CAMBRIDGE ZERO CARBON SOCIETY - MANIFESTO

Our Goal

For a stable climate, the atmospheric concentrations of greenhouse gases must be stabilized (as agreed by 192 countries at the Rio Earth summit (U.N. 1992)) and global greenhouse gas *emissions* must be reduced to near zero (Matthews and Caldeira 2008). To be *likely* to avoid a rise of global temperatures of more than *two degrees Celsius* above the pre-industrial level (a target endorsed by scientists and governments worldwide (UNFCCC 2009)), the latest scientific evidence (M. Meinshausen et al. 2009; Allen et al. 2009; Hansen et al. 2008) suggests that very rapid emissions cuts are required. We therefore argue for action to be taken *now* to reach a zero carbon economy *as soon as reasonably possible* (approximately a *90% reduction in UK emissions by 2030*). In association with other organizations, we argue for policies to achieve this goal.

Our Role

We *inform* students, researchers and citizens about climate change and we *provide a vision* for a *zero carbon economy*. We host *events*, often involving collaboration between different groups, and *publicise* other relevant events in Cambridge and elsewhere through our fortnightly bulletin and online calendar. We also *develop and disseminate information* globally through our website.

Our People

Multidisciplinary thinkers focussed on solving climate change: We are part of a community of thinkers focussed on providing credible solutions to the problem of climate change and the related areas of energy and economic policy, bringing to bear a variety of insights from different professions and specialisms.

Problem solvers: We have a 'can do' attitude that sees global environmental problems as intellectual and practical challenges to be met and overcome, not reasons for passive blame.

Pragmatic: We recognize the political, financial, and economic dimensions of the problem, providing realistic analysis grounded in rigorous methods.

Our View

Zero Carbon: We advocate a rapid decarbonization of economies worldwide – A shift in thinking from 'how much?' to 'who first?'. In order to unlink population and economic growth from global greenhouse-gas emissions, we need to use almost entirely low- or zero-carbon energy. The speed of decarbonization comes from an assessment of climate science (Schnellnhuber and Cramer 2006; IPCC 2007), from the expected capability of the economy to make such changes if provided with strong incentives, and from the necessity to invest now in real infrastructure, given the economic situation and outlook.

Open-minded: We need a 'plan that adds up' (MacKay 2009), that takes account of the scale of the energy problem, recognizing that the need for low-carbon power will include not just our current electricity system, but also efficient transport, heating and industry. Low-carbon energy sources, energy efficiency, and behaviour change each help to reduce the current dominance of dirty fossil fuels in our energy mix. We support low-carbon electricity generation. To meet future UK energy demand, we advocate the following: *renewable* and *nuclear energy;* rapid research, development, and (if appropriate) deployment of CO_2 *capture and storage;* an *international power grid*.

Globally, we expect the need for low-carbon power to be very large: economic and population growth is projected at least to double overall energy demand by 2050 (IEA 2008). An important goal is to find low-carbon technologies that are available on a large scale and are cheaper than coal. Technological and behavioural changes can have co-benefits, for example in public health (e.g. cycling rather than motorized road-travel; improvement of local air quality by eliminating particulate emissions from coal power stations).

For more information, or to receive our email bulletins, visit http://www.zerocarbonnow.org

Aspects of the Problem

Global markets: The problems facing us are global in scope, and the markets involved are global too. Understanding our problems in context of the economics of global markets is essential to developing solutions that are truly effective.

Importance of risk: We recognize the existence of limited information, uncertainty and risk including the risk of climate change, the risk that new technologies do not live up to their projected future performance or that alternative technologies arise unexpectedly, and the risk that 'ideal-world' policy may not always be achieved.

Aspects of the Solution

Change the way we measure progress: Following Dasgupta (2001) and the Stiglitz/Sen/Fitoussi report (2009) we need to measure *real wealth* and *human well being*, rather than *growth in GDP.*

Accentuate the positive & emphasize co-benefits: We promote the economic benefits of a policy to key actors. Recognising that pollution is an economic problem, we need to consider appropriate policies that may have significant economic benefits in the short and long term. We need to show key actors the benefits of tackling climate change and bring together the interests to make it happen.

Points of real change: We look for the 'choke points' in the system where real change can be effected. We focus on the points of real influence, from a political, economic and technological point of view. We will need large-scale policy changes by government for an effective solution.

Political realism: The primary goal is to ensure the changes we need are implemented – economic efficiency is advantageous but sometimes will be a secondary consideration.

Strategy transfer: We provide a positive, economic and technological, zero-carbon model of development towards which both the industrialized and fast-industrializing countries of the world can converge. While the composition of our energy sources may differ according to the situation, there are policies (e.g. carbon taxes) and technologies (e.g. electric cars) that can be implemented worldwide.

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