Briefing Paper - UK Green Electricity

In the United Kingdom the market for green electricity tariffs has grown rapidly over recent years. Many tariffs have been marketed as 'green' to both domestic and business customers. The environmental benefits of such tariffs have been brought into question by consumer protection organisations and environmental NGO's such as the National Consumer Council[1], World Wildlife Fund[2] and Friends of the Earth[3] for confusing and unjustifiable claims. The crux of the issue for both consumers and businesses is trying to establish what, if any, environmental benefits a green electricity tariff delivers above and beyond the supplier's existing legal obligation to provide electricity from renewable sources.

Consistent with the UK Defra guidelines for carbon accounting, a number of The CarbonNeutral Company's clients zero-rate their green electricity supply. Defra has indicated the accounting policy will change for the reporting year 2008-9, when organisations will have to use the standard emissions factor. This change will materially increase the reported carbon emissions for organisations currently zero-rating green electricity. Consequently organisations' offset requirements may also increase. This paper sets out the factors that have driven Defra to change the guidelines for carbon accounting, provides advice to our clients in the UK likely to be affected by these changes and seeks feedback on this position.

The Context

Defining 'green' electricity

In the corporate market 'green electricity' is generally understood to mean Climate Change Levy (CCL) exempt electricity, backed by 'LEC's' (Levy Exemption Certificates). The CCL is a tax on energy (electricity and other fuels) delivered to non-domestic users. Its aim is to provide an incentive to increase energy efficiency. Electricity generated from new renewables and approved cogeneration schemes is not taxed and termed CCL-exempt electricity. Overlapping with CCL exempt electricity is the system of Renewable Obligation Certificates (ROC's) which provide a separate mechanism to subsidise low carbon electricity generation. The renewable obligation places a requirement on licensed electricity suppliers in the UK to source an increasing proportion of electricity from renewable sources[4].

The current shortage of CCL-exempt electricity is driven by two factors: (1) The UK underperforming against its target for renewable generation, which is largely due to delays in planning applications for large schemes such as wind farms and grid connections; and, (2) Significant demand for CCL-exempt electricity from corporates looking to demonstrate their green credentials and reduce their reported GHG emissions. Given this short position, CCL-exempt electricity is generally sold for a small premium over 'brown' electricity, and that premium may be (partially) offset by being CCL-exempt.

Carbon accounting for 'green' electricity

The Defra corporate GHG reporting guidelines (July '05) allowed users of CCL-exempt electricity (from renewable sources) to report the carbon footprint as zero. Electricity from good quality combined heat and power (CHP) could also be counted as CCL-exempt but had to be reported using an emissions conversion factor of 0.295kgCO2/kWh.

Defra guidelines briefly changed in June '07 to state that renewable electricity usage could only be reported as 'zero carbon' if an equivalent amount of ROC's were retired. The current ROC price of ~£50/MWh[5] equates to a carbon price of ~£95/tCO2[6] – about 7-10 times the cost of carbon credits. At the same time, Defra guidelines increased the emissions factor for standard 'brown' electricity from 0.43kgCO2/kWh to 0.523kgCO2/ kWh.

Following a backlash from the market, government withdrew the newly changed guidelines, and started a consultation process, temporarily reinstating the July '05 guidance pending the outcome of the consultation. However the increased emissions factor for brown electricity was kept at 0.523kgCO2/kWh.

Defra appears close to announcing its final policy following this consultation and in recent news releases[7] has given a strong indication of its position. Environment Secretary Hilary Benn recently announced in respect of green tariffs:

"…we will change the voluntary corporate reporting guidelines to bring them into line with current best practice and provide coherent carbon accounting. This will mean that for the reporting year 2008-9, best practice is expected to be for businesses to use a grid average rate, unless their supplier can prove the carbon benefits are additional."

The Secretary of State for the Environment has also made two requests. (1) To Ofgem to provide detailed guidelines for suppliers of green tariffs with a view to developing a rating system that will distinguish between the different environmental potential of green tariffs. (2) To the Chief Executives of energy suppliers to ask them to provide the clearest possible information about the benefit their green tariff brings for the environment.

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[1] NCC – The green supply guidelines – the consumer interest

[2] WWF – Response to the consultation on green energy tariffs

[3] FOE – Briefing Note: Green Electricity Tariffs

[4] Obligation periods run for one year, beginning April 1 and running to March 31st. The target by March 09 is 9.1% rising to 15.4% by 2016.

[5] e-roc.co.uk/trackrecord

[6] 0.523 x 1000 = 0.523 / tCO2/MWh and 50 x (1/0.523) = £95 / tCO2

[7] www.defra.gov.uk/news/2008/080616a.htm

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Why the impending changes?

Two fundamental issues concerning the measurement and reporting of green energy led to calls for a change in approach; (1) double counting and (2) additionality.

The issue concerning double counting relates to emission factors. The current emissions factor for brown electricity (0.537kgCO2/kWh) is an average for all grid generation, which includes all existing renewable generation. By simultaneously allowing the carbon footprint of CCL-exempt electricity to be reported as zero, and at the same time using it to make the brown generation slightly less brown, means that the green benefit is counted twice. To avoid a double count when zero rating CCL exempt electricity, the emissions factor for brown electricity would need to be increased proportionately.

The additionality issue is regulatory. Almost all of the ROCs generated by renewable energy generators are used for compliance with the Renewables Obligation[8] and the renewables targets are still not being met for the reasons explained earlier. Corporate (and consumer) demand for green electricity is not directly leading to the construction of new renewable capacity[9]. Electric utilities are simply taking the renewable energy they are required by law to generate under the Renewables Obligation and repackaging it into green electricity tariffs/contracts. In such a scenario if a corporate organisation zero-rates its 'green' electricity to support a carbon reduction claim, they are going beyond what can be justified by the facts.

Current status of government consultations

The outcome of the delayed green supply guidelines consultation is looking increasingly certain. Defra has confirmed it will revise the conversion factors used for green tariffs under its Voluntary Guidelines for Company Reporting of Greenhouse Gas Emissions. The guidelines[10] will be changed to say that:

- For the reporting year 2007-8 if organisations have used a zero rate, they should, where practicable, include a footnote recognizing a green tariff.
- For the reporting year 2008-9 the Government expects that for most green tariffs, businesses use the grid average rate to reflect existing evidence that the additional carbon benefit of green tariffs is limited.

Ofgem published its updated proposals document on the green supply guidelines in July '08, which is consistent with Defra's policy change on its Voluntary Guidelines for Company Reporting on Greenhouse Gas Emissions. Following the finalisation of Ofgem's consultation, DECC will take responsibility for the consultation on how broader environmental benefits, possible long term carbon benefits and any genuinely additional carbon benefits of green tariffs will be treated in the voluntary reporting guidelines.

[8] Examples exist of renewable energy providers (Good Energy) retiring additional ROCs to demonstrate action beyond regulation. This reduces the number of ROCs helping to raise the market price for renewable generators and attract further investment into the renewables.

[9] There is an indirect link, by signing up to a green tariffs users provide an incentive to suppliers to exceed the statutory minimum. In aggregate this demand could pull new renewable supply to market beyond the RO

[10] www.defra.gov.uk/news/2008/080616a.htm

An alternative approach

Reporting guidelines are primarily intended to encourage companies to 'do the right thing' in terms of managing their GHG emissions. With the new guidelines there is a risk companies will abandon green tariffs and simply invest in the lowest cost electricity supply. Customers looking to 'do the right thing' by contracting green energy add comfort to the investment decisions of energy suppliers even if these decisions are driven primarily by the ROC subsidy. A reporting framework that allowed companies to report on their emissions based on fuel mix disclosure, (figures which are legally required from all energy suppliers) would make it possible to eliminate the double count issue while maintaining the demand side pull for green electricity.

Conclusions and Recommendations

The market continues to vigorously debate the merits of this issue, in part due to the Government's limited consultation on the topic. The CarbonNeutral Company believes a more appropriate reporting solution would involve the energy supplier's fuel mix disclosure and would welcome a thorough consultation on such a framework. However, given new reporting guidelines have been published and these are likely to carry considerable credence with the public, media and regulators such as ASA the following conclusions and recommendations have been made with the aim of protecting the integrity of our clients CarbonNeutral claims[11]:

- The implication of the updated guidelines is that companies that have historically reported lower emissions from electricity consumption as a result of using a green tariff will no longer be able to do so and their carbon footprint will rise proportionately.
- The CarbonNeutral Company recommends that if the carbon accounting treatment is the primary driver for switching to a new green electricity supply contract, corporates must be absolutely clear about how their tariff will be treated from a carbon accounting/reporting perspective before signing the contract.
- For others where carbon accounting is not the primary driver the CarbonNeutral Company would encourage switching supply as a statement of support for the UK's renewable energy market.
- When preparing client carbon accounts for the 2008-9 reporting year onwards The CarbonNeutral Company will align with the new Defra guidelines. CarbonNeutral® programmes will apply the revised electricity conversion factors (0.537kgCO2/ kWh) on a prorated basis from 1st April 2009, to all non additional renewable electricity[12].
- The CarbonNeutral Company will apply the same principles to green electricity tariffs outside the UK, subject to consideration of local rules and regulations.
- The revised Defra Greenhouse Gas Conversation Factors, including the guidance on the treatment of green tariffs can be found on the Defra website.

[11] The outlined position is based on input from, and notification to, the following agencies; Ofgem, DEFRA, DECC, ASA and The CarbonTrust.

[12] Current DEFRA guidelines advise renewable electricity can only be considered additional if backed by the retirement of Renewable Obligation Certificates (ROC's).

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