

The Rt Hon Boris Johnson MP
Prime Minister
10 Downing Street
London, SW1A 2AA

8 December 2020

Dear Prime Minister,

The Royal Society welcomes the Government's recent announcement of a 68% cut in carbon emissions by 2030 over 1990 levels and the recent publication of your ten-point plan for a green industrial revolution. They demonstrate the UK's leadership and ambition ahead of the Climate Ambition Summit 2020 on Dec. 12th, as well as the G7 and CoP26, which the UK will host next year.

Science has succeeded in delivering a vaccine for SARS-Cov-2 an order of magnitude faster than vaccines have been developed in the past. Science can also be harnessed to accelerate the pace of decarbonisation. Reducing carbon emissions and adapting to climate change will require research, development and deployment of low carbon technologies and nature-based solutions, while conserving biodiversity. Science can help to identify which technologies and natural solutions are ready for deployment, which require further development, and which require research. Of course, science is also the driver of research and development into low carbon solutions. To deliver carbon reduction and adaptation, it will be important for the UK to establish an evidence based, living and investible technology roadmap to net zero. This needs to sit outside short political cycles and draw on independent expertise from scientists, engineers, economists and others, across academia and industry for technology assessment (similar to the NICE process in medicine). Adequate funding that is long-term and locked-in will be critical to leveraging the scale of private sector investment that will be required for success.

The Royal Society has just published a report highlighting that digital technologies, from smart meters to supercomputers, weather modelling and AI, could deliver nearly one third of the carbon emission reductions required by 2030. Capitalising on this will require a cross-Government approach. We would be happy to brief you and colleagues on our recent report.

The Royal Society has a range of low carbon technology, nature based solutions and biodiversity reports, including many of the areas outlined in your ten-point plan. We're also currently undertaking work on terawatt scale energy storage, essential to ensuring a reliable and continuous supply of electricity as more intermittent sources of electricity, wind and solar, are deployed. Again, we'd be delighted to brief you and colleagues on the report.



President Sir Adrian Smith
Executive Director Dr Julie Maxton CBE

Founded in 1660, the Royal Society is the independent scientific academy of the UK, dedicated to promoting excellence in science.

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The scale of the challenge ahead is immense, and the urgency of the problem means that we must act swiftly and decisively. You have set a course for the UK to provide global leadership and build back better at home with a green recovery. The Royal Society is ready to support you, through the provision of the world leading expertise that can help turn that vision into a reality.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Adrian Smith', written over a faint grey rectangular background.

Sir Adrian Smith
President of the Royal Society

I am copying this letter to:

The Rt Hon Alok Sharma MP, Secretary of State for Business Energy & Industrial Strategy;
The Rt Hon Dominic Raab MP, First Secretary of State and Secretary of State for Foreign,
Commonwealth and Development Affairs;
The Rt Hon Rishi Sunak MP, Chancellor of the Exchequer;
The Rt Hon Oliver Dowden CBE MP, Secretary of State for Digital, Culture, Media and Sport;
The Rt Hon George Eustice MP, Secretary of State for Environment, Food and Rural Affairs;
Sir Patrick Vallance, Government Chief Scientific Adviser and Head of Government Science and
Engineering Profession;
Simon Case, Cabinet Secretary and Head of the Civil Service