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Hans Schreuder

Darsham

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29 September 2009

Dear Mr Schreuder

Climate Change Science

Thank you for your letters dated 1 September to Gordon Brown and Ed Miliband about the science behind climate change. Your letter has been passed to the Department of Energy and Climate Change (DECC) and I have been asked to reply.

The UK fully supports the work of the IPCC in authoritatively assessing all scientific and technical aspects of climate change and welcomed the release of the Fourth Assessment Report (AR4). This report leaves us in no doubt that human activity is the primary driver of the observed changes in climate. It concludes there is a more than 90% chance that most of the observed warming since the mid-20th Century is due to human emissions of greenhouse gases.

The hundreds of IPCC Assessment Report authors and editors act throughout their deliberations as independent experts, from over 100 countries, and do not 'represent' any organisation or government – they write their own reports and provide a strong consensus view of the very latest science.

The arguments that the sun produces more energy than people do, that the greenhouse effect is natural and that increases in CO₂ will benefit plant life are irrelevant to the discussion.

The 11-year solar cycle has been observed to influence climate. Between 1900 and 1960, the upward trend in sunspots and solar irradiance does correlate well to the warming over that period. However, since then there has been little change in solar radiance and solar variability cannot explain the rapid and greater warming observed since about 1970.

The natural greenhouse effect is of benefit in maintaining life on Earth, but the concern is the enhanced greenhouse effect, caused by increasing carbon dioxide trapping more heat in the Earth's atmosphere and causing global temperatures to rise.

The G8 agreement was to limit global carbon emissions to a level which would not cause warming greater than 2 degrees. On 15 July we published the UK Low Carbon Transition Plan. The plan shows how we intend to meet the UK's ambitious climate change targets and carbon budgets, whilst ensuring that energy supplies remain secure, new economic opportunities are maximised, costs are minimised and the most vulnerable are protected. This can be viewed online in the publications section of our website at www.decc.gov.uk.

The G8 agreement does not imply any notions of King Canute nor does it doom our economy. With a 90% chance that we are causing the observed changes in our climate, we are best placed to rectify this. We can reduce our carbon emissions by being more energy efficient, not wasting energy and by living within our environmental means. Sustainable living is possible and desirable, reducing our debt on the Earth's natural resources.

Our Climate Change Act sets out our target to reduce our carbon emissions by 80% by 2050 as compared to 1990 levels. To meet this target, the Climate Change Act Impact Assessment¹ and the Stern Review estimate that the costs to avoid dangerous climate change will be approximately 1% of GDP in 2050. However, the costs of inaction will be equivalent to losing at least 5% of *global* GDP each year, now and forever.

The government does believe that climate change is the greatest environmental threat facing the world today and we need to act to mitigate our impacts, adapt to the changes and create a sustainable future. This does not mean we are ignoring the effects of other pollutants, and these are being addressed through EC Directives and domestic legislation, e.g. EC Integrated Pollution Prevention and Control Directive, which has been in place since 1996, and the Batteries and Accumulators Directive and the Mining Waste Directive which came into force this year.

Yours sincerely,

A P

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Customer Contact Unit



¹ The Climate Change Act Impact Assessment can be found through the following link:
http://www.decc.gov.uk/en/content/cms/legislation/en/content/cms/legislation/cc_act_06/cc_act_06.aspx