

First Reactions to the Energy White Paper from the UK's Tyndall Centre

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Introduction

Researchers at the UK's Tyndall Centre for Climate Change Research welcome the principal message behind the new Energy White Paper, namely, that a long term energy strategy is essential if the UK is to remain "on a path to 60% cuts in carbon dioxide emissions by 2050". We welcome the strong emphasis on energy efficiency as a central tenet of the Government's policies for reducing carbon emissions, and it's recognition that such efficiency improvements are not only economically advantageous, but also provide wider social and environmental benefits. Furthermore, we endorse the White Paper's enthusiastic embrace of renewable energy technologies as providing a significant component of the UK's medium to long-term energy mix. As many others have already commented, the lack of detail in the White Paper is of some concern.

Where are the Policies?

As many others have already commented, the lack of detail in the White Paper is of some concern. The absence of a clear target for energy efficiency and the softening of a 'hard target' to an 'aspiration' in relation to renewable energy's 20% contribution to electricity supply by 2020, are clearly disappointing. We would certainly have welcomed the adoption of a target for improvements in energy efficiency of 20% by 2020, as proposed by the Cabinet Office's PIU report. It is our view that such a target would have sent the right signals to

the private sector and financial institutions. It would, if managed properly, have galvanised government at all levels to put in place the appropriate mechanisms for a step-change in energy efficiency and conservation improvements. Even if such a target had been adopted, we would have remained uneasy about the absence of any detailed examination of the impact of economic growth on net carbon emissions. Percentage improvements in efficiency and renewable uptake do not directly lead to a reduction either in energy demand or the actual use of fossil fuels.

Imports & Embedded Carbon

One of the consequences of the de-industrialisation of the UK's economy has been essentially to export the carbon emissions associated with the manufacture of some commodities to other countries. The national statistics on energy consumption, on which much of the Government's analysis in the White Paper is based, do not account for the carbon dioxide produced in the manufacture and transport of imported goods. Arguably, therefore, the UK's carbon accounting process provides an incomplete picture of the nation's carbon emissions.

We Need to act Now

The absence of specific policy measures, as well as detailed quantitative analysis, does not permit a comprehensive evaluation of the likelihood of achieving the UK's carbon dioxide targets. There is a significant risk that the good intentions outlined in the White Paper will not be translated into action that shifts a growing UK economy onto a sustainable energy path within the short to medium term. It would then become difficult to counter calls for a return to the orthodox route of further developing energy supply as the only viable option for achieving the requisite emissions reduction; in particular, a significant expansion of nuclear power and fossil fuel generation with carbon dioxide capture and storage. We cannot, therefore, over emphasize the importance of initiating a substantive suite of policy measures and actions in the very short term, both in terms of energy efficiency and renewable supply.

Put simply, if the Government wants the fine words of the White Paper to be converted into reality, it needs to implement a comprehensive set of regulatory instruments within the coming parliamentary term, that require all sectors to achieve absolute emissions

reductions, rather than simply improving energy efficiency. Such regulations should, in keeping with the ethos of the White Paper, harness the innovative drive of competitive markets to produce products and services that meet a set of stringent maximum emission standards. For example, rather than just encouraging the manufacture and purchase of more energy efficient refrigerators - a standard should be introduced that states the maximum energy consumption per unit of volume that is permissible for an appliance to be sold in the UK. With the private car, the motor industry could be advised of a forthcoming standard stipulating the maximum carbon emissions per kilometre for any new car sold in the UK after, say, 2008. The benefit of such standards is that they offer both a more robust framework for estimating emission trends and, unlike alternative regulations that dictate specific technologies, leave industry free to adopt any technological means at its disposal, provided meets, or improves upon, the emission standards.

Too Open-ended!

The tendency of the White Paper to leave many issues open for further review or consultation does not help to maintain the momentum necessary for short term action. For example, the further reviews intended to evaluate the potential merger of the Energy Savings Trust and Carbon Trust only serve to create additional delay and uncertainty in making a decision on the expansion of the Energy Efficiency Commitment. The White Paper is already the result of a three year consultation process. There is a danger that pursuing more consultation may lead to considerable fatigue and cynicism amongst stakeholders.

Systems Thinking

Whilst the Government extols the virtues of joined-up thinking, there are important facets of decision making that demonstrate its reluctance to both analyse and implement policy on such a basis. This is an issue that does not receive sufficient emphasis within the White Paper. For example, the aviation industry is continuing to expand at approximately 5% p.a., with technical and operational efficiency improvements estimated to remain at little over 1% p.a. Consequently, the Government's acquiescence to the industry's 'predict-and-provide' desires cannot be reconciled with its embrace of the 60% emission reduction target recommended by the Royal Commission on Environmental Pollution (RCEP).

The long-term repercussions of such strategic myopia are difficult to overstate. If the industry continues its current rate of expansion, by 2030 the

carbon emissions from aviation alone will represent approximately 40% of the total carbon emissions from the UK estimated for 2050, assuming the RCEP's reduction target is achieved. Such inconsistency clearly undermines the credibility of the Government's claim to joined-up thinking and potentially raises serious concern over the legitimacy of the statement within the White Paper that "the first challenge we [the Government] face is environmental".

Building Stock

It is encouraging that the White Paper announces a long over-due tightening of the building regulations. Such regulations, however, do not tackle the considerably more demanding problem of initiating substantial improvements in the *existing* building stock. It is also regrettable that the tightening in relation to *new-build* is not complemented by other measure such as an expansion of the Energy Efficiency Commitment and changes in the taxation of capital expenditure on demand side energy-saving investments.

Carbon Trading

The role of Carbon Trading as an efficient mechanism for achieving carbon reductions received significant support within the White Paper. Whilst we are in broad agreement with the White Paper on this issue, the failure to develop the application of such trading beyond the commercial and public sectors is somewhat disappointing. A logical extension of both carbon trading and the contraction and convergence principal, as endorsed by the Royal Commission on Environmental Pollution, is that they be applied to the domestic sector, with individuals having a specific carbon allocation.

Although the concept of Domestic Tradable Carbon Quotas represents a significant departure from conventional emission instruments, it would arguably offer ethical, economic and efficacy benefits over a carbon tax, the Energy Efficiency Commitment, or other voluntary schemes.

Framework for delivery

Given the paucity of detail on the delivery of policy within the White Paper, the development of an effective process and institutional framework for energy governance is vital. It is encouraging to see that a new cross-departmental structure has been proposed. Whether the Sustainable Energy Policy Network, accountable to a new ad hoc Ministerial Group, will have sufficient executive powers to ensure that appropriate coordination takes place cannot be known in advance, but it is an issue that should receive particular attention in formulating both the Network and Ministerial Group.

A specific inclusion, marking a distinct change from previous government energy policy, is the greater focus upon the sub-national scale as a key delivery mechanism reflecting the individual needs and characteristics of Scotland, Ireland, Wales and the English regions. These fledgling semi-autonomous tiers of government offer substantial potential for achieving improvements in energy consumption, energy efficiency and renewable and low-carbon development. The White Paper explicitly states that "regional targets" are to be "negotiated between the region and national Government". The local-to-regional scales are also critical in delivering low-carbon transport. The delegation of powers to more appropriate tiers of administration has the potential to stimulate cross-fertilisation of ideas as well as to provide for a rich test-bed of approaches.

Beyond the Government's 'hopes' and 'wishes'

In conclusion, we strongly endorse the tone, sentiment and general thrust of the Energy White Paper. Moreover, we acknowledge and applaud the Government's ambitious long-term goal for carbon reduction, and its courageous break from the dogmatic pursuit of 'optimal energy supply' routes, so reminiscent of all post-war administrations. We

have considerable reservations in relation to two overarching themes. First, the insufficient detail on what and how policies are going to achieve the commendable 'hopes and wishes' expressed in the White Paper. And second, the absence of a clear set of requirements and mechanisms by which departments across Whitehall will promote and sustain coherent strategies consistent with the admirable ambitions of the White Paper.

Finally, we emphasise that there is a very limited time frame for initiating the transformation of the energy system as envisaged in the White Paper, despite the long-term perspective adopted therein. Only if there is some convincing demonstration of this vision in the next 5 to 10 years will the present wide-ranging political and commercial support for its objectives and basic principles be sustained. It is the responsibility of those who believe the central pillars of a sustainable energy system to be energy efficiency, energy conservation and renewable supply, to re-double both their scrutiny of government policy as it develops, and their contributions to the ongoing energy and environment debate.

Please contact us if you would like to follow up any of the above points.

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