


## Climate Change

### Summary

The Royal Society of Chemistry (RSC) calls on Governments to show strong leadership to achieve the goals of the Paris Agreement through domestic frameworks that make the most of their scientific and industrial capability. The RSC is committed to supporting the chemical sciences community in their efforts to understand and address climate change. We have adopted a goal of net zero greenhouse gas emissions from our organisation by 2040 and are taking urgent action as part of a commitment to play our full part in this transformation.





understand the consequences of different choices and establish coordinated policy and incentives to move towards a sustainable circular economy.

#### **4. Ensure the chemistry curriculum lays the foundations for future citizens to fully participate in efforts to tackle climate change.**

Everybody is entitled to an excellent chemistry education, whether they go on to pursue a career in the chemical sciences or take their place in society as scientifically literate citizens. Climate change impacts, and the actions to avoid them, will occur substantially in the lifetime of children at school today. The chemistry curriculum should therefore equip learners with the core ideas in chemistry needed to understand climate change, and the scientific and technological developments that impact society. The knowledge and skills gained through chemistry education should support progression into green jobs and further study in the chemical sciences.

### **RSC Policy and Perspectives Focus**

The chemical sciences contribute to understanding and tackling climate change in a great many ways, revealing the flow of carbon and nitrogen through different geological, atmospheric and biological pools, elucidating the interactions of greenhouse gases and aerosols, and providing fundamental insights essential to developing new low impact technologies. It is in this latter activity that the RSC will establish a programme of thought leadership catalysing progress on energy storage and sustainable materials.

With economies-of-scale being realised by widespread deployment, renewable power is now globally competitive with thermal generation. However, the problems of intermittency and the limited ability to despatch renewable power to meet instantaneous demand remain. Energy storage is therefore a vital component of a net zero society, and we must seek affordable substitutes for stockpiles of fossil fuels. This will likely come in many forms to serve the differing needs of industry, heating and cooling in buildings, or mobility on land, water and in the air. We will showcase the fundamental chemical science research that is developing diverse storage solutions from improving the longevity of existing battery formulations, using computational methods to discover new electroactive compounds for redox flow