

Response ID ANON-31B8-Q3B7-U

Submitted to **CfD: Proposed amendments to the scheme 2020**

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About you

What is your name?

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What is your organisation?

Organisation:

British Hydropower Association [BHA]. The BHA is the professional trade body representing the interests of the UK hydropower and tidal range industry and its associated stakeholders in the wider community at regional, national and global levels.

Are you happy for your response to be published?

Yes

How did you hear about this consultation?

Where did you hear of this consultation?:

Email from BEIS

Other (please specify):

CfD Consultation: Community Support

1 How can the government better ensure that the local impacts and benefits of renewable energy developments are taken into account across the whole of Great Britain?

Enter response here:

The BHA believes that the local impacts of hydropower and tidal range projects are totally unique in comparison to other renewable energy projects.

Hydropower:

Location - the vast majority of hydropower schemes are in remote, rural areas, providing valuable energy and income in a manner that is environmentally sensitive and has significant community support and involvement.

UK Content - the BHA estimates that on average 70% of the cost of a new UK hydropower scheme is in civil construction, so their development, construction and operation supports local jobs, businesses and supply chain.

Value – the value for money per kW of clean hydropower energy is the lowest of all renewable technologies over the full lifetime of the scheme. In addition hydropower energy payback far in excess of solar and wind.

Public perception - Tackling climate change is a top issue for the next generation and hydropower has the highest UK public acceptance among all renewables.

Tidal range energy:

Location - From West Somerset to the North West, tidal range projects under development are located in places where jobs are scarce. Each tidal range project will provide significant direct employment in research, development, construction and operation.

UK content - the supply chain needed for each project will be extensive, providing long-term employment and business support in sectors such as steel, equipment manufacturing, civil construction and engineering throughout the UK. The proportion of local content in tidal range schemes is in the region of c60%. A number of supply chain companies such as turbine manufacturers, will be building new plant close to scheme locations.

Multifunctional – a unique benefit of tidal range projects is that they also include these multi-functional and multi-generational benefits include coastal protection, significant tourism and amenity value, aquaculture, transport and the stimulation of many regional economies. The current CfD scheme / pricing does not take this into account.

Public perception - There is a very high positive public perception of tidal range, particularly in Wales.

2 What exemplifies 'best practice' when it comes to engaging with and supporting local communities on renewable energy developments?

Examples of specific projects and/or developers would be welcomed.

Enter response here:

Hydropower:

Since 2015 the hydropower industry has supported 7,400 jobs (BIS) and as the majority of the hydropower schemes are located in relatively remote rural areas, their construction and operation is supporting local communities, local employment, businesses and UK supply chain.

There are 3 community-led organisations that actively engage with and support community hydropower schemes. They are Community Energy England, Community Energy Scotland and Community Energy Wales.

In Scotland all hydropower schemes are encouraged to make a voluntary donation of £5k per MW to support local communities and their activities.

In addition many hydropower operators have incorporated EV charging points into those schemes that are accessible from local road networks. This helps with local community access and community economic development. There is an opportunity for remote hydropower schemes to support the planned electrification of the transport network by providing both much needed generation in often remote communities and with the co-location of EV charging points in areas where it may otherwise not be financially viable.

Tidal range energy:

There are no concrete examples for tidal range engagement as no schemes have yet been built in the UK; however the multifunctional nature of these infrastructure projects which place community amenities as the heart of the project design has made community engagement central to the project planning processes.

3 How should the government update the existing "Community benefits from onshore wind developments: best practice guidance for England" publication to reflect developments in best practice for engagement between developers and local communities?

Enter response here:

The BHA believes appropriate community benefit levels should be agreed locally to take into account the actual local negative impact and not be something which is set nationally.

4 Should the Government consider creating a register of renewable energy developments in England that lists available projects and associated community benefits?

Enter response here:

The BHA believes transparency can always be beneficial and a published register would assist in raising public consciousness and confidence. However due regard must be given to economic benefits to local communities alongside any discretionary payments that can afford to be made.

CfD Consultation: Pot Structure

5 The government welcomes views on whether, compared to maintaining the existing two pot structure, the proposed option of introducing a new Pot 3 for offshore wind is an effective means of ensuring value for money and achieving our decarbonisation and other objectives in the long term. We welcome the submission of supplementary evidence to support views on this.

Enter response here:

The BHA welcomes the creation of Pot 3 for fixed offshore wind. We believe it is a sensible way to ensure value for money in that sector. We support the concept of pot 2 being reserved for future innovative technologies that can deliver significant economic benefit to the UK.

Tidal range power is not currently included in any of the CfD pots. It would logically fall into pot 2 however the sheer scale of a typical tidal range scheme dwarfs the other technologies and so it is recommended that it would be best managed with bilateral agreements, much like the nuclear industry.

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6 The government welcomes views on whether the proposed options are an effective means of bringing forward a greater diversity of low carbon electricity generation.

Enter response here:

The BHA does not agree that the proposals are effective means of bringing forward a greater diversity of low carbon electricity generation.

Hydropower (>5MW <50MW) is included in pot 1 alongside onshore wind and solar photovoltaics. This is not a level playing field as the short term provisions in the CfD do not account for the long term nature of hydropower. In practice this means it is weighted to wind and solar technologies and it is impossible for any hydropower project to deploy under a CfD (as evidenced by the fact that there have been no hydropower CfD applications to date).

Tidal range energy is not included in the CfD scheme – or any support scheme - at all.

This is a serious omission for two reasons.

Firstly hydropower outperforms other renewables on both 'energy payback' (less than 1 year for the energy generated to exceed the energy used to build) and lifetime CO2 reductions per kW installed.

Secondly both hydropower and tidal range are important contributors to the UK renewables energy mix and to achieving the UK's low carbon targets.

The rapid increase in growth of the solar and wind sectors makes it even more important that other smaller sectors are supported. Hydropower and tidal range are both essential components of the mix that needs its share boosted to provide a healthy grid system for the UK's wide range of weather conditions.

For example hydropower can contribute during overcast and windless weather, many schemes include storage and the output from those without varies more slowly and predictably than many other renewables sources. Tidal range projects, both barrages and lagoons, offer large scale, predictable energy generation at all times and in all weather conditions.

In addition hydropower and some tidal range generating equipment, depending on ultimate selection, can provide system inertia which will help to stabilise the grid.

These gaps are currently filled with gas generation which when discharged at circa 0.2 kgCO₂/kWh (an understated figure as it does not including the gas leaks), is more predictable with the capacity to include upstream storage.

There is currently a significant lack of suitable support for technologies that are not solar PV or wind. This is largely because the CFD is very short term focused and so only solar and wind has a sufficiently low initial cost to enable them to deploy under the CFD. Government must be realistic that subsidy-free is suitable and achievable for short term technologies such as wind and solar but not for all technologies.

The alternative is more storage in the grid network which will be at far greater cost and which is far less realistic in terms of optimal land use and the use of natural resources.

Therefore the BHA believes that hydropower and tidal range energy projects will not be brought forward without a different approach (see Q7).

7 The government welcomes views on whether there are alternative approaches to be considered in light of net zero.

Enter response here:

The BHA proposes the following two alternative proposals which should both be deployed to improve the renewable energy mix.

Alternative approach 1 – Diversification tariff;

A Renewables Diversification Tariff [RDT] is required for technologies that provide renewable electricity during benign wind or solar weather conditions. An RDT is a means by which the UK can move forward in an effective manner by avoiding costly issues around supply of electricity through the year.

Renewable energy that provides electricity outside of windy and sunny weather is hugely beneficial to the UK but it is not rewarded and therefore the technologies that provide it have little means to develop further and grow.

One solution is a RDT working such as the Feed-in Tariff [FIT] does.

The difference being that rather than the rates per £/MWh being set to achieve a rate of return, (FIT was set to provide investors a modest and dependable payback), the rates specifically take into account the value to the UK of continuity of electricity supply without the use of fossil fuels. This could be the Carbon value (necessitating a carbon model that properly and accurately achieves an average CO₂/kWh saving per technology) or just a value set by industry experts.

The UK will encounter issues in the future if it reaches the point where, say 80% of the entire grid supply is derived from wind energy.

It is not sustainable to fill light wind periods (which can be 1 – 4 weeks) with gas (climate change is not going to stop if we use gas for electricity), and it is not an efficient use of infrastructure or economic for future deployment of green infrastructure, if wind turbines have to be turned off during high wind periods (this kills the investment return of wind).

UK Government needs to realise that subsidy free renewables will leave them with a grid that cannot be filled with renewables as it will lead to only wind and solar at significant GW levels which is problematic.

If government are content with, in 2030, 2040 or even 2050, the grid being stuck having only 60% on average of renewables, and solar and wind deployment stifled due to times of significant generation, (windy, sunny days) being switch off times, then they might feel they don't need the RDT diversification tariff, but a UK grid mix of only 60%-70% renewables, is just not sufficient for reaching climate change targets and for the government's own carbon targets.

There is a uninformed expectation that EV batteries and other lithium ion grid supporting battery farms will provide this support and thus diversification of the renewables mix is not such a critical priority for Net Zero.

This is misleading and it is unfortunate and costly to our futures that this is not more widely understood. Grid tied EV batteries will be a fantastic addition to the grid (and should be provided with supportive government legislation and finance) but this and battery farms are only able to provide short term storage.

This is fine for solving the hourly and even the daily spikes if widespread enough, but not in any circumstances is it able to contribute in a significant way during

weekly or monthly weather patches.

The sooner this RDT is implemented the better placed we will be in 2030 when the lack of diversification will make a significant impact.

In the medium to long-term this represents cost savings to the public in providing a significant support mechanism to stimulate hydropower and tidal range technologies that will be critical in achieving the Net Zero target.

The hydropower industry, which was on an upward trajectory during the FIT period [up to March 2019] has now been subsequently and significantly let down with the FIT closure.

This explains [Q6] why this is costly to the taxpayer in the medium/long term and is very poor policy given the binding Net Zero target.

Alternative approach, 2 – fresh review of tidal range projects;

A 'Fresh review' of tidal range projects' viability and affordability is now urgently required.

Much has changed since the Government's 2018 decision to overrule the advice published in the Independent Review of Tidal Lagoons, led by Charles Hendry. This review concluded that; "Tidal lagoons would help deliver security of supply; they would assist in delivering our decarbonisation commitments; and they would bring real and substantial opportunities for the UK supply chain."

There have been significant advances in tidal range construction processes and power generation technologies which substantially enhance tidal range projects' financial models and value for money. These advances make assessments from 2010 and 2011, upon which much government policy is based, very much redundant.

The 'Fresh review' assessment will build on the work already undertaken to date in providing technical, engineering, environmental and financial models to afford clarity and credible, independent evidence (or not) on the main benefits, challenges and outcomes of a number of tidal range schemes.

Importantly, this assessment will not just consider any tidal range projects' competitiveness against nuclear, wind and solar (taking into account an operating life in excess of 100 years), but address its multi-functional advantages for future generations.

Consideration must also be given by Government for a separate of different Pot for tidal range projects due to its large-scale and longevity.

CfD Consultation: Floating Offshore Wind

8 The government welcomes views on whether the proposed approach is an effective means of supporting floating offshore wind.

Enter response here:

No comment

9 The government welcomes views on whether the proposed definition is a suitable definition of floating offshore wind projects, which should be distinguished from fixed bottom offshore wind, and what evidence prospective generators should be asked to supply in order to demonstrate that they have the required characteristics.

Enter response here:

No comment

10 The government welcomes views and evidence on any potential wider benefits or disadvantages that floating offshore wind may bring to the UK, in particular in respect of wider system impacts.

Enter response here:

No comment

11 The government welcomes views on the need to deploy floating offshore wind at scale through the 2030s to meet net zero, and what trajectories for deployment and cost reduction are realistic and feasible, both globally and in the UK.

Enter response here:

No comment

12 What further amendments to the CfD allocation process could be necessary to facilitate floating offshore wind technologies?

Enter response here:

No comment

13 Are there additional measures to support for pre-commercial deployment and cost reduction which would be more effective than the CfD, or which could enhance the effectiveness of the measures under the CfD?

Enter response here:

No comment

CfD Consultation: Extending delivery years

14 Should the government amend the Contracts for Difference (Allocation) Regulations 2014 in order to extend the delivery years specified in those regulations to the 31st March 2030?

Enter response here:

The BHA agrees in principle that the government should extend the CfD delivery years to 2030 (and beyond) to meet the 2050 Net-Zero goal. However as the CfD does not currently include any meaningful help for the hydropower and tidal range sectors this would not in practice provide any support.

In order to ensure sufficient diversification of renewable energy supply, government must also consider new mechanisms to provide support for the development and commissioning of both hydropower and tidal range projects that will be commissioned both before and after 2030.

CfD Consultation: Supply chain plans

15 The government welcomes views on whether the Supply Chain Plan process for all technologies should be more closely aligned with the Industrial Strategy, for example with criteria headings to reflect a focus on competition, innovation, people and skills, infrastructure, and regional growth, and within this what other measures the government could adopt and consider to support its objectives, for example, in offshore wind, the Offshore Wind Sector Deal.

Enter response here:

Tidal range projects are well aligned with the Industrial Strategy – providing jobs for people, investment in infrastructure using innovative technology, improving the business environment and providing a prosperous future for communities across the UK.

Location is at the heart of each tidal range project. The industry is determined to ensure that the local, regional and national communities benefit from the scale and ambition of the opportunities presented. We therefore support the requirement for any project seeking a CfD to provide a detailed supply chain plan.

Development, discussion and agreement of a supply chain plan with BEIS would be beneficial to all parties, highlighting the wider system value of each project under consideration.

16 The government welcomes views on strengthening the powers to fail SCPs on the basis that the Applicant has not demonstrated compliance with a past SCP.

Enter response here:

No comment

17 The government welcomes views on whether requiring an updated SCP at a later stage after a CfD is awarded, for example at FID or after MDD, when major contracts would have been awarded would deliver more focused and deliverable commitments.

Enter response here:

No comment

18 The government welcomes views on the current compliance process for SCPs for failure to implement an approved SCP. Is it sufficient and if not, what other potential compliance options could be considered, for example by linking non-compliance to CfD payments?

Enter response here:

No comment

19 The government welcomes views on any impact of reducing the threshold limit for the submission of a Supply Chain Plan to capture offshore wind extension projects (which were not envisaged when the policy was first drafted) and to reflect that projects below 300MW will also have a material impact on supply chains and if so, what the limit should be.

Enter response here:

No comment

20 The government is committed to achieving net zero by 2050 and how it could encourage the growth of sustainable, efficient supply chains through consideration of the carbon footprint of supply chains. We welcome views on how the industry takes account of the carbon footprint of their supply chains. What methodologies are being used or could be developed to take greater account of the carbon intensity of supply chains when considering Supply Chain Plans.

Enter response here:

No comment

CfD Consultation: Coal-to-biomass conversions

21 Views are welcomed on the proposal to exclude new biomass conversions from future CfD allocation rounds, on the likely impact of this approach, and on any alternative approaches

Enter response here:

The BHA support their exclusion.

CfD Consultation: Decommissioning plans

22 The government welcomes views on how best to link the OREI decommissioning regime with the CfD scheme to ensure that offshore renewable projects that are party to a CfD fully comply with their obligations under the Energy Act 2004.

Enter response here:

The BHA supports any measures required to ensure compliance with decommissioning obligations under the Energy Act 2004 to avoid this being a hidden cost to the tax payer of these shorter term technologies, when compared to the significantly longer-term hydropower and tidal range technology benefits.

CfD Consultation: Administrative Strike Prices

23 The government welcomes views on how we might change our approach to administrative strike prices to ensure value for money in future.

Enter response here:

The BHA would support an auction and strike price mechanism which ensures technology diversification rather than the current situation where the Pot is swamped by the lowest short-term cost technologies.

CfD Consultation: Non-delivery disincentive

24 The government welcomes views on extending the exclusion period for sites excluded under the Non-Delivery Disincentive, including on whether 36 months is a suitable period, or a longer period is needed.

Enter response here:

No comment

25 The government welcomes views on whether different forms of disincentive are needed for technologies at different levels of development and on what basis such differentiation might work most effectively.

Enter response here:

No comment

26 The government welcomes views on the advantages and disadvantages of introducing a new requirement for a bid bond where applicants provide a deposit, either by cash payment, bank guarantee or letter of credit.

Enter response here:

No comment

27 The government welcomes views on whether a bid bond would be practical for smaller projects. If difficulties are foreseen, what are they, what mitigation might apply and in respect of what size of project?

Enter response here:

If the CfD was amended to provide meaningful support for the hydropower and tidal range projects then the BHA would not support a bid bond for smaller projects as it will create a financial barrier to CfD bids.

28 The government welcomes views on what a suitable level for a bid bond would be: would £10,000 per MW be effective and practical?

Enter response here:

The BHA does not support a bid bond for smaller projects.

29 The government welcomes views on alternative approaches to the Non-Delivery Disincentive and how they might work in practice.

Enter response here:

No comment

CfD Consultation: Technical changes to future rounds

30 The government welcomes views on whether you agree the government should introduce the flexibility to apply any capacity cap, maxima and minima as either a soft or hard constraint, set on a round by round basis?

Enter response here:

The BHA supports the upwards flexibility on the cap, allowing responses to actual circumstances.

31 The government welcomes views on the type of soft constraint (including those proposed) that could be deployed in future allocation rounds

Enter response here:

No comment.

32 The government welcomes views on any further evidence on benefits and disadvantages of a soft capacity cap constraint.

Enter response here:

No comment.

CfD Consultation: Storage

33 What storage solutions could generators wish to co-locate with CfD projects over the lifetime of the CfD contract?

Enter response here:

The BHA believes that there are opportunities for Pumped Storage Hydro (PSH) to be co-located with CfD projects. It is widely acknowledged that greater flexibility is required in the GB electricity system to decarbonise at acceptable cost to consumers.

Government must consider the deployment of PSH. PSH is one of the most proven technologies available at scale to provide the required flexibility.

The Carbon Trust/Imperial College produced analysis on the benefits of storage to the UK power system. This analysis was subsequently used by The National Infrastructure Commission in their 'Smart Power' report. The report concluded that base savings of up to £2.4 billion per annum could be realised by installing around 6GW of additional PSH capacity by 2030.

This £2.4bn saving is only due to the reduction of investment in gas plant and the use of gas. It does not include saving from reducing investment in networks, or from other savings

The report estimated that consumers would save around £50 per year if the 6GW was built, based on them only receiving 50% of the available savings.

The report identifies that an additional £5 billion per annum could be saved by better optimisation of the power system, making a total of some £7.4 billion pa. These are partly attributable to the availability of PSH to help manage the power system, reducing the need for generation and network investment.

34 What, if any, barriers are there to co-location of electricity storage with CfD projects?

Enter response here:

The BHA suggest that the CfD philosophy of effectively a fixed power price is a significant disincentive for on-site storage as there is reduced opportunity for power price arbitrage gains.

35 What, if anything, could be changed in the CfD scheme to facilitate the co-location of storage with CfD projects?

Enter response here:

No comment.

CfD Consultation: Negative Pricing

36 Do you have any views on the proposal to extend the negative pricing rule? Please include in your response any specific evidence in relation to the incidence and impact of negative pricing.

Enter response here:

No comment

CfD Consultation: Phasing

37 The government welcomes views on the preferred approach to maintain the cap on phased projects at 1500MW.

Enter response here:

No comment

38 The government welcomes views on whether there are any barriers to developing a phased offshore wind project on a part-merchant basis.

Enter response here:

No comment

CfD Consultation: Milestone delivery date

39 The government welcomes views on the benefits, such as successful delivery of projects or reduced costs for consumers, that would result from extending the Milestone Delivery Date for: (i) the project commitments route only, or also (ii) the 10% spend route.

Enter response here:

No comment

40 The government welcomes views on whether an extension should apply to all projects or only to particular technologies or sizes of projects.

Enter response here:

No comment

41 The government welcomes views on the length of an effective extension and the implications. Would an extension to a 15-month deadline be effective and if not, why?

Enter response here:

No comment

CfD Consultation: Miscellaneous Allocation Regulation Changes

42 Do you agree with the government's proposal to remove all references to "end date of the allocation round"?

Enter response here:

No comment

43 Do you agree with the government's proposal to add more detail on when key dates can be varied using a round variation notice?

Enter response here:

No comment

44 Do you agree with the government's proposal to remove the requirement to publish certain dates in the allocation framework?

Enter response here:

No comment

45 Do you agree with the government's proposal to provide an extra scenario under which the allocation process must commence?

Enter response here:

No comment

46 Do you agree with the government's proposal to make explicit the ability to amend the overall budget before the commencement of an allocation round?

Enter response here:

No comment

47 We would welcome views on adding additional powers to allow revision of a capacity cap before an allocation round commences.

Enter response here:

No comment

48 We would welcome views on adding additional powers to pause an allocation round between the commencement of the round and the issuance of CfD notifications.

Enter response here:

No comment