

Chapter 1 The Role for Renewable Energy

Q1: How might we design policies to meet the 2020 renewable energy target that give enough certainty to business but allow flexibility to change the level of ambition for a sector or the level of financial incentive as new information emerges?

We are not competent to answer or respond to all the questions, but would like to emphasise at the outset that we are generally in favour of renewable deployment, but that the majority in the group thinks this support should not exclude the low carbon technology of nuclear power***. Indeed development of both to their optimum levels is essential if we are to meet targets relating to energy security and emissions reduction.

We have made some general comments in the response to Question 41 about our approach to this consultation as Churches Together Cumbria Social Responsibility Forum.

***Caveat: as indicated above, most in the Group are in favour of further nuclear deployment as a low carbon technology, but this should not be taken as a blanket endorsement from all the members of the Group or of the Churches represented by Churches Together in Cumbria. We believe, however, that the comments on renewables would find much wider acceptance.

Q2: To what extent should we be open to the idea of meeting some of our renewable energy target through deployment in other countries?

We support investment in renewables in other countries as counting towards the UK obligation, but only as long as this is not exploiting a poor EU or host country at the expense of their own development, food supply or economy.

Chapter 2 Saving Energy

Q3: In the light of the EU renewable energy target, where should we focus further action on energy efficiency and what, if any, additional policies or measures would deliver the most costeffective savings?

The public is often told that significant energy saving would be achieved by switching off electrical equipment when not in use. We would like the Government to press for international legislation for electrical products to switch off automatically when not in use, or in the case of computers left running, to switch on and off automatically when they are required to receive or handle data. We would like the Government to encourage the design of all electrical equipment to require minimum power supply. Digital

telephones have to be left 'on' all the time otherwise they will not work, cannot this feature be altered?

We would like to link this in with an increased effort by the Government to encourage a 'recycling' mentality and habits as a method of saving energy in reducing the need to extract new metal from ore, production of new glass and plastic.

Although railways are mentioned in the document, there does not seem to be any commitment to further electrification of existing rail lines in reducing pollution and dependence on fossil-fuel generation of electricity. We were pleased to read that the DfT is considering the electrification of a further 5000 miles of the national rail network (Railway Magazine September 2008, page 6). See also the responses to the questions on transport in Chapter 6.

On heat energy we would like to see more measures to reduce heat loss from existing housing stock, not just new build. The existing reduced price/free installation schemes for loft and cavity wall insulation should be extended to those below pensionable age/70 years.

Chapter 3 Centralised Electricity

Q4: Are our assessments of the potential of different renewable electricity technologies correct?

We have one query which applies generally throughout the document: when figures are quoted for installed capacity, especially for wind, is this declared notional capacity ie fully rated, or is an allowance made for intermittency, in which case the quoted values should be about 30% of DNC? This affects the percentage figures you give for proportion of renewable contribution to the total generation.

Apart from the query above, we have no reason to doubt the assessments, but would urge that maximum effort be expended to introduce the renewable and low carbon (including nuclear) technologies as soon as possible, but see caveat in Question 1.

Some in the group were not convinced that the proposed targets for proportion of renewable-generated electricity were realistic, both in the proportion of power and the timescales.

Q5: What more could the Government or other parties do to enable the planning system to facilitate renewable deployment?

We felt that throughout the document that, when a conflict with regard to planning arose, eg between 'environmental' considerations and renewable installation, then renewable deployment would prevail. Local Authorities do not have sufficient choice with regard to renewables in their areas. There is

resistance on the part of the industry to designating areas of search/ no go areas for deployment of renewables, eg wind. Currently there are restrictions with regard to National Parks and AONBs, but this may be too clear-cut a distinction, and a more subtle approach may be required.

We feel strongly that there should be a balance between the freedom of local areas to approve installations and the constraints of the planning system. The Government should not be introducing an overarching framework to limit local action, but there may be a case for streamlining public enquiries to eliminate generic objections dealt with elsewhere.

The document does not give sufficient weight to the importance of landscape as an environmental factor. The Government need to recognise the development of local landscape strategies in determining renewable deployment.

Q6: What more could the Government or other parties do to ensure community support for new renewable generation?

Our general approach is that of emphasising the importance of climate change, sustainable development and the value of renewables in contributing to low-carbon sources of energy. Although we agree with the concept of community support, it is underpinned by the above considerations.

As proposed for locations for radioactive spent fuel and waste disposal, we agree that there should be social and economic recompense on behalf of society for areas where large-scale renewable installations are sited. There should be proper framework for this as outlined in Section 3.4.7 of the document.

The same principle from management of radioactive waste should be paramount, that the primary consideration for siting should be environmental and technical suitability, not the desire on the part of the community for compensation or employment benefits.

An important caveat is that local authorities in areas so selected should be able to insist on sustained support for their communities, not merely a one-off 'sweetener'.

Q7: What more could the Government or other parties do to reduce the constraints on renewable wind power development arising from:

- a. marine navigation;**
- b. environmental legislation;**
- c. aviation and radar;**
- d. any other aspects of regulation?**

On a) we noted the concerns expressed by The Isle of Man Steam Packet Company that installation of a planned large wind-farm off Barrow-in-Furness would significantly affect their routes from the UK to Douglas.

Specifically with regard to b), we felt that consideration of the effects of renewable deployment on landscape had been neglected in the document, 'environment' seemed to be taken more as the 'natural' environment, ie flora and fauna.

Constraints should be subject to individual assessment and evaluation to enable a reasoned judgement (as used in the land-based planning system) as between economic benefits and costs for affected parties (e.g. shipping route diversion) as well as visual impacts on designated landscapes (AONB's, Heritage Coasts and National Parks). These assessments should be published and be subject to review through the consenting process as a material consideration.

Thus we did not support 'reduction of constraints' simply because they were constraints on the installations. Constraints may be there for perfectly justifiable reasons.

Q8: Taking into account decisions already taken on the offshore transmission regime and the measures set out in the Transmission Access Review, what more could the Government or other parties do to reduce the constraints on renewable development arising from grid issues?

Small-scale developments, eg local hydro-generation would be expensive to connect to the grid, especially if the onus for this fell on the individuals who installed the equipment. This may discourage local schemes unless the Government gives sufficient incentive for individuals or local authorities to be able to do this. See also the response to Question 11

Q9: What more could the Government or other parties do to reduce supply chain constraints on new renewables deployment?

No opinion.

Q10: Do you agree with our analysis on the importance of retaining the Renewables Obligation as our prime support mechanism for centralised renewable electricity?

We agree with retaining the Obligation, but emphasise that the regulators should keep under review the detail as renewables technology advances and costs change either up or down.

Q11: What changes (if any) should we make to the Renewables Obligation in the light of the EU 2020 renewable energy target?

The comments in the response to Question 8 also relate to this question. The Government should take an increasingly active role in managing the costs of local connection to the grid and supporting interconnector capacity. This is necessary if obstacles to the deployment of wind and wave generation and small-scale hydro in remote locations are to be reduced.

Banding within the Renewables Obligation should be sufficiently flexible to recognise the circumstances of each technology, and recognise grid access problems which would limit deployment by high local grid connection costs. This could make otherwise viable schemes unattractive. We suggest that the generating/transmission companies should be obligated to bear some of the cost.

Q12: What (if any) changes are needed to the current electricity market regime to ensure that the proposed increase in renewables generation does not undermine security of electricity supplies, and how can greater flexibility and responsiveness be encouraged in the demand side?

No opinion.

Chapter 4 Heat

Q13: Assuming financial support measures are in place, what more could the Government do to realise the full potential of renewable Combined Heat and Power?

We feel that there should be clearer planning guidelines for developers to consider CHP for deployment in new estates (both industrial and domestic). There is scope for extending CHP installations also to agricultural/market garden situations, eg greenhouse and polytunnel heating.

Power station operators could be encouraged to allow cultivation of vegetables and fruit using low-grade heat from their plants, eg as at Drax, where we believe tomatoes are grown.

Until the Calder Hall Nuclear Reactors closed down on the Sellafield Site, the whole site was heated by low grade steam from the turbines. This is now achieved using a newly constructed gas-fired CHP plant.

Q14: Are our assessments of the potential of renewable heat deployment correct?

No reason to disagree about the potential, perhaps the timescales are unrealistic though.

Q15: Have we captured the key features of a Renewable Heat Incentive and a Renewable Heat Obligation as they would apply to the heat sector correctly? Would both of these schemes be workable and are there alternative ways of structuring the schemes to ensure they can operate effectively?

No reason to disagree

Q16: Do you agree with our assessment that a Renewable Heat Incentive would work better in the heat market?

Strange phrasing - surely by definition, the Renewable Heat Incentive would only work in the heat market.

We welcome the Renewable Heat Incentive as an extension of the Renewables Obligation, and in particular the focus on small-scale installations (section 4.5.28).

Q17: What more could the Government or other parties do to encourage renewable heat deployment with regard to:

- a. awareness raising;
- b. air quality;
- c. building regulations;
- d. planning;
- e. anything else?

With regard to a), although this is not specifically to do with 'heat', the following point is relevant to 'awareness'.

We have noted that various firms and organisations are in the habit of advertising their 'green' credentials by claiming that all their energy or electricity requirements are supplied from 'environmentally friendly' sources. This is manifestly impossible, because we all get our electricity from the same grid networks, so they are from a mix of sources including renewables, nuclear and fossil fuels. What they should claim is that they buy their electricity from companies that undertake to include a certain percentage of so-called 'green' electricity in the total, and which may encourage the development of renewables.

The Government needs to raise awareness to encourage all relatively unfamiliar heat-generating technologies, especially (domestic) solar and (community) ground-source and air-source heating

With regard to c) and d), better guidance is required to ensure co-ordination between planning and building regulations.

Q18: How far should the Government go in focusing on areas off the gas grid as offering the most potential for renewable heat technologies?

Although we wish to encourage the development of 'remote' renewable sources, we realise there may be a conflict between grid connection and environmental (including landscape) considerations. The Government must therefore be sensitive to this balance and seek maximum involvement of local authorities and groups in decision-making.

Chapter 5 Distributed Energy

Q19: Do you agree with our analysis of the mechanisms for support of small-scale renewable electricity?

Agree.

Q20: Given the analysis on the benefits, costs and potential, in what way and to what extent should we direct support to microgeneration electricity?

See comments above on planning and building regulations and financial incentives.

Q21: If you agree that better information will aid the development of distributed energy, where should attention be focused?

No opinions.

Q22: Do you agree with the Government's current position that it should not introduce statutory targets for microgeneration at this stage in its development?

It is wise that the Government should not set targets at this stage for microgeneration. We have concerns about the realism of the expectations for small-scale generation for individuals and companies, and whether the overall contribution they can make is worthwhile. Also the return/payback times are not sufficient to encourage installation. The Government should look at payback rather than encouraging installation at this time.

We are in favour of medium-scale installation such as small wind turbine generation for neighbourhoods. This could be encouraged by reducing

payback times and by promoting the idea through local authorities rather than at the individual level.

Q23: What more could the Government do to incentivise retrofit of distributed energy technologies?

We are encouraged that measures are being taken to promote retrofit - section 5.5.10 and Table 5.2. We suggest that retrofit would be particularly effective for terraced properties.

The Government could oblige local authorities (LAs) to investigate the potential for retrofit in their areas and incentivise appropriate neighbourhood schemes for the provision of those such as in 5.5.10. In doing this LAs should be provided with funding to encourage appropriate local take-up. Support for LAs is currently not good enough.

Local authorities should also be incentivised to investigate district-heating networks and communal boilers.

We welcome the measures recently announced by the Government to help households and communities to save both money and energy: The National Home Energy Saving Plan and The Community Energy Saving Programme.

Chapter 6 Transport

Q24: How can we best incentivise renewable and low-carbon transport in a sustainable and cost-effective way?

Further encouragement needs to be given generally for people to buy locally sourced products, especially food. We suggest some kind of coding system, perhaps with a traffic light symbolism which indicates in broad bands how far the item has been transported, similar to the traffic light system for food content.

Also, less food and other goods must be transported by road. We believe that freight transport by canal is growing, but none of us ever see the Manchester Ship Canal, for example, being used for this purpose.

An example of good practice, which should be encouraged more widely, is the 'Stobart Tesco Train'. The firm Eddie Stobart Ltd, launched a rail service between Daventry in the west Midlands and Grangemouth, near Glasgow, in 2006, and a second service between Grangemouth and Inverness is to be introduced later this year. The trains consist of 20 special 45 feet long 'curtainsided' containers.

Generally with regard to biofuels, we support a radical examination of their production and use in transport as in The Gallagher Review, and the setting of targets should perhaps be postponed until the implications of this review are assessed..

We do not agree that shipping and aviation should be excluded from the Renewable Fuels Obligation.

Q25: What potential is there for the introduction of vehicles powered through the electricity grid in the UK? What impact would the widespread introduction of these kinds of vehicles have on:
a. energy demand and carbon emissions;
b. providing distributed storage capacity;
c. smoothing levels of electricity demand on the grid?
What factors would affect the scale and timing of these impacts?

Electrically-powered vehicles can be charged up during off-peak times and used during the day, question 25(c). As paragraph 6.3.1 implies, unless the electricity used is generated by low-carbon or renewable sources, there would be no advantage in terms of reducing emissions, although benefits in terms of lowering pollution from the vehicles themselves would still follow. Hydrogen-powered vehicles, as in section 6.3.1, should be encouraged, but again, large amounts of electricity are needed to produce the hydrogen in the first place, so the same caveat about generation as mentioned above applies. See also the comment on The Gallagher Review above.

Q26: Over what timescales do you think electric vehicles could plausibly contribute to our renewable energy and carbon reduction targets and what could the Government most effectively do to accelerate the introduction of such vehicles in the UK?

No view on timescales, but it may take a long time for the public to gain confidence in electrically powered/hybrid vehicles. The prices of such vehicles must be comparable to or lower than conventionally powered ones before widespread take-up can be expected.

Chapter 7 Bioenergy

Q27: How can we best ensure that our use of biomass is sustainable?

The use of low-grade land, tree-coppicing and forestry waste for sustainable energy production should be developed. We quote the example of the

Stevens Croft Wood Burning Plant, Lockerbie Scotland commissioned in Autumn 2007 as an excellent example of this. As well as dealing with a wide range of wood fuels, including up to 20% recycled wood, the site has good transport facilities, including a railway line - an important factor when considering the location of such facilities dealing with the movement of large volumes of fuel from remote locations.

Q28: How do you see the market for biomass developing to 2020?

What are the implications for:

- a. imports;**
- b. longer-term prices and costs?**

It is important not to import biofuels from countries not having a sustainable industry or from a country where such imports could be seen as disadvantageous or exploitative, see also the response to Question 2.

Importing materials should be subject to source studies for sustainability, including the economic, environmental and social implications in the countries involved.

Large-scale bulk transport of biomass imports is illogical both from energy and environmental aspects. By definition it would seem sensible to use biomass in energy production as close as possible to the source of the materials.

Q29: Should the Government take further regulatory measures to discourage biomass waste, including food waste, from going to landfill? If so, which types? What, if any, other measures should be taken to encourage its use to generate bioenergy?

Yes, we agree with this. There is an appalling waste of food, much of it compostible or biodegradeable. LAs should be encouraged to provide facilities for collection of such wastes systems should be developed for handling biodegradeable waste.

Some LAs already have systems in place, eg in Devon and Bristol. In the latter case every household has been provided with separate containers for raw or cooked kitchen waste, and plans are in hand for increasing the amount of waste thus collected.

Almost any organic material can be processed with Anaerobic Digestion to produce biogas or solid or liquid material residues which can be used to fertilise land or improve soil quality (taken from The Friends of The Earth Website). So this should be promoted to recycle low grade cardboard and

food wastes, etc. The example of the South Shropshire Biowaste Digester can be quoted as good practice in this regard.

Q30: What more could the Government or other parties do to help to ensure the provision of sufficient Waste Incineration Directive-compliant combustion capacity to burn available waste wood alongside other biomass, and what else might constrain the development of this capacity?

No opinion.

Q31: What further actions will improve supply chain efficiency, consumer confidence and sustainable growth of the biomass supply chain?

No opinion.

Q32: What barriers exist to the cost-effective deployment of anaerobic digestion, biogas and the use of biomethane injected directly into the gas grid, and what are the options to address them?

One barrier is the general lack of LA arrangements to collect and deal separately with food and low grade organic wastes for anaerobic digestion. But see our response to Question 29 above, where examples are quoted of good practice on the part of LAs. Such schemes should be actively promoted by the Government.

Q33: What action could we take to make biomass communications more effective to both improve public awareness and help to address acceptability issues, and how should this be delivered?

We support the information programme mentioned in paragraph 7.7.5 and welcome expanding the range of materials that can be used in biomass generation locally in CHPs, paragraph 7.7.4.

Public acceptability can be increased by publicising some of the examples of best practice in recycling and energy production that have already been introduced and are working successfully. Acceptability would be even greater if the local communities affected received the benefits, such as reduction in heating costs, or some other financial encouragement and/or increased employment opportunities.

Q34: Are there issues constraining biomass supply and use other

than sustainability, supply chain and information issues?
How should these be tackled?

No opinion.

Chapter 8 Innovation

Q35: How can we adapt the Renewables Obligation to ensure that it effectively supports emerging as well as existing renewable technologies? Are there more effective ways of achieving this?

We have already commented on the need to keep the Renewables Obligation under constant review and to ensure adequate differential banding to accommodate new technologies and advances in older ones, and to remedy local disincentives resulting from high local grid connection charges - see response to Questions 8 and 11.

Q36: Is there evidence that specific emerging renewable and associated technologies are not receiving an appropriate form of support?

See various comments, Questions 8, 11 and 35 on providing assistance and incentives to facilitate grid connection in remote locations.

Q37: Are there barriers to the development of renewable and associated technologies that are not addressed by current or proposed support mechanisms?

No opinion.

Chapter 9 Business Benefits

Q38: What more could the Government or other parties do to ensure that the UK secures the maximum business and employment benefits from the EU renewable energy target?

We are concerned that the economies of poorer countries and their opportunities for sustainable development are not undermined in promoting renewable business for the UK. A balance is needed between our own targets and the effect this has on other, less robust economies.

Chapter 10 Wider Impacts

Q39: Do you agree with our analysis of the likely impacts of the proposed increase in renewable deployment on:
a. carbon dioxide emissions;
b. the local environment;

- c. security of supply;
- d. energy prices;
- e. fuel poverty;
- f. the energy market;
- g. the economy;
- h. any other wider issues that we should be considering?

a) As indicated elsewhere in this submission, we are sceptical that the effects of renewables alone will be sufficient to meet CO2 reduction targets. That is why we are supporting a joint deployment of optimum levels of renewable and low carbon technologies including nuclear power***.

With regard to b) we have already mentioned that we feel that landscape protection has not been given sufficient weight in the consultation document. There is a passing reference to landscape in paragraph 10.3.2.

On h) we feel there should be a tighter relationship between the deployment of renewables and the decommissioning of redundant fossil fuel and nuclear plant.

*** See caveat on nuclear power in the response to Question 1

Chapter 11 Delivering the Target

Q40: What more could the Government or other parties do to ensure the UK meets the EU renewable energy target?

Apart from re-iterating the need for all of us: individuals, industry, commerce and other organisations to minimise demand and reduce waste, we have nothing substantial to add.

Q41: Do you agree with our overall approach to developing a UK Renewable Energy Strategy?

The Energy Task Group of Churches Together in Cumbria Social Responsibility Forum broadly supports the Government's Approach to developing a Renewable Energy Strategy. We would like to draw the Government's attention to various aspects relating to equity and justice, since it is with these basic principles that the Group is most concerned. We are concerned that the recent drive towards the cultivation of biofuels should not divert land from essential food crop production, especially in developing or poorer countries - we have drawn attention to this in our response to Question 2 where we say that investment in the deployment of renewables in other countries should not be exploitative and become a kind of 'renewable energy colonialism'.

We would like the Strategy to ensure that the benefits and opportunities of renewables projects in this country should not be neglected in rural areas. It is in the countryside and remoter areas that the greatest potential for renewable energy such as wind and wave exists, yet the main beneficiaries are likely to be the large urban populations who will not suffer the inevitable visual and social intrusive effects.

The Government has often stressed its willingness to engage with faith communities in social and public issues. We point out that groups in Cumbria and elsewhere take their responsibility as Stewards of God's Creation seriously through environmental action and energy-related projects such as Eco-Congregation and Operation Noah. Churches Together in Cumbria has a very active and well respected Environment Group.

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