

Call for Papers

Understanding risks and uncertainties in energy and climate policy: Multidisciplinary methods and tools towards a low carbon society

An Open Access Book in Springer

In 2011, the EU published a roadmap for moving to a low-carbon economy in 2050 as one of the long-term policy plans put forward under the Resource Efficient Europe flagship initiative intended to place the EU on a pathway of using resources sustainably. The Roadmap suggests that by 2050, the EU should cut its emissions to 80% below 1990 levels through domestic reductions alone, while it assumes that non-EU countries adopt ambitious GHG mitigation policies so that the global temperature rise does not exceed 2°C. In 2015, the targets to hold the increase of global average temperature well below 2°C above pre-industrial levels as well as to aim for a maximum temperature increase of 1.5°C were set in the Paris agreement.

Quantitative tools, such as models exploring the future climate evolution and its impacts, as well as the costs and benefits associated with different mitigation pathways face a high degree of uncertainty. At the same time, critical issues such as public acceptance (or lack thereof) of low-carbon (technology) options are difficult to quantify. On the other hand, qualitative methods can enhance uncertainty analysis and robust decision making process, through the quantification of risks and interrelations of climate change mitigation pathways as well as political opinion and public acceptability.

Consequently, integrating quantitative and qualitative analysis, i.e. combining economic computer models with input from stakeholders, can lead to the development of a decision support tool which incorporates risk and uncertainty into analysis of the costs and benefits of transition pathways and resulting policy design, thus increasing robustness.

In this context, this book aims to present **methodologies and tools** that help devise energy and climate policies that incorporate the key ingredients of robustness. In particular, it will reflect **multi-stakeholder engagement**, since **collective intelligence** helps overcome **quantitative models' limitations**, flexibility to **evolve over time** as new insights are gained, and identification of **ways to trigger policy adjustment**. The book is based on the acknowledgment that there is no single optimal pathway towards a low carbon society. The methodologies applied comprise a **blend of qualitative and quantitative**, model-based approaches to scenario development, policy design and evaluation. We, therefore, seek high-quality papers that will contribute to the analysis of the consolidated use of quantitative tools and qualitative methods, so as to increase robustness, in policy design regarding climate change mitigation pathways.

Subject Coverage

Examples of topics appropriate to the theme of this book, include, but are not limited to:

- Energy and Climate Policy Performance and associated Risks
- Quantifying Costs and Benefits of Flexible Policy Implementation
- Development of Alternative Policy Pathways and Identification of Optimal Switching Points
- Public Acceptance in Climate Policy
- Portfolio Analysis in Climate Policy
- Climate-Economy Qualitative Tools
- Implications of Climate Change Mitigation Policies to Agriculture, Food, Buildings, Transportation, Service, and Manufacturing Sectors

Submit your Manuscript

All manuscripts will undergo a blind peer-reviewed process and need to adhere to the book's formatting guidelines. Complete guidelines for preparing and submitting your manuscript to this book are provided in the *Authors Instructions* webpage. Manuscripts shall be sent to the following email: papersubmission@transrisk-project.eu, with subject: "Springer Book – Methods and Tools towards a low carbon society".

Submissions need to be of high quality, in line with the book's theme and will be judged on their novelty and overall contribution. In addition, all submissions need to be original; they must not have been published, accepted for publication, or currently being under consideration for publication elsewhere.

Important Dates

10th of October 2017

Guest Editors

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