

DTI Consultation Paper on *Our Energy Challenge: Securing Clean, Affordable Energy for the Long Term*

Response by the Royal Institute of British Architects

Introduction

The Royal Institute of British Architects welcomes this opportunity to comment on the DTI's energy consultation document.

The RIBA is one of the most influential architectural institutions in the world, and has been promoting architecture and architects since being awarded its Royal Charter in 1837. The 30,000-strong professional institute is committed to serving the public interest through good design. It also represents 85% of registered architects in the UK through its regional structure as well as a significant number of international members. Our mission statement is simple—to advance architecture by demonstrating benefit to society and promoting excellence in the profession.

We have not answered every one of the questions in the consultation paper, concentrating instead on those where we believe we have a useful contribution to make.

Summary

The Royal Institute of British Architects calls upon the Government to:

- Engage householders and businesses in the development of sustainable energy technology
- Expand the proposed *Code for Sustainable Homes* to cover all building types
- Offer fiscal incentives to householders to conserve energy or invest in renewable generation
- Remove planning obstacles to microgeneration
- Invest more in reducing energy demand and in renewable energy generation
- Further investment to link local microgeneration initiatives
- Ensure security of a range of energy supplies
- Resist investment into nuclear technology at the expense of more sustainable energy sources
- Enable greater research, development demonstration and deployment into the delivery of low-carbon technology
- Provide incentives to improve the energy performance of existing housing stock
- Show leadership in the application of sustainable energy technology through the public sector building programme
- Enable progressive retrospective application of Building Regulations Part L

What more could the Government do on the demand or supply side for energy to ensure that the UK's long-term goal of reducing carbon emissions is met?

Demand side

The RIBA is committed to the efficient use of energy and resources to counter the threat of climate change and to help sustainable living. We firmly believe that successful energy conservation policies need to engage businesses and householders fully in order to reduce energy demand and thereby move towards meeting the UK's targets for reducing carbon dioxide emissions.

As energy is relatively cheap, there is little or no price mechanism in the market to make people or businesses "go green". Energy conservation and microgeneration must be encouraged by regulation or incentives.

Energy efficiency technology is developing rapidly and take-up is growing. But for the majority of people it remains prohibitively expensive. Government must consider what tools exist at its disposal – whether incentives or mandatory standards - in order to encourage greater take-up of available and developing technology. This in turn would create sufficient economies of scale to make such measures more affordable for greater householder take-up.

We have welcomed the Government's proposed Code for Sustainable Homes as a good start towards creating a comprehensive and readily-understood system for measuring the environmental performance of all buildings. We have recommended that the Code be applied across all building types with clear, non-tradeable energy reduction performance indicators.

Regulated design can reduce energy demand through better fabric performance and use of natural energy. It is regretted that the new Part L of the Building Regulations will not apply retrospectively. The Government should consider how this might be phased in over the next few years. We are therefore also pleased by the Government's commitment, in its response to Kate Barker's review of housing supply, to develop a revised process for updating Building Regulations. Energy reduction through the Building Regulations system must be a priority.

If housing densities and public transport are right, energy demands can be reduced significantly through sensible urban form. The skills of architects should therefore be harnessed more effectively by planners and developers in order to achieve such savings.

In our *Manifesto for Architecture* the RIBA submitted a number of proposals aimed at encouraging energy efficiency and demand reduction. Among these were council tax incentives to offer discounts for energy efficiency measures by householders. We were therefore delighted by the recent announcement by Defra and British Gas that such a scheme is to be piloted in a number of local authorities. We would encourage the nationwide expansion of the scheme to cover energy efficiency measures that can be offered by a wide range of suppliers.

The RIBA's *Manifesto for Architecture* also urges the Government to give serious consideration to the following:

- Introducing stamp duty relief on the first sale of sustainable homes in order to stimulate demand for sustainable communities and environmentally friendlier housing.
- Using the development of publicly-owned land to pioneer sustainable design and construction techniques: as a major landowner, Government has a unique opportunity to lead the development of sustainable communities.

Supply side

The Government must ensure security of energy supply through investment in a range of energy sources and technologies. We submit that renewable technology must be a priority for such investment. The current level of investment in research in renewable sources of energy is minimal when compared to the funds invested in other energy technologies over the years.

Take-up of small-scale renewable energy technology relies on sufficient demand by householders. Government intervention – for example through fiscal incentives – will be necessary to kick-start greater take-up of such technology. We welcome the Government's support for measures to encourage microgeneration in the Climate Change and Sustainable Energy Bill. Should the Bill fail to complete its passage as a Private Member's Bill during the current Session of Parliament, we would urge the Government to include the Bill during its own legislative programme for the next Session.

Consideration should be given to requiring a change in the pricing structure of energy supplies so that it encourages both energy saving and generating initiatives by building owners and tenants. Ideally energy should become more expensive as larger quantities are used, in contrast to the present position where it becomes cheaper. Such an approach would also have benefits in the reduction of fuel poverty.

The planning system also presents those householders and businesses who wish to invest in microgeneration with obstacles. We look forward to the ODPM review of those planning obstacles and hope for an outcome which produces a more sympathetic planning system to renewable energy generation.

We were heartened by the focus in the Chancellor's 2006 Budget on developing Britain's place as a world leader in the development of low carbon technologies. The RIBA particularly welcomes the announcement of £50m to encourage the development of micro energy generating technologies. However we question whether the funding for such a project is sufficient to have any significant impact on encouraging micro-generation at grassroots level. We see the 2007 Comprehensive Spending Review as an unmissable opportunity to put further investment in place over the next spending review cycle.

With the UK becoming a net energy importer and with big investment to be made over the next twenty years in generating capacity and networks, what further steps, if any, should the Government take to develop our market framework for delivering reliable energy supplies? In particular, we invite views on the implications of increased dependence on gas imports.

The balance of national energy demand and supply needs to be adjusted to reduce the dependence on imported energy. The initiatives that are outlined in the consultation paper that encourage local microgeneration with low or neutral carbon emission are to be supported and encouraged. For these to be effective as contributing to a national strategy there needs to be further investment in the mechanisms of linking these initiatives and building them into a network of alternative power sources. Such a measure could ensure that the individual effort in thought and endeavour could build into a larger UK-wide network of carbon neutral power.

The Energy White Paper left open the option of new nuclear build. Are there particular considerations that should apply to nuclear as the Government re-examines the issues bearing on new build, including long-term liabilities and waste management? If so, what are these, and how should the Government address them?

By prioritizing energy efficiency and renewable energy technology, the Government will be able to reduce the extent to which it may be reliant on nuclear generation. We would urge the Government to give greater investment priority to the pursuit of reducing energy demand and renewable energy generation.

We repeat our earlier comment that the Government must ensure security of energy supply through investment in a range of energy sources and technologies. Investment into research or development of nuclear energy must not be at the expense of investment into reduced demand or renewable energy.

There is a great deal of political and technological will behind renewable energy generation at present as a consequence of a greater awareness of climate change. The Government has a rare opportunity to seize the opportunities that awareness affords by signaling that its favoured direction for energy generation lies in the renewables sector. By sending out a contrary message that it favoured new civil nuclear power development, the Government could jeopardise the development of more sustainable technology.

Cost, safety, security of uranium supply, the risks posed by terrorism, the carbon emissions effectively exported to the country of uranium production, and the so-far unresolved question of waste management will doubtless be addressed by better-informed respondents to this consultation.

Are there particular considerations that should apply to carbon abatement and other low-carbon technologies?

The RIBA supports the Engineering for Energy Forum in calling for greater Research, Development Demonstration and Deployment (RDD&D) into the delivery of low-carbon technologies.

Carbon capture and storage (CCS) will be a globally important technology – particularly for large markets such as China and India whose energy requirements may be met by their vast coal resources. The UK should exploit this opportunity to invest in CCS technology both for use at home and for export overseas.

Any energy technology must be assessed in terms of lifecycle carbon (and other) emissions and cost in order to show how individual technologies compare in terms of reducing emissions and securing supply.

Housing in the UK consists of a large proportion of stock that has importance in the context of historic building and its contribution to conservation areas. This stock is inherently inefficient in its thermal performance. Whilst the Building Regulations will gradually improve this stock it would be useful to consider balancing this difficult upgrading with the wider benefits of reducing carbon emissions that might be gained by the introduction of low carbon or carbon neutral technologies to the heating of this type of housing stock.

Fiscal measures to include tax breaks and regulation exemptions could accelerate the performance of this element of UK housing stock much faster than will be achieved with the existing regulation-only regime.

What further steps should be taken towards meeting the Government's goals for ensuring that every home is adequately and affordably heated?

Expansion and enforcement of the measures contained in the Government's proposed *Code for Sustainable Homes* would encourage greater thermal performance and take-up of energy efficiency technology. This will not be possible, however, unless the application of the Code goes beyond publicly-funded new housing to all housing stock – including existing homes. This is fundamental, as 80% of today's housing will still be standing in 2050 and older stock tends to be less energy-efficient.

Existing buildings can be made more energy-efficient through repair and renewal. At present, however, VAT on such work in the UK is charged at 17.5%. Annex K of the 6th VAT Directive allows for reduced VAT on repairs and renewal and we would urge the Government to make use of this provision to remove a major disincentive to improving existing buildings' energy efficiency.

Consultation issues: the long term potential of energy efficiency measures in the transport, residential, business and public sectors, and how best to achieve that potential.

The RIBA supports the Engineering for Energy Forum who point out that the potential for energy saving is considerable but dependent on public engagement for its delivery. Like the Forum, we believe that Government should demonstrate leadership by using public sector projects to illustrate best practice.

The renewal of the UK's school buildings stock offers a unique opportunity to invest in demand reduction or renewable energy technology not just as an end in itself but also as a means of educating the rising generation of energy consumers and their parents. The RIBA suggests that every school should be a demonstration project for sustainability and that at least one low- or zero-energy section should be included in all new or refurbished schools.