

Renewable Energy Association evidence to the EAC enquiry on Pre-Budget 2005

The Renewable Energy Association (REA) was formerly known as the Renewable Power Association. The name change came at the end of 2005, to reflect the Association's growing advocacy of increasing the share of renewable energy in the heat and transport sectors. The REA has over 400 members, active across the entire range of renewable energy resources and technologies.

The REA's evidence comprises four sections, a comparison of fiscal measures across renewable technologies and the discrepancies between them, a discussion on equitable tax treatment for micro generation, some new suggestions and a description of how fiscal policy can be used to reward renewable electricity generation.

Introduction

Broadly speaking the VAT issues relating to renewables have been solved to some extent. From the 1st January 2006, the reduced rate of VAT was extended to boilers fuelled by biomass, thereby bringing all renewables onto a level playing field. Enhanced Capital Allowances, however, are still only available for a limited number of renewable energy technologies. However if the fiscal treatment of householders installing renewable energy equipment is compared to businesses installing such equipment, it is clearly not a level playing field. If it were, then householders would be able to write-off their costs against tax; they would pay no VAT and would have access to other kinds of tax breaks.

Unlike the USA, the UK does not use tax breaks for actually encouraging larger scale renewable project development. Instead we have the Renewables Obligation (RO). This has come under increasing political pressure recently. The REA is producing a paper addressing these criticisms, which we intend to feed into the Energy Review. A brief explanation of the US Tax Production Credit is given, and a paper outlining other tax measures is appended, for information.

1. Differing treatment of renewables across the tax system

VAT

Before the beginning of this year there was a discrepancy in VAT rating for renewable technologies. A 5% reduced rate of VAT applied to the installation of

certain specified energy saving equipment, but not biomass boilers. As of 1 January 2006, this was extended to include the installation of boilers fuelled solely by wood, straw or similar vegetal matter in homes and certain residential and charity buildings. This measure was introduced "to encourage the use of micro generation using sustainable energy sources, promote household energy efficiency and contribute to the Government's commitment to reduce carbon dioxide emissions."¹

Enhanced Capital Allowances

Enhanced Capital Allowances (ECAs) enable a business to claim 100% first-year capital allowances on their spending on qualifying plant and machinery. There are three schemes for ECAs:

- Energy-saving plant and machinery
- Low carbon dioxide emission cars and natural gas and hydrogen refuelling infrastructure
- Water conservation plant and machinery

Businesses can write off the whole of the capital cost of their investment in these technologies against their taxable profits of the period during which they make the investment. This can deliver a helpful cash flow boost and a shortened payback period, and is an important commercial incentive for the greater uptake of low and zero carbon energy saving technologies.

A discrepancy remains with enhanced capital allowances. The table below shows which technologies are on the list, along with the number of approved products.

Approved renewable technology	Number of listed products
Biomass Boilers >300kW	168 products
Biomass boilers >300 and <15,000kW	53 products
Solar thermal	30 products
Heat pumps	There are several categories of heat pumps. The number of listed products varies. One category has over 1,000 products listed.

Other renewable energy equipment does not qualify for ECAs, notably solar photovoltaics (pv) and wind. In 2003, with the encouragement of the Building Research Establishment and Carbon Trust, the (then) RPA and the British Photovoltaic Association (PV-UK) made a joint application proposing that PV be included on the technology list. It was rejected, solely on the grounds that PV already benefited from a dedicated capital grant programme and that there was insufficient evidence that ECAs would encourage greater uptake in the private sector. The capital grant programme issue is no longer relevant as the Government's solar PV Major Demonstration Programme will cease allocating funds in March 2006.

¹ See note 3 of Business Brief 23/05.

There also appears to be a view within the Treasury that electricity generating solar PV and wind are not energy saving technologies. But there is no difference in principle between a PV system reducing a company's dependence on grid-supplied electricity and for example a solar hot water system that reduces a company's reliance on mains gas.

The 2003/4 joint industry PV ECA application satisfied all the specific ECA criteria set by DEFRA/Carbon Trust as managers of the scheme and we propose to submit a further application for both solar PV and small wind later this year.

Not only should all renewable technologies be eligible for enhanced capital allowances, but also the rules should accommodate the leasing of renewable energy equipment. Furthermore the flexibility that is afforded through ECAs, in particular with leasing provides the opportunity to mobilise capital at significantly lower cost than might otherwise be the case. The mechanism provides the opportunity to bring forward greater levels of investment.

With specific regard to transport biofuels, the pre-budget report proposes to introduce, subject to state aids approval, a 100 per cent first year allowance "for biofuels plant that meet certain qualifying criteria which make a good carbon balance inherent in the design" (Section 7.55). This is a welcome development.

However, the Association has some concern that the timescale to implementation lacks the necessary urgency. Although the Pre-Budget Report argues that the measure is intended to work alongside the RTFO, it is the case that the investment needed to meet the targets under this new mechanism means that capital must be committed before the RTFO comes into operation. Businesses are already seeking to invest in a series of projects in the biofuels sector, and it is conceivable that any unnecessary delay in the introduction of ECAs may act to postpone, rather than incentivise these investments, as parties wait for the preferential tax treatment. Expeditious introduction of ECAs would mitigate this risk.

2. Equitable fiscal treatment of householders' investment in micro-renewables

There is a great inequity between the fiscal treatment of renewable energy investments made by householders and those made by business. Householders do not have access to tax or depreciation allowances whereas companies do. Householders will pay VAT (albeit at 5% rather than 17.5%) on the installation of the equipment, whereas business can claim it back.

Householders should be given the same tax treatment, which means that householders would be able to write-off their costs against their tax bill, pay no VAT (or be able to claim it back) and have access to other kinds of tax breaks that larger power companies benefit from.

Generally the capital costs of renewable energy equipment are inversely proportional to the size of the project, and the inequitable tax treatment only exacerbates the differential.

3. New suggestions

Tax breaks for investment in emerging technologies

There are a number of tax benefits for R&D expenditure generally, and for SMEs in particular. There are ways in which these benefits could be extended to bring greater benefit to investments in renewable energy R&D and renewable energy technology development companies.

The UK has a particular strength in device development in the wave and tidal sector, as has been recognised in many Government reports. The UK Government would like to see the UK's relative lead maintained. At the current stage of the development of wave and tidal industry, device development is a non-profit making exercise financed in large part by venture capital. The UK accounts for almost 50% of the world capital expenditure on wave energy, and almost 90% of tidal capex.

Tax relief on the costs of decommissioning offshore wind farms

In offshore oil and gas operations, the costs of decommissioning and removing the installations are allowable for tax purposes as they can be carried back for the three preceding years and set against profits for those years, thereby reducing the tax liability. The Inland Revenue explained that current legislation does not allow such carry-backs for operations other than oil or gas "ring fenced activities". As a result, no tax relief will be available on the costs of decommissioning and removing offshore wind farms, since they will be incurred after the trade has ceased and there will be no trading profits against which the costs can be deducted.²

Tax breaks for charitable donations of renewable energy equipment.

If donors were able to offset charitable donations of renewable energy equipment to schools etc, this would reduce the cost of purchasing that equipment.

Incentivising renewable procurement through the PFI system

"Greening" the PFI is one way in which the Government could make good its commitments to using Government procurement to deliver more sustainable buildings including integrated renewable energy solutions. There is no technical reason for example why the current school and hospital building programme could not be built to meet tougher energy efficiency standards and to include renewable energy equipment.

Government should therefore strive to increase the role of renewables in procurement, not least to demonstrate to the private sector that such solutions are practicable. One simple proposal is that projects that qualify for PFI credits could receive an additional contribution if there was a renewable component. This approach would present a fiscal carrot to accompany any regulatory stick that should be employed to encourage more widespread adoption of renewable energy in PFI contracts.

² OFFSHORE WIND FARMS – THE TAX QUESTION. Summary of report, New Review, ISSUE 41 August 1999. See <http://www.dti.gov.uk/NewReview/nr41/html/offshore-wind.html>

4. Output-based tax incentives

As a means of encouraging renewables deployment in the medium-long term the REA generally prefers output-based support measures rather than capital grants³, as performance rather than investment is incentivised. The tax system is more commonly used to reduce capital costs than to reward production. However a very effective example of the latter is the US production tax credit described in detail below. This approach could be a good alternative model were we not to have a renewables obligation in the UK. Similarly it might be considered as a preferential means to support technologies such as renewable heat, that presently fall outside of the remit of the Renewables Obligation.

The US production tax credit

The US Renewable Electricity Production Credit (REPC) is a per kilowatt-hour tax credit for electricity generated by qualifying energy resources. These are listed below.

The level of the credit, the duration of entitlement and the qualifying resources have been changed since its original introduction in 1992. At the moment the REPC applies to the following resources, and projects built before the end of 2007 will get the credit levels listed below for 10 years⁴.

Technology	cents/kWh
wind	1.9
closed-loop biomass Equivalent to energy crops.	1.9
open-loop biomass Equivalent to biomass other than energy crops	0.9
geothermal energy	1.9
solar energy	1.9
small irrigation power (150 kW - 5 MW) Equivalent to run-of-river hydro	0.9
municipal solid waste	0.9
landfill gas	0.9
hydropower	0.9

All that is required of businesses to participate in this scheme is to fill out a two-page form, which is accompanied by 2 pages of instructions and can be found on the Internal Revenue Service of the US Treasury⁵. A business can take the credit by completing Form 8835, "Renewable Electricity Production Credit," and Form 3800, "General Business Credit."

³ Micro-renewables can be the exception however, where assistance with up-front costs is likely to be more effective. REA believes that providing this assistance through the tax system rather than a capital grant programme is preferable in the long term.

⁴ However, open-loop biomass, solar, geothermal, small irrigation hydro, landfill gas, and municipal solid waste combustion facilities placed into service after 10/22/04 but before 8/8/05 are only eligible for the credit for a five-year period.

⁵ Form 8835, "Renewable Electricity Production Credit" can be found on www.irs.gov/pub/irs-pdf/f8835.pdf