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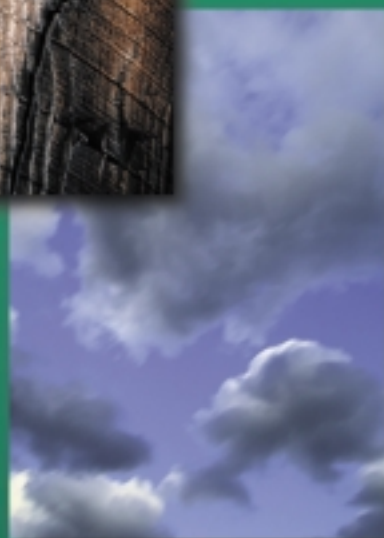
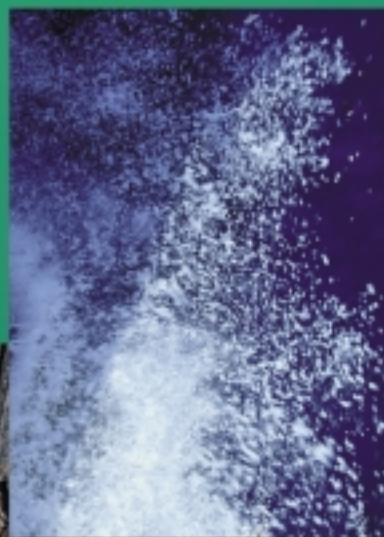
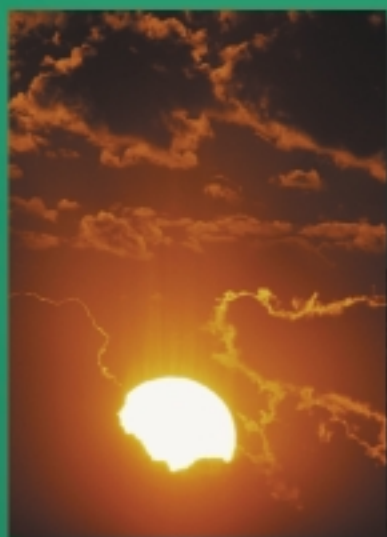
NEW & RENEWABLE ENERGY

Prospects for the 21st Century

The Renewables Obligation Preliminary Consultation

Analysis of the Responses to the Consultation Paper

March 2001



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Department of Trade and Industry

EXECUTIVE SUMMARY

Just over 200 responses to the Government's Consultation Document on New & Renewable Energy – The Renewables Obligation Preliminary Consultation – were received and analysed. The main findings can be summarised as follows:

- Respondents expressed positive views about the consultation.
- The Obligation should apply to all licensed electricity suppliers.
- A wide range of technologies should be included in the Obligation, including energy from waste, wave power, tidal power, photovoltaics, wind power and biomass. The exclusion of large-scale hydro power received majority support.
- Energy from waste should be included in the Renewables Obligation to ensure that its development remains a commercial option, its more efficient and/or environmentally beneficial technologies become viable, and targets are met.
- Opinion was divided on the inclusion of NFFO projects in the Obligation.
- The proposed profile for the Obligation is not acceptable in its present form, although opinion is divided as to whether it should be increased or reduced during the early years. There is considerable support for profile development beyond 2010.
- There is support for the use of ROCs as a means of demonstrating compliance.
- There is support for banking and borrowing, provided the banking percentage is reduced.
- There are reservations about the buy-out mechanism, and opinion is divided on whether the buy-out price level is too low, too high or about right.
- There is majority approval from those responding on this issue for recycling buy-out payments to compliant suppliers.
- Organisations representing electricity consumers are divided in their response to the cost of the Obligation and its likely impact on consumers. However, when all responses are considered, the cost to consumers is expected to be lower than suggested in the Consultation Document.
- Opinion on banding is divided, particularly in the electricity and renewables sectors, and there is no clear consensus on this issue.
- Support for the capital grants scheme is tempered by concern at the low levels of funding provided.
- Specific concerns exist on several issues:
 - The likely administration level and cost of operating the Obligation.
 - The likely lack of appropriately priced, long-term contracts between suppliers and generators.
 - Grid limitations.
 - The apparent lack of encouragement for embedded generation.
 - The likely impact of NETA.
 - The proposed start date.
 - Levels of risk.

- Green Tariffs should be retained, provided the associated electricity does not count towards the supplier's Obligation.
- On-site generation should be included in the Obligation.
- There is approval for the introduction of regional planning targets, but concern that planning remains a major barrier to development.
- Although there is support for trade, particularly trade in ROCs with Europe, there is widespread concern within the renewables sector about the possibly adverse impact of imports on renewable energy development in the UK.

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INTRODUCTION

BACKGROUND

- 1 The Government's Consultation Document on New & Renewable Energy: The Renewables Obligation Preliminary Consultation was published in October 2000. It was widely distributed to companies, organisations and interested private individuals throughout the UK.
- 2 Views were invited on the document and on the issues raised. Just over 200 responses were received and analysed. This report summarises the findings of that analysis.

REPORT STRUCTURE

- 3 This report comprises three main sections. Section 2 focuses on the main components of the Renewables Obligation mechanism, as proposed in Section 2 of the Consultation Document. It covers supplier obligation, eligible renewables, the profile of the Obligation to 2010, demonstrating compliance, banking and borrowing, buy-out payments, cost to the consumer, recycling buy-out payment receipts, the case for a banded obligation and capital grants.
- 4 Section 3 examines respondents' views on a wide range of other issues relating to the Renewables Obligation. These include administrative issues, generator/supplier contracts, green tariffs, grid issues and embedded generation, the New Electricity Trading Arrangements (NETA), on-site generation, planning, proposed start date for the Renewables Obligation, risks associated with the Obligation, Scottish issues, system losses and trade in ROCs and electricity with mainland Europe.

THE RESPONDENTS

- 5 Respondents were categorised broadly into a number of different groupings (Fig 1).
- 6 The electricity sector included major generators, integrated supplier generators, electricity suppliers, relevant trade associations and a small number of bodies representing consumers.
- 7 The renewables sector included developers, consultants, trade associations and others. Respondents were subdivided, where appropriate, into individual technology groupings.
- 8 Those environmental groups that responded to the Consultation were mainly national bodies of note such as Greenpeace, The National Trust, the Ramblers' Association and The Royal Society for the Protection of Birds (RSPB), although some local groups were also represented.
- 9 The finance sector included several banks plus various project finance companies.
- 10 The group categorised as 'Other' was made up of respondents from a range of organisations, including water companies, green certificate trading companies, heat and power providers, and the main regulator for the Obligation, OFGEM.
- 11 A full list of respondents is given in the Annex.

GENERAL COMMENTS

12 Half of all respondents commented in one or more of the following ways:

- They were pleased to be asked to respond to the Consultation Document.
- They supported the proposals.
- They supported the proposals with certain qualifications.
- They welcomed the Government’s commitment to renewable energy and welcomed the Consultation Document.

13 There was only one specifically adverse comment.

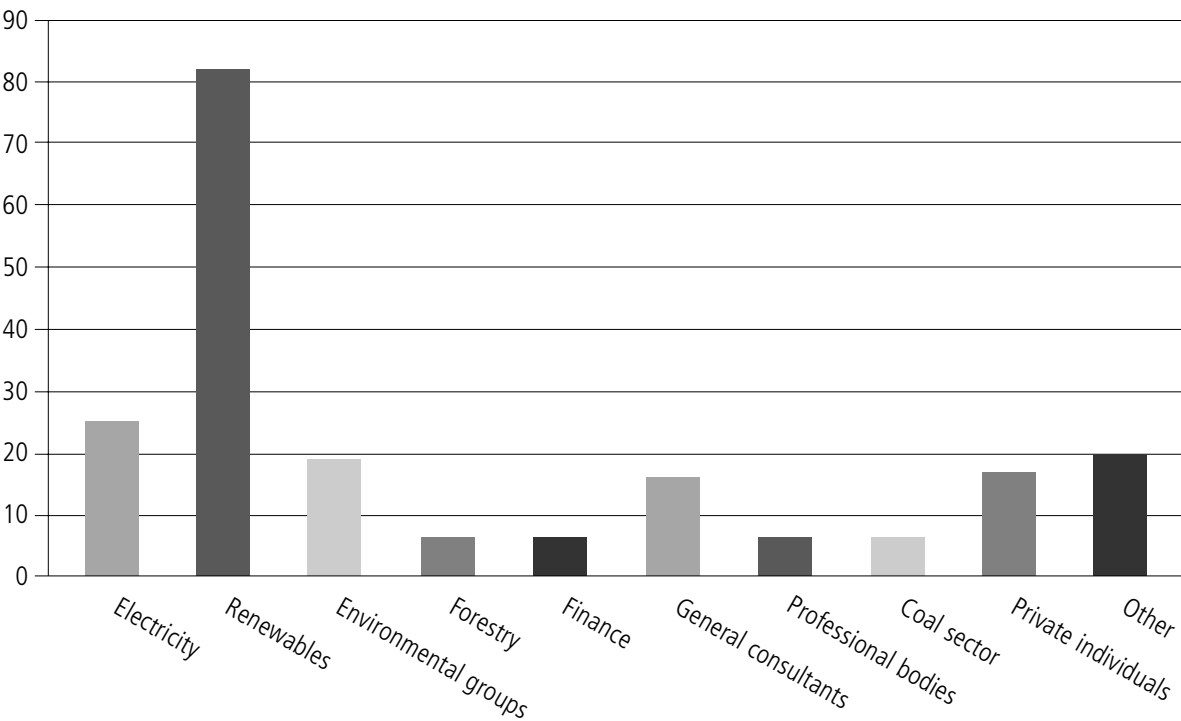


Fig 1: Number of respondents in each category

THE MAIN ISSUES OF THE RENEWABLES OBLIGATION

SUPPLIERS AFFECTED BY THE OBLIGATION

- 14 More than 80% of those responding on this issue, at least half of them from the electricity sector¹, believed that the Renewables Obligation should apply to all licensed electricity suppliers.
- 15 The remainder were concerned about the impact on new suppliers and those trading very small volumes of electricity. There was also concern that, for suppliers producing electricity from good quality CHP, the costs of the Obligation would more than outweigh the benefits achieved by exemption from the Climate Change Levy.

ELIGIBLE RENEWABLES – OVERVIEW AND RENEWABLE TECHNOLOGIES EXCLUDING ENERGY FROM WASTE

- 16 Approximately half of all respondents commented on the renewable technologies (excluding energy from waste) that should be included in the Obligation. Contributions from most respondent categories were significant, and a very wide range of views was expressed, both on the general principles on which the Government should base its choice of technologies, and on the individual technologies that should be included.

¹See Introduction and Annex

- 17 Three general principles attracted particular support:
- The Government should define clearly, at the start of the Obligation, the renewable technologies that are to be included, and keep them under review.
 - The technologies selected should be consistent both across the UK and with EU definitions.
 - All renewables should be included to provide the necessary range and encourage the development of fledgling technologies.
- 18 The majority view on hydro power was that the Government is right to exclude large-scale hydro power from the Renewables Obligation. Other technologies that gained substantial support for inclusion in the Obligation were:
- Wind power.
 - Tidal power (both barrages and tidal stream).
 - Wave power.
 - Photovoltaics (particularly building-integrated systems).
 - Biomass projects that make use not just of energy crops but of the full range of agricultural, forestry and organic wastes.
- 19 It was also suggested that the Government should not ignore the contribution that nuclear power could make to UK carbon emissions reduction.

ELIGIBLE RENEWABLES – THE ENERGY FROM WASTE DEBATE

20 More than 60% of respondents commented on the energy from waste issue. They represented nearly every respondent category, and their responses reflected a high level of support (more than 70%) for the inclusion of energy from waste in the Renewables Obligation. There was particular support from those involved commercially with energy from waste, waste management, landfill gas and biomass, but significant support also came from other respondent groups.

21 Those who supported the Government's proposal to exclude energy from waste accounted for fewer than 20% of those commenting on the issue. Most of these were either private individuals or representatives of environmental groups.

22 Support for the inclusion of energy from waste is prompted by specific concerns:

- Technology viability is not proven at current electricity prices, which have fallen in recent years and are expected to fall by a further 10% between now and 2010. This could force the closure of some existing plants and severely curtail the construction of new ones. Small-scale plants, which have an important potential role in Government waste strategies, are in particular need of support. Some support, possibly at levels below the 3p/kWh buy-out price proposed for the Renewables Obligation, is perceived to be appropriate.

- The total exclusion of energy from waste from the Obligation will severely curtail development of the more efficient and/or environmentally beneficial, but not yet commercially viable, technologies that could make a useful contribution to targets. Such technologies include pyrolysis, gasification and anaerobic digestion. Pyrolysis and gasification are potentially capable of handling a range of difficult wastes such as tyres and sewage sludge as well as municipal solid wastes (MSW). Anaerobic digestion can handle the organic component of MSW, producing both a biogas and a soil conditioner. All are appropriate for operation at the local level.

- Excluding energy from waste from the Renewables Obligation makes it unlikely that targets, particularly that for non-eligible technologies, will be met. Not only will the number of new plants be limited, but suppliers will have little incentive to buy electricity from existing plants as the purchases will not help them to meet their requirements under the Obligation.

- Exclusion will hinder UK compliance with both the EU Landfill Directive and the Government's Waste Strategy 2000.

- Financiers are likely to be less willing to invest in energy from waste plants and this may have implications for the development of other renewable technologies.

23 Several respondents showed their awareness of the issues surrounding energy from waste by suggesting its inclusion in the Obligation only under specific conditions, for instance those that encourage recycling and minimise emissions.

24 Opinion was divided on the inclusion or exclusion of landfill gas and sewage treatment technologies.

ELIGIBLE RENEWABLES – THE INCLUSION OR EXCLUSION OF NFFO PROJECTS

- 25 There was relatively little comment on the fate of the NFFO projects under the Renewables Obligation. Furthermore, opinion was divided over the inclusion of both NFFO 1 and 2 initiatives, contracts for which have now ended, and NFFO 3, 4 and 5. There was some concern that the Obligation would have an adverse effect on the development of NFFO 3, 4 and 5 projects.

PROFILE OF THE OBLIGATION TO 2010

- 26 Just over one third of all respondents commented on the proposed profile, with substantial contributions from the electricity sector, renewables organisations and environmental groups.
- 27 Overall, less than 20% of those responding on this issue supported the profile proposed. The remainder were divided between those, including a number of electricity sector respondents, who perceived it to be too heavily weighted towards the early years; those who believed that the targets, given planning and other problems, were unlikely to be met; those who supported a higher profile during the early years to encourage development (a major view amongst renewables organisations); and those whose main concern was profile development beyond 2010.
- 28 Opinion about altering the profile during the period up to 2010 varied. A few respondents opted for stability and no change. Rather more believed that the Obligation should be increased if necessary.

- 29 There is a small body of opinion that NFFO contract portability may have an important role to play, with projects that have not yet been initiated being permitted to move to sites where planning permission is more likely to be granted.

DEMONSTRATION OF COMPLIANCE

- 30 About 25% of respondents considered the demonstration of compliance issue, most of them from the electricity and renewables sectors. About one-third of these respondents gave outright support to the proposals. The remainder offered qualifications or identified areas where further clarification or amendment was perceived to be required:
- The mechanism for demonstrating compliance and for trade in Renewables Obligation Certificates (ROCs) should be simple, transparent and flexible. It should operate consistently throughout Great Britain.
 - Generators should be free to trade with any supplier and use brokers, if appropriate.
 - There was some concern that the ROC unit (10 MWh) might be too large for small generators. Variations suggested ranged from certification by the kWh to the adoption of an aggregation method to encourage the development of small-scale projects.
 - There was some support for establishing links between ROC trading and carbon trading under the new Emissions Trading Scheme.
 - Issues requiring clarification include the precise rules under which the mechanism operates and ROCs are created and traded; settlement rules; the treatment of system losses; and the period over which ROCs remain valid.

BANKING AND BORROWING

- 31 Around 25% of respondents commented on the issues of banking and borrowing, most of them representatives of the renewables and electricity sectors. A wide range of views was expressed, with the majority in favour of some degree of banking and borrowing.
- 32 The main argument for banking and borrowing was the flexibility they provide, particularly in relation to intermittent renewables. While high or unlimited banking levels were proposed, the majority view was that the proposed level of 50% is too high and is likely to encourage some degree of market manipulation. Values nearer 10% were the most widely suggested. Opinion on the level of borrowing was divided, with some agreeing with the 5% proposed and others indicating that a figure of 10% or slightly more was more appropriate. There was also a view that borrowing should be limited during the early years of the Obligation.
- 33 The arguments against banking and borrowing suggest that they are likely to undermine the market. Banking could encourage market manipulation by the larger players. Borrowing allows companies to avoid the penalties for non-compliance and could restrict the amount of capital going into the ROC system. It also complicates the market unnecessarily.

BUY-OUT PAYMENTS

- 34 Almost 50% of respondents commented on the buy-out mechanism and the level of the buy-out price. There was particular interest from the electricity and renewables sectors and from environmental groups.

- 35 Where respondents commented on the existence of a buy-out mechanism, the majority had reservations or were actively against it for a wide range of specific reasons. Of individual respondent groups, the electricity sector was divided in its opinions; two environmental groups had reservations; while six private individuals and two general consultants declared against it.
- 36 There were three main areas of comment on the buy-out price:
- About one-third of those responding on this issue believed that the buy-out price of 3p/kWh was set at about the right level – or was a reasonable compromise – for the development of a range of renewable energy technologies.
 - A slightly smaller proportion believed that the price was too low to encourage either technology diversity or the emerging technologies. Prices recommended ranged from 1p/kWh for energy from waste (excluded from the Obligation in the Government's proposals) to more than 7p/kWh.
 - Less than 10% believed that the buy-out price was too high and suggested alternative prices of 2p/kWh and 2.5p/kWh.
- 37 The perceptions of different groups to the buy-out price varied. The majority view of the electricity and renewables sectors was that the price was set at about the right level. Amongst environmental groups, however, opinion was largely in favour of a higher buy-out price.
- 38 Most of those commenting on possible changes to the buy-out price during the period of the Renewables Obligation believed that the price should be increased if necessary.
- 39 The balance of opinion was in favour of linking the buy-out price to the Retail Price Index.

COST TO THE CONSUMER

- 40 More than 25% of respondents commented on costs to the consumer and on the balance between those costs and the environmental benefit. The specific views of those representing electricity consumers were divided. There was a significant representation that, despite a medium-term increase in electricity prices, the Obligation was still in the longer-term interests of consumers. Some business and industry representatives, on the other hand, gave a more cautious response, and there was particular concern for energy-intensive industries where, it was feared, the costs would be much higher than predicted.
- 41 Overall, the costs presented in the Consultation Document were perceived to represent good value, particularly when considered in the context of falling electricity prices, the potential expense of **not** dealing with climate change, and other issues that have not been costed or evaluated. Several respondents commented that the balance between cost and environmental benefit was correct or reasonable.
- 42 Apart from a few who believed that costs had been underestimated, the majority view was that actual costs were likely to be lower than predicted. The main reason for this is that suppliers are likely to offer generators a discounted price for ROCs in return for long-term contracts. This will reduce the cost of the Obligation and limit the impact on consumers.
- 43 The larger industrial customers are believed to be the most vulnerable to any increase in costs. Suggestions for minimising the impact include reducing the percentage obligation on electricity supplied to these customers, capping the cost to the industrial consumer and ensuring that the cost of the Obligation is met by domestic rather than industrial consumers.

- 44 While there are concerns about imposing additional costs on any consumer, it is recognised that there are – or should be – alternative ways of dealing with fuel poverty. Some respondents recommended that cost to the consumer should not determine policy.

- 45 Introduction of the Renewables Obligation is also likely to enhance supplier vulnerability in an already highly competitive market.

RECYCLING BUY-OUT PAYMENT RECEIPTS

- 46 Almost one third of all respondents commented on the recycling of buy-out payment receipts. Nearly 60% of them were in favour of the Government's proposals to recycle buy-out payments to compliant suppliers, although a number identified provisos. Reasons for support focused mainly on the incentive that this scheme gave to suppliers to source new capacity, initiate long-term power purchase agreements and reduce their costs. The scheme was also perceived to help offset any political risk by improving returns during the early years of the Obligation.
- 47 The majority view amongst those who were against the recycling mechanism proposed was that buy-out payments should be returned, either fully or in part, to the renewables sector to fund further renewables generation. Others elected to restrict the conditions under which suppliers could benefit, and a few suggested that repayments should be recycled to electricity customers.

THE CASE FOR A BANDED OBLIGATION

- 48 Around 25% of respondents commented on the issue of banding. Almost 40% of these respondents supported the Government's no banding approach, including ten representatives of the renewables sector. However, it was recognised that this approach could delay the input from technologies with the potential to make a major contribution to the target, for instance biomass and offshore wind.
- 49 Most other respondents on this issue were largely in favour of banding as a means of ensuring that development takes place and targets are met. Banding was also believed to encourage the targeting of newer technologies, eliminate the need for grants and ensure a shift away from the perceived current focus on the lowest-cost renewables selling at the highest possible price.
- 50 There was also a small group of respondents who believed that, by excluding some technologies and providing capital grants for others, the Government was introducing banding by default.
- 51 Banding is clearly a complex issue, with views varying from one respondent group to another. Electricity suppliers were divided – three for and three against banding. The renewables sector was also divided overall (nine in favour and ten against). Furthermore, responses from the renewables sector suggested a division of opinion that tended towards the technology-specific. For example, more biomass organisations were in favour of banding than against it, while the reverse was true of organisations representing the wind sector. The opinions of environmental and other groups were predominantly in favour of banding. Overall, there is no clear consensus on this issue.

CAPITAL GRANTS

- 52 More than 50% of those responding to the Consultation Document commented on the proposed capital grants scheme. While there was support for the concept of grants, the overall perception was that the grants were too small to provide the necessary level of development to encourage commercialisation and ensure that targets are met. There was particular concern that the grants would not provide adequate support for biomass projects because of the fuel costs involved. Agricultural energy certificates or vouchers were a popular suggestion for remedying this situation.
- 53 As well as proposing a review of grant funding levels, there was considerable support for extending the grants programme to a much wider range of technologies and projects, including R&D projects.
- 54 There were relatively few arguments against the use of capital grants. Those that did arise expressed concern mainly about possible market distortion.
- 55 Annex C of the Consultation Document elicited numerous specific concerns:
- The allocation of grants on a least cost/MW basis.
 - Maximum funding levels and ceilings – with support for EU funding levels.
 - The length of time to commissioning – should be increased.
 - Eligibility criteria that are too restrictive and prescriptive for practical implementation.
 - Disclosing full details of failed bids.

- The repayment of grants before financing loans in the event of project failure.
- The timetable for receipt of grants.
- The potential delays associated with the grant scheme timetable.
- The time and costs involved in obtaining consents prior to bidding.

OTHER IMPORTANT ISSUES RAISED

ADMINISTRATION ISSUES

- 56 More than 75% of those commenting on administration and cost issues were from the electricity and renewables sectors. Despite the wide range of views expressed, certain conclusions can be drawn:
- There is concern about the very tight time schedule for consultation and implementation.
 - The Obligation will increase the administrative and cost burden on OFGEM, suppliers and generators.
 - There is support for giving OFGEM the task of issuing and validating ROCs and regulating the ROC market, and several recommendations for reducing the workload have been made. These include using appropriate private bodies to accredit generators, allowing generators to issue ROCs (subject to independent verification) and limiting the amount of recording that needs to be done during each ROC's life.
 - Possible conflicts of interest for OFGEM have been identified, notably when disputes arise and when the regulatory role conflicts with any potential role supporting the market.
 - Many issues remain to be clarified, both for OFGEM and for the rest of the industry. One of these is how OFGEM's costs, which are likely to rise significantly, are to be recovered.

GENERATOR/SUPPLIER CONTRACTS

- 57 Long-term contracts are essential for the development of renewable energy projects and for securing favourable terms for project finance. However, suppliers are currently reported to be offering generators prices that are significantly below the ROC buy-out price level for contracts of this type and, in some instances, are prepared to offer contracts for no more than five years, again at discounted prices.
- 58 Lack of long-term contracts, plus lower prices, makes finance more difficult to come by and limits project development. It also tends to restrict development to the large, vertically integrated utilities with group balance sheets, leaving few opportunities for smaller, independent developers.
- 59 There is therefore a view that the Renewables Obligation should provide a stronger framework for contracts between suppliers and generators.

GREEN TARIFFS

- 60 The view on Green Tariffs is that they should be permitted only if they are underpinned by renewable generating capacity that does **not** count towards the Renewables Obligation. It is unacceptable for consumers paying a Green Tariff to subsidise a supplier's Obligation compliance costs, and the Regulator should ensure that no double counting takes place. However, Green Tariffs should continue to be encouraged so that consumers can exercise personal choice.

GRID ISSUES AND EMBEDDED GENERATION

- 61 The renewable energy sector potentially faces a number of Grid-related problems. The development of offshore technologies is likely to be hindered because the adjacent land-based grid systems have limited capacity. This will reduce the likelihood of targets being met.
- 62 Connections from areas such as North-west Scotland, where the potential for renewable energy is considerable, to the main areas of consumer demand further south are limited. Considerable investment will also be needed elsewhere to provide the necessary stimulus to renewable energy growth.
- 63 Apart from a desk review in Scotland, no new measures or financial provisions have, to date, been put in place in Great Britain. Once improvement does get under way, it will be important to distribute the costs of the work throughout the country and not expect them to be borne by often small populations in renewables-rich areas.
- 64 Concerns have been expressed that there is little encouragement for embedded generation. Many suppliers avoid increasing their portfolio of small-scale embedded generation, and the costs of network access are constraining development. Changes are needed to provide the appropriate incentives.

NEW ELECTRICITY TRADING ARRANGEMENTS (NETA)

- 65 There remains considerable uncertainty and/or concern over the likely impact of NETA on small generators, particularly where generation is intermittent. This is creating a more difficult financing situation and limiting the options for developers. There are also fears that suppliers will give intermittent renewable energy a low priority and regard buy-out as the more attractive option.
- 66 Steps should be taken, including the setting up of an aggregation system, to ensure that the development of wind power and similar renewable energy technologies is not inhibited by penalties under NETA. These penalties are perceived to be out of proportion to the impact of intermittent renewables on an integrated electricity network. There are fears that, combined with discounts on long-term bankable projects, they could drive renewable energy generation prices down to the point at which generation is no longer sustainable.

ON-SITE GENERATION

- 67 Although only 11% of respondents commented on this issue, all but one were fully in favour of including renewables on-site generation in the Renewables Obligation. On-site generation offers the same environmental benefits as other renewable energy developments; it displaces energy produced conventionally; it reduces distribution losses; and, potentially, it has a more limited visual impact than large-scale schemes, improving the chances of obtaining planning consent.

- 68 It is clear that proper arrangements must be made for registration and metering if such developments are to receive ROCs and gain exemption from the Climate Change Levy. There are also some concerns about the possible administration costs incurred.
- 69 There is also a view that off-grid generation and/or generation and supply exempt from licensing should be supported by the Obligation.

PLANNING

- 70 Nearly 25% of those responding to the Consultation Document addressed the issue of planning, and more than 90% of them were in favour of change in some form. The remainder opposed 'favoured status' for renewable energy projects or believed that the planning system should not be undermined by having changes imposed on it.
- 71 It was widely recognised that planning is a major barrier to the development of renewable energy projects onshore. There are numerous wind and energy from waste projects that have failed to obtain planning permission, whether within or outside NFFO, and the Government is urged to address the issue as a matter of urgency.
- 72 There was a welcome for the Government's stated intention to introduce regional targets. There is also a need to develop clear and consistent guidance to regional and local planning departments, with the revision of Planning Policy Guidance notes and the provision of explicit guidance. Other suggestions in support of these changes included establishing partnerships between developers and planners, more locational flexibility for projects, a public information programme and a new national Expert Energy Resource Centre. Support was urged for the development of small-scale renewables, less windy sites and renewables on brownfield sites.

PROPOSED START DATE FOR THE RENEWABLES OBLIGATION

- 73 The view of those commenting on the proposed start date for the Obligation was that it should be put back to April 2002. This would align the introduction of the Obligation with the normal contracting year for the electricity supply companies. It would give more time for details to be finalised and the necessary systems to be put in place, and it would reduce the pressure on the industry, given the numerous other changes being introduced in 2001. It might also be appropriate for generators to begin to 'earn' and bank ROCs from October 2001.

RISKS ASSOCIATED WITH THE OBLIGATION

- 74 Numerous perceived risks have been identified. The two most important, in terms of respondent support, are the political risk that future Governments may not be bound by the Obligation, and the high level of risk incurred by independent generators which, combined with shorter contract periods, means lower permitted debt levels and less bankable projects. Other perceived risks include risks to suppliers, particularly small suppliers and supply only groups; the risk to developing technologies of the emphasis on competition and long-term value for money; and the risk of discouraging small developers, community renewable energy schemes, and on-site and private network initiatives.

SCOTTISH ISSUES

- 75 Three Scottish issues were explored. There was a clear call for consistency between the Renewables Obligation in England and Wales and the Obligation in Scotland. This consistency should cover applicability, eligible renewables, market trading conditions and cost to the consumer.
- 76 There is support for an upgraded Grid to stimulate renewable energy growth and overcome the lack of land-based Grid connections between North-West Scotland and the main areas of demand in the south. This will include addressing current difficulties accessing the Scottish interconnector. The ongoing desk review of the Grid and the proposed detailed technical study are perceived to be fundamental: the findings are expected to stimulate positive action.
- 77 There is concern about the possible impact of renewable energy development on consumers, particularly in the north, where large numbers of new projects are expected. Generators need to pay the full costs of connection so that other users and customers are not liable for additional transmission and distribution charges.

SYSTEM LOSSES

- 78 Only one significant conclusion could be drawn from the very small number of responses commenting on system losses. ROCs should be based on the metered volume recorded on the generator's export meter, factored up to the Grid Supply Point (GSP) using the generator's line loss factor.

TRADE IN ROCs AND ELECTRICITY WITH MAINLAND EUROPE

- 79 Around 12% of respondents commented on the issue of trade in ROCs and electricity with mainland Europe, all but three of them representing the electricity and renewables sectors. Although respondents did not always make a clear distinction between imports of electricity and trade in ROCs, most comments related to the latter.
- 80 Overall, about 60% of those commenting on this issue were in favour of trade with Europe, either absolutely or under appropriate conditions. The electricity sector was more in favour of trade – under appropriate conditions – than against. While there was a call for European free trade in Green Certificates, allowing projects to be developed wherever the cost is least, most respondents wished to ensure compatibility, transparency and reciprocity between UK and European markets. This will involve clarifying the rules for trade and addressing any unfair competition. A proportion of respondents commented that ROCs should be tradable without the electricity.
- 81 Although there was only one comment directly against trade in ROCs, there was a clear perception, particularly within the renewables sector, that ROC and renewable electricity imports could seriously damage the renewable energy sector in the UK. Respondents were aware of the variety and capacity of European renewable energy sources, and were concerned that imports could discourage suppliers from establishing contracts in the UK, adversely affecting the installation of new capacity, achievement of targets and the liquidity of the UK ROC market.
- 82 Possible solutions were suggested, including limiting imports to a small percentage of total renewables supply and taking measures to ensure that any imported electricity is from eligible sources.

ANNEX

LIST OF RESPONDENTS TO THE CONSULTATION

Electricity Sector (25)

Major Generators/Equipment Manufacturers (8)

Response No.

31	British Energy
65	InterGen UK Ltd
71	Alstom
77	Edison Mission Energy
114	AES Electric Ltd
155	BNFL
159	Enron Europe
177	Barry Operations Ltd

Integrated Supplier Generators (5)

Response No.

43	Scottish Power
45	Innogy plc
90	Powergen UK
134	Scottish and Southern Energy plc
192	TXU Europe

Electricity Suppliers (6)

Response No.

53	Non-Fossil Purchasing Agency Ltd
67	Centrica
109	SEEBOARD plc
148	Yorkshire Electricity
156	Northern Electric + Gas
169	London Electricity

Electricity Trade Associations (2)

Response No.

29	Electricity Association
133	AEP

Electricity Consumer Representatives (4)

Response No.

10	National Electricity Consumers Council
116	Corus
164	Institute of Directors
167	CBI

Renewable Energy Sector (82)

General (18)

Response No.

17	Element Engineering
46	Halcrow Gilbert
47	Shell Renewables
51	Confederation of Renewable Energy Associations (CREA)
69	ABS Consulting
72	ENER-G plc
85	Econnect
86	Green Power Producers
97	Green Power Generation plc
101	Energy 21
102	Hyder Industrial Ltd
111	The Northern Energy Initiative Renew North
121	Greenergy
126	Arup Energy
139	Energy Conversion and Solar Centre (ecsc)
143	Hookes Scientific Ltd
179	Scottish Renewables Forum
194	Dulas Ltd

Wind (17)

Response No.

- 14 North Energy Associates Ltd and Gazelle Wind Turbines
- 18 Anglesey Wind & Energy Limited
- 19 Windpower & Co (UK) Ltd
- 33 West Coast Energy Ltd
- 38 M&N Wind Power
- 40 AMEC Border Wind
- 41 Aerpac UK Ltd
- 50 British Wind Energy Association (BWEA)
- 66 National Wind Power Ltd
- 80 POWERGEN Renewables Holdings Ltd
- 99 Meir M Silberman (Vestas rep)
- 123 Renewable Energy Systems Ltd (RES)
- 140 SLP Engineering Ltd
- 141 NexGen
- 162 Eirtricity
- 168 Windjen Power Limited
- 171 Unit[e] – unit energy limited

Energy from Waste and Waste Management Companies (24)

Energy from Waste (16)

Response No.

- 5 KTI Energy Ltd
- 7 Martin Engineering Systems Ltd
- 13 Natural Power
- 30 Local Waste Solutions
- 37 Greenfinch Ltd
- 39 Global Energy Europe
- 57 Energy Power Resources Ltd
- 78 Carbon Processing Ltd
- 95 Compact Power
- 105 Besh Energy Ltd
- 108 Energy from Waste Association
- 118 London Waste Ltd
- 124 SITA
- 127 Brightstar Environmental
- 138 EnviroEnergy Ltd (CONFIDENTIAL)
- 160 Cory Environmental

Waste Management Companies (8)

Response No.

- 12 Coventry & Solihull Waste Disposal Company Ltd
- 20 Argent By-products Group Ltd
- 56 Onyx Aurora Ltd
- 125 Davies Bros (Waste) Ltd
- 137 Local Authority Recycling Advisory Committee
- 144 Environmental Services Association
- 201 Institute of Waste Management
- 185 Keith Whittle, Waste Recycling Group

Hydro (5)

Response No.

- 24 TradeLink Solutions
- 26 Kestral Controls Ltd
- 79 British Hydropower Association
- 154 Eliock Hydro Electric Company Ltd
- 200 Newmills Hydro

Landfill gas (3)

Response No.

- 52 HIGHMEAD
- 82 Shanks Group plc
- 158 Summerlease RE-generation

Biofuels (9)

Response No.

- 22 Energy Power Resources Ltd
- 55 Bronzeoak Ltd
- 94 British Biogen
- 103 Biogas Association
- 112 First Renewables Ltd
- 115 Coppice Resources Ltd
- 120 Fibrowatt (CONFIDENTIAL)
- 135 Biomass Power Producers Consortium
- 199 Rupert Burr

Other (6)

Response No.

- 8 Tidal Electric Inc
- 15 Staithe Energy Products
- 48 Severn Tidal Power Group
- 58 British Photovoltaic Association
- 122 ARUP
- 131 Wavegen

Environmental Groups (19)

Response No.

- 6 Greenpeace campaign
- 28 Greenpeace
- 42 Blackwater Valley FoE
- 62 Christian Ecology Link
- 63 Countryside Council for Wales
- 68 RSPB
- 88 Recycling in Ottery
- 96 Energy Saving Trust
- 129 Ramblers' Association
- 142 CLA
- 146 Countryside Alliance
- 161 WWF
- 163 The Environment Trust
- 174 Countryside Agency
- 184 Royal Commission on Environmental Pollution
- 186 Climate Action Network UK
- 188 Environment Agency
- 190 The National Trust
- 197 CPRE

Forestry Group (6)

Response No.

- 61 Forestry Contracting Association Ltd
- 76 Wood Panel Industries Federation
- 106 Woodland Trust
- 151 Forestry Commission
- 166 Institute of Chartered Foresters
- 196 Association of Professional Foresters

Finance Sector (6)

Response No.

- 34 NordDeutsche Landesbank
- 98 Bank of Scotland
- 104 Triodos Bank
- 128 Ernst & Young
- 152 IMPAX Capital
- 182 Morley Fund Management

General Consultants (16)

Response No.

- 1 Adam Carr
- 9 Milieutech Environmental Management Ltd
- 27 Biox Consultants Ltd
- 32 Crestport Services Ltd
- 36 David Milborrow
- 44 Fells Associates
- 49 Environmental and Planning Management
- 59 MAREL
- 70 Edward Stenhouse Ltd
- 74 N Lawrie
- 75 M-co (The Marketplace Company) (CONFIDENTIAL)
- 92 ESIS (CONFIDENTIAL)
- 100 Ambient Associates
- 110 Finlayson Hughes
- 117 Frank Ferguson and Associates
- 189 Catherine Mitchell

Professional Bodies (6)

Response No.

- 60 Institute of Physics
- 81 IMechE
- 83 IChemE
- 119 Institution of Civil Engineers
- 153 Institute of Energy
- 165 Institution of Electrical Engineers

Coal Sector (6)

Response No.

- 25 Association of Coal Mine Methane Operators (ACMMO)
- 84 Alkane Energy plc
- 89 Coalfield Communities Campaign
- 147 Confederation of UK Coal Producers
- 150 Octagon Energy Limited
- 178 Celtic Energy (CONFIDENTIAL)

Private Individuals (17)

Response No.

- 3 Simon Bowden
- 11 Dr Paul Hopewell
- 16 Gilbert Valentine
- 21 Valmae Young
- 35 Phil Crockett
- 73 Dominic Hogg
- 91 Clive Brown
- 107 Mrs J G Lockett
- 136 Brian Jameson
- 145 James Page
- 175 Paul Hope
- 176 Elizabeth Mann
- 180 Keith Collins
- 187 J R Seagrave
- 191 Prof John Twidell
- 195 M Palmer
- 198 Lucy Southgate

Other (18)

Response No.

- 2 Incoteco
- 4 Robin Appel Ltd
- 23 BGP-Reid Crowther
- 54 Highlands and Islands Enterprise
- 64 London Borough of Lewisham
- 87 Cinergy Global Trading Ltd
- 93 Severn Trent plc
- 113 Eclipse Energy Company Ltd
- 130 Dalkia Utilities Services (CONFIDENTIAL)
- 132 Thames Water
- 149 Woking Borough Council
- 157 Slough Heat and Power
- 170 The Green Certificate Company
- 172 The OM Environment Exchange (CONFIDENTIAL)
- 173 Wessex Water
- 181 OFGEM
- 183 Southwark Energy Agency
- 193 NFU
- 202 Conoco Global Power (UK) Ltd
- 203 North Sea Gas Ltd

