



EUROPEAN COMMISSION

Brussels, 11.2.2009  
C(2009) 1028

**Subject: State aid N 414/2008 – UK  
Renewables Obligation – Introduction of a banding mechanism**

Sir,

The Commission wishes to inform the United Kingdom (UK) that, having examined the information supplied by your authorities on the matter referred to above, it has decided to raise no objections to the aid.

#### **PROCEDURE**

1. By letter dated 25 August 2008, the UK notified the Commission, according to Article 88(3) of the EC Treaty, of alterations to State aid Scheme N 504/2000<sup>1</sup>. By letter dated 23 October 2008 the Commission asked the UK authorities for further clarifications, which were provided in replies dated 25 November 2008 and 5 December 2008.

#### **DESCRIPTION**

##### Existing scheme

2. The scheme N 504/2000 comprises two parts:
  - A. an obligation on all licensed electricity suppliers to ensure that a proportion of electricity supplied is produced from renewable sources of energy, combined with a financial compliance mechanism;

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<sup>1</sup> Approved by the Commission on 30 28 November 2001. OJ C 30, 2.2.02, p. 15.

The Rt Hon David MILIBAND  
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B. capital grants for investment in the more expensive renewable energy technologies

3. The scheme obliges all electricity suppliers in the UK to ensure that a fix proportion of electricity supplied is produced from renewable sources of energy. Suppliers can meet this obligation either by supplying power from renewable generating stations, or by purchasing green certificates (Renewables Obligation Certificates – hereinafter referred to as “ROCs”) or by paying a buyout price which is adjusted annually by a price index. All proceeds from buyout payments are collected in a fund and recycled to suppliers in proportion to the number of ROCs they present.
4. The renewable sources of energy eligible for aid under the original scheme N 504/2000 are solar, thermal, wave and tidal, certain types of hydroelectric stations and biomass defined according to Article 2(b) of Directive 2001/77/EC on the promotion of electricity produced from renewable sources (hereinafter referred to as the RES-E Directive)<sup>2</sup>, supplied to the UK consumers and produced from generating stations located within the UK, its territorial waters and continental shelf.
5. The scheme 504/2000 was amended and approved by the Commission in the State aid cases N209/2002, N600/2003, N362/2004, N474/2005 and (Scotland only) N 851/2006. In these cases the redistribution of buyout funds to Electricity Suppliers in proportion to the acquired ROCs was considered State Aid.

Notified alterations to the existing scheme

6. The new regime should enter into force on 1 April 2009 and should apply until 31 March 2027. The UK authorities undertook to re-notify the scheme in 2018.
7. The UK authorities informed also the Commission about their intention to remove a restriction which excluded generating stations using biomass<sup>3</sup> alongside Solid Recovered Fuel (SRF)<sup>4</sup> from being able to claim ROCs for biomass. Therefore the proposed change allows support to generating stations co-firing wastes that meet the definition of SRF (but are less than 90% biomass) alongside fossil fuel and biomass. However, electricity generated from the biomass content of the SRF would not be eligible for the award of ROCs.
8. The UK authorities intend as well to allow operators of generating stations to provide additional sources of evidence to the administrator of the system to claim on up to 50% of biomass of the total energy content of municipal waste i.e. indirect measurements based on Gross Caloric Values. According to the UK evidence, the average biomass energy content of municipal solid waste in the UK is greater than 50%. Operators of generating stations will still be able to claim ROCs for more than 50% biomass energy content, if they can provide direct evidence based on measurement samples.

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2 Directive 2001/77/EC of the European Parliament and of the Council on the Promotion of Electricity produced from Renewable Energy Sources in the Internal Electricity Market, adopted on 27 September 2001, OJEC L 283 of 27.10.2001, p. 33.

3 The definition of biomass refers to the definition to which the Commission agreed in a former modification to the scheme approved in the Commission's decision in case N 474/2005.

4 'Solid Recovered Fuel' ' means solid fuel which: (a) complies with the classification and specification requirements in CEN/TS 15359:2006; (b) is prepared from a waste which is not a hazardous waste; (c) has a maximum Respiratory Index value from the point of production to the point of use of no greater than 1500 milligrams of oxygen per kilogram of volatile solids per hour; and (d) is able to pass through an opening measuring no more than 150 millimetres in all dimensions.

9. The eligibility of cogeneration of heat and power (CHP) has been limited to cogeneration meeting the criteria of Annex III to Directive 2004/8/EC<sup>5</sup> and satisfying the harmonised efficiency reference values established by Commission Decision 2007/74/EC of 21 December 2006 establishing harmonised efficiency reference values for separate production of electricity and heat in application of Directive 2004/8/EC of the European Parliament and of the Council<sup>6</sup>.
10. The UK authorities confirmed that all of the renewable technologies rewarded under the RO are within the definition of Article 2 of the Directive 2001/77/EC with the exception of geopressure (electricity using naturally occurring subterranean pressure). The latter is not expressly named but shares characteristics with geothermal energy which is included within Article 2. The UK stated that one company has accredited a generating station based on geopressure. However, the company was not able to present so far that it will only be able to claim ROCs for electricity which can clearly be demonstrated to have been created from naturally-occurring pressure not from pressure produced by artificial pumping of the gas.
11. Access to the RO remains restricted to electricity produced and consumed in the UK (also by non-UK companies). The UK authorities are of the opinion that it remains difficult to prove where electricity generated has in fact been consumed. In particular if electricity were to be generated at a distance of several hundred kilometres from the UK, and to reach the UK had to traverse several other national electricity transmission systems, it would seem unlikely that this electricity was actually supplied in the UK whatever the nominal claim in a contract for supply.
12. In the view of the negotiations on the revisions of the RES-E Directive the UK authorities undertook that once the new Directive has been agreed the authorities will be in a position to assess what steps can be taken in the UK to co-ordinate the UK's RO with other national support schemes and to open up the RO to renewable electricity generated in other Member States. The authorities will also consider how the UK regime can allow projects in other Member States which are eligible to count towards the UK share of the Renewables target to receive incentives which are comparable with those pertaining to national schemes.
13. The UK authorities recognise that under its current technology-neutral form, the RO has not provided incentives enough so far to develop more emerging and more expensive renewable technologies. They commissioned in 2005 an analysis of the potential of renewable technologies, which led to the following conclusions:
  - Production from landfill and sewage gas is likely to decline in the future due to stricter regulatory environment in that matter;
  - Production from onshore wind will not increase much more due to the limited acceptability of such technology in the public opinion;
  - Production from hydro-electricity has only a limited margin for further development.

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<sup>5</sup> Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC, OJ L 52, 21.2.2004

<sup>6</sup> OJ L 32, 6.2.2007, p. 183

14. At the same time, the UK has to meet a domestic target of 10% of energy consumption from renewable sources in 2010, and a EU target of 20% in 2020. So far, renewable generation has increased from 1.8% of electricity sales in 2002 to 4.9% in 2007. The current RO should deliver 7.9% and 11.4% of electricity from ROC eligible renewable sources by 2010 and 2015 respectively.
15. As the main renewable technologies used so far will not allow reaching the domestic and EU renewable targets, a reform was necessary to diversify technology use and increase the overall share of renewables in electricity sales.
16. In its current version, the RO is providing one ROC for every MWh of electricity produced from renewable sources. The new regime aims at encouraging technologies which are further from commercial development and more expensive (e.g. offshore wind, tidal, wave, biomass) while maintaining support to current mainstream technologies (e.g. onshore wind). Therefore it keeps the latter at 1 ROC per ROC eligible MWh, while the former enjoy up to 2 ROCs per MWh. Finally, some technologies are banded down at 0.25 ROC/MWh (e.g. landfill gas), due to decrease in production costs in order to avoid overcompensation. Updated cost calculations have been performed in 2007 by Ernst & Young for the UK authorities.
17. On this basis, the UK has commissioned economic consultancy Oxera to survey the effects of different banding scenarios on meeting the renewable target, ranging from the current scenario to a situation where every technology gets an individual band. It has finally retained a 5-band regime; as such diversification delivered a higher share of renewables (8.8% and 13.4% of electricity from ROC eligible renewable sources in 2010 and 2015 respectively), while still being relatively easy to manage. Using cost calculations as a proxy, each technology is given a number of ROCs/MWh:

**Table 1 – Banded levels of support to renewable energy production, per technology**

<b>Band</b>	<b>Technology</b>	<b>Level of support ROCs/MWh</b>
Established 1	Landfill gas	0.25
Established 2	Sewage gas Co-firing of non-energy crop (regular) biomass	0.5
Reference	Onshore wind Hydro-electric Co-firing of energy crops; co-firing of non-energy crop (regular) biomass with CHP Energy from Waste with CHP Geopressure Other not specified	1.0
Post-Demonstration	Offshore wind Dedicated regular biomass Co-firing of energy crops with CHP	1.5
Emerging	Wave; tidal stream; tidal impoundment (e.g. tidal lagoons and tidal barrages (<1GW)) Fuels created using advanced conversion technologies (anaerobic digestion; gasification and pyrolysis) Geothermal Solar photovoltaic Microgeneration Dedicated biomass burning energy crops (with or without CHP); dedicated regular biomass with CHP	2.0

Source: UK authorities

18. The banding levels as set out above imply the following aspects:
- Recent projects of landfill gas, sewage gas and co-firing of non-energy crop (regular) biomass should be banded down (at 0.5 ROCs/MWh or below).
  - Technologies involving CHP are given a premium e.g. co-firing of energy crops with CHP (1.5 ROCs/MWh) vs. co-firing of energy crops (1 ROC/MWh).
  - Any new technology not mentioned in the table will be granted 1 ROC/MWh, at least before the next periodical or emergency review. An emergency review may be launched in case a new renewables generating technology offering a large-scale potential emerges.
19. The band-setting process includes periodical reviews after the scheme enters into force on 1 April 2009; revised bands would take effect on 1 April 2013, then on 1 April 2018 and on 1 April 2023. The regime also foresees emergency reviews in case of particular circumstances e.g. a significant change in the cost regime for grid connection or transmission, emergence of a new technology, or over compliance.
20. The Obligation level under banding is based on the original profile set when the RO was introduced. This level is set above the level UK expects to be achieved, as this provides the incentive effect for new renewables generation to be built. However investors have told the UK authorities that they still attach a significant risk premium to the income of the RO. In particular they factor in the risk that the obligation will at some point become over compliant and the value of the ROC will crash. Therefore a 'headroom mechanism' is included so that the Obligation level remains at 8% above the expected generation level, reducing the risk of a breach to a 1 in 10 chance which to be acceptable to industry. In order to ensure that this does not lead to an ever-increasing Obligation the UK will cap the Obligation level at 20%. In the longer term the headroom mechanism will lead to the nominal value of the ROC being on average the buyout price plus 8%. It should retain investor confidence that the market will not be oversupplied; according to the UK, it should also make sure that consumers will not pay excessive costs in the event of under-supply of renewable energy.
21. The RO ensures covering of investment and operating costs for each technology over its lifetime. The consequence of this approach is that on one hand, the support granted under RO does not over-reward costs of technologies at the time when the investment decisions are being made. This means that the support from the ROCs needs to be adopted over time due to development of technologies and changes in legal and factual conditions of operating renewables. On the other hand, this approach requires that participants who made their investment decisions on the basis of the costs structure known at time when the decision is being made, need to receive support covering these costs over the lifetime of installations. Therefore the UK authorities grant existing participants (installation which was in existence before 11 July 2006) who had invested on the basis of 1 ROC per MWh and would find themselves penalised under a banded RO i.e. those technologies who found themselves in the 0.25 and 0.5 ROCs per MWh bands (with the exception of co-firing) 1 ROC per MWh band. , a The same principle also might occur in the future: for instance, an offshore wind generating capacity built in 2010, therefore in receipt of 1.5 ROCs/MWh calculated on the basis of costs occurring in 2010, will continue to receive this amount even if offshore wind is banded down, because of, for example, decrease in investment costs.

22. In addition, the support for existing biomass plants will be increased to the level of newly built biomass stations so that they can compete equally for fuels. Finally, transitional arrangements are foreseen for new-built stations affected by changes of definition for the next banding period (i.e. until 31 March 2013), as these projects had not sufficient notice of the change<sup>7</sup>.
23. The UK authorities are of the opinion that the scheme falls within the scope of the Community Guidelines on State Aid for Environmental Protection (“Environmental Aid Guidelines”)<sup>8</sup> and the RES-E Directive. According to them, the revised scheme complies with the conditions for compatibility of State aid set in point 110 of the 2008 Environmental Aid Guidelines:<sup>9</sup>
- Support must be essential to ensure the viability of the renewable energy sources concerned: renewable energy technologies that are further from commercial development are essential to meet the renewables target; however, without support they cannot compete with non-renewables or cheap renewable technologies such as onshore wind.
  - Support does not in the aggregate result in overcompensation for renewable energy: some technologies have been banded down; others will not receive the full support they would need with respect to their extra costs (e.g. photovoltaic would require 15 ROCs/MWh to be fully compensated according to the UK). On the whole, banding is based on cost analysis performed by Ernst&Young for the DTI and published in May 2007.
  - Support does not dissuade renewable energy producers from becoming more competitive: the RO system rewards output and therefore provides an incentive for generators to increase efficiency in terms of volumes (increase the number of MWh) and prices (renewable electricity is sold on commercial terms on the market). The buyout fund is recycled into renewable production; therefore it rewards efficient generators at the expense of their competitors. Finally, the bands will be reviewed periodically starting in 2013 or when needed through the emergency revision.
  - Support is limited to duration of 10 years: the UK authorities commit to re-notify the scheme in 2018.

## ASSESSMENT

### Existence of aid

24. The scheme has already been considered a state aid scheme covered by Article 87(1) of the EC Treaty under Commission decision of N 504/2000 of 28 November 2001. The Commission concluded when assessing this scheme in the past that, it is not the obligation as such which constitute State aid within the meaning of Article 87(1) of the EC Treaty but the distribution of the buyout fund among the companies holding the ROCs. The currently notified amendments do not alter this conclusion.

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<sup>7</sup> This provision only concerns electricity generation from gasification and pyrolysis.

<sup>8</sup> OJ C 37, 3.2.2001, p. 3.

<sup>9</sup> OJ C 82, 1.4.2008, p.20.

## **Legality of the aid**

25. The Commission notes that the changes will come into effect after the approval of the Commission. The UK authorities have fulfilled their obligation according to Article 88(3) of the EC Treaty by notifying the aid measure before its implementation.

## **Compatibility of the aid**

26. The scheme was first approved by decision on 28 November 2001 in case N504/2000<sup>10</sup>, under the 2001 Community guidelines on State aid for environmental protection<sup>11</sup> which expired on 1 April 2008. The 2008 Community guidelines on state aid for environmental protection (hereafter Environmental Aid Guidelines)<sup>12</sup> entered into force since then.

### *Renewable electricity sources*

27. The aid aims to support production of electricity from renewable sources. As regards the definition of the renewable electricity sources eligible for aid its definition in the 2008 Environmental Aid Guidelines is the same as the definition of renewable electricity sources in the 2001 Environmental Aid Guidelines. Therefore the Commission can limit its assessment of the compatibility of the aid as regards the definition of renewable electricity sources to the changes notified.
28. The UK authorities propose that co-firing of wastes meeting definition of SRF (but which are less than 90% biomass) alongside fossil fuel and “biomass” should not cause ineligibility for support. The Commission considers that this change does not affect the definition of energy sources eligible for aid under the scheme but will merely increase the use of biomass for electricity generation as it offers to use SRF in co-firing. This proposed amendments do not change the conclusions included in the previous decisions on the scheme in particular the Commissions assessment as regards the Community definition on biomass.
29. The UK authorities propose also indirect measurements of the biomass content of municipal waste as evidence for claims of 50% biomass content of such waste. As the average biomass energy content of municipal solid waste in the UK seems to be greater than 50% (the UK claims it is around 68%) the Commission considers that the method proposed by the UK authorities ensures that ROCs will be issued for the biomass part of the municipal waste and does not affect the definition of energy sources eligible for aid under the scheme. In addition the proposed change allows claiming a conservative estimate of the biomass content of waste, without the need for an expensive fuel measurement regime. Therefore it increases the use of biomass in electricity generation.
30. The changes notified by the UK grant an additional support to the generators and the suppliers of energy produced from energy sources which are eligible for more than one ROC in the table of banded levels of support presented above, resulting potentially in higher payments from the buyout fund to those that provide certificates of compliance in comparison with the original scheme N 504/2000 i.e. a supplier of one MWh of energy produced from sources eligible for more than one certificate will get proportionally higher payments from the buyout fund per MWh produced as a

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<sup>10</sup> OJ C 30, 2.2.2002.L 283, 27.10.2001

<sup>11</sup> OJ C 37, 3.2.2001.

<sup>12</sup> OJ C 82, of 01.04.2008, page p. 1.

supplier entitled to only one certificate. In the same manner the notified changes grant less support to the generators and the suppliers of energy produced from energy sources which are eligible for less than one ROC in the table presented above.

*Aid to suppliers*

31. In case N 504/2000, the UK authorities expected that about 80% of benefits of the scheme are passed on to the producers of electricity. On the basis of the information provided by the UK the Commission reached the conclusion concerning aid to suppliers that it is limited and largely transferred to the producers of electricity from eligible renewable sources and necessary as a mean to run the system.
32. The proposed amendments to the Renewables Obligation do not alter the nature of the scheme as far as its mechanism is concerned. In order to support the abovementioned conclusions, the UK authorities presented a report by Ernst and Young<sup>13</sup> which confirmed the assumption made on assessment of the case N504/2008, that 80% of benefits (ROC recycles) are passed on from the suppliers to the generators, is correct.
33. In particular the UK authorities pointed out that the details of how much of the buyout fund redistribution is passed on to generators is a matter for commercial negotiation between the generator and the suppliers (and any intermediaries). UK authorities believe that there is a competitive electricity market in the UK and therefore that generators should be able to find competitive offers for ROCs or power purchase agreements (PPAs).
34. The UK authorities stated that the great majority of new renewable generating stations negotiate long-term PPAs with suppliers in order to provide the long-term certainty of income which investors such as banks will require. The below table extracted from the report of Ernst and Young, sets out their assumptions as to how the value of ROCs buyout and recycled ROCs, as well as electricity prices is passed on<sup>14</sup>.

**Table 2 - Terms offered to renewable energy generators under PPA**

Component	Indicative pricing over the contract term	
	Short	Long
Wholesale electricity		
Intermittent	90-95%	70-85%
Base Load	95-100%	85-95%
ROC Buyout	90-95%	80-95%
ROC recycle	90-95%	70-90%

*Source: Ernst & Young*

<sup>13</sup> <http://www.berr.gov.uk/files/file39038.pdf>

<sup>14</sup> Long term PPAs generally incorporate a floor price. It is recognised that the higher the floor price, the higher the discounts which means that the percentage retained by the generator is reduced. Shorter term PPAs are generally between one and three years in length and reflect the anticipated value of the power without the 'risk premium'. Some generators take the view that the short term PPA figures will continue over the life of the project.



35. From the above, the Commission concludes that aid to suppliers is necessary to run the system, limited and largely transferred to the generators of electricity from eligible renewable sources.

*Aid to generators*

36. As regards aid to generators, the Commission has to assess the scheme on the basis of point 110 of the 2008 Environmental Aid Guidelines, which lay down the conditions under which certificates which allow producers of renewable electricity to benefit indirectly from guaranteed demand for their energy, at a price above market price for conventional power, can be allowed when they constitute State aid. These conditions are the following:

- Support must be essential to ensure the viability of the renewable energy sources concerned;
- Support does not in the aggregate result in overcompensation and
- Support does not dissuade renewable energy producers from becoming more competitive;
- Support is limited to duration of 10 years.

*Support must be essential to ensure the viability of the renewable energy sources*

37. Concerning the four above-mentioned criteria of application laid down in point 110 of the Environmental Aid Guidelines, the Commission first notes that differentiated support for energy produced from different energy sources is essential because, as the eight years experience of applying RO shows, the neutral technology level of support does not provide enough financial incentives to explore the energy potential from different technologies subject to the RO.

38. The Commission understands from the documents submitted by the UK authorities that there are constraints on the availability and deployment of cheaper forms of renewables which mean that, to meet the long-term targets for renewable energy the UK will need a significant contribution from renewable sources that are currently more expensive.

39. With the domestic target of 10% of renewables by 2010, and advent of the new draft of the RES-E Directive requiring 20% of energy consumption from renewable sources in 2020, the RO, in its current form, would not achieve the necessary amount of electricity required to meet these targets.

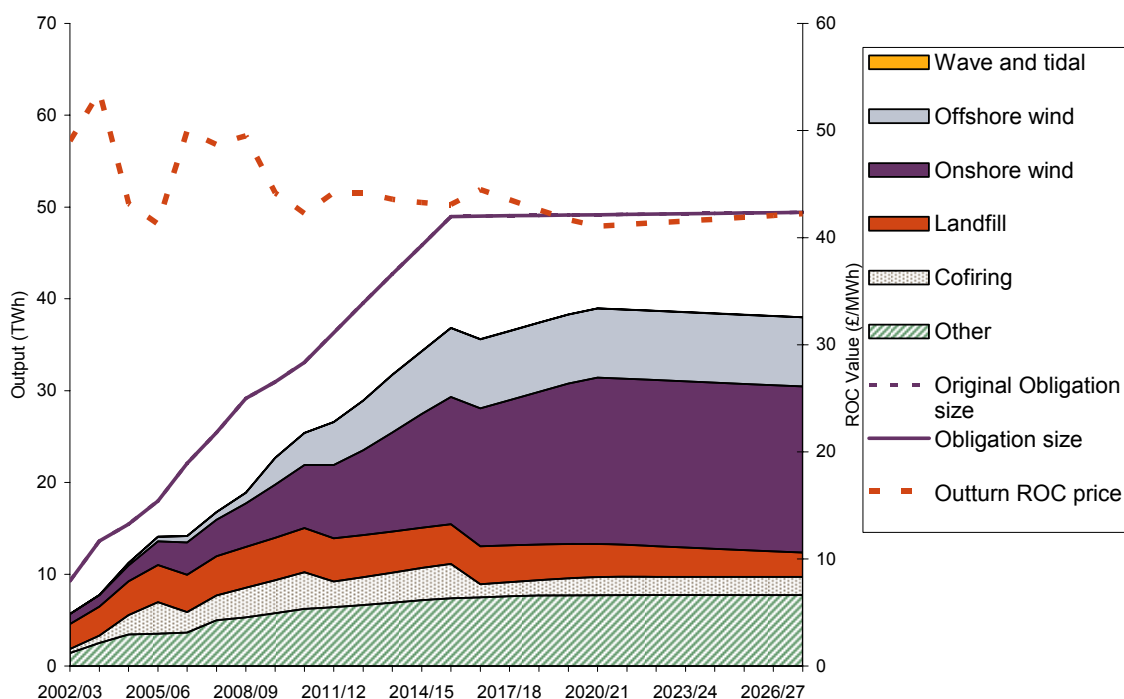
40. According to the data provided by the UK authorities, an unchanged RO is predicted to deliver 7.9% and 11.4% of electricity from ROC eligible renewable sources by 2010 and 2015 respectively (see figure 1 below). In contrast, a banded RO is predicted to lead to 8.8% and 13.4% over the same period (see figure 2 below). This indicates that banding the RO will be about 30% more effective as an incentive for new renewable electricity generation deployed between 2010 and 2015 compared to the RO in its current form.

41. Moreover, according to the UK, the banded RO will target the incentives more efficiently. The subsidy cost per unit of renewable generation (TWh) will be decreased from £24.5/TWh to £23/TWh as a result of the changes. Altogether the

reforms are expected to increase the efficiency of the RO by £1.9bn (by reducing the amount of subsidy in excess of the resource cost).

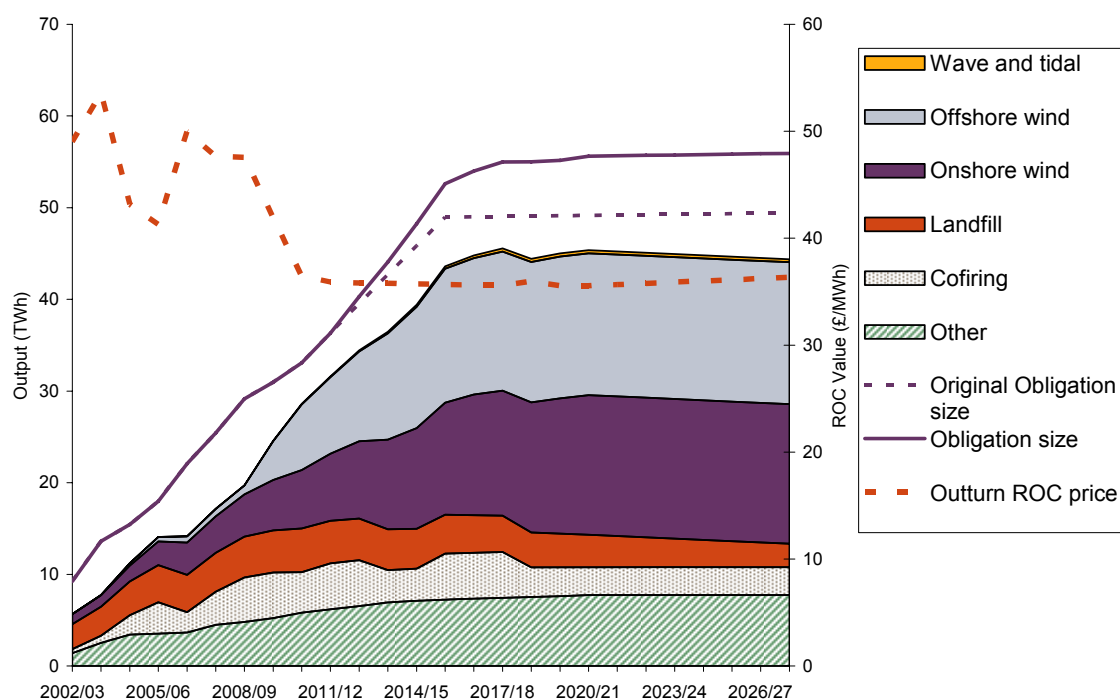
42. The Commission further notes that the banding regime proposed has been set at a level that will continue to encourage an increase in technologies such as onshore wind, while producing a level of incentive necessary to bring forward increases in generation from technologies which are less well developed, such as offshore wind.
43. The UK authorities stated that the envisaged reforms would not create barriers to entry for eligible generators nor would impact on the operation of the electricity supply market..
44. The market mechanism of RO seems to be an effective incentive to increase renewable generating capacity. However, due to differences in production costs among different technologies it crowded out technologies that are more expensive than the buyout price per one MWh. At the same time it seems that cheaper technologies will not be able to ensure meeting of the UK renewable targets. The banded RO seems therefore be more suitable to deploy higher amounts of renewable electricity in longer terms. As the comparison of the below figures shows higher amounts of renewable energy under banded RO will be achieved in particular by higher investments in offshore wind energy projects. Therefore the Commission concludes that the support is essential to ensure the viability of the renewable energy.

**Figure 1 - Modelling of current RO**



Source: Oxera report

**Figure 2 - Modelling of preferred banded RO scenario**



Source: Oxera report

Absence of overcompensation

45. In order to verify whether there is no overcompensation in the aggregate, the Commission needs to verify that the revenues of the generators do not exceed the costs of production and a reasonable benefit in aggregate of the scheme i.e. over time and over technologies.
46. The UK authorities aimed to ensure that introducing banding does not overcompensate particular technologies, or the industry as a whole. The changes to the scheme are based on cost analysis of the industry and modelling of the impact of different banding regimes.
47. The number of ROCs which will be awarded to each technology was set on the basis of the analysis carried out by Ernst & Young. The UK authorities commissioned Ernst & Young to determine levelised costs per MWh for a number of eligible renewable technologies. These were calculated by considering the underlying project assumptions including the predicted capital, operating and fuel costs, other non-electricity income, operational life of the assets and the cost of capital. These were then estimated out to 2010, 2015 and 2020 based on 2006 costs which were then escalated or deflated based on major drivers such as the estimated future capacity.
48. Ernst & Young provided this data to Government which then commissioned company Oxera to model banding scenarios. These banding scenarios included an unbanded RO, a banded RO where each technology received the number of ROCs necessary to fully incentivise its maximum deployment and a number of banding scenarios where technologies were grouped and received the same level of support as other technologies in their group. The banding regimes attempted to match the predicted costs at 2010 for a realistically deployable capacity for each technology against the revenues that could be expected.

49. Following the modelling work and consultation of the proposals UK Government chose a scenario where technologies were grouped in five bands. This was chosen for a number of reasons, the chief one being that of simplicity and to limit the maximum level of support. In this respect the UK decided not to seek to match the needs of all the technologies (for example from Ernst and Young's cost assessment average solar photovoltaic stations would have needed some 15 ROC/MWh to be financially viable) because the aim of the RO is to bring forward those technologies which are commercially deployable and incentivise those which are near to commercial deployment.

*Revenues*

50. The main revenue for the beneficiaries of the scheme is the value of a ROC. This value is represented by the buyout price plus the amount recycled from the fund. The expectation of receiving money from the recycle fund incentivises a supplier to purchase a ROC rather than just pay the buyout price and guarantees the generators an income which is above the electricity price.

51. The recycle amount is determined by the level of compliance with the level of the Obligation, and as the compliance level gets closer to 100% over time, the recycle amount drops, and thus the ROC value drops towards the buyout price. This is a deliberate policy aimed at controlling the costs of the RO by capping it once it achieves a set objective – in this case the UK objective to deliver 20% generation of electricity from renewables sources by 2020. The falling value of ROCs is presented in the table below predicted by Oxera (all prices are based on 2006 levels with a RO buyout price of £33.24):

**Table 3 - Modelling of key figures in the future, preferred banded RO scenario**

	<b>2010</b>	<b>2015</b>	<b>2020</b>
Obligation Size (ROCs millions)	33.1	48.3	55.6
Number of ROCs presented (millions)	29.9	44.5	51.6
Compliance with Obligation (%)	90.34	92.44	92.83
Outturn ROC price (£)	36.44	35.74	35.55
Buyout Fund Recycling (£/MWh)	3.20	2.50	2.31
Buyout Fund (£m)	10.2	9.7	9.2

*Source: Oxera report*

52. Producing energy from renewable sources gives also other revenues to the producing company. These revenues should be taken into account when designing the support system for renewable energies. The revenues that were taken into account included the predicted long-run wholesale electricity price, and other revenues from Climate Change Levy Exemption Certificates (LECs) and (where appropriate) incomes for disposal of wastes. The precise data for costs and revenues for each eligible technology are included in Annex A to this decision.

53. The ROC value for the year 2006 has been reported to be 43.12 £/MWh. With a grey electricity price of 38.34 £/MWh and a Levy Exemption Certificates of 3.16 £/MWh

the total revenues under RO in 2006 were 84.62 £/MWh. The total revenues expected from energy prices, ROCs and the LECs per MWh under the banded RO for the years 2010, 2015 and 2020 are presented in the table below. The revenues from the electricity prices are higher if it is supplied as baseload electricity as compared to intermittent electricity.

**Table 4 - Revenues for over-compensation analysis, preferred banded RO scenario**

Level of support ROCs/MWh	ROC value (£/MWh)			Total Revenues (£/MWh)		
	2010	2015	2020	2010	2015	2020
<b>0.25</b>	10.41	7.81	7.78	53.89-70.00	45.01-71.81	47.23-105.13
<b>0.5</b>	20.83	15.61	15.55	64.30-80.41	52.82-79.61	55.01-111.80
<b>1.0</b>	41.65	31.22	31.11	80.65-94.95	64.65-88.46	66.53-118.11
<b>1.5</b>	62.45	46.84	46.66	101.47-115.79	80.26-104.08	82.08-131.44
<b>2.0 (the higher baseload prices in brackets)</b>	83.30	62.45	62.22	122.30-136.62 (142.89)	95.87-119.69 (126.45)	97.64-144.77 (151.79)

Sources: Levelised costs are 2006 prices from Ernst & Young report

(<http://www.berr.gov.uk/files/file39038.pdf>)

Wholesale electricity prices are based on DECC UEP projections.

ROC prices are based on 2006 levels with a RO buyout price of £33.24 as used in Oxera modelling

(<http://www.berr.gov.uk/files/file39039.pdf>).

Levy Exemption Certificates (LECs) are based on 2006 real price of £4.20.

54. In order to ensure that the RO remains effective and efficient in the future as costs of eligible renewables technologies change due to innovation and other market conditions, the UK have proposed that it will repeat the banding evaluation at four yearly intervals. In the event that costs change significantly outside of this period the UK have proposed emergency banding criteria which will be triggered if there is evidence of a significant and sustained change from the levels when the bands were set.

55. The UK Government expect that certain projects will continue to need grant support for innovation and development (part B of the scheme approved under the case N 504/2000). The UK Government has confirmed that after the introduction of banding any grant given will have to take into account the income available from banded ROCs.

#### *Production costs*

56. The costs that were used to set the banding regime reflect the range of investment and operating costs that should be covered if the UK was to reach its declared objective of 20% of electricity generated from renewable sources.

57. In proposing a banding regime, the UK aimed for a level of support towards the middle of the range of costs (for projects beginning in 2010) for those key technologies which were expected to deliver substantial volumes up to 2015. The UK believes that this is the right approach given the uncertainties of future technology costs and electricity prices. Further uncertainties are steaming from volatility of fossil

fuel prices used to produce electricity and barriers to deploy economically viable projects from being developed.

58. Given the different technologies, generator locations and installed generation capacities, the estimated generation costs range from £32/MWh for landfill gas up to £797/MWh for solar photovoltaic systems. The table below gives an overview of estimated total production costs submitted by the UK authorities per technology for years 2010, 2015 and 2020 according to the number of ROCs each technology is entitled to. For many technologies, the costs decline significantly until the year 2020.

**Table 5 - Predicted costs per technology and banded level of support, preferred banded RO scenario**

	<i>Total production costs (£/MWh)</i>		
<i>Technology</i>	<i>2010</i>	<i>2015</i>	<i>2020</i>
<b>0.25 ROCs/MWh</b>			
Landfill Gas	32-63		
<b>0.5 ROCs/MWh</b>			
Sewage Gas	42-83		
Co-firing of non-energy crops	41-70		
<b>1 ROC/MWh</b>			
Onshore Wind	54-106	52-103	50-101
Co-firing of energy crops and of non-energy crops with CHP	90-130		
Hydro	46-97		
Energy from Waste with CHP	75-83		
<b>1.5 ROCs/MWh</b>			
Offshore Wind	92-140	76-95	76-94
Dedicated Biomass	77-114	75-111	73-106
<b>2 ROCs/MWh</b>			
Dedicated Energy Crops (with CHP)	119-132 (146-213)	116-128 (146-213)	111-122 (146-213)
Dedicated Biomass with CHP	106-186	124-177	124-175
Anaerobic Digestion with CHP	115-162	123-173	
Wave	124-282	104-237	96-217
Tidal Stream	121-232	101-195	93-179
Pyrolysis	103-202	111-215	
Solar PV	488-717	434-637	380-558

Source: Ernst & Young

*Reasonable return on investment*

59. The UK authorities submitted further the Internal Rates of Return (IRR)<sup>15</sup> and project lifetimes used in the Ernst & Young Report to calculate the levelised costs. The IRR is calculated on the basis of all cash flow i.e. investments costs, operating costs and income. The IRR in the RO are based on normal hurdle rates required by investors in commercial projects in the UK:

**Table 6 – Rates of return**

<i>Technology</i>	<i>Maturity</i>	<i>Cost of Capital (%)</i>	<i>Lifetime (years)</i>
Onshore Wind	Later Mature	10	20
Offshore Wind	Mid Phase Mature	12	20
Co-firing	Later Mature	10	5
Dedicated Biomass (and Energy Crops)	Early Mature	15	15
Landfill Gas	Later Mature	10	12
Hydro	Later Mature	12	25
Hydro (Midscale)	Later Mature	10	25
Sewage Gas	Later Mature	12	15
Solar PV	Early Mature	15	25
Wave	Early Mature	15	20
Tidal	Early Mature	15	20
Advanced Combustion Technologies	Early Mature	15	20
Anaerobic Digestion with CHP	Early Mature	15	20
Energy from Waste with CHP	Mid Phase Mature	12	20

*Source: Ernst & Young*

60. As set out in the Oxera report, the modelling looks at the total earnings of the project against the total costs (including cost of capital) over the economic life. The outcome of this modelling suggests that although costs fall between 2010 and 2015 the new establishment of capital assets is declining by 2015.

61. For stations built before 2015 the value of a ROC is still significantly above the value of the buyout price plus 8% which is expected to be the long-term value. An onshore wind farm built in 2010 will receive one ROC/MWh throughout the lifetime of the project. In 2010 the value that the generator receives for the ROC is predicted to be some £41.65 (at 2006 prices), but by 2015, £31.24 is expected. This value shall remain at about this level until 2027.

62. According to the UK, since the cheapest projects are expected to be developed first in the coming years, those sites will not be available for development in about 2015 and costs are likely to be higher.

<sup>15</sup> The Internal Rate of Return (IRR) is the interest rate that makes the net present value of all cash flow (investments, operating costs and income) equal to zero. In the scheme at hand IRR are calculated from the balance of operating revenues and costs in each year over the return period of normally 15 to 20 years.

63.

64. The UK proposals for banding the RO include review periods every four years. The aim of these review periods is to allow the UK authorities to repeat the modelling exercise used to set the bands this time. This will allow adjusting the level of support to new projects coming forward in light of revised cost data (e.g. electricity prices, learning curve savings, supply chain costs etc). It is the intention of the UK authorities to use these reviews to ensure that no over-compensation takes place.

*Appreciation of the Commission on the absence of overcompensation in aggregate*

65. The Commission shares the view of the UK authorities that differences in production costs between the technologies eligible under the RO justify different levels of support. Such differentiation should incentivise potential investors in developing new capacities not only from the cheapest available energy sources as currently is the case, but also from more expensive technologies which do not offer sufficient returns under the current unbanded RO.

66. The Commission understands how difficult it might be to establish precise forecasts of production costs and revenues streams for all renewable technologies eligible under the scheme for the time period envisaged. The in-depth studies commissioned by the UK authorities to independent consultancies help to model the most accurate forecast of the related data.

67. The Commission also recognises the choice of the UK authorities to set bands which delivered revenues close to the mid-point of the ranges for each technology in order to avoid over-subsidy.

68. The Commission also shares the view of the UK authorities that the potential investors need reasonable profits in order to invest in the renewable technologies eligible under the scheme. The Commission also acknowledge that the targeted IRR presented in the table above are appropriate to stimulate investments in the respective technologies. Furthermore the Commission accepted similar IRR for investments in the wave and tidal stream demonstration projects by its decision in case N 318/2005<sup>16</sup> and in former amendment to the current scheme N 851/2006.

69. The Commission notes that in the first years of the banded RO, the supply of electricity from renewable technologies meeting the demand created by the Obligation will be lower as at the end of the period: compliance with the Obligation level is predicted to be 90.3% in 2010 and grow to 92.8% in 2020. The ROCs value will therefore be bigger at the beginning of the period because more suppliers will "buy out" some of their obligation. The resulting buyout fund would be returned to suppliers in proportion to the number of ROCs they present. The headroom deliberately introduced in the scheme ensures that a full compliance with the Obligation will not be possible i.e. the Obligation will always be 8% higher than the expected supply. Therefore the buyout fund will not entirely disappear until the end of the scheme. As the benefits from redistribution of the buyout fund will be passed on from the suppliers to the generators in accordance with the PPA usually signed between suppliers and generators, overcompensation to electricity generators cannot immediately be ruled out.

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<sup>16</sup> OJ C 155, 4.7.2006, p. 6.



70. Since the amount of the buyout fund that suppliers and generators would receive depends on the amount of renewable electricity supplied, and since the supply targets and buyout price are growing from year to year until the 2020 target is reached, it can be assumed that this will act as a strong stimulus to develop additional generating capacity and therefore secure a greater share of the buyout fund, decreasing the value of the ROCs and in overall acting against overcompensation for single generating stations.
71. The Commission takes into account the need of the UK to build additional capacity for renewable electricity in order to meet its targets. The Commission also notes that the UK authorities ensured that they will regularly review the costs of the technology in order to ensure that technologies are not overcompensated. The Commission notes as well that despite the banding mechanism some technologies would still require higher support as it would result from the current bands capped at 2 ROCs per MWh. It can be assumed that this commitments and the design of the scheme itself, in particular the aim of UK authorities to match the mid-point of the predicted revenues for each technology will prevent overcompensation in the aggregate, this being seen in a double sense. Firstly, the system will prevent overcompensation in the aggregate of the different producers and different technologies. Secondly, while the system may overcompensate producers in the beginning, the market mechanism and the adjustments made in accordance with the commitments made by the UK, will prevent in the aggregate of the duration of the scheme overcompensation. The Commission considers the abovementioned undertakings to be an important element of its assessment.
72. The revised RO contains also provisions granting each installation, to cover investment and operating costs over entire lifetime, in principle the same number of ROCs per MWh as at the point in time when the investment decision is being made e.g. granting 1 ROC per MWh to incumbent landfill and sewage gas installations. In effect of this provision the RO will grant different support to plants commissioned under the unbanded and the banded RO despite the fact of using the same source for electricity production. This can be justified because of changes over time of investment and operating costs of renewable technologies supported by RO through its market mechanism. Therefore the reduction in support would apply in principle only to future stations as the existing stations will generally have been assumed to have taken economically efficient decisions based on the level of support in force at the time. Because of changes in technological state of play investment and operating costs related to the given technology may change (fall or increase) requiring changes in support and in banding. However such changes in costs will not necessarily affect the costs of incumbent plants i.e. investments undertaken in the past.
73. To conclude lack of overcompensation resulting from the provisions on granting the same number of ROC per MWh over entire lifetime, it needs to be ensured that the incumbent installations receiving higher aid under the unbanded RO as under banded RO, have costs as in the moment of time when the investments were made, justifying higher support. In the case at hand only landfill and sewage gas technologies would receive higher support from the unbanded RO as the new installations under the banded RO. The UK announced as well that in the future this may be the case for off shore wind technologies because the future technology development are likely to drive the costs of investments down.
74. As the generation of electricity from landfill gas is concerned the most important cost factor is the landfill site design characteristics i.e. the quality of the cover placed on

top of the landfill (i.e. the cap), the quality of the lining around the base and sides of the landfill, and whether or not LFG emissions are flared or combusted. Where a landfill gas site is well capped it is easier (and cheaper) to collect the gas and use it for the generation of electricity. These design characteristics are broadly correlated with the age of the site and the age of the site is related to the legislation applicable to the operation of landfill sites for environmental purposes. A legal requirement to cap the landfill applies only after 2002. Producing electricity from the older sites is therefore most expensive because the developer of a landfill gas generating station would need to bear the cost of retro-fitting a cap and gas collection equipment. There are also some sites in the UK which will have had a limited cap but no flaring and therefore no gas collection pipework. Improvements to the cap and gas collection equipment will have had to be retrofitted before electricity generation could begin. At a site with existing flares, the cost of generation will be limited to the cost of adding a generator and grid connection hardware and will be in the range estimated in table 5.

75. The UK explains that these older, higher cost sites will have formed a larger proportion of the available, unexploited capacity in 2002 when the RO came into operation and in 2005 when the scheme was reassessed. The levelised costs of generating electricity from landfill sites developed in 2005 were within the range of £40-£100/MWh (all types of sites included) which is a similar range of costs as the technologies supported with one ROC under banded scheme. However many of the existing sites were also likely to require additional gas purification equipment to deal with the siloxane and hydrogen sulphide which are being produced by the more slowly degraded material. These systems are quoted as increasing levelised costs by £3.60-£5.70/MWh. Further factors which contribute to the costs of older plants is the fact that historically a lower proportion of the waste was deposited in large old plants than is the case in the cheaper sites (48%).
76. For the above it seems to the Commission that the aid under the unbanded RO was aimed to support plants of different costs structures, which in aggregate, as the costs for 2005 show, did not lead to overcompensation when supported with one ROC. Under the banded scheme only the cost of adding a generator and grid connection hardware will be supported. Therefore the Commission concludes that higher support for existing installations is justified because of higher costs the majority of these installations had to bear when the landfill sites required additional investments.
77. Production of electricity from sewage gas requires investment in anaerobic digestion technology by the sewage gas stations (all stations accredited under the RO are operated by the regulated water utilities). The industry has modified the anaerobic digestion processes to make them economically efficient for electricity generating stations labelled Conventional Anaerobic Digestion with CHP. The industry has also worked on how to improve the efficiency of anaerobic digestion processes, for example by the addition of Advanced Anaerobic Digestion processes such as acid phase digestion, enzymic hydrolysis and thermal hydrolysis.
78. The UK stated that under the unbanded technology-neutral RO was happy to support the costs of installing new digesters or of upgrading the digesters to advanced anaerobic digestion. A number of stations have taken advantage of the current incentive provided by the RO to either invest in new or improved digesters. However a large scale adoption of these advanced digestion technologies would result in capital costs of £5-7 million/MW which would result in levelised costs of up to £142/MW at an 8% rate of return. It now seems likely that the scope for new digesters is limited by the difficulties in finding economically efficient uses of the

solid material left after digestion due to ‘projected future shortfalls of land for sludge recycling’<sup>17</sup>. The UK stated that most likely scope for cost-efficient exploitation of the sector is by exploitation of the otherwise unused gas from digesters which are installed to meet environmental or other business drivers for the sector.

79. The banding the UK suggested for the electricity from sewage gas is based on the future costs of adding CHP and incremental infrastructure to anaerobic digesters which are deployed for purposes of water quality management and sewage treatment (capital costs up to £3.5 million/MW). Therefore it seems to the Commission that the support under the unbanded RO was aimed to support different technological applications of different costs structures, which in aggregate, as concluded by the Commission did not lead to overcompensation. Under the banded scheme only the cheaper and more promising application to produce electricity from sewage gas, namely adding CHP to anaerobic digesters, will be supported.
80. As regards generation from electricity from offshore wind the UK decided to band electricity from off shore at the level of 1.5 ROC however it indicated that it expects fall in the costs of investments in the future (Ernst and Young predictions indicate £82-102/MWh in longer run) and therefore would possibly band down electricity from off shore wind down to one ROC in the future. However for the current moment it could not ignore costs calculations of number of projects which indicated a costs range of £92-£140/MWh justifying the 1.5 ROC. The UK named several reasons for this costs difference e.g. increases in turbine prices due to global demand for wind turbines growing by 30% a year, higher turbine installation costs due to more difficult seabed conditions on some farms which therefore require deeper foundations requiring more steel and more time to plant each tower, global commodity price increases (principally steel and copper) due to demand in China and other parts of Asia. However with the investment in the offshore supply chain at all levels – infrastructure (ports, networks, vessels) and production capacities the situation will improve driving the costs down. The future developments would however not influence the today costs of currently made investments where investors face today and not the future investment costs.
81. The cases of landfill gas and sewage gas are different from the case of co-firing which UK is not proposing to grant further the support under the unbanded regime. Co-firing in the UK is performed in long-established, coal-fired generating stations where the investment was made before the RO was introduced. The great majority of the incumbent installations are currently depreciated and therefore face only operating costs i.e. ongoing fuel purchase. Therefore the support has been reduced to 0.5 ROC which has been calculated as just sufficient to cover the operating costs of such plants.
82. The support for existing biomass plants will be increased to the level of newly built biomass stations so that they can compete equally for fuels with the new plants. The reason behind this decision is in the exceptional situation of biomass plants as compared to other renewable technologies. The majority of costs of biomass plants are operating costs of biomass, whereas investment costs are relatively low. With the increase number of new plants the demand for biomass will increase. Costs forecasts presented in the Ernst and Young report take these increased operating costs into account and therefore UK proposes to band up support for new biomass plants

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<sup>17</sup> ‘Future Water’ The Government’s water strategy for England, February 2008

up to the level of 1.5 ROC. The incumbent plants will face higher demand for biomass and higher operating costs as well. The unbanded support would put them in worst situation in comparison with the new plants and therefore the UK proposes to band the support up.

83. Moreover the UK stated its intention to hold regular reviews of the banding regime for the RO. The next review will be held to come into effect from 2013. The UK stated as well that future reviews of the banding regime will ensure that differentiation between banding for technologies will be based on modelling of the cost structure for each technology<sup>18</sup>.
84. There will be also circumstances in which the UK might reduce the level of support to existing stations. One example provided by the UK would be, if by government action (and in a way that was not generally foreseeable) the costs of all generators in a specific technology would be reduced; for example, a reduction in charges for the use of the transmission system. In those circumstances UK authorities committed to consider reducing the level of support for all operators including existing ones at the next banding review. Similarly unforeseen changes in the prices of fuels (e.g. biomass) may have an impact which would lead UK to consider whether existing stations were either advantaged or disadvantaged in such a general way as to justify some change to the banding level.
85. The Commission agrees that indeed the investment decisions are based on information regarding costs and benefits of investment available at the moment when companies decide to invest i.e. investors discount their expectation of the value of the RO. Therefore development of technologies and related decrease in production costs do not necessary mean that production costs of existing installations fall. In the case of electricity production from landfill and sewage gases investors were making investments in technologies that required higher costs as the new technologies supported under the banded scheme. Therefore the Commission concludes that the rule of granting one ROC to the existing installation producing electricity from sewage and landfill gas will not lead to undue differentiation of support and therefore will not cause overcompensation of existing plants.

*Support does not dissuade renewable producers to become more competitive*

86. The Commission understands from the data presented by the UK authorities that with the increase of renewable technologies deployment, it is expected that costs of the technologies will on average decrease over time. The increased investment in newer technologies should produce spillover effects in terms of innovation and increased efficiency. In its submission the UK authorities referred also to a number of incentives for projects to be more efficient with time. The Commission found the below arguments plausible.

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<sup>18</sup> Section 32D(4) of the Electricity Act (as amended by the Energy Act 2008) includes a number of matters that the Secretary of State must consider when setting the banding. These include the costs of transmitting or distributing electricity generated from eligible renewable sources (32D(4)(a)), income associated with generation (32D(4)(b)) for example, due to the wholesale price of electricity and the Climate Change Levy Exemption (32D(4)(c)), or the avoided cost of schemes such as the EU ETS and Landfill Tax. The need to abide by other points of administrative and EU law (including State Aids rules and such guidance as in force at the time) will also be considered. Reviews will not be restricted to the proposed banding structure, but will look at whether there are other clearly identifiable parameters such as date of commissioning.

87. According to the UK, firstly as a system which rewards output there is an ongoing incentive for generating stations to increase their efficiency (in terms of MWh produced) to maximise their reward under the RO.
88. Secondly, under the RO generators have to sell their electricity into the market on commercial terms. There are therefore real rewards for generating stations which can match supply to demand in a predictable and controlled way.
89. Thirdly, the RO itself is designed to be a pro-competitive system through the buyout fund recycling element of the RO. Suppliers and generators are competing for a limited amount of value in the ROC market in any one year. This means that suppliers who sign up more or more efficient generators will benefit directly at the expense of their competitors. These benefits will at least in part (presumably in 80%) be passed on to the generators concerned.
90. Fourthly, as the RO is a time-limited scheme ending in 2027 the expected total reward under the RO for any new station declines over time. Therefore a station built in 2007 might get 20 years of support under the RO whereas one built in 2008 can only expect 19 years.
91. Finally, as there is a degree of uncertainty over cost predictions, the UK points out that the bands will be reviewed periodically. Independent consultants will be appointed to conduct the review and provide advice to Ministers on whether changes are required to the banding structure. The first review is scheduled to start in October 2010 with a view to bringing into effect any changes by 1 April 2013. This would allow industry 18 months notice before changes are implemented. In addition, the RO order will establish a series of criteria which, if met, will trigger an emergency review of the banding system to take account of significant changes in the market. For example, is there is a significant change in the cost regime for grid connection or transmission or where there is evidence of significant and sustained variation in net costs which change the economic case for a particular technology.
92. As a conclusion, the UK considers that banding of the RO would allow long term flexibility within the scheme and targets incentives more efficiently - ensuring economic forms of renewable generation are not over subsidised and emerging technologies receive the additional support required to encourage investment. Furthermore whilst government gains the flexibility to set the proper levels of support, the market is left to decide what generation mix is appropriate.
93. Taking into account the above arguments and the UK commitment to review of the costs of the technology in order to ensure that the technology is not overcompensated the Commission takes the view that the proposed MSO does not dissuade renewable energy producers from becoming more competitive

Limit of the duration to 10 years

94. Finally, point 110 requires that the scheme be limited to duration of 10 years. On this point, the Commission notes that the UK authorities have committed themselves to re-notify the scheme in 2018 regardless the planned duration of the scheme i.e. 31 March 2027, which will enable the Commission to reconsider its position on this aid measure after 10 years of application (the scheme is planned to come into force in 1 April 2009). The Commission can therefore conclude that the fourth criterion laid down in point 110 of the environmental guidelines is fulfilled.

*Conclusion*

95. Taking the above assessment into account the Commission considers the notified measure compatible with the provisions of the Environmental Aid Guidelines and therefore with the provisions of Article 87(3)(c) of the EC Treaty.

**DECISION:**

96. On the basis of the foregoing assessment, the Commission has accordingly decided not to raise objections against the notified measure, since it fulfils the conditions to be considered compatible with the EC Treaty.

97. The Commission reminds the authorities of the UK that, in accordance with Article 88 (3) of the EC Treaty, plans to refinance, alter or change this scheme have to be notified to the Commission pursuant to provisions of Commission Regulation (EC) No 794/2004<sup>19</sup>.

98. If this letter contains confidential information which should not be published, please inform the Commission within fifteen working days from the date of receipt. If the Commission does not receive a reasoned request by that deadline, you will be deemed to agree to the disclosure to third parties and to the publication of the full text of the letter in the authentic language on the Internet site:

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European Commission  
Directorate-General of Competition  
State Aid Greffe  
B-1049 BRUSSELS  
Fax n°: 00-32-2-296 1242

Yours faithfully,

For the Commission

Neelie KROES  
Member of the Commission

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<sup>19</sup> Commission Regulation (EC) No 794/2004 implementing Council Regulation (EC) No 659/1999 laying down detailed rules for the application of Article 93 [now 88] of the EC Treaty; OJ L 140, 30.4.2004, p.1.