

Electrification and the Future of Decentralized Electricity Supply



Edited by
Fereidoon Sioshansi

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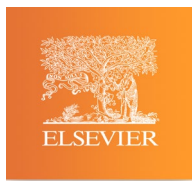
Audience: Academics, researchers, policy makers, regulators, innovators and aggregators interested in latest developments in the electric power sector specifically the transitions taking place within the distribution networks

Shelving: Energy policy, Business and economics

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Edited by Fereidoon Sioshansi Menlo Energy Economics,
San Francisco, CA USA



DESCRIPTION

With growing concerns about climate change, policymakers the world over are increasingly focused on two intertwined goals: Electrification and Decarbonization. The former displaces fossil fuels with electricity, the latter meeting the increased demand from renewable resources.

This book explores the opportunities that already exist to displace fossil fuels such as electrified transport and water and space heating with efficient heat pumps.

The book's 16 chapters by scholars and researchers from around the world examine the many barriers that must be overcome if electrification is to be achieved at scale and rapid pace while offering practical solutions to policy makers and regulators.

KEY FEATURES

- Highlights the most promising electrification technologies available today, notably electrified transport, space and water heating;
- Examines the central role of incentives and mandates – *carrot* and *sticks* – in accelerating the pace of electrification in applications where alternatives to fossil fuels already exist; and
- Explores the central role of regulations and policy to encourage – rather than stifle – the integration of **distributed energy resources (DERs)**, **demand aggregation** and **load flexibility**.

"The chapters of this book offer plenty of ideas, case studies and solutions to implement while avoiding the risks. Policymakers, regulators and energy practitioners in general are advised to have a careful look."

Nicolò Rossetto

Florence School of Regulation
European University Institute, Florence, Italy

"There is enough content here to provide many hours of joyful discovery and pondering."

Bruce Mountain

Director, Victoria Energy Policy Center
Victoria University, Melbourne, Australia

"Big centralized thermal plants have lost their privileged economies of scale while new decentralized innovations allow consumers to become prosumers, to become a collective energy community by sharing a physical mini grid or even a virtual collection of independence energy assets including storage."

Jean-Michel Glachant

Florence School of Regulation
European University Institute, Florence, Italy

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