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Professor Peter Cook, CBE, FTSE, is a distinguished earth scientist with an outstanding international reputation and many publications on greenhouse gas, energy and resource issues to his credit, including as a Coordinating Lead Author of the *IPCC Special Volume of Carbon Dioxide Capture and Storage*. He was the Director of the British Geological Survey from 1990 to 1998 and until 2011 the CEO of CO2CRC, one of the world's leading collaborative research bodies focused on greenhouse gas technologies. He is currently a consultant on energy and greenhouse issues, Senior Advisor to CO2CRC and Professorial Fellow at the University of Melbourne.

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Clean Energy, Climate and Carbon

Peter J Cook

Clean Energy, Climate and Carbon

Peter J. Cook, Cooperative Research Centre for Greenhouse Gas Technologies, Canberra, Australia

With the general reader in mind, *Clean Energy, Climate and Carbon* outlines the global challenge of decreasing greenhouse gas emissions. It covers the changing concentration of atmospheric carbon dioxide through time and its causes, before considering the promise and the limitations of a wide range of energy technologies for decreasing carbon dioxide emissions.

Despite the need to decrease carbon dioxide, the global use of fossil fuels is increasing and is likely to continue to do so for some decades to come. With this in mind, the book looks at the range of clean energy technologies and considers in detail, what for many people is the unfamiliar clean energy technology of carbon capture and storage (CCS). How can we capture carbon dioxide from flue gases? How do we transport it? How do we store it in suitable rocks? What are suitable rocks and where do we find them? How do we know the carbon dioxide will remain trapped once it is injected underground? What does CCS cost and how do those costs compare with other technology options?

The book also explores the political environment in which the discussion on clean energy technology options is occurring. What will a price on carbon do for technology uptake and what are the prospects of cutting our emissions by 2020 and of making even deeper cuts by 2050? What will the technology mix look like by that time?

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