BWEA response to the consultation "Reform of the Renewables Obligation" September 2007

The British Wind Energy Association is the UK's leading renewable trade body, with more than 320 corporate members. Established in 1978, it represents the vast majority of the wind power business in the UK, including the offshore wind sector. In 2004, the Association extended its mission to include the emerging technologies of wave and tidal stream, due to their synergy with offshore wind development. Our members are responsible for the technologies which will provide the lion's share of the future growth in renewable electricity generation, and so we trust Government will pay close attention to BWEA's views on the current consultation on reform of the Renewables Obligation.

The Government is to be applauded for heeding the concerted calls by the renewable energy industry regarding the proposed reforms to the RO, particularly as expressed in the joint REA-BWEA response to the preliminary consultation. Making such significant change to this important mechanism is fraught with risks and potential unintended consequences, and BWEA is therefore pleased that the suggestions contained in our submission to the preliminary consultation have largely been accepted. We believe that the detailed proposals being consulted on have the potential to ensure continued healthy growth in the renewable generation sector, particularly wind power both on- and offshore.

This growth is contingent on the relevant wind power multiples (1ROC/MWh for onshore and 1.5ROC/MWh for offshore) staying at this level through the legislative process and thus actually being seen by generators, and there being a suitable amount of support for wave and tidal stream outside of the RO. Our analysis indicates that the wind power multiples provide acceptable returns for most projects, though there will be significant amounts of capacity of both kinds that will not make such returns with the proposed multiples. Even with the most optimistic assumptions, developers will not receive excessive profits. It is important that Government now commits to these levels and defends them through the legislative process.

At 2ROC/MWh for wave and tidal stream, the additional support required via the Energy Technologies Institute or the Environmental Transformation Fund will be greater than at BWEA's preferred rate of 3ROC/MWh for these sources. We would welcome much greater certainty on the route for marine renewables from current arrangements to commercial deployment at 2ROC/MWh, given the need for more funding support from other future and as yet undefined mechanisms – at present this is very unclear.

We welcome Government's commitment not to strictly adhere to the principle of 'net neutrality', while recognising the value of promoting the delivery of renewable MWh rather than ROCs, which are merely a tool to ensure such delivery. What is important is to protect the value in projects, which requires the value of the ROC to be protected. For this reason we very much welcome Government's decision to retain the link between the buy-out price and RPI. We note also that were the delivery of ROCs and MWh to diverge too far, the RO could be perceived not to be achieving its objectives. We are convinced, however, that an element of overall 'banding up' is inevitable.

These general sentiments notwithstanding, there are still some areas of concern within the scope of the current consultation that BWEA would like to highlight before dealing with them in detail when directly answering the questions posed in the consultation document. These are:

- The process of regular reviews of the bands;
- The emergency reviews;
- The level of headroom proposed; and
- The new proposal for 20-year grandfathering of full ROC entitlement.

In addition, we wish to draw attention to some issues that are outside the scope of the consultation that relate to the EU 2020 renewable energy target and the end of the RO in 2027.

<u>The Review Process</u>

The review process was not dealt with in detail in the previous, preliminary consultation, and thus requires significant attention during this consultation. The general structure of overall reviews every five years appears to be appropriate, balancing industry's need for certainty with Government's drive to maximise value for money. There is some uncertainty within this process that needs to be cleared up, however. While the list of criteria that need to be taken into account when reviewing the bands appears comprehensive, there is no indication of how conflicts between those criteria might be handled. We would also welcome some more transparency on how those criteria were applied in setting the initial band levels, as it is important that these levels are set early and not amended through the legislative process – a robust justification of the levels set will help in this. The exact role of the Committee on Climate Change needs to be spelled out in some more detail, and BWEA would welcome an indication of what the fallback plan would be in

the case that the Committee is not actually created as a result of any Climate Change Act.

We would welcome, for complete clarity, confirmation that the review timetable as set out in the consultation document supersedes and replaces any previously existing review timetable that Government may have published previously.

Emergency Reviews

Of even more concern are the proposals for 'emergency' reviews. BWEA supports the concept of such reviews, but considerable care must be taken to limit their scope if additional uncertainty is not to be introduced into the system. The prime reason for emergency reviews should be situations where technologies are not delivering as expected for *economic* reasons – clearly there should not be a disruptive review if the barriers to technologies are non-economic. The focus should also be on non-delivery which threatens significant underachievement of overall targets for renewables. Government should also spell out explicitly that emergency reviews will be limited to those technologies that are not delivering, and what measures will be possible to remedy this situation.

However, Government also appears to want the option to invoke emergency reviews in cases where technologies are being over-rewarded. Except for the specific case of co-firing, BWEA believes that any question of over-reward should remain firmly within the framework of the five-year reviews and should not be the subject of an emergency review. Changes in regulation or Government policy that have significant positive impacts on project economics should be foreseeable within the five-year review framework and thus accommodated within it, perhaps with contingent changes set out for the period ahead (eg, "if a mechanism for renewable heat is introduced within the coming period, biomass CHP projects will receive a lower multiple after its commencement"). It is important to be clear why co-firing should be singled out in this way: it is already subject to special treatment, being the only technology which is not grandfathered; the delivery of co-fired ROCs is not dependent on the ROC price, being driven by the gas-coal differential, the carbon price and the price of biomass fuels; the profits to be made from co-firing are therefore difficult to predict, and the amount of co-firing that occurs will be very volatile, thus potentially disrupting the RO market significantly. The knowledge that this potential to disrupt will be contained will be important in promoting confidence in the market overall.

There are two modes in which BWEA believes an emergency review might be invoked. The first is reactive, where evidence of failure to deliver for economic reasons reaches a clear threshold and thus a review is invoked. This begs a number of questions about what the expectations of delivery are and what is a significant shortfall. In this conception of emergency reviews, underdelivery by those technologies that are small contributors to ROC supply would never trigger one: eg PV is a very small part of renewable

generation, and therefore if it fails to deliver, this would not justify reviewing its treatment under the RO. Someone will also have to decide if the failure to deliver is for economic or non-economic reasons. The second mode is prospective, where a change in policy or market conditions is judged to make a significant enough difference to the economics of a technology so as to prompt a collapse in delivery in the near future. Again, there are judgements to be made on whether claims that delivery will be impacted are correct. In general, if the market has to wait for underdelivery to trigger a review and then wait further for the review to take its course, then unacceptable delays will result. Government should look to forecast such emergencies and act pre-emptively to ensure that the market grows smoothly.

Discussions with BERR have clarified that the mechanism for implementing the outcome of any emergency review would be to introduce a new Renewables Obligation Order. This would require at least six months of statutory consultation and Parliamentary time, and thus there would only be certain time windows available for emergency reviews to take place if their results are to be implemented in a timely manner. Since the point of an emergency is that changes should be made quickly if required, Government should consider formalising an annual timetable whereby any decision for a review is made by a certain date. Given that once headroom is invoked, there will be an annual view taken on the future delivery of ROCs, Government should combine these two processes, using the ROC forecast to decide if the conditions for an emergency review have been met.

Government also needs to be clear on who is making the judgement that an emergency review is required, and/or hears appeals from interested parties that a review should be started. If this is the Committee on Climate Change (CCC), then Government should be aware of the issue of ‘mission creep’, in that the Committee will have another function added to its responsibilities, which have already been extended to providing advice on banding levels and possibly setting the Obligation levels under headroom (the consultation document is not clear on the latter point). The Committee may start to be overburdened, and thought will have to be given to the resources it will require.

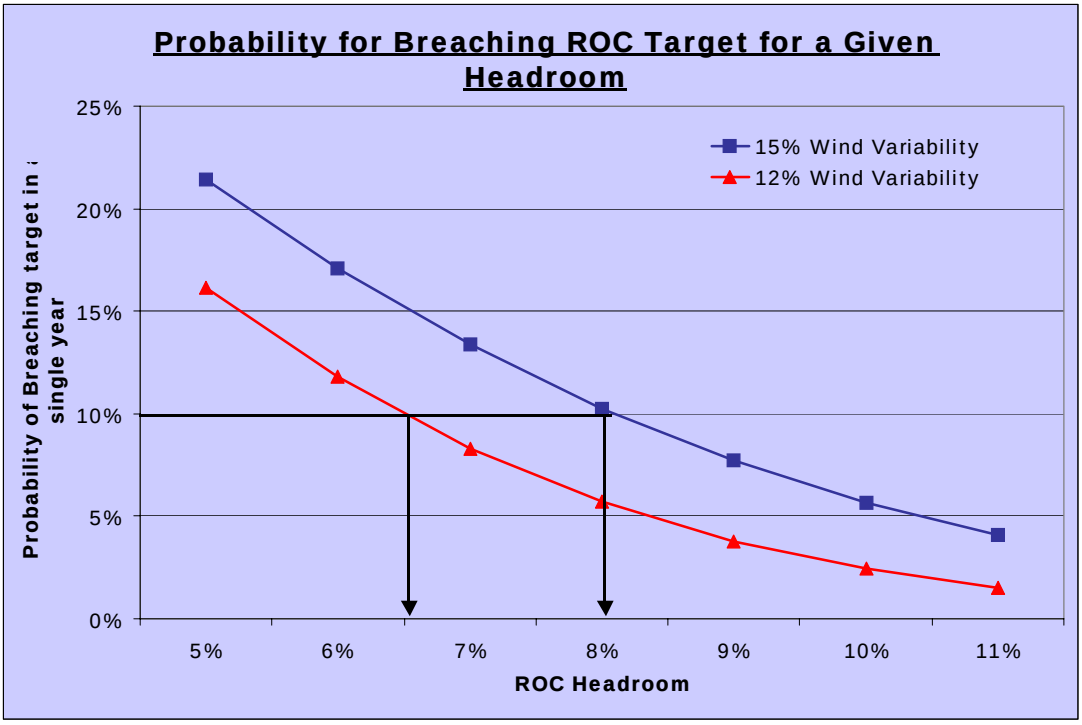
BWEA would welcome clarification of the grandfathering arrangements that would apply in emergency review situations. Logically, the arrangement for technologies being banded up in the ‘normal’ review process should apply, with any project commissioned after the start of the review allowed to access the new multiple once the review results are implemented. Since it is BWEA’s firm view that emergency reviews should only result in banding up and not down, the complex banding down grandfathering arrangements should not be needed; the only exception to this is co-firing, which is not grandfathered in any case and thus would see the new multiple from the point of the review’s implementation whether banded up or down.

In short, BWEA's concept of the emergency review process is as follows, assuming the Committee on Climate Change assumes a key advisory role:

- The CCC gives an initial view of ROC delivery in period (n+1) at the start of period (n) (ie 1 April), for purposes of forecasting period (n+1)'s Obligation level under headroom;
- Alongside this initial ROC forecast, the CCC states whether the overall delivery level will be such that an emergency review is justified, the technology or technologies that are underdelivering, and whether this is due to insufficient ROC income;
- If the CCC concludes an emergency review is required, Government reviews and consults appropriately with industry and stakeholders on the bands for the relevant technologies;
- On the following 1 October, Government publishes the results of the review and the draft Renewables Obligation Order to implement them, begins statutory consultation;
- Alongside this, the CCC publishes its final view on the Obligation level for period (n+1), predicated on the results of any emergency review being implemented;
- Results of emergency review implemented on 1 April of period (n+1).

Headroom

BWEA has some concerns that there is a higher probability than is acceptable that the 6% headroom level will be breached in any one year due to natural variability of wind and rain. The graph below assumes the mix of technologies in 2015 which resulted from scenario 6 in Oxera's modelling of banding, coupled with perfect forecasting of the output from biomass plant (including co-firing) and perfect forecasting of the build rate on all new projects. Clearly this is optimistic, but even so, with the variability of the wind resource at individual sites in the UK at +/-15% around the long-term average output, headroom of 8% is required to limit a breach to a 1 in 10 probability, the level of risk which BWEA regards as acceptable. If it is assumed that variability across the UK is reduced to +/-12% due to geographic smoothing, a 6.5% headroom is still required, even under these perfect conditions. Further analysis outlined in Appendix A to this response indicates that headroom of at least 8% is required to reach this 1 in 10 target.



The degree of comfort that the renewables industry will have with a given level of headroom will depend on the methodology used to calculate the ROC forecast. If wind capacity is expected to produce the long-term average output (the P50 forecast, ie the level that one would expect to reach in at least 50% of years), then a higher headroom would be required than if a higher output forecast is used, for example a P10 forecast, the level one would expect to exceed once in every 10 years. There is also an issue regarding new wind capacity, which would not have a track record with which to accurately assess its likely output. We would prefer such capacity to be assigned load factors at the higher end of the expected range until such time as evidence of its true performance is accrued. BWEA would welcome further engagement with Government over what methodology is used for this forecast and its relationship with the headroom set.

As the consultation document points out, suppliers will be able to bank ROCs in excess of their requirement in any one year, though Government should note that this has a cost. Further, this cost will translate into a lower value for those 'extra' ROCs on the market, which will necessarily be from those projects which are operating on a merchant basis rather than under long-term contracts. This will discourage investment in merchant plant, thus reducing liquidity in the ROC market. In any case, having banked ROCs in the market will impact the balance of supply and demand in the year following the oversupply. If these ROCs are not accounted for when that year's Obligation level is calculated, then the risk of oversupply is increased for that year also. Ideally, the difference between ROCs generated and the Obligation level should simply be added to the following year's Obligation level, but this poses a problem. Our preference is for the level to be set six months before

the start of a period, as alluded to above, and the size of any surplus will not be known until soon after the beginning of a period. Either the surplus will have to be added to the second period after the oversupply, or an adjustment will have to be allowed during the Obligation period immediately after. Neither of these options is ideal. Clearly, higher headroom results in less frequent over-supply of ROCs, a smaller surplus when this occurs and a greater potential for any surplus to be absorbed in the following year. Government should therefore set headroom with this in mind.

The alternative to relying on banking to deal with ROC oversupply is to invoke the ski-slope. Again, this will affect ROC values, though in this case all will be impacted equally. The question remains as to who decides whether to invoke the ski-slope, and how this process is managed. As the consultation document notes, headroom reduces the need for the ski-slope before the Obligation reaches 20%, though it does not rule it out completely. BWEA would welcome clarity on this matter. In general, if Government were to follow our advice on setting the level of the headroom, then both the frequency and impact of over-supply would be lessened, making the ski-slope unnecessary before the 20% level is reached.

In general, a higher level of headroom would reduce the likelihood of having to deal with the situation where the headroom is breached. BWEA would prefer the headroom to be set to at least 8%, and ideally 10%, to cope with both natural variability in wind and hydro, and uncertainty in forecasting delivery of co-firing and new generation capacity. This should bring the probability of a breach down to about 1 in 10, and limit the magnitude of such breaches.

Grandfathering

In general, the proposals for grandfathering that were spelled out in last July's Energy Review document, and repeated in the preliminary consultation on these reforms to the RO, are appropriate and acceptable. However, the new proposal in this consultation for ROC entitlement to be grandfathered for 20 years is not consistent with previous commitments by Government and unacceptable to the industry.

Retrospective application of this 20-year limit would leave investors, who put their money into projects in good faith, out of pocket for a reason they could not reasonably foresee. Since the RO finishes in 2027, the only capacity that is affected by this proposal is already operating. Investment in this plant was made under the assumption that RO entitlement would continue until the system finished. To apply a 20-year rule to such plant would be contrary to the grandfathering principle and thus should not be considered. If Government were to implement it against this advice, investor confidence would be severely impacted, making renewable targets harder to reach.

There are a number of circumstances where existing investments will be undermined:

- For NFFO plant that were originally financed under 15-year contracts, in the 2005/06 RO Review it was made clear that such projects would receive ROCs beyond the end of their contracts, and subsequently ownership of some projects has changed on the assumption that this meant until 2027. To retrospectively apply a 20-year limit would undermine the basis of those commercial decisions, which will deter further investment in the industry.
- Long-term PPAs have also been signed for some projects extending beyond the 20-year period: these will have floor prices written into them which, if only 0.25ROC/MWh were awarded, would result in offtakers paying for ROCs that they do not receive. However, it is inevitable that consumers will ultimately bear this cost.
- Biomass generators may find that, while the capital cost of their plant was paid back, 0.25ROC is not sufficient to cover the cost of securing biomass fuel and consequently shut down.

In the passage on this subject within the consultation document, it is also stated that repowered wind projects would only be entitled to the Established band ROC rate. This implies that the investment in repowering would be low enough to allow reasonable returns at 0.25ROC/MWh. This might be the case were 'repowering' taken to mean removal of old nacelles and blades and replacement of them by machines of the same size on the same towers. However, that is to misunderstand the term repowering: 'real' repowering might best be termed 'redevelopment', in that a large number of smaller turbines will be replaced by a smaller number of larger machines. New turbines, towers, foundations and probably roads mean investment would be a very high percentage of that required for a greenfield site. If, in addition, the repowering increases project capacity and thus requires the grid connection to be upgraded, the difference shrinks still further. The main benefit of 'redeveloping' sites would be to lower the risk profile in gaining permission to do so, and developers will be keen to maximise the use of wind resources on proven sites using the latest technology. Government should not place obstacles in the way of these 'quick wins' by introducing this measure. Repowered projects should be regarded as new capacity for the purposes of the RO.

For all these reasons, BWEA believes that 20-year grandfathering should not be applied retrospectively. It is perfectly valid for future investments in new capacity to be made on the basis of such rules if they are known in advance, but to change the rules for existing capacity is unacceptable. Clearly, as the RO stands such an announcement would be futile, since the RO will have less than 20 years to run by the time these proposals could be implemented. However, as we note below, Government will have to act in the next few years to deal with the sudden end of the RO, or face the prospect of investment in new renewable capacity slowing in the next decade before ceasing completely around 2020. Such action could well include some form of extension or phase-out of the RO beyond 2027, and the current reform process is an appropriate point to make clear that in this case, a 20-year rule

will apply for all plant after a certain point (perhaps later this year, when the final decisions on the reforms are published), with all capacity installed before that having its entitlement ending in 2027.

The EU 20% Target

There is also an issue that is outwith the scope of the current consultation, but which BWEA believes should be raised at this point. This is delivery of the UK's potential commitments under the recently-agreed EU target for 20% of all the Union's energy needs to be met from renewable sources by 2020. This issue brings in the effect of the RO's sudden end in 2027.

The Spring Council of EU leaders approved a significant climate change and energy package which included a binding target of a 20% share of renewable energies in overall EU consumption by 2020. While burden sharing criteria have yet to be formalised, this commitment strengthens the need to accelerate the deployment of renewable electricity capacity. Informed analysis suggests that the 20% energy target broadly translates into a 34% electricity target.

Given the scale of this target, it suggests that further measures will be necessary to stimulate and support the scale of renewables necessary to deliver the objectives. We note that the Government expects that the support levels required for renewables will, in the future, be increasingly dependent on the carbon price under the EU ETS. It wishes to align, as far as possible, review periods with the operation of the EU ETS. However, care needs to be exercised in this process. Operation of the EU ETS so far, has exhibited a considerable degree of variability and volatility, and its performance in the medium term is uncertain.

The initial review should also consider the implications for renewables deployment of the cessation of the RO, currently scheduled for 2027. Without a strategic framework provided by Government for the period post the RO, investors will make prudent assumptions with regard to the potential revenues available for projects which secure the bulk of their income post 2027. These assumptions will factor in the current uncertainties which exist and will tend to discourage projects which might otherwise come forward in the later years of the RO. Under some potential scenarios, there may be little additional renewable capacity considered post 2015. Currently, new-build on- and off-shore projects with anticipated 25 year lifetimes face significant regulatory risk for 20% of their life. By 2015, the proportion of operational life with uncertain regulation will have grown to over 50%.

By setting a long term context for expectations post the RO period, Government could significantly reduce uncertainty and promote additional delivery. As noted above, current operation of the EU ETS suggests that reliance on this mechanism alone, post 2027, is unlikely to provide the incentive required to invest in the scale of renewable projects necessary to meet targets. While we note that Government's long-term intention is to

move to a single carbon price as the prime support measure for low-carbon generation, the sudden discontinuity that the end of the RO brings to renewable generation support will not ease the transition into the carbon market. Government should aim to smooth this changeover. Use of limited period grandfathering for new capacity, be it 20 years or other periods, could be used in this instance, though not, as noted above, retrospectively applied to existing capacity.

Implementation of banding, and the attendant changes to primary legislation, presents a timely opportunity to put in place those measures necessary to ensure continued renewables development in the period leading up to and through the current 2027 RO end date. While we understand that the Government will need to consider fully the implications of the EU Energy package, and how best to incorporate its requirements in UK policy, the opportunity presented by reform of the RO should not be missed.

Government should therefore allow for potential changes by writing the primary legislation for the new system in such a way that the RO could be extended beyond 2027 if required – this will avoid the need to pass new primary legislation for 2013, though appropriate consultation with the industry would be required. Other possible extensions, such as going beyond 20%, should also be allowed for in the primary legislation: Government should aim to avoid the disruption and uncertainty inevitable with another round of primary legislation.

Q1: Are there any technologies that will fall into the reference band as 'others' that should be given a different support level? Please provide evidence as to the technology and cost.

BWEA is not aware of 'other' technologies that should be placed in bands other than the Reference band.

The consultation document discusses tidal impoundment schemes and indicates that the current major study under way will inform further analysis of the RO's role in supporting these technologies. At this stage, BWEA would like to indicate that if impoundment schemes are to be supported by the RO, the Reference band is appropriate. However, we believe that given the very long-term nature of the investments required, the current structure of the RO is not well suited to support impoundment schemes. In addition, were the Severn Barrage to be brought forward and allowed to claim ROCs, its sheer size would result in destabilisation of the RO market. BWEA neither supports nor opposes impoundment schemes, but is concerned about such generators' ability to affect investments in wind, wave and tidal stream by its members. We would welcome early engagement on Government's intentions regarding support for tidal impoundment, but our current opinion is that the feasible alternatives are either a separate support mechanism or significant expansion of the RO to accommodate such schemes, taking it well beyond 20%.

Q2: Do you agree that it is appropriate to distinguish between energy crop and regular dedicated biomass projects?

Given that energy crop fuels are higher cost than 'regular' biomass, it is appropriate to differentiate between them. BWEA believes it is valid to use the RO to support the development of the energy crop fuel sector.

Q3: Do you agree with the rationale for grouping technologies in this way?

Yes. This is what BWEA argued for in its joint submission with REA to the preliminary consultation, and so we support the general structure that Government has put forward here. We believe that four is an appropriate number of bands for the current situation, while acknowledging that this number may change in the course of future reviews. We do not believe, however, that emergency reviews should be allowed to increase the number of bands in the system.

Q4: Do you agree with the proposed banding levels? If not, please provide evidence as to why these should be changed. Views are also invited on the reports by Ernst and Young and Oxera published alongside this consultation document.

BWEA's analysis indicates that for large-scale wind, on- and offshore, the multiples of 1ROC/MWh and 1.5ROC/MWh respectively are appropriate and should not be moved up or down. Our modelling, reported in Annex A to this response, shows that returns of 10% are possible at 1ROC/MWh for onshore wind projects with load factors of 28% or above on central assumptions, so there may be some curtailment of development in lower-wind areas of the UK. Were capital costs to rise above Ernst & Young's central projections, then this would clearly have a significant impact on project economics.

For offshore wind, central assumptions lead to projects with a return of 11.6%, which is somewhat below the 12% hurdle rate assumed for these riskier investments. Consequently one can conclude that 1.5ROC/MWh will work for some but not all offshore projects, so long as capital costs do not rise to the high level projected by Ernst & Young and stay at that high level. A suitable result from the current process to develop a regulated transmission regime for offshore renewables is also necessary to allow projects to go forward at 1.5ROC/MWh. Even with a set of optimistic assumptions, offshore wind returns are only 13.5%, while with a pessimistic set these drop to 9%, so there is clearly a downside risk.

For microwind generators, however, we consider a banding level of 1ROC/MWh to be inadequate. Small systems, especially building-mounted machines, are an emerging technology, and thus should be in the Emerging Technologies band under the RO, given the market-related characterisation of the bands chosen by Government. In addition, having microwind generators in this band would avoid administrative difficulties when buildings have, for example, both a solar PV and wind generator installed: if both are in the same band, only one meter would be required to record the ROC-eligible output. Perhaps most importantly, BWEA is deeply concerned that other support measures for microgeneration will either finish in the near future (the Low Carbon Buildings Programme) or not provide sufficient incentives (the Carbon Emission Reduction Target) to ensure the continued growth of this sector, which the Energy Saving Trust considers can make a material contribution to medium- and long-term national and international climate change and renewable energy targets. The Association thus believes that bringing microwind into the Emerging band is essential to provide confidence to this market.

If Government takes this advice, then care will need to be taken to set an appropriate boundary between microwind and other wind generation technologies. Wherever this boundary is set, there will be opportunities for gaming, and a rationale must be given for classifying some technologies as Emerging and others not. BWEA is keen to engage with Government to

develop logical and defensible definitions to make this distinction. The immediately obvious definition, greater or smaller than 50kW – the limit for generators that can be represented by an agent – has considerable merit as it aligns with other regulatory thresholds. Furthermore, whilst wind turbines of that size have been available for many years and might therefore seem difficult to class as Emerging, they are in fact rapidly developing from both a commercial and technical viewpoint and so could justifiably be classed as Emerging.

In our submission to the preliminary consultation, we argued for wave and tidal stream generators to be awarded 3ROC/MWh in the first instance. This would limit the extra support required on top of the RO to bring these technologies into the market, while not destabilising the market overall given the relatively small number of MW of these technologies that would be given this high multiple. This remains our position and we are thus disappointed that these technologies would receive only 2ROC/MWh under the present proposals. The alternatives for remedying this would be either to give all technologies in the Emerging band 3ROC/MWh, or to create a further band at 3ROC/MWh for wave and tidal stream (and possibly other technologies as well). With the former option, BWEA recognises that the ROC supply from such projects within this band could fairly swiftly constitute a significant proportion of ROC supply, skewing the RO away from its rightful focus on mass-deployment technologies. The latter option would introduce further complexity into an already complicated system.

Government must recognise that leaving the Emerging Technologies band at 2ROC/MWh will require a clear commitment to provide the extra resource and effort required above that multiple if marine technologies are to be developed and the UK capture the maximum economic benefit. For a build programme of 64MW of wave and 54MW of tidal in the period 2009-2013, the total resource required over 2ROC/MWh would be approximately £150m more than if 3ROC/MWh were to be granted. BWEA is engaging with Government at all levels to secure the resources that such a programme would require, but given this difference it will be more difficult to gain enough in competition with other possible priorities.

BERR should note that the Scottish Marine Supplier Obligation (MSO) gives support to wave power which is roughly equivalent to 3ROC/MWh and to tidal stream at a level somewhat over 2ROC/MWh. Scottish ministers have used their current powers to vary the existing RO(S) in this way. Once the primary legislation for banding the RO is passed, Scottish ministers would be enabled to set bands for the RO(S) which are different to the England and Wales RO, for instance to preferentially reward wave and tidal stream as they have done with the MSO. This would lead to problems with cross-border trading, which would be very unfortunate given the very welcome effort that has been put in to ensure a transparent UK-wide ROC market. BWEA hopes to work with both UK and Scottish administrations so that such a possibility can be avoided.

Additionally, regardless of the final ROC level set for wave and tidal stream technologies, BWEA would strongly recommend that any projects approved through the BERR's Marine Renewables Deployment Fund (MRDF) be permitted to acquire multiple ROCs in the appropriate band as soon as the banding regime comes into force. The MRDF has not brought forward projects as yet due to, amongst other things, an inadequate level of support. By adding the grants to 2ROC/MWh that problem can be overcome and the small number of projects that can be funded by the MRDF should be able to move forward. We do not believe that this should pose difficulties from a State Aid viewpoint given the cost analysis work already available and experience from the enhanced support scheme in Scotland. We emphasise, however, that to continue growth in the sector beyond the MRDF, a replenished MRDF or a new mechanism will be required.

In answering Q2 above, we indicated that rewarding energy crop projects with more ROCs than regular biomass generators was an appropriate use of RO resources. We do not believe this is the case with CHP: using the RO, an electricity mechanism, to reward a project for producing heat is perverse and liable to distort the market for biomass. Given the current lack of a clear policy for rewarding renewable heat, and the likely small capacity of biomass CHP that will benefit from this ROC multiple, we accept the initial placing of this technology in the 2ROC/MWh band. However, Government should urgently bring forward a suitable mechanism for rewarding renewable heat, whether it is produced in a CHP plant or otherwise, in order to eliminate this anomaly. Government should anticipate this change by making clear that biomass CHP will drop to the 1.5ROC/MWh band once this renewable heat mechanism is introduced, without needing to invoke the emergency review procedure.

BWEA is aware that some companies with co-firing interests are arguing for their technology to be awarded more than 0.25ROC/MWh. Apart from the complication of establishing another band to accommodate this demand, giving co-firing significantly more than 0.25ROC/MWh will further push the RO system away from net neutrality: the banded RO is likely to be running 'ROC rich' in any case. While BWEA has argued for the concept of net neutrality to be abandoned, we recognise that Government is still using it as a guiding principle. Giving more than 0.25ROC/MWh to co-firing will lead to pressure to reduce the multiples for the Post-Demonstration and Emerging Technologies bands, which BWEA considers to already be at the minimum required. Co-firing should be left at 0.25ROC/MWh.

Q5: Do you agree with the proposal that Geopressure occurring in conjunction with fossil fuel should be excluded from the RO?

Yes.

Q6: Do you agree with the principle of providing independent advice to Ministers to help agree UK wide bands, and on who should provide that advice?

BWEA agrees with the principle of having independent advice for Ministers in order to reduce the possibility of arbitrary decisions to change multiples or move technologies between bands. It is vital, however, that whichever body is given this task, it is required to consult with industry as part of a clear statutory process in the course of drawing up its advice. This would need to be early in the process so that industry is confident that the independent body is working with the best available information.

BWEA has some concerns about the status of the advice. The implication of asking an independent body to perform this analysis and provide recommendations is that the conclusions will be implemented as a matter of course. However, the final decision rests with Ministers and thus there is the possibility that the advice is not taken and a different result implemented. BWEA is sure that Government does not intend there to be uncertainty around this, and so we would welcome an indication of what kind of exceptional circumstances might lead Ministers to reject or amend the advice.

BWEA also has some concerns about the proposal to hand this role to the Committee on Climate Change envisaged under the Climate Change Bill. Apart from the fact that the creation of this body depends on legislation that has not yet been passed, the Committee will be responsible for charting the UK's course to a low-carbon economy, and thus will have a number of very diverse and onerous tasks. Unless we can be reassured that the Committee will have suitable expertise on its Board and within its secretariat, and resources commensurate to all its tasks, we may not have confidence that it will bring forward appropriate advice. It may be that a separate independent body focused on the RO is more appropriate.

Q7: Do you support this approach to timing of reviews?

BWEA welcomes the confidence that a clear timetable of reviews should bring to the market. We also believe that intervals of five years strike a good balance between providing stability while also building in flexibility to deal with changing circumstances. The alignment of the reviews with the EU ETS process is also a positive step and shows Government is bringing more coherence to its climate change policy.

We believe that the date of the first review, starting only 18 months after the introduction of banding, is probably too early and in ideal circumstances would be at least a year later. However, in order to achieve the alignment with the ETS timetable this short first period is acceptable, so long as there is early clarity on the multiple levels that will be in force until this first review.

As noted in our introductory remarks, the first review will, in our opinion, have to address the issue of the RO's end in 2027, and Government should be prepared for this.

Q8: Do you agree with the criteria set out in paragraph 4.14? Should there be any additional criteria?

The issue of emergency reviews is dealt with at some length in the introductory remarks above. Specifically on the criteria set out in paragraph 4.14, we believe this list is unnecessarily detailed, while missing the prime criterion for an emergency review, underdelivery for economic reasons. Our preferred approach to this area is set out above in the introductory remarks.

Q9: Do you agree that the proposed trigger points for grandfathered rights, including the transitional arrangements for projects consented on 1st April 2009, are appropriate?

The proposals for grandfathering that were spelled out in last July's Energy Review document, and repeated in the preliminary consultation on these reforms to the RO, are appropriate and acceptable.

Q10: Should the electricity generated from power stations that add additional capacity after the point at which they are grandfathered be calculated as a fraction pro rata to the installed capacities and/or be subject to separate metering at the generators' discretion?

This proposal appears sensible, allowing for generators to make choices appropriate to their circumstances.

Q11: Do you agree with the proposed treatment of projects under 50 kW as set out in para 4.21?

Yes.

Q12: Is there any reason why RO support at the grandfathered level would need to continue after the initial investment had been paid back?

Given the context of this question, that of retrospectively applying a limit on RO grandfathering for existing plant, it is inappropriate. The Government has long stated that existing projects would be eligible for the full value of the RO for the lifetime of the policy.

Investments have been undertaken and projects traded on the basis that those projects would continue to receive 1ROC/MWh for their output and to retrospectively apply a grandfathering limit would undermine such investments and result the market losing confidence in the RO mechanism.

In addition, existing wind farms would not be repowered/redeveloped under this proposal, resulting in a loss of renewable generation.

As noted in the introductory remarks, Government should immediately remove any suggestion that this proposal may be implemented, given its damaging impact on investor confidence.

Q13: Accepting that there will be variation between projects, is 20 years a fair proxy for project financing?

Projects may indeed be financed over 20 years, and if support for that time only was factored into project economics from the start, it might be regarded as fair. To apply it to existing projects, however, is against natural justice and should not be contemplated. Again, we refer to our opening remarks for our full views on this question.

Q14: Should this provision apply to projects under NFFO 3, 4 and 5 from date of contract, date of first supply or date of commencement in RO?

Once again, BWEA's view is that this provision should not apply at all, so this question is irrelevant.

Q15: Is a guaranteed headroom of 6% adequate, given the ability of suppliers to bank ROCs and our intention to also remove the risk of a ROC price crash through introducing the ski-slope?

Our analysis indicates that with headroom set at 6%, there is a significant probability that it will be breached. As set out in the opening remarks, if headroom was to be set at a higher level, this probability and the volume of ROCs generated in excess of the headroom would be reduced. BWEA believes that a headroom of at least 8%, and preferably 10%, would be more appropriate, in order to bring the probability of oversupply down towards the 1 in 10 level and reduce the impact of any of the alternative ways of dealing with ROC oversupply.

Using banking as a means to avoid price crashes would be improved if account is taken of the extra supply of ROCs in the following period, which will be difficult given the need for RO levels to be set in advance of knowing that there will be a ROC surplus in any period. If our advice on the level of headroom is followed, however, the amount of any ROC oversupply is likely to be small and thus able to be absorbed into the following period's Obligation. Banking is likely to figure in any method of dealing with this issue: it is not so clear that the ski-slope will be involved. Given its significant impact on the whole market, use of the ski-slope should probably be limited to more extreme oversupply situations, until such time as Obligation levels have reached their maximum allowed level. However, with suitable headroom

levels, such extremes should be avoided. BWEA would, however, welcome clarity on when and how the ski-slope would be invoked.

As discussed in the introductory remarks, the appropriate level of headroom is dependent on the methodology used to generate the forecast of ROC generation. BWEA looks forward to working with Government to formulate in detail the methodology to be used.

Q16: At what point in time should the level of Obligation for a given obligation period be announced?

While it would be possible to set Obligation levels post hoc, once ROC generation levels for a period are known at its end, this would introduce large uncertainty for suppliers, making their tariff-setting very difficult, especially for commercial and industrial customers. Obligation levels should therefore be set in advance, though this does introduce the risk of ROC oversupply, which we have discussed above. BWEA believes that the market would benefit from an early indication of forecast ROC generation, with the final number set closer to the Obligation period in question. Our recommendation is that an initial view of the ROC generation for a period (and thus the Obligation level) be set out at the beginning of the previous period, with the final level set six months before the start of a period. Therefore, on 1 April of period (n), a provisional forecast is provided for period (n+1), with the final Obligation for period (n+1) set on 1 October of period (n). We believe that at both times, provisional forecasts for a further two years ahead would be helpful.

As noted in our opening comments, we believe this process should be integrated with the assessment of whether emergency reviews are necessary.

It is not clear in the consultation document who will assume the task of forecasting ROC generation and thus setting the Obligation level under headroom. It would be logical to have independent calculation of the future output, and thus this could be another task for the Committee on Climate Change. Given the reservations on the potential overstretch of the CCC as set out in our answer to Q6, a new independent body focused on the RO may be a better alternative.

Q17: Do you agree with the intention to take a power to introduce a ski-slope in primary legislation subject to a later need?

This is the position taken by the BWEA in the response to the preliminary consultation, and therefore we agree with it. However, we would be concerned if the cross-industry working group that Government envisages to develop this mechanism were not to have brought forward a workable concept before this power were to become law. Whilst a full and detailed proposal would not be required for some time, agreement would need to be

reached on the principles before a power was taken for such a potentially destabilising mechanism.

Government should note that, if our advice on the level of headroom is followed, then the ski-slope should not be needed until the Obligation reaches the currently envisaged maximum level of 20% of UK electricity sales.

Q18: Do you agree with the need for a special co-firing criterion for an emergency review of banding? Is 10% of ROCs an appropriate trigger point?

BWEA believes that a special criterion for co-firing is appropriate, for the reasons set out in our discussion of emergency reviews above. With a growing RO, the 10% ROC trigger equates to a large volume of electricity: 4% of UK supplies in 2010 and up to 8% in 2020, assuming co-firing stays at 0.25ROC/MWh. It appears unlikely that co-firing will reach such levels, but if it were do so, it would be appropriate to review its treatment under the RO.

Q19: Do you agree with the Government's proposal that reducing support and reviewing the co-firing band for regular biomass if it contributes 10% of ROCs makes a cap on co-firing unnecessary? If not, please provide evidence as to what the likely impact of uncapping co-firing at the proposed level of support would be and the level of cap appropriate.

Reducing support for co-firing and reviewing at 10% of ROCs appears to avoid the need for a cap. However, the only two possible results of a review of co-firing's status in the RO would be a cap or a reduction in the co-firing multiple. While a reduction in the multiple would likely achieve the objectives of such a review, Government may not wish to limit its room for manoeuvre in this way. In general, BWEA has no particular preference for either mechanism; however, if an emergency review covering co-firing is invoked, Government should impose a temporary cap of 10%, or perhaps the level reached when the review is invoked if this is higher, until the review is completed and implemented. This would limit the destabilising flow of co-fired ROCs in the period until an enduring remedy is implemented. If our recommendation is followed for emergency reviews to be triggered on a prospective basis, then the need for a cap may be avoided, since action will be being taken on the expectation of reaching the trigger level before co-firing output has actually reached that level.

Q20: Do you agree with the proposed treatment of energy crops set out in paragraphs 6.9–6.14?

We agree with this treatment of energy crops. We do have some concerns that the current definition of energy crops and their distinct treatment under the RO may lead to large-scale imports, thus leading to leakage of value

from the RO to overseas biomass producers. It may be more appropriate to direct support outside of the RO to indigenous energy crop suppliers to ensure that the objective of developing a domestic energy crop sector is met.

Q21: Do you agree that sustainability requirements should cover all biomass users?

We agree that sustainability requirements should cover all biomass users above 50kW.

Q22: Should those generating less than 50 kW be exempted from sustainability reporting? Should any other threshold be used

It is reasonable to exempt generators of less than 50kW from sustainability reporting requirements.

Q23: Do you agree with the criteria to address sustainability for biomass?

BWEA believes it is vital for biomass fuels to be, and be seen to be, fully sustainable in order to ensure credibility for the entire renewables sector. We are not qualified to judge the approach set out by Government, however.

Q24: Do you agree that Ofgem should freeze the ROCs of operators who do not provide the necessary information on sustainability?

While this is outside BWEA's area of interest, threatening to freeze ROCs appears to be an overly draconian measure unless it is imposed as a last resort. BWEA members would not want to have such measures imposed upon them unless it were for very good reason indeed, so we do not support such a proposal unless there is a clear process where this is the ultimate sanction, adopting a mechanism that cannot adversely affect market players that may have contracted to receive the ROCs being frozen.

Q25: Do you agree that deeming the fossil fuel content of waste is appropriate? Should operators be given the opportunity to present Ofgem with evidence that the fossil fuel content is lower?

While this is outside BWEA's area of interest, it would appear appropriate to introduce this measure in order to simplify the RO, even if only marginally.

Q26: Is 65% fossil fuel the right level to deem? Does the remaining 35% receiving ROCs provide a suitable incentive through the RO without compromising the Government's aspirations for increased recycling?

BWEA is not qualified to judge the correct level of deeming in this instance.

Q27: Do you agree that the RO should be made 'neutral to waste (SRF)' in this way? Would there be any negative consequences? Do you agree that a CEN based definition is appropriate?

BWEA is not averse to the concept of making the RO neutral to waste in this way. With increasing amounts of the UK's waste streams being diverted to recycling, the supply of SRF should not be so large as for this proposal to destabilise the ROC market. We do not have an opinion on the technical implementation of such a scheme.