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### Climate actions your MP can promote: recommendations from UK scientists

There are many well-researched, constructive responses to the climate crisis.

If your MP isn't clear about what climate policies to pursue, a few ideas from the experts might help to bring some focus.

*Scientists for Global Responsibility* asked a number of climate and energy scientists at UK universities to outline the policies they believe the government should put in place.

Here are the suggestions they came back with.

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"The government should launch and embrace an inspiring vision for a future UK that is more selfsufficient in energy, less reliant on fuel imports from conflict areas of the world and, most importantly, that tackles the real and urgent threat of climate change. A new major infrastructure fund underwritten by government, with major pension fund partner investment, could invest in large-scale home energy saving programmes, a range of renewable energy technologies and energy storage."

## Dr Philip Webber

School of Earth and Environment, University of Leeds Chair, Scientists for Global Responsibility

"To comply with a global 2°C climate target, the UK needs to deliver deep and urgent emission reductions. This would require a 'Marshall-plan' construction programme for a national, low-carbon energy supply; the elimination of virtually all  $CO_2$  from energy during the 2030s; a reduction in total energy demand of over 50% across all sectors, including international transport; and the elimination of energy poverty."

- An edited extract from written evidence to the UK government put together by *Dr Maria Sharmina* on behalf of herself, *Prof Kevin Anderson, Dr Alice Bows-Larkin, Dr John Broderick, Dr Sarah Mander, Dr Carly McLachlan* and *Dr Michael Traut*, all of whom are affiliated with the Tyndall Centre for Climate Change Research at the University of Manchester (but in this instance are offering their independent views).

"A clear signpost for the future direction of UK energy policy is provided by Germany, the strongest state in the EU in terms of its economy and its scientific and technical standing. Germany's decision to phase out nuclear power by 2022 and to invest in energy efficiency, demand-side management and renewable energy technology and infrastructure will prove significant for European energy policy as a whole."

# Dr Paul Dorfman

The Energy Institute, University College, London



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"The government needs to immediately provide certainty about policies and support levels for renewable energy beyond the year 2020. Under current policies, the lack of formal targets and projections risks a slowing in the growth of renewables, with an emphasis on new nuclear and shale gas, possibly with carbon capture and storage."

## David Elliott

Emeritus Professor of Technology Policy, The Open University

"The government should impose an environmental emissions limit on all new electricity generating capacity of 50gCO<sub>2</sub>/kWh. This will permit new renewable electricity generators to be constructed, including biogas from waste, but will exclude new natural gas generators. Evidence from Germany\* shows that these technologies can be implemented swiftly, can reliably meet all-year demand and are reducing the wholesale cost of electricity."

## Keith Barnham

Emeritus Professor of Physics, Imperial College, London

\*The Burning Answer - a user's guide to the solar revolution (Weidenfeld and Nicolson, 2014)

"I suggest a major shift from price and trading polices to more cleverly designed regulations, which would be triggers for, not obstacles to, innovation. We should establish stringent, maximum emission standards for major sources of  $CO_2$  – and send a clear market signal by tightening them, say by 8% p.a., for the coming decade. So new cars, for example, would have to have emissions below  $100gCO_2/km$  beginning next year (300 models of car already achieve this)."

### **Kevin Anderson**

Professor of Energy and Climate Change, University of Manchester Deputy Director of the Tyndall Centre for Climate Change Research

"The science is clear that even achieving the ambitious UK Climate Change Act targets will not be enough to avoid significant climate change impacts. Therefore transformational infrastructure changes are needed to adapt to future climate change. Such changes will send a clear message about the seriousness of climate change and the need to radically reduce carbon emissions."

# Dr Christopher Shaw

Environmental Change Institute, University of Oxford

"We should stop subsidising fossil fuels and so remove one of the biggest impediments to renewables. (It doesn't need 50 words, does it?)"

### Jenny Nelson

Professor of Physics, Imperial College, London