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15<sup>th</sup> October 2009

Dear RFI Team,

## **CONSULTATION ON RENEWABLE ELECTRICITY FINANCIAL INCENTIVES 2009**

I am responding on behalf of the British Hydropower Association (BHA) to the Consultation on Renewable Electricity Financial Incentives 2009.

The BHA is the trade association for the UK hydropower industry. With around 150 members, the Association represents a wide range of interests: consulting engineering, design, manufacture, investment and operation, and specialist service providers. The BHA represents generators from small owner-operators to large UK and international companies.

### **The Renewables Obligation**

The BHA believes that the Renewables Obligation (RO) should continue as the primary support mechanism for renewable electricity in the UK. It offers a stable, long-term, market-based mechanism to incentivise renewable electricity generation.

The BHA recognises that heat, and specifically renewable heat, should be valued and that the RO might not be the best mechanism to support the development of small-scale renewable projects, but for the growing range of financial support schemes to be successful, it is very important to ensure that the mechanisms interact correctly without adding more complexity. The original, clear objectives and design of the RO have become increasingly complex and the statement in the consultation document that the RO should incorporate 'best practice from different types of support schemes', threatens to add yet more complexity. The BHA believes that the RO must provide certainty for investors on a long-term basis for it to be most effective in encouraging the development of renewables to meet the UK's 2020 target. Frequent changes to the mechanism reduce investor confidence. The BHA is very concerned that there has been an emergency banding review for offshore wind when the new banding arrangements had been in operation for only three weeks. For investor confidence, the BHA feels that it is important the Government sets a clear, predictable process for future emergency reviews to ensure that they are not seen as setting a precedent to frequent reviews on the levels of support. Further changes should be resisted.

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## **Feed-in Tariffs**

We accept, however, that a FIT may be a more appropriate support mechanism for domestic and community-scale projects, for which the RO is too complicated. To be effective for the type the BHA believes that it is essential that the FIT mechanism is simple to understand and participate in.

There are significant implementation challenges associated with the FIT mechanism. Fully automated systems and processes will not be in place by the start of the scheme and interim solutions will need to be used. It is essential that the FIT arrangements are right from the start. The planning procedures for small-scale generation need to be streamlined and proportionate. Smart grids should help address these challenges and their development should be a priority. The introduction of FIT will create two parallel support schemes for small-scale renewable electricity. This has the potential for unintended consequences. It is essential that the RO is not undermined by the introduction of FIT and that there is a smooth transition to the new arrangements. The impact of FIT on the predictability of the RO and the management of the interface between the two schemes is of particular concern to BHA members.

The strictures of accreditation under the Microgeneration Certification Scheme (MCS) do not sit well with hydropower, which is bespoke and outside the permitted development provisions of planning regulations. This means that the consumer protection design of MCS should be covered for household and community hydropower developments by the protection afforded by planning consent procedures and licensing requirements. We believe that small-scale hydropower schemes seeking FIT support should be able to self-certify through similar arrangements to RO registration.

The Defra legislation on “Modernisation of Salmon and Fresh Water Fisheries Legislation: New Order to Address the Passage of Fish” under consideration, if enacted as proposed, will have a big impact on the construction costs of hydropower developments – particularly small-scale projects. We are disappointed that Defra and the Environment Agency have not produced the evidence on which these measures are based. We have taken the potential costs of implementing this legislation into account in the attached BHA presentation.

For the hydropower sector the BHA proposes the following changes to the FIT regime:

- DECC should increase the target return of 10% in order to encourage wide-scale investment into this sector.
- If 5-8% return is ‘non-negotiable’ and maintained then all other aspects of the FIT scheme (i.e. indexing, tariff pricing based on real Capex and Opex costs and expected future increases in these costs) should be factored in to prevent further erosion of returns to equity investors.
- Increase the number of Hydro bands in order to reduce the propensity to “downsize” – so maximizing renewable energy generation.
- Change the tariff prices to reflect the true capital and operating costs of hydropower (see attached presentation supporting this).
- Indexing the tariffs. With no indexing equity investors are exposed to inflation - eroding their real returns. If one of the main tenets of the Feed-In-Tariff is certainty of return, then indexing would provide this.

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All the calculations in the attached presentation are based on 20 years. However, several BHA members have pointed out that commercial hydropower schemes are based on 30 years hydrology and the installed technology is built to last longer. If a scheme that undertakes a major refurbishment is eligible for the FIT (as currently with the RO), a period of eligibility which is significantly less than the lifetime of the technology creates a perverse incentive to scrap and replace functioning equipment for financial benefits.

New business rates will impact on operating costs and further erode returns. It does not make sense to tax, via increased business rates, subsidies designed to increase the uptake of renewable technologies

A presentation setting out the evidence in support of these proposals is attached together with our responses to the consultation questions.

Yours sincerely,

A handwritten signature in black ink that reads "Adrian Abbott". The signature is written in a cursive style with a long horizontal stroke extending to the right.

Adrian Abbott  
*Policy & Consultations Manager*

## **British Hydropower association's responses to the Consultation Questions**

*The responses are presented in conjunction with a presentation "FITs proposal for BHA v8 12.10.2009" which includes further supporting information including cost data on 127 real projects*

### ***Renewables Obligation***

#### **Q1. Do you agree that, at this point, no extension beyond 2037 is required?**

No. The BHA believes that it would be logical to extend the Ro to 2040 to ensure that projects developed up to 2020 receive 20-years support this will help to ensure that projects are developed beyond 2017, helping to ensure the best chances for the UK to meet its 2020 renewable energy target.

#### **Q2. Do you agree that the criterion for treating projects under either the old 2027 end date or the new 2037 end date should be accreditation before or after 26 June 2008? If not, what should the criterion be and why?**

No. We believe that the accreditation date should ensure 20-years support for projects. The proposal leaves a support gap for those projects accredited for the RO in the between 1<sup>st</sup> April 2007 and 26<sup>th</sup> June 2008. The BHA believes that the accreditation be before or after 1<sup>st</sup> April 2007. This modification would prevent a number of 'pioneers' who invested in the last couple of years being unfairly penalized and increase the likelihood of them investing further in the sector.

#### **Q3. Do you agree that additional capacity or plant that is refurbished or replaced should be entitled to the full 20 years of support, regardless of when the original capacity started to receive support?**

Yes. However, the BHA would like clarification on how additional capacity and capacity that is refurbished or replaced will be treated under the new and old regimes based on the cut off date of 26<sup>th</sup> June 2008.

#### **Q4. Do you agree with the proposal to increase headroom to 10% by 2014?**

The BHA agrees that headroom should to be increased to at least 10%. We believe it is important that there is a sufficient margin between the level of the RO and the number of ROCs produced.

#### **Q5. Do you agree that the proposed series of 0.5% annual increases in headroom over the time period set out is the best approach to implementing any increase?**

The BHA believes that headroom should be increased to 10% in 2011/12. The analysis suggests that headroom at 8% creates a risk to investors that the number of ROCs issued will exceed demand. With headroom of at least 10% the risk is reduced to an acceptable level.

#### **Q6. Do you agree a wholesale price stabilisation mechanism would bring benefits to renewable generators by providing a predictable and adequate level of compensation?**

#### **Q7. Do you believe that these benefits can be realised in practice? In particular, during periods of high fossil fuel prices, would suppliers pass the benefits on to consumers?**

The BHA does not consider that a wholesale price stabilisation mechanism is required at this time. Volatile wholesale prices are an issue for the market as a whole and could affect the case for investing in all types of new electricity generation capacity needed to help maintain security of supply and reduce carbon emissions in future. We are not convinced that the proposed wholesale price stabilisation mechanism offers the right solution. The BHA believes that issue is

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of such importance that it deserves wider consideration of the concerns and potential solutions.

**Q8. Do you agree that a revenue stabilisation mechanism could help us meet our target by encouraging more deployment?**

There are factors to deployment of renewables other than project revenue (e.g. grid connection, availability of investment capital, delays in the planning process). The BHA does not believe that a revenue stabilisation mechanism would have much impact on deployment.

**Q9. What would be the best choice of wholesale power price index to adopt for use with any stabilisation mechanism and why?**

The consultation document notes the difficulty in identifying an appropriate price index. This is a further indication of the complexities in setting a stabilisation mechanism.

**Q10. What impact do you think a stabilisation mechanism would have upon the operation of the wholesale electricity market?**

The BHA believes that the potential for a range of unintended consequences in the operation of the wholesale electricity market on the introduction of a revenue stabilisation mechanism.

**Q11. Do you envisage any other implementation challenges which might result from the introduction of a stabilisation mechanism? If so, how do you propose we deal with them?**

The BHA believes the complexities and challenges of implementation warrant further, specific consideration.

**Q12. Do you agree that this approach will minimise undesirable effects on market confidence whilst we consider the introduction of revenue stabilisation? If not, what further steps could we take to maintain confidence in the market?**

The BHA does not consider that a wholesale price stabilisation mechanism is required at this time. However, the BHA agrees with the principles of transition set out in the consultation document.

**Q13. Do you agree that a Contract for Difference option would be the best choice of wholesale price stabilisation mechanism? If not, what would you recommend as the best option and why?**

**Q14. Do you have any initial views on whether a stabilisation mechanism should remove wholesale price risk from generators altogether or leave them with some degree of risk, via a "cap and collar" mechanism?**

The BHA believes that if a revenue stabilisation mechanism was introduced, it should leave some degree of risk through a "cap and collar" mechanism.

**Q15. Do you have any initial views on whether a stabilisation mechanism after 1 April 2013 should be optional or mandatory for generators under the RO?**

The BHA believes that a revenue stabilisation mechanism should be optional for generators.

**Q16. Do you agree that biomass and generation involving co-firing should be excluded from any new stabilisation mechanism? If not, why not?**

This is a further indication of the complexities of the proposed mechanism.

**Q17. Considering the balance between the benefits and the implementation challenges, do you think we should introduce a wholesale price revenue stabilisation mechanism?**

The BHA does not consider that a wholesale price stabilisation mechanism is required at this time.

**Q18. If you believe that a price stabilisation mechanism should be introduced for the wholesale power price, do you think that it should be applied to the ROC price as well?**

The BHA does not support the introduction of a ROC price stabilisation mechanism.

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**Q19. Do you agree with the proposed conditions? Are there any more conditions we should consider?**

The BHA agrees with the proposed conditions.

**Q20. Do you think we should set support levels for stations located outside the UK in line with those for UK-based generation?**

**Q21. Do you agree with our proposal to limit the eligibility for stations located outside the UK to those with a direct interconnection to the UK? If not, why?**

**Q22. Are there any other specific issues we should consider when implementing international trading in renewable electricity through the RO?**

In principle the BHA agrees that projects located outside, but exclusively supplying the UK market, should receive the same level of support as UK-based generation.

The BHA is concerned that such projects, particularly offshore windpower projects which are likely to be very large will widen further the distort the gap between the level of the RO and actual renewable output.

**Q23. Do you have any comments on the Ernst & Young report on the current capital and operating costs for offshore wind projects? Is there any other evidence which we should take into account? If so, please provide details.**

**Q24. Do you agree with our proposed level of support for offshore wind, including our proposal to step down support from 2 ROCs/MWh to 1.75 ROCs/MWh over 2 years?**

**Q25. Do you agree the proposed eligibility criteria and cut-off date for offshore wind are appropriate?**

**Q26. Do you think the differential in ROC support between projects that signed just before the 2009 Budget announcement in the existing regime and projects which could become eligible for 2 ROCs will create an unfair advantage? If so, please provide evidence.**

The BHA is not able to comment on these particular questions.

**Q27. Do you agree that we should not impose a restriction on the use of tallow in the RO until clarity of the new marketplace has been established?**

The BHA does not have a view on this particular question. However we wonder if the related sustainability issues on unrestricted use of tallow have been explored.

**Q28. Do you consider the cap be retained at 12.5% going forward?**

**Q29. If you think the cap should be changed, when should this happen and at what level should the cap be set? Please provide evidence supporting your answer.**

The BHA does not have a view on these particular questions.

**Q30. Do you have a view on how we should predict expected electricity use in a subsequent obligation period? What are the advantages/disadvantages of any suggested methods of predicting expected electricity use?**

**Q31. Do you have a view on how we should predict the expected level of ROCs generated from existing generating stations in a subsequent obligation period? What are the advantages/disadvantages of any suggested method?**

These are vital questions for confidence in operation of the RO. The BHA welcomes the announcement that a working group will be set up to look at the calculation of the future obligation levels.

**Q32. Do you agree with our proposal for accounting for banked ROCs?**

Yes.

**Q33. Do you agree with our proposal for predicting new generation capacity for the subsequent obligation period? What are the advantages/disadvantages of this method of predicting this new capacity?**

We agree with the general approach to predicting new generation capacity.

**Q34. Do you agree that the proposal to offset redeemed ROCs against a generator's future output presents a proportionate approach?**

Yes. However, the BHA think that six years in which Ofgem could take retrospective action is too long. We believe that two years from the incorrect claim is more appropriate. We do not think that Ofgem should be able to revoke the original ROCs; this would impact upon a supplier's compliance.

### ***Feed-in Tariffs***

**Q35. Do you agree that FITs should be structured in order to recognise all generation, rather than just exports?**

Yes. The FIT should recognise all generation.

**Q36. Do you agree that the best way of delivering security for the investor is to set a long-term guaranteed price for exports?**

Yes, but we think that generators should be able to choose on a one-off basis to operate under the RO.

**Q37. Do you agree that FITs generators should also benefit from on-site use of their generation?**

Yes.

**Q38. Do you have any other views on the basic structure of the FITs?**

The BHA believes that the bands applied to hydropower should be increased from four to seven as follows:

<i>Current</i>		<i>BHA proposal</i>	
Lower limit (kW)	Upper limit (kW)	Lower limit (kW)	Upper limit (kW)
0	10	0	15
10	100	15	50
100	1000	50	150
1000	5000	150	500
		500	1000
		1000	2000
		2000	5000

(Please see the attached document for the argument supporting this proposal.)

**Q39. Do you agree with the proposed limits of 5MW for renewable technologies and 50kW for gas fired CHP for FITs installations?**

The BHA is concerned upper limit of 5MW for renewable technologies. We feel that schemes larger than 2MW are likely to be developed by professional energy companies with purchasing power and employees with the time and skills to trade electricity. As such they are more likely to select ROC's over FITs in the 2-5MW range.

**Q40. If you disagree with the proposed limits, what lower limits would be more suitable and why?**

**Q41. Do you agree that generators off the electricity grid should be eligible for FITs? If so, what safeguards should be put in place for these generators to ensure the electricity is being used?**

Yes. The safeguards should be similar to those used under the RO.

**Q42. Do you agree with the selection of technologies for which we will be providing tariffs from April 2010?**

In general, we agree with the proposed selection of technologies.

**Q43. Should technologies for which we do not propose to offer a specific tariff from April 2010 be handled by:**

- Providing a single tariff from April 2010 for all remaining technologies; or
- Considered as a new tariff band as part of regular FITs reviews?

The BHA believes that a single new technology band which could be applied should a new technology come forward between tariff reviews would be appropriate.

**Q44. Do you agree that the FITs should not require on-site generators to comply with any energy efficiency standards as a condition for eligibility?**

Yes.

**Q45. Are there any issues regarding eligibility that we have not foreseen here? If so, how should we address them?**

We are not aware of other eligibility issues.

**Q46. Do you agree with our approach not to offer up-front capitalisation to schemes as part of the FITs? If not, what alternative approach do you propose and why?**

It is important that the tariff levels are attractive enough to finance providers and that payments can be transferred to a third party.

**Q47. Do you agree with our approach that a generator may assign the rights to their FITs payments to a third party? If not what alternative approach do you propose and why?**

Yes

**Q48. Do you agree with the proposed model for registration and accreditation of plant claiming FITs discussed in the Accreditation, Registration and Connection section?**

Yes. There will need to be appropriate accreditation, certification and registration procedures and consumer protection measures. The RO accreditation process for projects above 50kW and of the Microgeneration Certification Scheme (MCS) for those below 50kW appears appropriate. It is important that the accreditation system must not place a disproportionate administrative burden on generators or suppliers. Who will design and run a registration database? If responsibility for the FIT falls to Ofgem it must not impact upon the effectiveness of its administration of existing schemes and systems such as the ROC Register.

MCS accreditation does not sit well with hydropower, which is bespoke and outside the permitted development provisions of planning regulations. This means that the consumer protection design of MCS should be covered for household and community hydropower developments by the protection afforded by planning consent procedures and licensing requirements. We believe that small-scale hydropower schemes seeking FIT support should be able to self certificate through similar arrangements to RO registration.

**Q49. Do you agree with the principle that all generation should be metered to qualify for FITs? Do you foresee any issues with that approach?**

We agree that all payments should be made on the basis of metering. We note that until smart metering is fully rolled-out, it may be appropriate for simplified arrangements through some form of deeming for non-half hourly metered projects in the early stages of the scheme.

**Q50. What are your views on regulating which suppliers should be required to offer FITs, and in what circumstances?**

Generators should be able to obtain the FIT from any supplier.

**Q51. Do you agree with the tariff levels, lifetimes and degression rates we have set out for the chosen technologies? If not, what evidence do you have for choosing alternatives?**

If the FIT is to be successful, it is important that it provides a sufficiently attractive rate of return for investors, allowing them to cover the cost of finance. We believe that 5-8% too low and that rates of return should be 10% IRR. Long-term debt interest rates are in the range 7-8%; the use of debt could actually reduce equity returns - further reducing capital flow into the sector. Hydro Capex & Opex Costs are significantly under-estimated in the current consultation document. If the 5-8% IRR is maintained then actual costs should be taken into consideration. Unlike other technologies Hydro costs do not 'degress' but are actually inflating due to the best sites having already being "cherry-picked" and upward pressure on operating costs. The tariffs should also be index linked. The Capex and Opex costs used in calculating the Hydro tariffs are significantly under-estimated. In the attached presentation "FITs proposal for BHA v8 12.10.2009" we have collected Capex and Opex cost information on 127 real projects] and proposed new tariffs based on these new higher, more realistic costs.

**Q52. Do you agree with our proposed guaranteed minimum price for the exported electricity? If not, what price would you propose and what is your proposal based on?**

The proposed export price of 5p/kWh seems reasonable if index linked. Index linking is important as it prevents inflation eroding the equity-holders real returns. The absence of index-linking will add uncertainty further reducing the attractiveness of investments in this sector.

**Q53. Does the proposed review structure provide the right balance between providing certainty and adapting FITs to the changing circumstances in which it operates?**

The BHA supports the proposal to review the FIT. These reviews should take place at the same time as the RO banding reviews, with the first review in 2013.

**Q54. Do you have any initial views on the relationship between FITs and those in fuel poverty or on low incomes?**

Social equity issues should be tackled outside of the FIT mechanism.

**Q55. Do you agree that the levelisation process described above provides the best system for redistributing costs amongst suppliers? If not, what other ways can we levelise costs across suppliers?**

**Q56. How can the levelisation process facilitate participation in FITs for small suppliers?**

**Q57. Should suppliers be able to include an administration cost in the levelisation process? If so, what should the level of that allowance be and how should it be determined?**

To prevent hidden erosion of already marginal returns, any administration costs should not be borne by the generator.

**Q58. Should the levelisation process include consideration of large and unforeseen price differences between prices paid to generators and the market value?**

**Q59. Do you agree with the proposed approach to auditing, assurance and enforcement? If not, what alternative approach do you propose and why?**

We agree with the proposed approach.

**Q60. Are there any issues regarding the role of suppliers that we have not foreseen here? If so, how should we address them?**

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The extent of the additional costs of the FIT to consumers should be made clear.

**Q61. What do you think is the best way of defining an installation for the purposes of FITs?**

**Q62. Once an installation is defined, do you think further checks are required to verify this? If so, what would these checks be?**

**Q63. How could we deal with installations at a single site installed in different years?**

The BHA would expect that separate sites would have separate planning consents, grid connections, metering and penstock. It may be possible for multiple hydro sites to share a single planning consent or grid connection or share a single private-wire but be genuinely new, stand-alone installations. In these cases the 'penstock rule' should apply – ie a site is considered a single site if it has its own intake(s) and penstock. Additionally some schemes may use a cascade arrangement where multiple schemes use the same water in series. Again the rating of such schemes would be decided by the 'penstock rule' – if three cascaded schemes each have their own intake and penstock then they should be considered 3 individual, stand-alone schemes and not a single amalgamated scheme.

### ***Cross Cutting***

**Q64. Do you agree with the proposed approach for the treatment of existing generating stations?**

In general we agree with the proposed approach, with the exception of one 'special category' of scheme. That is those developers who installed schemes between 50kW and 100kW between the dates of 1<sup>st</sup> April 2007 and 26<sup>th</sup> June 2008 and didn't "downsize" to take advantage of the 50kW double-ROC limit. This category of investor/developer 'did the right thing' in not downsizing and should not be penalized in favour of those who did downsize. These investors should be allowed to join FITs at the new FIT rate according to their size and get 20 year support (adjusted from when they started generating). This modification would prevent a number of 'pioneers' who invested in the last couple of years being unfairly penalized and will encourage them to investing further in the sector.

**Q65. Do you agree with the proposed approach for the treatment of generating stations that completed installation during the interim period?**

We agree with the proposed approach. However, we consider that any project above 50 kW that is accredited for the RO in the interim period should make its decision to switch to the FIT by the end of September 2010 at the latest in order to reduce uncertainty in the RO headroom calculations for the 2011/12 compliance period.

**Q66. Do you agree that, for non-household installations built during the interim period, we should make access to FITs conditional upon repayment of any central Government grant received for such installations?**

Yes.

**Q67. Do you agree with the proposed approach for the treatment of new generating stations once the FITs scheme becomes operational?**

We support the proposed approach.

**Q68. Do you agree with the decoupling of support for heat and electricity for new renewable CHP plants? What are the technical issues that need to be considered in implementing transitional arrangements towards the introduction of FITs and RHI for CHP installations?**

The BHA is not able to comment on these particular questions.

**Q69. Do you agree that FITs should not restrict access for those projects covered by**

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**other schemes?**

Yes.