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Editors

Global Energy Policy and Security

 Springer

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Foreword

Energy resources, particularly fossil hydrocarbons of coal, crude oil, and natural gas, have fuelled much of human progress and economic growth since the industrial revolution. However, as supplies of relative inexpensive fossil fuels (particularly conventional oil) might have difficulties in meeting rising demand in the coming few decades, while at the same time the costs for exploiting them will become increasingly higher (because of the need to extract unconventional resources), there is a perceived need to explore novel solutions and, at the same time, examine the impacts of current pressures on energy security (both physical security and price security).

The demand for energy as a whole and electricity in particular, in areas as varied as industry or transport, means that a new paradigm in the way fuels are perceived and handled is needed. Consistent with this, the need to promote energy security and policy as key themes during the twenty-first century, particularly during periods of uncertain supply and volatile prices, is greater than ever.

Many governments and business executives around the world have ambitious plans towards changing their energy mix and investment plans to one which includes more renewables and more low-carbon energy, as a way of balancing of home-grown energy and imports. Despite these efforts to increase the share of renewables, the global energy mix is still likely to be dominated by fossil fuels in the foreseeable future, particularly gas for electricity and oil for land, air, and sea transport. The reliance on depleting conventional oil and natural gas and the geographic distribution of these reserves can have geopolitical implications for energy importers and exporters.

Against this background, this book examines the security of global and national energy supplies, as well as the sensitivity and impacts of sustainable energy policies which pay due emphasis to the various political, economic, technological, financial, and social factors that influence energy supply and security. This publication presents multidisciplinary perspectives on the interrelated topics of energy security and energy policy, within a rapidly changing sociopolitical and technological landscape.

This book has two main sets of interdisciplinary papers. One set of papers deal with technical aspects of energy efficiency, renewable energy, and the use of tariffs.

The other set of papers focus on social, economic, or political issues related to energy security and policy, also describing research, practical projects, and other concrete initiatives being performed in different parts of the world.

A unique feature of this publication is that it introduces a variety of concrete projects, initiatives, and strategies currently being undertaken and implemented across the world, showcasing concrete examples of how energy security thinking and sound energy policies can assist nations in meeting the challenges dwindling energy supplies pose to them. We hope this book will prove useful to all those interested in the connections between energy production, energy use, energy security, and the role of energy policies.

We want to thank all authors for sharing their know-how, as well as Dr. M. Sima for the support provided in producing this book.

Enjoy your reading!

Autumn 2013

Hamburg, Germany
London, UK

Walter Leal Filho
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