

**From:** [Porter Kate \(CCP\)](#)  
**To:** [Moore Stephen \( \)](#)  
**Subject:** FW: compatible aid  
**Date:** 12 June 2012 08:56:25  
**Attachments:** [SA.34140 UK C\(2012\) 3747-2.doc](#)

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Advance unofficial and unfinal copy of decision for your information - please don't circulate too widely and make sure people are aware that it's not final!

Kate

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**From:** Rebecca.Ireland@fco.gsi.gov.uk [mailto:Rebecca.Ireland@fco.gsi.gov.uk]  
**Sent:** 12 June 2012 08:47  
**To:** Porter Kate (CCP)  
**Subject:** FW: compatible aid

Kate,

Under the table copy of the NI RHI decision – it hasn't arrived yet.

On another note, we will have to notify the Liverpool terminal change of use directly under the Treaty. I want to check I'm sending DfT/DCLG the right form for the PN –

Is it the general one available at this link?

[http://ec.europa.eu/competition/state\\_aid/legislation/forms\\_instruments.html](http://ec.europa.eu/competition/state_aid/legislation/forms_instruments.html)

Thanks, and sorry for my ignorance!

R

*Rebecca Ireland*  
*+32 (0)2 282 8926*

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**From:** Bill Jones \* (Restricted)  
**Sent:** 08 June 2012 18:47  
**To:** Kathryn Boyd (Restricted); Rebecca Ireland (Restricted)  
**Subject:** FW: compatible aid

B'ham Digital and NI RHI positive decisions.

B

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**From:** Miguel.CEBALLOS-BARON@ec.europa.eu [mailto:Miguel.CEBALLOS-BARON@ec.europa.eu]  
**Sent:** 08 June 2012 18:37  
**To:** Bill Jones \* (Restricted)  
**Subject:** compatible aid

Hi Bill,

Two notifications, compatible aid

**Miguel Ceballos Baron**  
*Member of the Cabinet of Catherine Ashton*  
*High Representative of the European Union*  
*for Foreign Affairs and Security Policy and Vice-President of the European Commission*

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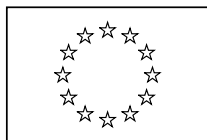
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COMMISSION EUROPÉENNE

SECRETARIAT GENERAL

C(2012) 3747/2

Bruxelles, le 8 juin 2012

**DOCUMENT INTERNE**

**OJ 2006**

**CONTROLE DE L'APPLICATION DU DROIT DE L'UNION – AIDES D'ETAT**

Objet: State aid SA.34140 – United Kingdom

Titre: Renewable Heat Incentive (RHI) scheme (Northern Ireland)

Le Secrétariat général diffuse, ci-joint, la version finale en langue anglaise (faisant foi) du projet de lettre du dossier cité en objet.

**Destinataires:** Mmes et MM. les Membres de la Commission  
Mme EVANS, MM. ITALIANER, ROMERO REQUENA, SILVA  
RODRIGUEZ

Pour toute information, veuillez contacter Susanne LAGEARD, SG/C/3, tél. 67528  
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EUROPEAN COMMISSION

Brussels,

C(2012) 3747 final

**Subject: State aid SA.34140 (2012/N) – United Kingdom  
Renewable Heat Incentive (RHI) scheme (Northern Ireland)**

Sir,

The Commission wishes to inform you that the aid scheme in support of the renewable heat market in Northern Ireland, UK, is compatible with the common market in accordance with Article 107(3)(c) of the Treaty for the Functioning of the European Union (hereinafter "TFEU") and has therefore decided not to raise objections to the notified measure.

## **1. PROCEDURE**

1. Following pre-notification contacts, the UK authorities notified the above mentioned measure, in accordance with Article 108(3) of the Treaty on the Functioning of the European Union (thereinafter "TFEU"), by electronic notification on 10 May 2012, registered by the Commission on the same day.

## **2. DESCRIPTION**

### **2.1. Background and objective**

2. The Renewable Energy Directive (Directive 2009/28/EC)<sup>1</sup> set a binding target for energy consumption coming from renewable sources, establishing that 20% of overall EU's energy consumption should come from such sources by 2020. The UK's share of this target is 15%, and UK authorities plan to achieve this by a combination of 12% renewable heat and 30% renewable electricity by 2020. Northern Ireland ("NI"), as part of the Member State, is expected to contribute to the UK targets and therefore must consider measures to increase the levels of renewable energy.

<sup>1</sup> OJ L 140/16, 5.6.2009.

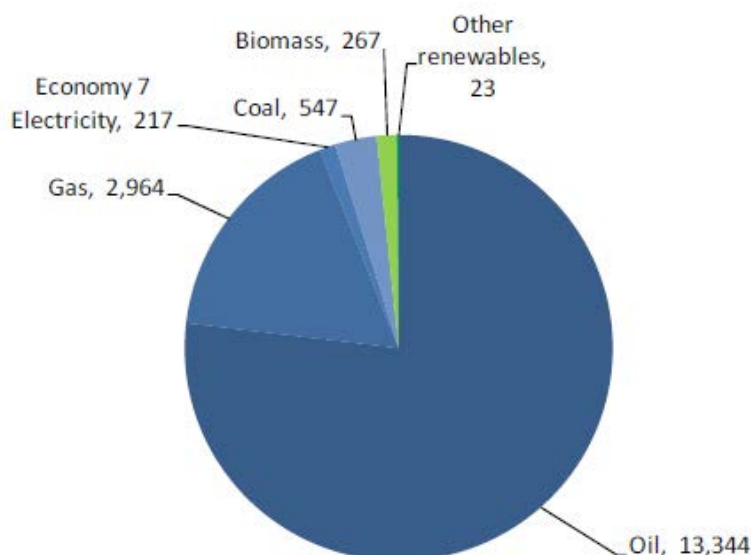
3. Based on this objective, as well as on the share of the heat market represented by renewables sources, which was 1.5% in 2009, the UK developed a Renewable Heat Incentive ("RHI") scheme, which supports specific heat technologies through tariff payments to users who choose to install those technologies. The UK RHI was notified to the Commission and found to be compatible with EU law under case SA.32125 (2011/N).<sup>2</sup>
4. The RHI applies however only to Great Britain, i.e. England, Scotland and Wales. A similar scheme needs to be adopted also for Northern Ireland, which is expected to contribute to the achievement of the UK's objectives through a gradual switch to renewable heat. Currently no scheme for renewable heat is in place in Northern Ireland.
5. The NI Executive set a target of 10% for renewable heat, which is going to be its contribution to the UK objective. The current heat demand in Northern Ireland is estimated to be 17,362 GWh per year, of which around 1.7%, or 300 GWh comes from renewable sources. Factoring into the assessment a drop in NI's overall heat demand, which is forecasted to about 16.7 TWh per year in 2020 (based on the fact that rises in demand will be outweighed by efficiency improvements), the 10% target is estimated to translate into 1.6T Wh. This means an increase of 1.3 TWh compared to existing levels.
6. In order to achieve these targets the UK intends to introduce financial incentives in NI in order to remove barriers to the deployment of renewable heat and allow renewable heat technologies to compete with the existing fossil fuel alternatives, similar to what had already been done in the UK except for NI. The measures considered are a range of tariffs, in pence per kWh, to incentivise the utilisation of a range of renewable heat technologies by covering the cost difference between heat generated from renewable technologies and heat generated from fossil fuels.
7. Therefore, the primary objective of the notified measure is environmental protection, and, in particular, to increase the uptake of renewable heat to 10% in NI by 2020, or an increase of 1.3TWh compared to current levels. The UK estimates that such increase in renewable heat would help it reach its mandatory target of 15% of energy generated from renewable sources by 2020 set by Directive 2009/28/EC<sup>3</sup> on the promotion of the use of energy from renewable sources (thereinafter "the Renewable Energy Directive")<sup>4</sup>.
8. Moreover, NI is currently dependent on oil for about 77% of total heating demand, hence oil is the primary heating fuel, as opposed to gas, which is the opposite situation compared to mainland UK. Therefore, the NI Executives also aims, among other things, to support the displacement of oil through the introduction of renewable heating sources.

<sup>2</sup> Public version not yet available at the time of writing.

<sup>3</sup> This 15% target breaks down into 12% renewable heat, around 30% renewable electricity and 10% renewable energy in transport.

<sup>4</sup> Directive 2009/28/EC on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, p. 16.

**Figure 1** – Estimated 2010 heating fuel mix in NI



**Source:** UK authorities.

9. The UK estimates that the RHI scheme in NI would lead to the displacement of about 6.86 million tonnes of CO<sub>2</sub> emissions and to the production of about 17,440 additional GWh of heat from renewable sources over a period of 29 year, from 2012 to 2040.

## 2.2. Scope of the notification, legal basis, granting authority

10. The current notification covers the four following renewable energy sources:
- Biomass (including solid municipal waste).
  - Ground source (deep geothermal, ground source and water source heat pumps).
  - Biogas production (biomethane injection and biogas combustion, except from landfill gas).
  - Solar (solar thermal up to 200kw).
11. These sources are defined as renewable in the Renewable Energy Directive. Further technologies may be added at a later stage through *ad hoc* reviews. The UK committed to notify the introduction of such measures if they were to be decided upon. Size restrictions apply to the eligible technologies, as can be seen from the tariff levels set in Table 1.
12. The legal basis is Part 3 of the Energy Act 2011,<sup>5</sup> as well as the Renewable Heat Incentive Regulations (Northern Ireland) 2011.<sup>6</sup>
13. The scheme is developed and maintained by the NI Department of Enterprise, Trade and Industry (DETI) but will be administered by the UK regulatory authority for energy, gas and electricity, Ofgem. In particular, Ofgem will register and accredit installations,

<sup>5</sup> See <http://www.legislation.gov.uk/ukpga/2011/16/part/3/crossheading/northern-ireland-renewable-heat-incentives/enacted>

<sup>6</sup> A draft version of the secondary legislation instrument, dated 04.10.2011, was submitted to the Commission in the notification process.

calculate and make payments, and monitor compliance. Ofgem is also responsible for the implementation of the mainland UK RHI.

### **2.3. Duration, budget**

14. The RHI scheme will be open to new installations until 2020 and payments will be made quarterly for the lifetime of each technology, which is 20 years. Therefore, the final payment under the scheme will be in 2040. These features are consistent with the mainland UK RHI scheme.
15. The UK authorities are minded to review the scheme periodically, including renewed analyses of tariffs, technologies and the overall results achieved. Upon the need to commence such reviews, UK authorities committed to re-notify the scheme to the Commission.
16. The scheme is intended to be put into effect as soon as possible after the Commission approval, but no aid will be granted before the date of the present Commission decision.
17. As regards the budget of the notified measure, the UK authorities have allocated a budget of GBP 25 million from 2011 to 2015 specifically to renewable heat in NI. The budget is expected to increase by GBP 5 million per year from 2015 until 2020, which would imply approximately a total of about GBP 184 million in funds from the scheme to be paid until 2020. After 2020, the UK authorities expect to continue to provide funding only as necessary based on the on-going stream of payments for the installed technologies, in which case they would notify the Commission of any such measures. The overall subsidy is estimated by the UK authorities to be about GBP 157 million in net present value terms.
18. The RHI in NI will be funded from the UK general Government spending, as a pro rata share of the funding allocated to the mainland UK scheme.

### **2.4. Beneficiaries**

19. The UK authorities believe that in order to be able to reach the overall objectives set in their energy plan, renewable heat will have to be deployed extensively and include all types of users. However, consistent with their RHI scheme in mainland UK, the scheme will be initially open only to non-domestic consumers, since the deployment of the scheme in the domestic sector would require a more in-depth analysis. In case an extension of the scheme to include households involving State aid is envisaged, the latter will be notified to the Commission.
20. The scheme will therefore be open to all NI non-domestic consumers which build new installations, commissioned after the introduction of the scheme. The scheme will also be accessible by non-domestic consumers who have built an installation in a transitional period, which the UK defines as the period from 1 September 2010 to the first day of operations of the scheme.

21. In addition, small-scale installations, which are defined as those installations producing less than 45kWth, will be subject to the specifications set out in the Microgeneration Certification Scheme<sup>7</sup> ("MCS") and will have to be installed by a MCS accredited installer. MCS is an independent certification scheme which was notified to the Commission in August 2007<sup>8</sup> under the European Technical Standards Directive<sup>9</sup>, and has been accredited under the European standard EN 45011 by the United Kingdom Accreditation Service (UKAS). Products and installers certified under an equivalent scheme accredited under EN 45011 are also eligible. Only heat meters specified under the Annex MI-004 of the Directive of the European Parliament on measuring instruments<sup>10</sup> (2004/22/EC) will be eligible under the scheme.
22. The UK expects about 25,000 installations in the NI to be eligible under the notified RHI scheme by 2020, for a total of about GBP 184 million in funds from the scheme to be paid in the same period. In the longer term the UK authorities estimate about 580,000 installations may be funded through the scheme overall, from 2012 to 2040. As mentioned above, any measures that foresee funding to be granted after 2020 will be notified to the Commission.

## 2.5. Form of support and levels

23. The tariffs under the RHI scheme are designed to cover the difference in cost between the renewable heat alternative chosen for the installation and a traditional fossil fuel heating system. As such, they incorporate the differences in capital costs, operating costs, as well as "hassle" (i.e. non-financial) costs which represent a barrier to the adoption of renewable heat (e.g. administrative costs). As for the latter category of costs, the UK authorities explained that according to the evidence provided by independent consultants, if such additional costs were not compensated, the fossil fuel alternative would still be more attractive from a financial point of view, undermining the uptake of renewable heat technologies.
24. The tariffs have been set based on economic advice from external consultants, who also advised on more fundamental issues, such as the most efficient and cost effective approach when supporting the deployment of renewable heat installations.<sup>11</sup>
25. The beneficiaries will receive payments on a quarterly basis based on the multiplication of the installation's metered output by the relevant tariff level. Only "useful heat" is eligible for payment under the RHI scheme, that is, heat which would otherwise have to

<sup>7</sup> See <http://www.microgenerationcertification.org/>.

<sup>8</sup> Notification 2007/0458/UK.

<sup>9</sup> OJ L 109 of 26.04.1983, p. 8.

<sup>10</sup> OJ L 71 of 18.03.2011, p. 1.

<sup>11</sup> The UK authorities provided two comprehensive economic assessments of the renewable heat incentive scheme, both by Cambridge Economic Policy Associates Ltd and AEA Technology. The first, "Renewable Heat Incentive for Northern Ireland – A Report for the Department of Enterprise, Trade and Industry (DETI)," was published in June 2011 and was meant to address the general question of what the most appropriate form of renewable heat incentive would be for Northern Ireland. The second, "A Renewable Heat Incentive for Northern Ireland – Addendum," was published on 16 February 2012 and provided an updated analysis following the closing of the public consultation on 3 October 2011 and a new set of proposed tariffs based on updated assumptions. The consultation documents are accessible at the following address:

[http://www.detini.gov.uk/consultation\\_on\\_the\\_development\\_of\\_the\\_northern\\_ireland\\_renewable\\_heat\\_incentive](http://www.detini.gov.uk/consultation_on_the_development_of_the_northern_ireland_renewable_heat_incentive)



be met by fossil fuels. This eliminates any incentive for deliberately wasting heat to receive payments.<sup>12</sup>

26. All renewable heat installations will be required to have a heat meter, which is going to be used to determine heat output. Payments will be made for a maximum of 20 year, which is the maximum lifetime of the relevant technologies.
27. The tariff levels have the following features:
  - They consist of periodic payments per unit of heat, paid in GBP per kWh;
  - They are calculated for reference installations;
  - They are differentiated by band; and
  - They entail a subsidy level which would make up to half the heat output within the specific band economically viable.
28. The subsidy is calculated as follows. A given renewable technology is considered economically viable if its overall discounted cost of heat over the relevant time period is lower than the non-renewable counterfactual. In the discounted cost calculation, the UK authorities have considered upfront capital costs, further costs represented by barriers to the adoption of non-renewable heat ("hassle costs"), on-going operational expenses and a forecast of the yearly fuel expenditure.<sup>13</sup>
29. When the renewable heat technology is economically non-viable, the difference between the calculated discounted costs of the non-renewable technology and the discounted costs of the renewable technology provides the per unit subsidy required to make the potential investor indifferent between the two technologies. In all instances, the relevant non-renewable counterfactual is based on oil.
30. Bands are then designed so as to pool together investors with similar costs per unit of heat. This is meant to allow technologies to be supported by a range of investors, thus becoming more economically viable, while at the same time to minimise the need for subsidies for specific investors. At the moment, the bands pool together small commercial and small public sector installations on the one hand, and medium commercial and medium public sector installations on the other.
31. The incentive is provided for a reference installation within each specific band. Similarly to the mainland UK RHI scheme, a reference installation is the one having the median cost for the specific technology size, taking into account all the sites where it would be technically feasible to install that technology. The reference installation is based on data for the year 2011/12.
32. The average lifetime cost of the reference installation is calculated by determining the yearly operating and fuel costs, to which the annuitized cost of the upfront capital, the installation cost and the barrier costs are added. The overall result is a cost per year of

<sup>12</sup> DETI has the power to investigate claims of heat waste or other forms of fraudulent behaviour. The UK authorities however believe that wasting heat should in principle be less of a concern in the non-domestic sector, as commercial entities are likely to base their decision to use renewable heat on a range of reasons and not only due to the payments under the RHI scheme.

<sup>13</sup> The costs of the different technologies, as well as their performance, were provided by external consultants AEA. The fuel projections were provided by the UK government's Department for the Environment and Climate Change (DECC).

the reference installation, which is then divided by the average annual heat to produce a cost per unit of heat.

33. The cost of capital used in the calculations is 12% for all technologies, except for solar thermal, which has a rate of return of 6%, based on the fact that this technology cannot meet a building's entire heating demand but only provide hot water. Also, the UK authorities submit that solar thermal is currently the most expensive of the technologies considered, and that a higher cost of capital would risk diverting investors to this technology at the expense of other more cost-effective options.
34. In order not to provide perverse incentives to waste heat, each reference installation is calibrated to have a specific load factor and the tariff is calculated with reference to that load factor. For example, a load factor of 15% means that the installation is used at full capacity for 15% of the time.
35. The original tariffs and bands were submitted for public consultation on 20 July 2011. The consultation closed on 3 October 2011, having received 78 responses<sup>14</sup> Tariff levels and bands were then modified to take account of the responses received. The tariff levels and the size of the installations are shown in Table 1 below. Detailed calculations of the extra costs for producing from renewables as compared to fossil fuel for every category are provided in Annex.
36. In general, all the tariffs are lower than their closest counterpart in the mainland UK scheme (when available). This is due to the choice of oil as counterfactual, given that oil has on average a lower price than gas, which was the counterfactual used in the mainland UK scheme.

**Table 1** – Tariff levels for the RHI scheme in NI

Tariff name	Eligible Technologies	Size range (kW) <sup>15</sup>	Tariff (pence/kWh)
<b>Biogas injection</b>	Biomethane injection and biogas combustion, except from landfill gas	Biomethane all scales, biogas combustion less than 200kWh	3.0
<b>Biomass boilers</b> <sup>16</sup>	Solid biomass; Municipal solid waste (including CHP)	20-100	5.9
		100-1,000	1.5
		1,000+	no subsidy required

<sup>14</sup> The responses to the consultation are publicly accessible and can be found at the following address: [http://www.detini.gov.uk/consultation\\_on\\_the\\_development\\_of\\_the\\_northern\\_ireland\\_renewable\\_heat\\_incentive](http://www.detini.gov.uk/consultation_on_the_development_of_the_northern_ireland_renewable_heat_incentive)

<sup>15</sup> The range should be read as including the lower end, but not the upper end. For example, the range 20-100 includes 20kW boilers but not 100kW boilers – the latter are covered by the 100-500 range.

<sup>16</sup> The 0-20kw band for biomass and Ground Source Heat Pump is primarily a domestic banding, is not included in the scheme and is not subject to this decision.

Tariff name	Eligible Technologies	Size range (kW) <sup>15</sup>	Tariff (pence/kWh)
Ground source	Including water source heat pumps and deep geothermal	20-100	4.3
		100+	1.3
Solar Thermal		0 - 200	8.5

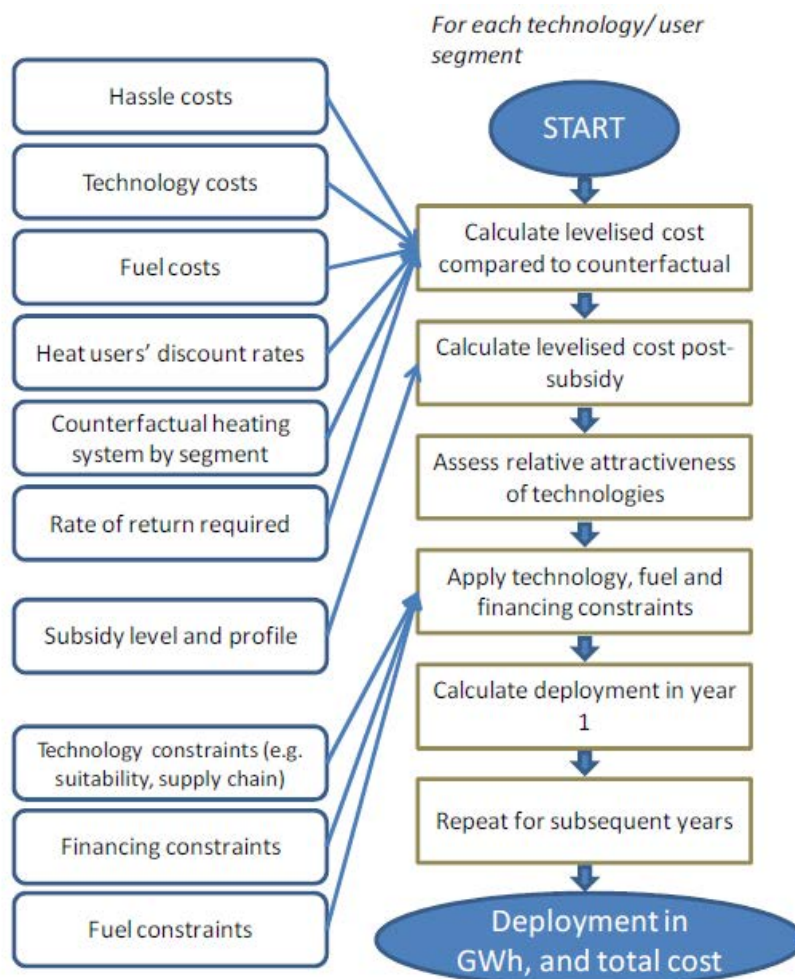
Source: UK authorities.

## 2.6. Functioning of the system

37. As mentioned above, the tariffs above are based on 2011/12 prices and will be adjusted automatically each year to account for inflation based on the Retail Price Index (RPI), in line with the mainland UK RHI scheme.
38. The UK authorities intend to hold the first review of the scheme in 2014, with changes to be implemented in 2015. After that, the reviews will take place periodically according to a programmed schedule. Reviews will in particular be used to monitor the performance of the scheme and the development of the underlying costs for each technology, so as to ensure that overcompensation is going to be prevented.
39. The UK authorities intend to carry out early reviews in all cases where they become aware of significant changes in the production costs, again to ensure that overcompensation will not take place.
40. When incentive levels are modified in future reviews, the revised levels only apply to the new installations entering the RHI scheme. This 'grandfathering' principle, whereby levels are guaranteed for existing installations, is intended to provide investor certainty and is consistent with the mainland UK scheme.

## 2.7. No overcompensation

41. The UK authorities compare the cost of producing heat from renewables to the cost of producing heat from oil (reference cost). They considered production costs as the reference scenario as there is no heat market price.
42. A detailed economic model has been designed by external consultants to take account of all the factors needed in the calculation. In particular, for each technology and for each band, or class of users, detailed data are provided in relation to capital cost, operating expenditure, size of the installation, lifetime and reference load factor. For fuels costs, the data refer to different classes of users within each band and project costs up to 2040. The logical process which leads from the input data to the tariffs is set in Figure 2 below.

**Figure 2** – Logical steps used to derive tariffs in the model used

**Source:** UK authorities.

43. The methodology followed for setting the tariffs is the same one used for the mainland UK scheme, with the exception that in the NI scheme uniform discount rates are used to value costs in future years, so that upfront costs are recovered during the entire lifetime of the installation.
44. The UK authorities submitted cost and performance data, as well as the resulting tariffs, for each technology and each band, in order to demonstrate that the tariffs do not overcompensate renewable over conventional heat production.
45. The detailed calculation underlying each tariff, which, among other things, shows the absence of overcompensation, is in the Annex to this decision.

## 2.8. Cumulation

46. The UK authorities clarified that it is not possible for any new installations benefiting from the RHI to receive a grant contributing to the direct costs of a heat production. From the launch of the scheme it will not be possible to receive grant funding that contributes to the direct costs of a heat production installation and to receive RHI tariffs as well, and any installation which is already receiving direct grants in the transitional period would be smoothly transferred to the new RHI scheme. In particular, no new installation will be allowed to receive both types of support, and those installations which

have been commissioned during the transitional period and are already receiving grants from other Department schemes will have to either repay the grant or agree to reduce the payment, either in the size of the tariff or the duration, consistent with the limits set in the RHI scheme. No installation commissioned before 1 September 2010 will be eligible under the RHI scheme.

47. For what relates to combined heat and power (CHP) installations, the UK authorities explained that those installations that are eligible both under the RHI scheme and under the Renewable Obligation (RO) scheme will have to choose one of the two support schemes and will not be able to access both at the same time.
48. More specifically, CHP installations completed between 1 April 2014 until 31 March 2016 can choose either to receive the basic RO level (which corresponds to the electricity generation) plus the RHI tariff (for the heat generation) or the higher RO level for CHP (heat and electricity generation together) and no RHI tariff. Only new accreditations and new additional capacity added between those dates will be eligible to make this choice. This will give developers and investors time to understand the support available under the RHI, and the interaction with the RO, while preventing them from receiving a double subsidy of CHP plus and RHI. Generating capacity which chooses to receive the CHP plus will be ineligible for the RHI. This is in line with the mainland UK scheme.
49. Under the Northern Ireland scheme, Anaerobic Digestion sites that are in receipt of NI Renewable Obligation Certificates for electricity generation will not be able to avail of a RHI tariff.

## **2.9. Other information**

50. The UK authorities confirm that they will comply with the annual reporting and monitoring obligations as laid down in Sections 7.1 and 7.3 of the Environmental aid guidelines.
51. Furthermore, the UK authorities confirmed that in case the resulting renewable electricity generation capacity of an installation exceeds the individual notification thresholds set in points 160(b)(iii) and (v) of the Environmental aid guidelines (125 MW), the aid will be notified individually to the Commission. Cogeneration installations are not included in the scheme.

## **3. ASSESSMENT**

### **3.1. Existence of aid within the meaning of Article 107(1) TFEU**

52. State aid is defined in Article 107(1) TFEU as any aid granted by a Member State or through State resources in any form whatsoever, which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods in so far as it affects trade between Member States.
53. In the case at hand, the measure is funded from the general Government budget and therefore involves State resources. It selects only certain technologies for heat production, as opposed to conventional or other renewable heat production technologies. Through the tariffs, it provides renewable heat producers with an advantage that they would not enjoy under normal market conditions. Finally, as the beneficiaries include

undertakings involved in intra-EU operations, the RHI object of this decision threatens to distort competition and affect trade between Member States.

54. The Commission therefore concludes that the notified measure does involve State aid within the meaning of Article 107(1) TFEU.

### 3.2. Lawfulness of the aid

55. By notifying the aid measure before its implementation, the UK authorities fulfilled their obligation according to Article 108(3) TFEU.

#### Compatibility of the aid

56. The Commission has assessed the compatibility of the notified scheme according to Article 107(3) (c) TFEU and in the light of the 2008 Community Guidelines on State Aid for Environmental Protection currently applicable (hereinafter referred to as "the EAGs")<sup>17</sup>.
57. Given the fact that the notified measure concerns operating aid for heat produced from renewable energy sources, based on the difference between renewable and conventional heat production costs, the compatibility conditions laid down in point 109 (Option 1 for operating aid to renewable energy sources) of the EAGs apply.
58. Firstly, the Commission notes that the supported energy sources comply with the definition of renewable energy sources and biomass as laid down in point 70(5) and 70(6) of the EAGs.
59. Point 109 of the EAGs lays down three conditions for the compatibility of operating aid, notably, (i) absence of overcompensation, (ii) no cumulation with investment aid and (iii) an exception on biomass (in particular, Member States must show that the aggregate costs borne by the undertakings after the depreciation of the plant are higher than the market price of energy). Each of these points will be addressed below.

#### 3.2.1. *Absence of overcompensation*

60. As regards the absence of overcompensation, the Commission considers that there is no relevant market price for heat. Therefore, the Commission takes the view that the relevant comparison is between the renewable and conventional heat production prices.
61. As for the selection of the counterfactual installation, the Commission notes that the choice of oil results in a higher production cost for the non-renewable counterfactual, which then translates into a lower tariff level than the one which would have been derived if gas or coal had been selected. As a result, all of the tariffs presented are lower to their closest equivalent ones in the mainland UK scheme, with exception of ground heat small pumps, for which the tariff is the same. As oil is currently by far the main fuel used for the production of heat, being responsible for 77% of overall heat produced, the Commission considers the use of this counterfactual as appropriate.
62. The Commission also notes that the UK authorities have presented cost ranges and a mid-point of cost calculations for all installations concerned by a given tariff level. Even

<sup>17</sup> OJ C 82, 1.4.2008, p. 1.

if it may result in over- or underestimating the actual production costs, the Commission considers that in the aggregate this is a fair approach, and it avoids systematic overcompensation.

63. As regards the discount rate of 12% applied in the calculations of levelised production costs for biomass, biogas and ground source heat production, the Commission notes that this is the same rate used in the mainland UK scheme. Under the assessment of that scheme, the UK authorities submitted a detailed report from an independent consultant which concluded that the necessary rate of return to incentivise renewable heat production ranges between 8 and 22%. The chosen rate of 12% is at the lower end of that range and it can be considered reasonable. The so-called barrier costs represent a minimal part of the overall cost and their inclusion or exclusion from the discount calculation does not alter the final tariff – or, conversely, considering the non-financial costs as part of the profit, the rate of return becomes only slightly higher than 12%.
64. The rate for solar thermal, set at 6%, is justified by the fact that the technology is only to be suitable in specific situations, as it can only provide hot water. In particular, as there is no conventional investment as an alternative, due to the fact that solar thermal do not usually replace a primary heating system, a separate calculation has to be made. DETI has taken the same approach as used within the mainland UK RHI and set a tariff that is equivalent to the level allocated to offshore wind, which is the marginal cost-effective technology for reaching the 15% UK renewable target. Therefore, the proposed solar thermal tariff compensates the full cost of the solar thermal installation.
65. In the light of the above, the Commission considers that the discount rates applied in the calculations are reasonable.
66. The Commission notes that large industrial biomass projects are not going to receive any support. The justification provided by the UK authorities, based on the relative costs of oil and biomass, is sound.
67. With respect to the absence of overcompensation in time, the UK authorities confirmed that the production costs will be monitored over time through the scheduled reviews, and may be subject to early reviews in case of significant changes in production costs. Moreover, the operating aid is limited to the depreciation time of the installations concerned (i.e., 20 years), which corresponds to their lifetime.
68. In the light of the above mentioned considerations, the Commission finds that the notified measure is in line with the condition of absence of overcompensation. In particular, the Commission considers that the methodology used by the UK authorities to present overcompensation calculations is equivalent to, or not more favourable than, the methodology presented in point 109(a) of the EAGs.
69. Finally, having assessed all the information related to production costs (over the period of 20 years, which represents approximately the lifetime of the installations concerned) and the revenues of the beneficiaries stemming from the tariff levels, the Commission is satisfied that total tariff payments do not exceed the difference between renewable and heat production costs.
70. In the light of the above mentioned considerations, including the commitment of the UK authorities to adapt the notified measure in time in order to avoid overcompensation, the

Commission finds that the notified measure is in line with the condition of absence of overcompensation.

### 3.2.2. *Other compatibility criteria*

71. As regards the two other conditions of point 109, the Commission notes that no RHI tariff can be cumulated with investment grants, and that biomass operating aid does not exceed the investment costs of a biomass installation.
72. The UK authorities also confirmed that in case the renewable electricity generation capacity of an installation will exceed the individual notification thresholds, the aid will be notified individually to the Commission. Furthermore, the UK authorities confirmed the respect of annual reporting and monitoring provisions of the EAGs as laid down in Sections 7.1 and 7.3.
73. The Commission notes that the calculations provided by the UK authorities show that the production costs of heat from renewable energy sources are higher than heat production costs from conventional sources, and that market mechanisms such as the Emission Trading System will not suffice to develop heat in the range foreseen by the UK authorities. Hence, without the notified aid, there would be an insufficient incentive to undertake the generation of heat from renewable energy sources, as such activity would be unlikely to be economically viable.
74. The transitional period is defined as the period between 1 September 2010 and the date on which the NI RHI is finally launched. This transitional period relates to installations that were installed following an announcement by the DETI Minister relating to the introduction of the RHI. Eligible applications installed during this time period will be able to avail of the new scheme and will be treated as a new installation from the actual start of the scheme.
75. It is DETI's view that installations made between 1 September 2010 and the present day have been made on the assumption that RHI payments would be available and would not have been installed had no such expectation been present. Installations made previous to 1 September 2010 did so without the expectation of RHI payments and therefore are outside of the scheme.
76. This scenario is similar to the one in mainland UK, which deemed installations commissioned since 15 July 2009 as eligible (as per paragraph 62 of the Commission decision in case SA.32125).
77. It is therefore appropriate to deem installations commissioned since 1 September 2010 as eligible as a guarantee was made by the DETI Minister to this effect to ensure the renewable heat market would not be effectively stalled by installers adopting a 'wait-and-see' approach. The adoption of a transitional period to ensure continued interest and to prevent against the market stalling is consistent with the approach taken for the mainland UK scheme.
78. Accordingly, the Commission comes to the conclusion that the notified scheme complies with the EAGs and is therefore compatible with the internal market in accordance with Article 107(3) (c) TFEU.



#### 4. DECISION

79. The Commission finds that the aid scheme object of this decision is compatible with the internal market in accordance with Article 107(3) (c) TFEU and has therefore decided not to raise objections to the notified measures.
80. The Commission reminds the UK authorities that, in accordance with Article 108(3) of the TFEU, plans to refinance, alter or change this scheme have to be notified to the Commission pursuant to the provisions of Commission Regulation (EC) No 794/2004 implementing Council Regulation (EC) No 659/1999 laying down detailed rules for the application of Article 93 of the EC Treaty.<sup>18</sup>

If this letter contains confidential information, which should not be disclosed to third parties, please inform the Commission within 15 working days of 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:

[http://ec.europa.eu/eu\\_law/state\\_aids/state\\_aids\\_texts\\_en.htm](http://ec.europa.eu/eu_law/state_aids/state_aids_texts_en.htm)

Your request should be sent by registered letter or fax to:

European Commission  
Directorate-General for Competition  
State Aid Registry  
B-1049 Brussels  
Fax No: + 32-2-296 12 42

Yours faithfully,

For the Commission

*Joaquín ALMUNIA*  
Vice-President

<sup>18</sup> OJ L 140, 30.4. 2004, p.1.

**ANNEX  
TARIFF TABLES<sup>19</sup>**

**Ground Source Heat Pumps – Small Commercial**

*Parameters*

	<b>Capex (£/kW)</b>	<b>Opex (£/kW/year)</b>	<b>Efficiency (%)</b>	<b>Load Factor (%)</b>	<b>Size (kW)</b>	<b>Lifetime (years)</b>	<b>Fuel cost (p/kWh)</b>	<b>Upfront barrier costs (£)</b>	<b>Ongoing barrier costs (£/ year)</b>
Ground Source Heat Pump	1,228	7.00	360%	29%	30	20	12.14	3,951	16
Oil	97	3.45	93%	17%	50	15	4.86	0	0

*Costs (GBP per year)*

	<b>Annuitised Capital cost at 12%</b>	<b>Annual operating costs</b>	<b>Annual fuel costs</b>	<b>Annuitised Upfront barrier costs</b>	<b>Ongoing barrier costs</b>
Ground Source Heat Pump	4,932	210	2,526	529	16
Oil	710	173	3,902	-	0
Difference	4,222	37	-1,376	529	16
Sum of difference			3,428		

*Tariff Breakdown (pence per kWh)*

<b>Subsidy for</b>	<b>Amount</b>
Annualised capital and barrier costs	5.5
Operating costs	0.0
Fuel costs	-1.3
<b>TOTAL</b>	<b>4.3</b>
Convert to quarterly basis	4.1
Adjust for inflation	4.3

<sup>19</sup> All figures provided by the UK authorities.

## Ground Source Heat Pumps – Large Commercial

### Parameters

	Capex (£/kW)	Opex (£/kW/year)	Efficiency (%)	Load Factor (%)	Size (kW)	Lifetime (years)	Fuel cost (p/kWh)	Upfront barrier costs (£)	Ongoing barrier costs (£/ year)
Ground Source Heat Pump	900	1.05	360%	36%	200	20	12.14	3,951	66
Oil	68	1.47	89%	20%	360	15	4.86	0	0

### Costs (GBP per year)

	Annuitised Capital cost at 12%	Annual operating costs	Annual fuel costs	Annuitised Upfront barrier costs	Ongoing barrier costs
Ground Source Heat Pump	24,098	209	21,276.	529	66
Oil	3,594	529	34,479	-	0
Difference	20,504	-320	-13,203	529	66
Sum of difference			7,576		

### Tariff Breakdown (pence per kWh)

Subsidy for	Amount
Annualised capital and barrier costs	2.9
Operating costs	-0.1
Fuel costs	-1.6
TOTAL	1.3
Convert to quarterly basis	1.2
Adjust for inflation	1.3

**Biomass – Small Commercial**

*Parameters*

	<b>Capex (£/kW)</b>	<b>Opex (£/kW/year)</b>	<b>Efficiency (%)</b>	<b>Load Factor (%)</b>	<b>Size (kW)</b>	<b>Lifetime (years)</b>	<b>Fuel cost (p/kWh)</b>	<b>Upfront barrier costs (£)</b>	<b>Ongoing barrier costs (£/ year)</b>
Biomass	608	4.60	85%	17%	50	20	4.39	3,951	828
Oil	97	3.45	93%	17%	50	15	4.86	0	0

*Costs (GBP per year)*

	<b>Annuitised Capital cost at 12%</b>	<b>Annual operating costs</b>	<b>Annual fuel costs</b>	<b>Annuitised Upfront barrier costs</b>	<b>Ongoing barrier costs</b>
Biomass		4,073	230	718	828
Oil		710	173	-	0
Difference		3,362	58	718	828
Sum of difference			4,932		

*Tariff Breakdown (pence per kWh)*

<b>Subsidy for</b>	<b>Amount</b>
Annualised capital and barrier costs	5.9
Operating costs	0.2
Fuel costs	-0.1
<b>TOTAL</b>	<b>5.9</b>
Convert to quarterly basis	5.6
Adjust for inflation	5.9

## Biomass – Large Commercial

### Parameters

	Capex (£/kW)	Opex (£/kW/year)	Efficiency (%)	Load Factor (%)	Size (kW)	Lifetime (years)	Fuel cost (p/kWh)	Upfront barrier costs (£)	Ongoing barrier costs (£/ year)
Biomass	486	4.60	81%	36%	200	20	4.4	5,364	878
Oil	68	1.47	89%	20%	360	15	4.86	0	0

### Costs (GBP per year)

	Annuitised Capital cost at 12%	Annual operating costs	Annual fuel costs	Annuitised Upfront barrier costs	Ongoing barrier costs
Biomass	13,031	920	34,185	718	878
Oil	3,594	529	34,479	-	0
Difference	9,437	391	-486	718	878
Sum of difference			11,130		

### Tariff Breakdown (pence per kWh)

Subsidy for	Amount
Annualised capital and barrier costs	1.5
Operating costs	0.1
Fuel costs	-0.1
<b>TOTAL</b>	<b>1.5</b>
Convert to quarterly basis	1.4
Adjust for inflation	1.5

## Biomass – Industrial

### Parameters

	Capex (£/kW)	Opex (£/kW/year)	Efficiency (%)	Load Factor (%)	Size (kW)	Lifetime (years)	Fuel cost (p/kWh)	Upfront barrier costs (£)	Ongoing barrier costs (£/ year)
Biomass	316	14,38	81%	82%	16,086	20	2.52	5,364	878
Oil	31	0.23	89%	82%	16,086	20	4.77	0	0

### Costs (GBP per year)

	Annuitised Capital cost at 12%	Annual operating costs	Annual fuel costs	Annuitised Upfront barrier costs	Ongoing barrier costs
Biomass	681,375	231,341	3,613,079	718	878
Oil	67,574	3,701	6,226,764	0	0
Difference	613,801	227,639	-2,613,686	718	878
Sum of difference			-1,770,650		

### Tariff Breakdown (pence per kWh)

Subsidy for	Amount
Annualised capital and barrier costs	No subsidy required
Operating costs	
Fuel costs	
TOTAL	

## Biomethane

### Parameters

	Capex (£/kW)	Opex (£/kW/year)	Efficiency (%)	Load Factor (%)	Size (kW)	Lifetime (years)	Fuel cost (p/kWh)	Upfront barrier costs (£)	Ongoing barrier costs (£/ year)
Biomethane	4,600	350	85%	93%	1,000	20	-4.1	0	0
Wholesale gas	-	-	-	-	-	-	2.9		-

### Costs (GBP per year)

	Annuitised Capital cost at 12%	Annual operating costs	Annual fuel costs	Annuitised Upfront barrier costs	Ongoing barrier costs
Biomass	681,375	231,341	3,613,079	718	878
Oil	67,574	3,701	6,226,764	0	0
Difference	613,801	227,639	-2,613,686	718	878
Sum of difference			-1,770,650		

### Tariff Breakdown (pence per kWh)

Subsidy for	Amount
Annualised capital and barrier costs	6.7
Operating costs	4.3
Fuel costs	-8.1
TOTAL	3.0
Convert to quarterly basis	2.9
Adjust for inflation	3.0