Green Party

Response to Renewable Energy Strategy Consultation 2008

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1.0 GENERAL COMMENTS

The Green Party notes that this consultation follows two previous energy white papers: the Energy White Papers "Our Energy Future" of 2003 and "Meeting or Energy Challenge" 2007. We infer from this that the priorities of the previous two white papers still hold.

From 2003:

- to put ourselves on a path to cut the UK's carbon dioxide emissions - the main contributor to global warming - by some 60% by about 2050, as recommended by the RCEP, with real progress by 2020 (a new target of 80% is now being considered);
- to maintain the reliability of energy supplies;
- to promote competitive markets in the UK and beyond, helping to raise the rate of sustainable economic growth and to improve our productivity; and
- to ensure that every home is adequately and affordably heated.

From 2007:

- To promote open, competitive energy markets
- To take action to put a value on Carbon emissions
- To drive investment to accelerate the deployment of low carbon technologies
- To promote policies to improve energy efficiency

We also note the present targets concerning energy and emissions:

- National target of 60% (possibly 80%) reduction in CO_2 emissions from 1990 to 2050
- EU target of 20% of all energy (heat and transport as well as electrical) to come from renewable sources, by 2020

The RES is therefore consulting on the Government's present and future proposed attempts to address the main obstacles faced by industry in moving towards these targets. These are seen as lying in the areas of:

- Financial incentives for renewable power (electricity)
- Financial incentives for renewable heat
- Incentives for microgeneration
- Grid access
- Planning issues
- Issues facing the Biomass and Energy from Waste industries
- Innovation and supply chain

We agree that all of these issues need addressing. In addition, the issue of skills in the renewable energy industry, and in the energy industry in general, needs to be given greater priority.

We also note the apparent omission from this strategy of an entire section of the electricity infrastructure, i.e. Distributed Generation, which we and many in the relevant industries would define as any generation feeding into the Distribution network (as opposed to directly into the National Grid "Backbone"), and not just the Microgeneration sector, which is dealt with in Chapter 5.

2.0 QUESTIONS

2.1 Chapter 1 The Challenge

2.1.1 **Q1 (p.36)**

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 believe that the present overall attitude within government is failing to address the immediate problems of both Carbon (and other Greenhouse gas (GHG)) emissions and energy security with a sufficient degree of urgency.

The renewables industry needs a clear sign of long-term commitment from the Government if it is going to rise to the challenge of the 2020 target. Speculation about new centralised coal and nuclear power stations is a dangerous distraction when investors, businesses and workforces need to be focussing on renewables; shutting the door on these options would be a very positive step.

2.1.2 **Q2 (p.38)**

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

Deploying renewable generation in other continents, in the absence of a suitable interconnector, would be cheap but would not contribute to UK energy security, and would also risk only supporting projects which would have been developed in any case, thus having no real effect on global GHG emissions. With the moral and political pressure on the UK to demonstrate international leadership in reducing emissions, it would be unfortunate if overseas deployment to reduced the rate of UK deployment.

2.2 Chapter 2 Saving Energy

2.2.1 **Q3 (p.51)**

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 cost-effective savings?

Personal Carbon Trading would be a very effective and equitable way of reducing energy consumption, which would in turn make percentage targets for renewables easier to meet. The cost of implementing Personal Carbon Trading would be small in the context of the renewable energy programme, and it would be a very cost-effective way of securing significant year-on-year reductions in carbon dioxide emissions from all sectors.

Home heating appears to be the area with the most potential for efficiency improvements in the UK, with the minimum of “rebound effect”. The Warm Front programme can be extended from its present targets to the more able-to-pay households, or a “concierge”-type service could be set up to enable the “time-poor” to have the relevant home improvements made (as is presently just beginning in London). To achieve economies of scale the most effective programme of home insulation would be universally free, rolled out on a street-by-street basis, and start with those streets with high levels of fuel poverty – based on the successful “Warm Zone” programme being implemented by Kirklees Council. We estimate a national programme could be completed within five years and cut the UK’s annual GHG emissions by 5%.

Energy Performance Certificates for homes are in practice not offering the service they should. First, they are not being shown to potential buyers. More importantly, due to cost considerations they are not generally an accurate reflection of the home’s true energy performance. For example, the cheapest (and therefore most popular) spreadsheets do not allow for many energy-saving installations, such as solar hot water. Many buyers are aware of these shortcomings (having already had their own homes assessed) and therefore know not to bother looking at EPCs.

Government needs to improve the EPC standards, with a contribution to their costs if the improvements would otherwise make them too expensive for the public.

Finally, the energy performance of new buildings is generally not being accurately assessed. A study conducted by the Building Research Establishment focusing on air-tightness found that 43% of the new houses it checked should have been failed. “Independent” building control officers know they are unlikely to be hired again if they are too fussy and fail houses that have been put together thoughtlessly. These officers need to be permanently employed by councils: if necessary the developers should contribute towards a fund or this.

A publicity campaign to accompany the offering of user-friendly grants (perhaps along the lines of the recent and successful recycling campaign), should be implemented.

With the right set of policies, including Personal Carbon Trading, we believe it should be possible to reduce total energy consumption in the UK by 20-40% by 2020, which would make it easier to achieve and exceed our EU target for 15% of energy from renewable sources by 2020.

2.3 Chapter 3 Centralised Electricity

2.3.1 **Q4 (p.60)**

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

We believe that aiming for a 2020 target of 30-35% of electricity from renewable sources lacks ambition, when other countries with poorer renewables resources than the UK have adopted greater targets.

The assessments of the potential of renewable electricity technologies is based partly on constraints to growth; with sufficient determination the Government could overcome many of these constraints and deploy renewables at a greater rate. We suggest the UK should aim to become a leader in renewable energy generation, matching other European Countries such as Sweden which has a target of 49% of energy from renewables by 2020.

The proposed Severn tidal lagoons (http://eeru.open.ac.uk/natta/renewonline/rol55/4.htm) are cheaper to build, scaleable and have far less wildlife and other adverse effects than the tidal barrage. Tidal Stream technology also has the potential to expand rapidly, because the units can be mass-produced, making the technology scaleable.

Offshore wind is currently being stymied by the MOD, who have set up a "helpline" for initial assessment of sites. This assessment seems to consist of the criterion "if the sites in the line of sight of the coast, or any other radar station, no wind turbines can be sited there". Staff within the MOD, who at present regard renewable energy infrastructure as an inconvenience, need to be made to understand that energy itself is, in fact, a National Security issue.

2.3.1 **Q5 (p.69)**

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

Remove residential and community solar PV and solar HW from the Planning process altogether.

Lower the threshold for proposed wind generation to be considered by the Infrastructure Planning Commission (IPC), from 50 MW to 10 MW, or allow wind developments to be considered by the IPC if they are in "clusters" or have already been delayed by more than 16 weeks by local planning.

Consider removing aesthetics – i.e. impact on landscape character and visual amenity - as grounds for objection against wind farms unless they are situated inside a nationally designated scenic area.

Planning guidance could be strengthened with a presumption in favour of renewable energy projects and made more specific, to ensure better consistency in local decision making.

Comprehensive training and support could be provided for local councillors and planning officers to better assess renewable energy projects.

The number of government planning inspectors could be increased to ensure planning appeals can be held promptly.

2.3.2 **Q6 (p.71)**

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

Scrap any bidding process involving competition (e.g. the LCBP) for community projects, as competitive bidding by definition means that there is a risk of spending time and money putting together an unsuccessful bid. Instead, introduce feed-in tariffs for residential and community renewable generation projects.

Public information campaigns (along the lines of those proposed in this consultation for EfW), portraying community renewables as a desirable addition to the neighbourhood.

The Government could provide a public advisory service, responsible for maintaining and publicising authoritative information on all aspects of energy sources, efficiency and conservation measures.

To bring tangible financial benefits as an incentive to nearby communities, the Government could enable renewable energy developers to easily provide a fund or voucher scheme for local residents and businesses to receive discounted fuel bills, on a sliding scale according to proximity. Also it would bring a sense of "ownership" if local residents could easily become shareholders in nearby projects.

The Planning Authority role of local councils has often resulted in a negative attitude towards local renewable energy deployment. Councils could be given a more positive role though an ambitious programme of Local Authority investment in publicly-owned renewable energy projects, with an initial focus on onshore wind projects as the most financially rewarding.

2.3.3 **Q7 (p.77)**

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?

Aviation: fund university research into the development of "stealth" materials for turbine blades, and radar protocols which are less likely to confuse moving blades with planes.

Fund radar "screens" for airports, through Regional Development Agencies, who fund airports at present.

2.3.4 **Q8 (p.87)**

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?

In addition to the proposals in the consultation document, the Government could consider removing grid infrastructure projects from the planning process altogether. The recent case of the Beauly-Denny line, which would have helped the marine renewable industry enormously, has shown what a catastrophic effect they can have on development.

Renewable generators should be given priority access to the grid

Ideally we believe the distribution mains for electricity and gas should be brought into a fully accountable public sector.

2.3.5 **Q9 (p.89)**

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

At present there is a shortage of the type of barge used for offshore wind turbine construction. The government should consider commissioning this type of equipment, for lease by industry players.

The short supply of wind turbines and spiralling global demand suggests some direct intervention is needed by the Government to create a strong UK manufacturing base to meet our onshore and offshore turbine needs.

Skills are an important part of the supply chain. The government has already recognised this in the nuclear industry with the promise of an “academy” for skills: however the money would be better spent instead in skills development for the renewables industry, including training for technicians and installers, and “mid-career” training for those in other areas of the energy industry.

2.3.6 **Q10 (p.96)**

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

The RO is too complex for smaller installations, for which an alternative should be found. The NFFO fund should be ring-fenced, instead of moving the money to the Treasury's consolidated fund. The NFFO fund, along with money presently alocated to the LCBP, can then go towards boosting feed-in tariffs (already offered, at a low level, by some electricity retailers) for residential and community renewable electricity generation.

2.3.7 **Q11 (p.97)**

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

The RO does not offer a guaranteed price for renewable energy, leaving renewable generators to face the risk of reduced payments. Raising the buy-back price in line with a higher inflation index, such as the price of energy itself, may help.

However we believe that the best policy would be to phase out the RO and introduce a feed-in tariff, being careful not to stall investment and deployment in the process.

2.3.8 **Q12 (p.100)**

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?

“Smart” systems are now available which enable the external control, via mains frequency, of the less time-critical electrical appliances such as fridges, freezers and water-heaters. These could be offered to homeowners and businesses in return for a reduction in their electricity bills.

Dynamic pricing of electricity tariffs could be enabled by introducing a system of electronic communication through the electricity grid to supply pricing data to “intelligent meters”

Electric heating of district heating water would be another way of buffering surplus supply. Large scale flow batteries could be developed. The charging of battery-powered cars, bicycles and other vehicles could help smooth electricity demand.

Better financial incentives should be offered for building grid infrastructure which would enable the “smoothing-out” of the inherent variability of renewables. Feed-in-tarrifs could offer a higher rate at times of peak demand, as an incentive for renewable electricity generators that can viably adjust their output on demand.

The allocation of all “baseload” to nuclear generators, as is done at present, leaves all the variability (with its associated technical difficulties and reduction of income) to be handled by other generators including renewables. The incorporation of variable sources into the grid would in fact be easier in the absence of the nuclear baseload.

2.4 Chapter 4 Heat

2.4.1 **Q13 (p. 110)**

Assuming financial support measures are in place, what more could the Government do to realise the full potential of renewable combined heat and power?

Existing power stations lose heat energy equivalent to almost all the heat energy generated by gas in the UK. Improvements in insulation technology are gradually enabling longer “heat mains” to be considered, however electricity generators have at present no financial incentive to install heat mains. These incentives need to be provided.

The lack of incentives or other mechanisms for installing heat mains is also detracting from the potential for new CHP plants to be built. It may be possible to legislate for developers to include heat mains in all, or certain types of, new projects, even if heat sources are not yet specified.

The criteria for “GQCHP” may need relaxing for renewable installations of over 25 MW capacity, and the programme as a whole could be simplified, with boundaries of energy use better, and more widely, defined.

2.4.2 **Q14 (p.113)**

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

There is not enough emphasis on the potential for reducing demand by insulation. There is no mention of the need for increased aforestation if wood for heat is to be more widely used. Municipal waste is not, strictly speaking, renewable as its presence relies on people continuing to throw away non-recyclable rubbish. However we agree with the opinion of electrical heating (4.3.17).

2.4.3 **Q15 (p.123)**

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?

We agree that the LCBP is inadequate to the task of encouraging take-up of renewable heat. However the fact that it has not worked well should not be used as an argument against capital grants in general. Grants would be appropriate for residential solar thermal, or for rural wood-fuel systems.

2.4.4 **Q16 (p.125)**

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

We agree that it has the potential to work better than a Renewable Heat Obligation. We would like clarification about how the RHI would operate for small residential units, whether it would be offered retrospectively, and whether it would exclude the possibility of capital grants. We propose a mechanism such as the REA's Renewable Energy Tariff, http://www.r-e-a.net/policy/rea-policy/REA-policy-development/renewable-energy-tariff/.
There needs to be a mechanism to prevent too much heat from being generated: excess cannot usually be sold to a "grid" (but see Q13).

2.4.5 **Q17 (p.133)**

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?

Awareness raising: feature articles in trade and professional press for the farming, equestrian, and other predominantly rural professions. Visible installations on government buildings.
Air quality: no action needed except in the cases of the burning of MSW, in which case more un-announced air quality checks are needed.
Building regulations: SAP should be tightened so as to exclude the possibility of a "pass" by simply installing an efficient gas boiler. Legislate for homes to have chimneys, space for hot water storage and, where combi-boilers are installed, to make sure they are of the type compatible with a store of hot water. Rural areas often have inferior and even unreliable grid connections: take-up of renewable heat in these areas will need either grid improvements or the development of non-mains-dependent renewable heat (e.g. more varieties of SHW with non-mains-dependent pumps).
Planning: the only type of installations that should be a Planning issue are those involving the combustion of waste.

Renewable heat often suffers from a "chicken and egg" situation, needing Government intervention to initiate both supply and demand in many local areas.

Local Authorities are in the best position to plan and facilitate heat distribution networks

2.4.6 **Q18 (p.134)**

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

We agree that focusing on off-grid areas is a good initial strategy (except for the case of CHP which needs higher population density). Take-up by these areas may enable the prices of installations to come down along a "learning curve". For biomass in particular, areas off the gas grid are more likely to be near to sources of fuel. In cases where they are not, aforestation should be encouraged, for example by the use of local grants.

We refer also to the comment about the electricity grid connections in rural areas in Q17.

2.5 Chapter 5 Distributed Energy

We take issue with the definition of "Distributed Energy" used in this chapter. We and most players in the industry would refer to the subject matter here as "Microgeneration" or "On-site renewables", while the term "Distributed Generation" includes in addition any other generation, up to and including many onshore wind farms, which is fed into the Distribution Network (for example at 132 kV) as opposed to the National Grid "Backbone" network (i.e. at 400 kV).

2.5.1 **Q.19 (p.151)**

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

The upper limit for microgeneration awards of 50 kW should be flexible for the very site-dependent renewable energy types, such as small hydro.
Many of these support mechanisms are not working as well in practice as the analysis would imply. We have heard that 70% of the man-hours spent on renewables by Ofgem personnel deal with microgeneration, which accounts for just 0.15% of renewable generation capacity. This is a symptom of the system being too complex.

2.5.2 **Q20 (p151)**

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

We are in favour of the type of arrangement described by the Renewable Energy Association for feed-in tariffs (FITs) for all types of micro-energy generation (heat, electricity and biogas).

We believe, as stated elsewhere, that the RO should be replaced by a feed-in tariff, including for microgeneration.

2.5.3 **Q21 (p.153)**

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

First, planning departments need help dealing with applications for what is often unfamiliar technology. The idea of a centralised "helpline" and list of approved consultants (and of planning department colleagues who already know about each technology) seems appropriate. Comprehensive training and support should be provided.

Second, microgeneration is still relatively expensive but prices are beginning to come down along a "learning curve", in the same way that prices of computers and other new technology have done. Public information campaigns should therefore be focused initially on the able-to-pay, with publicity material emphasising the prestige or high-tech aspects of microgeneration, rather than the present "doing your bit" or worse still "saving you money" type of publicity, which appeals to those who lack the money to invest. Let the able-to pay buy in while prices are high, then as prices come down, and the technologies become better-known, the idea will "diffuse" naturally to others for whom present prices are prohibitive.

2.5.4 **Q22 (p.154)**

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

We agree, but only because the extent of micro-renewables in the UK seems not to be fully known.

2.5.5 **Q23 (p.156)**

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

Abandon the LCBP, use the money saved to beef up feed-in tariffs.
Develop a safe means of installing mains-integrated renewables which are not dependent on the mains supply. This will increase the market for microgeneration to those people who are looking for "energy independence".
Make sure the "permitted development" status of micro-renewables means the user is spared the "planning" and "building regulations" process altogether.

2.6 Chapter 6 Transport

2.6.1 **Q24 (p.179)**

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

Reducing the total energy consumption of the transport sector can be achieved by reducing the need to travel, by encouraging a shift to more efficient modes of transport, and by enforcing speed limits and introducing a 55mph national speed limit to dramatically improve

fuel efficiency of vehicles on trunk roads and motorways. Personal Carbon Trading will also assist in reducing fuel consumption.

There is now widespread and justified cynicism about the use of biofuels for cars. Unless grown out at sea, biofuels will displace either “virgin” land such as forest, or land where food is presently grown. Biofuels obtained from crop waste will deplete the soil, reducing future productivity. These issues were discussed in the Gallagher Review.

The EU are now including electric vehicles in their definition of “low carbon transport”. We recognise that battery-powered electric vehicles can be used to help manage demand on the electricity grid, thus helping with the integration of renewable electricity. The extent to which electric transport is genuinely “low carbon” will depend on the carbon intensity of the electricity supply, which brings us back to the urgent need to generate a much larger proportion of our electricity from renewables.

2.6.2 **Q25 (p.179)**

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?

We advocate a transport policy which brings about a large modal shift towards train, tram, trolleybus and bus transport, so it will be important to consider opportunities for the expanded rail and bus network to use renewable electricity.

Total electricity demand will rise, but this need not mean corresponding increases in generating capacity, as vehicles will mainly be charged at night.

“Smart” chargers (offered for residential use, with some financial incentive) could enable further grid smoothing, by adjusting charge rate following grid frequency or other signals.

2.6.3 **Q26 (p.179)**

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?

Over similar timescales to that of offshore wind, for which electric vehicles would be a complementary technology.

Enable the retro-fitting of electric motors in the present vehicle fleet where possible. Demonstrate the viability of electric cars by adopting them for the entire government fleet.

2.7 Chapter 7 Bioenergy

2.7.1 **Q27 (p.190)**

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

Phase out combustion of Waste (except where fuel consists of more than 90% wood waste): public distaste for incinerators (even when they are referred to as “EfW”) is damaging the acceptability of genuine bioenergy projects.

We agree with the use of AD for food waste. We think a nationally-agreed “Hierarchy” for the use of biomass (as there is presently for waste) should be developed. Digestion of biomass may be preferable to combustion as the waste product is more valuable for agriculture.

In general, make sure that genuine biowaste, and other waste such as plastics, solvents etc are kept separate. This should eventually include the use of separate boilers for co-firing: with combined boilers, the ash cannot be put back on the land, thus slowly depleting nutrients from the soil.

It would be counterproductive to the aim of reducing GHG emissions if biomass crops displaced food crops, but in the case of livestock farming and associated feed crops, diversification to biomass crops should be encouraged.

2.7.2 **Q28 (p.190)**

How do you see the market for biomass developing to 2020? What are the implications for:
a. imports;
b. longer-term prices and costs?

The sustainability of biomass imports is less easily verified than for home-grown biomass. Afforestation or Short-Rotation Coppice (SRC) should be sponsored to ensure future supplies.

2.7.3 **Q29 (p.196)**

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?

Supermarkets above a certain turnover should have to publicise the amount of food they waste at each site. The public reaction, given the likely continuation of the rise in food prices, should ensure reduction of this waste.

2.7.4 **Q30 (p.197)**

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?

Carry out more inspections to ensure WID compliance.

At present, fossil-fuel-fired boilers need permitting in order to change over to biomass or biofuel: this process should be shortened and simplified, enabling quicker changes where appropriate.

2.7.5 **Q31 (p.198)**

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

Supply chain efficiency may be improved by offering incentives to plant more trees or SRC on otherwise uncultivated land.
Ceasing to define Energy from Municipal Solid Waste as bioenergy, renewable or sustainable would improve consumer confidence in genuine bioenergy.
Intervention is needed to initiate both supply and demand in many local areas.

2.7.6 **Q32 (p.202)**

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?

Public perception of AD is unjustifiably poor, leading to a long time in planning for proposed developments.

2.7.7 **Q33 (p.203)**

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?

It is likely that the public will resent the use of public money to attempt to make the combustion of MSW acceptable, particularly after publicity encouraging recycling has been so prominent and so successful. As recycling increases the amount of material available for combustion plant will fall.

The public may confuse biomass with biofuels, against which there have been high-profile environmental campaigns. Biomass communications should take care to distinguish between liquid biofuels for transport and biomass for heat and power.

2.7.8 **Q34 (p.203)**

Are there issues constraining biomass supply and use other than sustainability, supply chain and information issues? How should these be tackled?

It is likely that the amount of combustible waste will continue to be decreased by EU legislation, which will lead to all packaging being of types that can be recycled or composted. With the exception of scrap wood waste, all recyclable waste returns more energy if it is recycled than if it is burned.

2.8 Chapter 8 Innovation

2.8.1 **Q35 (p.212)**

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?

The "banding" of the RO seems to be aimed at addressing this. For microgeneration, increases in the feed-in tariffs already available from electricity firms should be substituted for the RO, as it is less complex for customers to deal with.

2.8.2 **Q36 (p.217)**

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

Marine renewables seem not to be receiving sufficient support for their commercial development. For example Pelamis, (http://www.pelamiswave.com/content.php?id=149) though developed in the UK, was first deployed of the coast of Portugal.

Research and development of energy storage technology (electrical, chemical, thermal and other), which is a crucial "partner" for renewables, is not receiving enough funding.

Research into making the construction of heat mains easier, needs more support.

2.8.3 **Q37 (p.217)**

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

The skills shortages are not being addressed. Neither is the issue of the complexity of the system as a whole. Each new "initiative" only adds to this complexity, which effectively acts as a heavy tax on the time of innovators and developers, who should be able to devote more of their time to innovating and developing.

It should be possible to persuade the "big 6" energy firms to contribute to an innovation/R&D fund, with an arrangement similar to that which operates in the highly successful pharmaceutical industry.

2.9 Chapter 9 Business Benefits

2.9.1 **Q38 (p.224)**

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?

Grants should be offered for training to address the skills shortage. This should not be restricted to academic disciplines and research as at present, but rather should focus on practical training for specifiers, technicians and installers.

Ideally grant-funded conversion courses should be available to make career change for those in other branches of engineering an attractive option. This will bring a new skilled workforce to the renewable energy market as rapidly as possible.

A scheme of grant-funded apprenticeships should then be set up, to enable the next generation of the energy workforce to receive training.

A rapidly expanding UK manufacturing industry for wind turbines and other renewables is needed to ensure maximum employment benefits for the UK and overcome supply chain constraints.

2.10 Chapter 10 Wider impacts

2.10.1 **Q.39 (p.238)**

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?

These all seem fair assessments of the likely impacts, except that the positive impact on the economy is understated, particularly when compared to the alternative scenario of trying to carry on with fossil fuels, which as well as causing expensive pollution, will also become more expensive, in real terms, to buy. The latter would have a catastrophic effect on the UK balance of payments.

In the current economic climate we advocate a “Green Keynesian” approach to public expenditure, with massive public investment in green enterprises to keep people economically active and at the same time address the climate crisis, and also re-regulation of the domestic and international financial systems.

2.11 Chapter 11 Delivering the Target

2.11.1 **Q40 (p.251)**

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

We believe that aiming for 15% renewables lacks ambition, when other countries with poorer renewables resources than the UK are delivering greater targets such as Sweden with 49%. The government could use more realistic present and future prices of fossil fuels (oil and gas

in particular) in its costing estimates: the costs of the alternatives to renewables are more expensive than the government appears at present to believe.

We believe that Carbon Markets will not deliver the promised benefits, for the following reason. With the present emphasis on large-scale projects, and the inevitable consolidation of the energy industry into just a few major players, any individual renewable energy development is likely to be on a large scale and, at least initially, coming into a market which is as yet a small part of the energy market overall. It will therefore have a noticeable effect on the Carbon market: it will reduce the price of Carbon. This then detracts from the incentive for any large player to be the first to make a move. Some way of overcoming this particular obstacle needs to be found.

2.11.2 **Q41 (p.251)**

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

We feel that after two energy white papers and numerous new mechanisms being introduced into the market, further drastic change, even if it would be beneficial, might not initially be popular in the relevant industries. However, many representatives of those industries are already calling for a change from the present Quota system (ROCs) to a feed-in tariff.

It would appear that in this case the Government is more shy of reform than the relevant industry players are. We believe that this is an inappropriate attitude to an industry faced with such major problems and opportunities.

A Green Party government would implement a renewable energy strategy that involved public enterprise as well as private enterprise in manufacturing, constructing and running renewable energy schemes and infrastructure. We advocate a “Green Keynesian” approach to public expenditure at this time, with massive public investment in green enterprises to keep people economically active and at the same time address the climate crisis.

3.0 CONCLUSIONS

It is noticeable that at this stage (effectively the third white paper in 5 years) no drastic changes are being considered. Businesses require some degree of continuity in the environment in which they operate, or the decisions they take will not be the best ones for the future. However we feel that some of the opportunities the government has had to “lead” business into sustainable energy, faster than its short-termism would otherwise let it move, have been lost.

For that reason we have included options involving more fundamental changes, such as abandoning the RO altogether in favour of Feed-In Tariffs.

We feel that one issue that the consultation has failed to address is the overall complexity of the system, some of which is unnecessary and is proving a burden to participants, particularly the smaller and newer players. Complexity is effectively a tax on the time of all participants in the system, which falls disproportionately on the smaller players. This will have the effect of stifling innovation and possibly competition, to the detriment of the energy situation in the UK.

We appreciate the need for the issue of energy use in the UK to be addressed as a matter of urgency. First there is the ethical argument that, because we are the country who started the transition towards a Carbon-based energy economy, responsibility falls disproportionately on us to start the transition beyond Carbon. Second, the recent transition from net exporter to net importer of both oil and natural gas requires action in that it will otherwise have a catastrophic effect on our balance of payments, as well as raising the possibility of genuine failure to meet our energy needs.