



Call for Contributions:

Wiring the Future: Exploring Challenges and Opportunities in the Sustainable Energy Transition

An edited collection to be published by Palgrave-Macmillan

Co-edited by:

Thomas Walker, PhD
Moein Karami, PhD
Akram Sadati, MSc

The John Molson School of Business, the Jacques M  nard - BMO Center for Capital Markets at Concordia University kindly invites contributions to the edited book collection, entitled *Wiring the Future*, to be published by **Palgrave-Macmillan**.

ABOUT THE BOOK:

This book explores the financial and regulatory dimensions shaping the electrification of society, an essential step towards global sustainable development. It critically examines the interplay between traditional financial metrics such as net present value (NPV) and the pressing need for substantial investments in green infrastructure, a requirement for achieving the ambitious targets set by the 2030 Agenda for Sustainable Development. The book addresses the central question how to mobilize the financial sector and raise the necessary capital to finance the large initial costs associated with long-term investments in environmental sustainability and economic resilience. It explores how the government can encourage investments into a green energy transition and offers a look at both financial and social returns provided by sustainable energy investments into, e.g. energy-autonomous building or community projects or automated electric vehicle refueling stations.

The uniqueness of this project lies in its assembly of scholarly contributions from diverse regions of the world, integrating a multitude of perspectives on the challenges and opportunities inherent in the electrification process. This global collaboration enriches the book's content, ensuring a thorough and multifaceted exploration of the subject. The contributors, experts in their respective fields, offer insights that span the spectrum from the constraints of competitive pressures and policy mechanisms, such as tax incentives and emission trading schemes, to advanced quantitative analyses of economic variables affected by climate change, including real estate valuations, banking risk assessments, and insurance risk management.

A significant feature of the book is its pragmatic approach. It bridges the gap between theoretical frameworks and real-world application, providing actionable guidance for a range of stakeholders, including corporations, regulatory bodies, and policymakers. By employing case studies and financial modeling techniques, the book sheds light on how investments in green infrastructure can be not only viable but also financially advantageous in comparison to traditional investments.

Furthermore, the book addresses the challenge of aligning stakeholder interests and creating robust policy incentives for a long-term commitment to green initiatives. It recognizes the need for an integrated approach, combining financial and environmental models to facilitate effective policy and investment decision-making. This approach is vital for crafting governance models that consider the diverse interests of various stakeholders and for mitigating the financial risks associated with climate-related disruptions.

The book will cater to a wide audience, including finance professionals, policymakers, academics, and students, by offering a comprehensive understanding of the financial and regulatory landscapes essential for sustainable electrification. It aspires to be a cornerstone resource,

contributing both to academic scholarship and practical decision-making, ultimately guiding the global pursuit of sustainable energy and infrastructure development. Through its depth and breadth, the book will become an essential reference in the fields of sustainable finance, environmental policy, and energy transition.

CALL FOR CONTRIBUTIONS:

We extend an invitation to scholars and industry experts from across the globe to contribute their insights and research. The objective is to create a comprehensive narrative that critically analyzes the financial and regulatory frameworks essential for the sustainable electrification of communities and our broader society.

Each chapter of the book will delve into the intricate relationships between financial investments, regulatory policies, and the technological advancements necessary for large-scale electrification. Contributors are encouraged to highlight the unique challenges, opportunities, and innovative solutions pertinent to their fields of expertise. Given the complex and interconnected nature of the topic, we advocate for a transdisciplinary approach, integrating insights from finance, policy, technology, and environmental science.

We particularly value contributions that incorporate case studies or comparative studies, offering practical examples and concrete analysis of electrification projects worldwide. This approach will ensure that the book captures the diverse, multi-scalar impacts of different financial and regulatory strategies across various geographic and sectoral contexts.

Submitted chapters must be original and exclusively prepared for the book, with no part of the article having been published elsewhere. Finally, although the book can be used as a reference book in academic courses, it is not explicitly organized as a textbook.

POTENTIAL TOPICS FOR CHAPTERS:**1. INTRODUCTION**

- 1.1 The Urgency of Electrification: Contextualizing the Need for Sustainable Energy
- 1.2 Financial and Regulatory Challenges in Electrification
- 1.3 Global Perspectives on Electrification: Diverse Approaches and Solutions

2. FINANCIAL STRATEGIES FOR ELECTRIFICATION

- 2.1 Investment Models for Sustainable Energy: Evaluating Risks and Returns
- 2.2 Overcoming Financial Barriers: Innovative Funding and Investment Tools
- 2.3 Case Studies: Success Stories in Financing Electrification
- 2.4 Financial Incentives and Disincentives: Governmental Policies and Their Impact

3. REGULATORY FRAMEWORKS AND POLICY DESIGN

- 3.1 Comparative Analysis of Global Electrification Policies
- 3.2 Crafting Effective Regulatory Environments for Electrification
- 3.3 Policy Mechanisms: Tax Incentives, Penalties, and Emission Trading Schemes
- 3.4 The Role of International Agreements and Standards in Shaping Policies

4. THE ROLE OF STAKEHOLDERS IN ELECTRIFICATION

- 4.1 Governments and Policymakers: Leading the Charge
- 4.2 Private Sector Engagement: Corporate Strategies and Responsibilities
- 4.3 Community Involvement and Public Opinion
- 4.4 Non-Governmental Organizations and Advocacy Groups

5. TECHNOLOGICAL INNOVATIONS AND ELECTRIFICATION

- 5.1 Emerging Technologies in Electrification: Current Trends and Future Prospects
- 5.2 Integrating Renewable Energy Sources into the Grid
- 5.3 Technological Challenges and Opportunities in Electrification

6. ECONOMIC IMPACTS OF ELECTRIFICATION

- 6.1 The Macro and Microeconomic Implications of Electrification
- 6.2 Electrification's Impact on Job Creation and Economic Growth
- 6.3 Electrification and Its Effects on the Real Estate, Banking, and Insurance Industries

7. ENVIRONMENTAL ASPECTS AND SUSTAINABILITY

- 7.1 Assessing the Environmental Benefits of Electrification
- 7.2 Balancing Economic Growth with Environmental Protection
- 7.3 Long-term Sustainability: Looking Beyond Immediate Gains

8. QUANTITATIVE ANALYSIS AND MODELING

- 8.1 Financial Modeling Techniques: From Basic Projections to Advanced Simulations
- 8.2 Analyzing the Interaction Between Climate Change and Economic Variables
- 8.3 Quantitative Policy Analysis: Evaluating the Effectiveness of Policy Measures

9. GLOBAL CASE STUDIES IN ELECTRIFICATION

- 9.1 Success Stories: How Different Regions Are Achieving Electrification
- 9.2 Lessons Learned from Failed Electrification Attempts
- 9.3 Comparative Analysis of Regional Approaches

10. FUTURE DIRECTIONS AND CHALLENGES

- 10.1 Anticipating Future Trends in Electrification
- 10.2 Addressing Upcoming Regulatory and Financial Challenges
- 10.3 Recommendations for Future Research and Policy Development

11. CONCLUSION

- 11.1 Synthesizing Key Insights and Lessons Learned
- 11.2 Implications for Future Electrification Efforts
- 11.3 Charting the Path Forward: Concluding Thoughts

Timeframe:

We currently anticipate the following timeline for the project:

- Abstract and CV submission deadline – **August 31st, 2024**
- Selection of abstracts and notification to successful contributors – **September 30th, 2024**
- After September 2024, the publisher’s release forms will be forwarded to successful contributors.
- Full chapter submission – **November 30th, 2024**
- Revised chapter submission – **January 31st, 2025**
- Manuscript delivery – **March 15th, 2025**
- Publication (tentative date) – **Spring 2025**

GUIDELINES FOR CONTRIBUTORS:

Submissions should be written in English using a non-technical writing style. The contributions may include diagrams/illustrations in order to present data, or photographs/figures (all in black & white) to better illustrate the topic of discussion. Submitted chapters should be original and exclusively prepared for the present book. No part of the article should be published elsewhere. Chapters must not exceed 7,000 words (including all references, appendices, biographies, etc.), must use 1.5-line spacing and 12 pt. Times New Roman font, and must use the APA 7th edition reference style.

Researchers and practitioners are invited to submit abstracts of no more than 500 words, a bibliography for their proposed chapter, and a CV. Abstract submissions are expected by **August 31st, 2024**. Submissions should be sent via email to: electrifying.society@concordia.ca

Authors will be notified about the status of their proposals and will be sent complete chapter guidelines. Full chapters are expected to be submitted by **November 30th, 2024**.

Please note that there are no submission or acceptance fees for the manuscripts.

ABOUT THE EDITORS:

Thomas Walker

Thomas Walker holds an MBA and PhD degree in Finance from Washington State University. Prior to his academic career, he worked for several years in the German consulting and industrial sector. His research interests are in banking, emerging risk management, fintech, and sustainable finance, and he has published over seventy journal articles in these areas. He is the lead editor of

seventeen books on sustainable financial systems, sustainable real estate, sustainable aviation, environmental policy, emerging risk management, innovations in social finance, and water risk management (among others). In 2018, Dr. Walker founded the Emerging Risks Information Center which conducts targeted research on environmental, technological, and societal risks that affect our world today. In 2021, he became the director for the Jacques Ménard - BMO Centre for Capital Markets at Concordia University and the Concordia University Research Chair in Emerging Risk Management (Tier 1).

Moein Karami

Moein Karami is a Postdoctoral Fellow at Concordia University. He holds a BSc in Mechanical Engineering and an MBA in Strategy. In 2021, he graduated with a doctoral degree in Finance from the John Molson School of Business (Concordia University). His PhD research was funded through several prestigious awards including the National Bank Initiative in Entrepreneurship and Family Business Fellowship. He has served as the instructor of numerous finance courses at Concordia University since 2016. He has published in journals such as the *Journal of Business Ethics* and *Finance Research Letters*. His main research interests include corporate finance, entrepreneurial finance, fintech, and sustainable finance.

Akram Sadati

Akram Sadat Sadati is an MSc candidate at the John Molson School of Business, Concordia University where she studies Finance. She currently serves as a teaching assistant and research associate in the Department of Finance at Concordia University. Akram completed her undergraduate and graduate degrees in Financial Management. Her research interests include risk management, corporate finance, Fintech, and machine learning.