial investment to reach the stage that they are sufficiently advanced to apply for a CfD. To encourage project development the CfD allocation regime therefore needs to be as transparent and predictable as practicable. However, this needs to be balanced against the reality that technologies evolve overtime and that there will be times when a specific technology should be moved between pots. There is a need for further consultation on the timing and triggers for such amendments.

(d) *Should DECC be limited in the maximum proportion of the CfD budget that it can allocate to each of the different pots?*

26. Given that the budget available at different allocation rounds, and available through bilateral negotiations, will vary over time, the CCSA considers that it would be inappropriate and counterproductive to set limits on the maximum proportion of the CfD budget that DECC can allocate to each pot. There may be instances when the total budget available is only sufficient to support a single project or where budget is

¹⁰ [Government response to the consultation on Contracts for Difference Regulations, DECC, 2014](#)

specifically available to support a technology which delivers additional benefits beyond the lowest LCOE. In such circumstances a predetermined cap on the proportion of budget available for a particular pot may not deliver the best outcome for consumers.

Concluding remarks

27. The CCSA remains committed to supporting the CMA in its on-going investigation into the energy market and would be very happy to provide further evidence in support of this response if necessary.

Yours sincerely,

Carbon Capture and Storage Association