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Quantifying resilience at the macro levelResilience: implications for energy markets and technologies; Reliability in the network industries; Hypothetical system shocks; Mitigating the shocks; Adding up the costs of resilience; Policy implications; 7 Accelerating the Development of Energy Supply Technologies: The Role of Research and Innovation; Introduction; Technological innovation and energy system change; The accelerated technology development scenarios; Scenarios, system modelling and the real world; Accelerated development scenarios and UK decarbonization pathways
Implications and challengesSummary and conclusions; 8 A Change of Scale? Prospects for Distributed Energy Resources; Introduction; Challenges in the residential sector; Technology characteristics, performance and suitability; The human dimension: installers and householders; Policy challenges for distributed energy resources; Conclusions; 9 The Way We Live From Now On: Lifestyle and Energy Consumption; Introduction; Quantifying lifestyle; Lifestyle change at home; Lifestyle change in mobility and transport; Lifestyle change for a low carbon world; Public policy implications; Conclusions
10 Not Just Climate Change: Other Social and Environmental Perspectives

Sommario/riassunto

The United Kingdom is committed to reducing its greenhouse gas emissions by at least 80% by 2050, a target that will only be achieved by transforming the way that energy is supplied and used. At the same time there are anxieties about the security of energy provision in terms of European dependency on natural gas and the reliability of electricity supply. This book explores in detail those factors which could help or hinder the attainment of the UK's climate change targets, and how these factors interact with the parallel objective of maintaining a robust and secure energy system. The book is