DEPARTMENT OF ENERGY & CLIMATE CHANGE

Consultation on the grandfathering policy of support for Dedicated Biomass, Anaerobic Digestion and Energy from Waste under the Renewables Obligation

March 2010

Building Britain's Future

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The closing date for responses is 28 May 2010.

E-mail responses are preferred. Please submit replies to: rfi@decc.gsi.gov.uk. Alternatively, hard copy replies should be sent to:

RFI Team, Renewables Directorate, Department of Energy and Climate Change, 4th Floor, Area A/B, 3–8 Whitehall Place, London, SW1A 2HH.

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An electronic version can be found at: http://decc.gov.uk/en/content/cms/consultations/grandfathering/grandfathering.aspx. Other versions of the document are available on request.

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Help with queries

Please direct any queries about this consultation to our dedicated e-mail address: rfi@decc.gsi.gov.uk, or in writing to:

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This consultation and call for evidence on the policy on grandfathering support for dedicated biomass, anaerobic digestion (AD) and energy from waste (EfW) in the Renewables Obligation (RO) has particular relevance to electricity generators and suppliers operating in these markets. It is also of interest to industries in direct competition for the fuel used by these generators.

Within the context of the level and balance of support offered to technologies across the RO it is relevant to energy consumers and their representatives, electricity suppliers, energy generators, network operators, Ofgem, environmental and energy efficiency organisations, energy service companies, installers, the construction sector, finance institutions and other stakeholders with an interest in the renewable energy business.

1. Executive Summary

In a Government statement on 3 February 2010, we set out our commitment to using sustainably sourced biomass to meet our renewable energy needs. We also recognised concerns from a number of developers and investors in the biomass industry over the current lack of grandfathering of support under the Renewables Obligation (RO) for biomass, anaerobic digestion and energy from waste.

Grandfathering is the policy intention that, once accredited, a generator receives a set level of support over its period of eligibility for the RO. Grandfathering policy is therefore not to apply any changes to levels of support at subsequent banding reviews to existing generators.

Towards the end of 2009, representatives of the biomass industry raised concerns that the lack of grandfathering has caused a number of projects to stall, as investors place a high discount rate on future Renewables Obligation Certificates (ROC) levels. They argue that it is therefore difficult for these projects to secure an adequate level of debt financing to make them viable.

Investor certainty in the Renewables Obligation is key to our success in encouraging the deployment of renewables. Since 2002 we have seen a threefold increase in renewable electricity brought on by the RO. But to meet our legally binding targets on renewable energy, we must continue to develop our renewables generation capacity.

Biomass electricity generation is one of the few renewable electricity sources that is dispatchable; generation can be planned and changed to meet consumer demand. It is therefore one of the low carbon solutions that can help to balance more intermittent sources of energy such as wind. It is therefore an important part of our low carbon energy mix.

The biomass industry have identified up to 5GW of dedicated biomass, energy from waste, gasification and anaerobic digestion projects that are in planning or pre-build phase; an estimated £13 billion worth of potential investment. But for some of these projects to come forward, investors have said that they require certainty that the Renewables Obligation will provide the necessary support. However, we must ensure that any proposals represent value for money as it will be energy consumers who will ultimately pay through increased energy bills.

The RO takes into account the upfront capital cost of new renewables generators, ongoing operation and maintenance costs, as well as the ongoing fuel costs, net of electricity revenues

Unlike other renewables generators, biomass generators have an ongoing fuel cost. Industry have informed us that they are unable to fix this fuel cost for the full 20 years of the RO support. Therefore, grandfathering their total support (which takes into

account both the capital and fuel costs) for 20 years at current levels could result in future market distortion if bands were changed for new entrants. It was precisely for this reason that we did not grandfather support for biomass on the introduction of banding in April 2009.

Like other technologies, **dedicated biomass** developers should, however, be able to fix the non fuel costs for the upfront build of the project. We are therefore proposing a policy to grandfather the proportion associated with non fuel cost for dedicated biomass, but not to grandfather the element of support which helps pay for the ongoing fuel costs. This brings the biomass grandfathering policy more closely in line with our policy for other renewables under the RO, and aims to protect existing generators from having support reduced due to a breakthrough in technology which reduces the upfront capital cost for new generators.

It also retains flexibility for the RO to respond to changes in biomass fuel costs if required. Should biomass prices rise, there is flexibility to raise the level of support for both new and existing dedicated biomass generators, thus maintaining a level playing field for such stations when competing for fuel. Likewise, should biomass prices fall, support levels for both new and existing generators could be reduced, subject to a policy intention not to go below the minimum level for existing generators.

The Government is asking for evidence to inform a decision on what the appropriate proportion of the ROC level should be for non fuel costs for generators accredited before the next banding review, that can help in setting an appropriate minimum level.

We recognise that **anaerobic digestion (AD)** and **energy from waste (EfW)** with combined heat and power (CHP) have a different fuel supply risk. AD plants tend to be small scale, using locally sourced feedstock, often at low or even negative cost. These small, often on farm, AD generators should be less sensitive to changes to support levels for future entrants to the market and less likely to be competing for the same fuel. Under the feed-in-tariff (FIT) scheme, due to launch on 1 April, support is to be maintained for the length of the tariff for all technologies (including AD). We therefore propose to bring the RO in line with FiT support with a policy to grandfather AD plants accredited by 31 March 2013 at the current ROC level, i.e. **2 ROCs per MWh**. We propose that any generators accrediting from 1 April 2013 should be grandfathered at the rate applicable following the outcome of the 2010–2013 Banding Review.

Standard energy from waste with CHP plants are more likely to secure long term, up to 20 year, fuel contracts as part of PFI deals with local authorities. These contracts are structured to make it costly to terminate early, thus providing a degree of certainty of costs/income for both the Local Authority and the EfW generator. We therefore also propose a policy to grandfather support for EfW generators at the current ROC level, **1 ROC per MWh**, provided they are accredited by 31 March 2013. As with AD, we propose that any generators accrediting from 1 April 2013 should be grandfathered at the rate applicable following the outcome of the 2010–2013 Banding Review.

The ½ ROC uplift provided for for dedicated biomass with CHP is aimed at supporting the additional capital cost of this type of build. However, the Renewables Heat Incentive (RHI) is due to be launched in 2011, and we want to ensure that the two incentives complement each other. We will therefore consider further whether to grandfather the CHP uplift and consult in the summer.

As announced in Budget 2010, we will consult on proposed **sustainability criteria** for biomass later this year. With sustainability criteria, in order to qualify for support, bio-energy generation will need to demonstrate real greenhouse gas savings and be carried out in a manner which does not give rise to damaging land use change, undermine global food supplies or inflate food prices. Any grandfathering would only apply where a generator is using sustainable biomass. Once in force, if generators are using biomass that does not meet the sustainability criteria, they will be ineligible to claim ROCs for generation from that fuel.

We are not currently proposing to grandfather support for generators using **bioliquids**, as there is a question as to whether putting bioliquids into electricity is the best way of helping us to achieve our renewable energy targets (given their potential use for heat and transport). Our policy remains for flexibility to amend support levels for bioliquids at future banding reviews for both new and existing generators.

There was insufficient evidence on which to consider changing our policy towards the grandfathering of advanced thermal technologies, such as **advanced gasification** and **advanced pyrolysis**, at their current level of **2 ROC per MWh** support. This position will be reviewed using the evidence from this consultation.

2. Reasons for Consultation

When the RO was introduced in 2002, support was technology neutral and set at 1 ROC per MWh for all technologies, so bringing on only the cheapest technologies. It did not help support the more expensive, emerging technologies.

In April 2009 banding was introduced into the Renewables Obligation, allowing us to set support levels grouped by technology type into four bands. This recognised that some technologies were cheaper to deploy than others, and that some required additional support to reach mass deployment levels. The legislation allows the Secretary of State to review the bands at scheduled review points, with the first scheduled review due to begin this October, with any changes coming into effect in April 2013.

Banding reviews allow us the flexibility to adjust support as circumstances in the market etc change, thus retaining value for money and ensuring technologies receive the right level support.

The bulk of costs for most renewable technologies are largely upfront capital costs, with low ongoing maintenance costs. Existing generators do not, therefore, tend to benefit from any future innovation in the sector that reduces build costs, or increases technology efficiency.

In order to ensure investment in these technologies, we introduced the concept of grandfathering. This is a policy intention to maintaining a level of support for the full lifetime of eligibility for the RO, from the point of accreditation. For grandfathered generators, our policy intent is not to change the original level of support received at future banding reviews.

The purpose of this policy is to allow generators to finance the fixed costs of their development over the lifetime of the project's eligibility for support under the RO.

Following the consultation on banding and grandfathering in 2008, we made a decision not to grandfather support for biomass as, in contrast to other renewables technologies, a large proportion of a biomass generator's costs are fuel costs, which can vary over time. Grandfathering could therefore have two effects:

1. If support is set too high, stations could be over compensated. Set too low, and plants would not be able to compete for fuel;
2. Generators entering the market in different years could receive different levels of support, yet would compete for the same fuel stock, thereby potentially distorting the market (as one will be able to pay more than the other).

Future RO banding reviews could therefore result in an amendment to the level of support for existing biomass generators, as well as new ones. In April 2009, actual

support was increased for existing biomass generators from 1 ROC to between 1.5ROCs per MWh to 2ROCs per MWh, depending on technology type. If existing biomass generators had been grandfathered, in line with other technologies, this increase would not have been possible.

Since the introduction of banding, and the increased support for biomass, we have seen an increase in planning applications for biomass generating stations. The biomass industry have identified up to 5GW of dedicated biomass, energy from waste, gasification and anaerobic digestion projects that have been proposed or are in planning or pre-build phase.

However, the biomass industry, banks and equity providers have recently raised concerns over the uncertainty of future support levels. Developers argue that banks and equity providers are now holding off investment in biomass projects. Without certainty over support levels, developers argue they will be unable to obtain finance, and projects will therefore not go ahead.

Following representations from industry, and discussions with banks and equity investors, we announced we would revisit our current grandfathering policy for dedicated biomass, anaerobic digestion and energy from waste. We do not intend to revisit grandfathering policy for any other technology in this consultation.

As part of this exercise, we have also considered whether to grandfather the ½ ROC uplift for dedicated biomass with CHP, and/or to grandfather the ½ ROC uplift for generators using energy crops.

In revisiting our biomass grandfathering policy, we engaged with a wide range of developers, investors and trade associations, and the Renewables Advisory Board.

In addition to a series of meetings with individual biomass developers and investors, we set up two working groups:

1. An industry working group with biomass developers from a range of company sizes, and from across dedicated biomass, AD and EfW sectors
2. An investor working group, with representatives from a number of banks and equity investors

The purpose of this consultation is to:

- seek views on whether our preferred option is the best way forward
- gather evidence on the costs for dedicated biomass, AD and EfW, and the proportion of costs attributable to non fuel costs
- test our assumptions over investor reaction to grandfathering and therefore the likely amount and timing of investment that would come forward under different options

- seek views as to whether there are any other unintended consequences of our preferred option

The total number of Renewables Obligation Certificates (ROCs) awarded for biomass technologies is not being reviewed. We will be reviewing banding levels for all technologies in the scheduled Banding Review, due to start in October this year. Any changes to bands as a result of the scheduled Banding Review are due to come into effect from 1 April 2013.

3. Options considered

We have considered four possible policy options:

i. Grandfathering at band received on accreditation
ii. Grandfathering at current levels, with potential to upband
iii. Grandfather a minimum level (the rest free floating)
iv. Do nothing scenario – business as usual

We have also considered how to treat the use of bioliquids.

i. Grandfathering at band received on accreditation

Under this option, biomass generators accredited by 31 March 2013 would be grandfathered at current ROC levels. Entrants from 1 April 2013 would receive new support levels, if changed following the 2010–13 Banding Review.

This is in line with the grandfathering principle for other technologies, and should give investors the certainty they need over future income. This option would grandfather not only the support for capital cost, but also the ongoing fuel cost.

Fuel prices are variable over time, and a number of developers have made clear that long term, 20 year fixed price and volume fuel contracts are not currently available. Developers are therefore currently subject to variable fuel costs throughout the lifetime of their eligibility for the RO, and will have to compete against both existing and future generators for fuel. There is considerable uncertainty about how the market will develop in the future. It may be the case that, as an E4Tech study suggests, many power plants are looking for long term contracts, some with investment in the biomass supply chain, with only small amounts of spot buying. However investors are saying that the current fuel price volatility and lack of certainty of support is stalling current plans.

This has the potential to create a future market distortion; if ROC levels are not allowed to respond to biomass prices, generators accrediting in different banding review periods will receive different levels of overall support, placing some investors at a competitive disadvantage when sourcing fuel, while others will receive excess rents.

Providing investors with grandfathered support at current levels may increase availability of debt finance for biomass developers. However, it would be difficult to amend bands, either up or down, for future generators, without causing this market distortion. This risk may prove to be too great for the equity investors to take. As

projects need a mix of debt and equity investment, this option may limit deployment potential.

Whilst fuel price variability is a major concern for dedicated biomass, it is less of an issue for anaerobic digestion and energy from waste plants.

AD plants tend to be small scale, using locally sourced feedstock. Larger AD plant, such as those using municipal food waste, are more likely to secure long term fuel contracts. They would therefore be less sensitive to changes to support levels for future entrants to the market.

Energy from Waste plants (EfW) are more likely to secure long term, up to 20 year, fuel contracts, as part of PFI deals with local authorities.

Investors have stated that grandfathering support for AD and standard EfW at current rates would provide the certainty they need and ensure the continued deployment of this technology. A number of investors and developers have suggested this as a potential solution for just AD and EfW generators who operate in different market conditions.

Impact on value for money. The impact on the cost of the RO will depend on future fuel price scenarios. If for example fuel prices fall at the next banding review, grandfathering could lead to potential over subsidy under the RO. This makes grandfathering potentially poor value for money, particularly for dedicated biomass.

Impact on deployment. Taking investors assumption that the lack of grandfathering is causing a hiatus in investment, which could lead to lower investment in renewables in the UK, then grandfathering could reduce the risk of such a hiatus relative to option 4. We are looking for evidence on the impact of grandfathering on investment decisions.

Q1: What information can you provide on current biomass fuel contracts, feedstock sources and prices for dedicated biomass? How do you expect the market to develop longer term?

Q2: Do you agree that grandfathering at current levels for dedicated biomass could result in unfair competition if bands were changed for new entrants in a future banding review? Please provide your argument.

Q3 Could grandfathering AD and EFW cause similar market distortion? Do you agree that the risk is less for these technologies? Please provide your argument.

Q4: What are current AD and EfW feedstock prices or subsidies for disposal and what do you estimate these prices to be in the future? Are these arrangements driven by landfill gate fees? Do you agree that these feedstocks are less subject to price uncertainty than dedicated biomass plant?

Q5: What evidence is there that without grandfathering there would be a hiatus in investment for AD, EfW and dedicated biomass?

ii. Grandfathering at current levels, with potential to upband

Under this option, if at the next banding review we increase the ROC band for new entrants, then existing generators would be banded up. However, if the level of RO support was decreased for new entrants, existing generators would not be banded down, but grandfathered at the level they received on accreditation.

This option would insulate investors against any downside risk, whilst providing access to any increases in support.

However, this option is likely to offer extremely poor value for money to consumers. It locks in current levels of support, which may lead to future over compensation if fuel prices fall. Consumers would be bearing all the cost of this.

Grandfathering at current rates would essentially fix the fuel cost component as well as non fuel costs. If biomass prices fall, we would need to reduce support for new entrants to ensure value for money to consumers and comply with EU State Aid rules. But, by keeping existing generators at a higher level, not only does this represent poor value for money for electricity consumers, it also means that new entrants to the market may be unable to compete for fuel. Grandfathering with an uplift only exacerbates this issue, and places the risk of biomass price increases on the consumer.

Impact on value for money. The impact on the cost of the RO will depend on future fuel price scenarios. If for example fuel prices fall at next banding review, grandfathering could lead to increased over subsidy under the RO, as under option 1. Moreover costs will be higher than under option (1) under a rising fuel price scenario. Under option 1, levels of support remain fixed under rising fuel prices, whereas under this option additional costs will be incurred under higher fuel prices.

Impact on deployment. Taking investors assumption that the lack of grandfathering is causing a hiatus in investment, grandfathering could reduce this risk relative to option 4, and therefore the cost of meeting the renewable target relative to the status quo. We are looking for evidence on the impact of grandfathering on investment decisions.

Q6: To what extent does grandfathering risk market distortion? Is there evidence to support the extent to which this distortion could affect future investment?

Q7: Do you agree that this option offers less value for money to the consumer, due to the lack of response to future fuel prices?

iii. Grandfather a minimum level, with the rest free floating

Under this option, a proportion of the ROC support level would be grandfathered to take into account the fact that some, but not all, of the cost of a biomass generator is for non-fuel costs, for example the upfront capital cost of building a generating station. Full ROC support for other technologies is grandfathered as their upfront capital costs make up the majority of their costs and do not change once the generator has been accredited; even if technology advances mean that costs come down in future.

If we were to apply the same principle to biomass generators, the proportion of the ROC level that is deemed to be due to non-fuel costs could be grandfathered, leaving the element that supports the variable fuel cost 'free floating' i.e. subject to change at future banding reviews. This would provide some comfort over the level of support for new plant and give a firmer basis for investment in the biomass power generation market.

If biomass fuel prices have changed at the time of the next banding review then support levels for all new and existing generators will take account of the new biomass fuel price levels. Existing generators would receive the new level attributed to fuel costs, however the grandfathered element, attributed to non-fuel costs would not change. New generators would have their non-fuel costs grandfathered at the level determined by the review.

This option should provide investors with the security that existing generators receive a minimum level of support, allowing banks to lend on that basis, and any allowance they might make for future uncertain biomass prices. It also provides more protection for consumers than options 1 and 2 as, should biomass prices fall, support can be decreased without risking a hiatus in deployment.

We would welcome views with supporting evidence as to what proportion of the current ROC level should be attributable to the non-fuel costs.

We have identified two potential ways to determine the support needed for capex and opex elements

1. Take levelised capital and operational and maintenance, net of electricity revenues to estimate the level of ROC to support biomass non fuel costs.
2. Determine the contribution of non-fuel costs to total costs, and apply proportionally to the ROC band.

We are seeking evidence to support which methodology would be most appropriate to use.

This option is not considered appropriate for AD and EfW. Small-scale, on-farm AD generators are less likely to rely on feedstocks with fluctuating prices, often using on-farm waste. In cases where they source fuel, for example using food waste, they may be paid to take the fuel i.e. the fuel is not a cost, it is an income stream. The same

applies to EfW plants, where there is often a gate fee paid to the generator for taking the waste.

Furthermore, EfW plants are more likely to be able to secure long term fuel contracts under Local Authority PFI deals. If they are subject to any element of uncertainty over the level of future RO support, banks may restrict the level of funding, or require higher rates of return, meaning that fewer projects are likely to be deployed and/or at higher cost.

Impact on value for money. Less risk of excess rents due to lower level grandfathered. Thus better value for money for the consumer.

Impact on deployment. We are looking for evidence on the impact of grandfathering on investment decisions.

Q8: Please provide evidence of actual costs and revenues for dedicated biomass, AD and EfW plants, including evidence to demonstrate the proportion of these costs that is non fuel?

Q9: Which methodology for determining a support level for non fuel costs is the most appropriate, and why? Are there any other methods we should consider?

Q10: Is this an approach to the level of grandfathering that could work for AD and EfW plants?

Q11: What evidence can you provide to support whether this level of grandfathering could bring forward investment in dedicated biomass/AD/EfW? What levels of deployment would you expect to see, and when would you expect generators to be accredited?

iv. No change to current policy

This option maintains our current policy, at least until any banding changes in 2013. This leaves us with the greatest flexibility to respond to future price changes, and thus ensures that consumer value is maintained.

According to industry, this option may result in a hiatus in deployment of biomass generators. A number of debt providers have stated that they will discount ROC revenue when making lending decisions, meaning that they are unlikely to offer much, if any, debt financing.

It is possible that, in the absence of grandfathering, some additional resource will still come through, as some investments could be on balance sheet, and could therefore raise finance without the benefit of grandfathering policy. Small scale AD plants also have the option of opting for the Feed in Tariff (FiTs), which will be grandfathered.

Overall, given the feedback we have received to date, we would expect deployment of biomass electricity levels to be lower than under the other options.

Modelling by Redpoint (2010) would suggest that if there is a hiatus in biomass, there would be potential to meet the renewable energy target of 15% of energy from renewables by 2020, through other means such as co-firing. This could reduce the overall cost of reaching the renewable energy target.

Nonetheless, we recognise biomass electricity generation has an important role to play in ensuring a diverse energy mix. biomass is one of the low carbon solutions that is dispatchable – i.e. the level of generation can be adjusted with a consumer demand – and can help counter the intermittent nature of other renewable technologies.

Use of anaerobic digestion can also reduce the amount of methane, a powerful greenhouse gas, lost to the atmosphere through diversion of waste from landfill and capture of methane from manures, slurries and sewage sludge.

Whilst most AD projects could switch to the Feed in Tariffs, due to come in on 1 April this year, there could be a hiatus in AD plant deployment if investors require projects to undergo due diligence under the new scheme. Depending on project finance, there is a risk that some projects could potentially be cancelled.

Additionally, energy from waste is integral to our waste management policy. The EU Landfill Directive requires the UK to cut the volume of biodegradable municipal waste sent to landfill to 35% of that produced in 1995 by 2020 and sets interim targets for 2010 and 2013.

The current policy not to grandfather RO support for AD and EfW may therefore risk both delivery of the AD Implementation Plan and Landfill Directive targets. It could also increase the cost of waste disposal for Local Authorities as alternate routes may need to be found.

Q12: Do you agree that a lack of grandfathering will impact deployment levels for dedicated biomass, AD and EfW, and if so, to what extent?

Q13: Is there potential for other technologies to be deployed under the RO? If so, at what levels?

Q14: If there is no change to current policy, how easy would it be for proposed AD projects to switch their funding to FITs?

v. Treatment of Bioliquids

The majority of biomass stations use a solid fuel such as wood chips, straw and poultry litter. Current support levels have been set for solid biomass plants with these types of fuels in mind. However, there is a much smaller amount of bioliquids used such as tall oil. Bioliquids developed for the transport sector such as bio-diesel and bio-ethanol can also be used to generate electricity.

There is a question as to whether building bioliquid electricity plant and putting bioliquids into electricity is the best way of helping us to achieve our renewable energy target, where they may well have greater value in helping achieve our transport target and in decarbonising heat. As such, we are not proposing to provide any grandfathering for generators using bioliquids under any of the options above.

This will provide the flexibility to amend support levels for bioliquids at future banding reviews for both new and existing generators.

Q15: Do you agree that bioliquids should not be grandfathered, and why?

4. Preferred option

Based on the evidence presented, it seems clear that a one size fits all solution is not appropriate for biomass electricity. Thus we are proposing a split solution.

For dedicated biomass, we are minded to grandfather the proportion of non-fuel costs. Dedicated biomass developers need a flexible support regime that can adapt to changes in biomass prices, whilst ensuring a level playing field is maintained between competing generators, accrediting at different times. This will ensure market distortion does not occur through fixing support for fuels at a particular rate. This is also necessary to provide value for money for consumers.

AD and EfW plants on the other had appear to have less of an issue with fuel price variability as they are able to negotiate longer term fuel contracts.

We are therefore minded to:

- **grandfather support at current levels for AD and EfW generators; and**
- **grandfather a minimum level of support for dedicated biomass, set as the proportion of costs attributable to non fuel costs.**

This would apply to use of biomass, but not bioliquids. In line with the grandfathering principles for other technologies supported under the RO, support would be grandfathered from the point of accreditation.

Our proposed grandfathering policy for **AD and standard EfW** projects means that accredited generators would receive the same level of support received on accreditation for the remainder of their lifetime in the RO.

Dedicated biomass would have a minimum level of support grandfathered on accreditation and would receive this level for the remainder of their time in the RO. If support for fuel costs for dedicated biomass are increased at a future banding review, all existing projects would be banded up so that all generators receive the same level of support for fuel costs.

However, our proposed policy to grandfather a minimum level means that, should bands for dedicated biomass be lowered to less than the minimum grandfathered level at any future banding review, any generators accredited before the banding review comes into effect would receive the minimum level, with new entrants receiving the new, lower, rate.

We propose to set the minimum level for dedicated biomass as the proportion of costs attributable to non fuel costs. The free floating element will be based on the proportion of costs that are attributable to ongoing fuel costs. We would welcome views as to what this proportion or level should be.

We believe this proposal gives the best balance between ensuring developers and investors have the certainty they need to invest, whilst retaining enough flexibility to cope with potential variations in future biomass and electricity prices, so maintaining value for money to the consumer.

The Government is committed to meeting the 15% renewable energy target by 2020, and this option should help achieve that. Any decision on grandfathering of support for biomass will need to be made in the context of a full value for money analysis, to ensure that consumer value is maintained.

Q16: Do you agree that this proposal offers the best balance between value for money, investor confidence and flexibility? If not, please give your reasons and state what alternative option you think would be more appropriate.

Q17: Do you agree that separate solutions are needed for AD and EfW and dedicated biomass? Please provide your argument

Q18: Do you agree that this option would allow current investors to go ahead with their plans? What deployment levels would you expect and why?

Q19: What build times would you expect for AD, EfW and dedicated biomass generators?

Q20: How should support for advanced thermal technologies, such as advanced gasification and advanced pyrolysis, be treated? Should we grandfather the non fuel costs, or grandfather at current levels? Please provide your argument.

5. Combined Heat and Power and Energy Crops

Under the current banding structure, generators with Combined Heat and Power (CHP) receive an additional ½ ROC uplift, up to the maximum 2 ROC/MWh support limit. This means that a dedicated biomass generator can receive 2 ROCs per MWh if they are a CHP generator on their good quality electricity output. Likewise, if a generator uses energy crops, they receive a ½ ROC uplift compared to regular biomass.

i. Combined Heat and Power (CHP)

The CHP uplift takes into account the higher upfront capital costs of CHP technologies. However, the Renewable Heat Incentive (RHI), due to be implemented in April 2011, will provide financial support for the heat generation of CHP stations in the future. Details of the scheme are currently being consulted on, including whether to grandfather support. The consultation can be viewed on DECC's website: http://www.decc.gov.uk/en/content/cms/consultations/rhi/rhi.aspx

The proposed transition arrangements from the RO to RHI for CHP generators are:

- CHP stations accredited under RO before the publication of the Renewable Energy Strategy (i.e. before 15 July 2009) will continue to receive the RO plus uplift, but will not be eligible for the RHI on their heat output.
- RO eligible CHP stations installed on or after 15 July 2009 will be offered a one off choice to claim the RO plus uplift, or the RO (minus uplift) plus the RHI. Operators of CHP stations will be able to make this choice at any point up until 1 April 2013
- CHP stations accredited from 1 April 2013 will no longer be eligible for the ½ ROC CHP uplift on their good quality electricity output. However, they will still be able to claim ROCs (minus uplift) on their electricity output and the RHI on their heat output.

However, the proposed transition arrangements are out to consultation and therefore subject to change. As such, we would not want to set a grandfathering policy on the CHP uplift within the RO, until both the transitional arrangements are decided on, and a decision has been made on whether or not to grandfather support under the RHI.

We will consult further on this as part of the statutory consultation for the Renewables Obligation Order 2011, later this year.

ii. Energy Crops

When banding was introduced, the Government was keen to encourage the development of the energy crop supply chain. This remains a very immature market, and the additional ½ ROC per MWh for generators using energy crops was aimed at providing support to these supply chains and to support the higher fuel cost. Since we are proposing to grandfather non fuel costs, we do not propose to grandfather the energy crop uplift.

As supply chains mature in the future it should be possible to reduce or remove this uplift. As such, if we do not feel that it would be appropriate to grandfather this support, given that fuel prices are subject to variation over time.

Q21: Do you agree that the energy crop uplift should not be grandfathered?

Annex A – How the RO works

- The RO works by placing an obligation on licensed electricity suppliers to source a specified and annually increasing proportion of their sales from renewable sources, or pay a penalty.
- The level of the obligation is 9.7% for the 2009/10 obligation period, and will rise to 11.1% for 2010/11.
- Generators are issued with Renewables Obligation Certificates (ROCs) for every megawatt hour (MWh) of eligible renewable electricity they generate. As of 1 April 2009, when we introduced 'banding', different technologies receive different numbers of ROCs per MWh. This reflects differences between technologies including the cost of generation and potential for large-scale deployment, and provides increased support to technologies that are less well-developed or further from the market.
- Generators sell their ROCs to suppliers or traders which allows them to receive a premium in addition to the wholesale price of their electricity. ROCs can be sold with or without the electricity they represent.
- Suppliers satisfy their obligation by presenting ROCs to Ofgem, who administer the scheme. Where they do not present sufficient ROCs they have to pay a penalty known as the buy-out price. This is set at £37.19/MWh for 2009/10 (and linked to RPI).
- This money is held by Ofgem in the buy-out fund until the end of the obligation period, when it is recycled to suppliers who presented ROCs on a pro-rata basis.

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