

Book Title:

Coordinated Operation and Planning of the Modern
Heat and Electricity Incorporated Networks

Publisher: Wiley-IEEE Press

Synopsis:

Nowadays, the significant development in energy production systems has created an evolutionary trend in coupling multi-carrier energy networks (MCENs) to each other. In addition to this progress in the energy networks with different vectors, the day-by-day growth in energy consumption is also more highlighted the inevitable dependencies between MCENs. To this end, future modern energy grids not only are targeted to develop as a couple of multi-energy systems but also it will be structured with a high/full level of renewable energy resources (RERs). In this structure, hybrid energy systems such as combined heating, cooling, and power (CCHP) units play an undeniable role in reliable meeting the energy demand. However, how different types of energy networks can be integratively operated in the modern energy infrastructure is a key question that needs to be addressed in deep detail. As the reliable electrical and heating energy supply is critical for the energy network, the great need is felt for coordinated operation and planning of the heat and electricity networks (HENs) under the modern structure of MCENs. This is why the current book is targeted to cover the coordinated operation of the HENs as well as support the planning of the HENs and more clarify the HENs presence in the future modern MCENs.

Potential topics include:

- **Chapter 5:** Definition, structure, features, and challenges of the optimal operation of the heat and electricity incorporated networks
- **Chapter 6:** Definition, structure, features, and challenges of the optimal planning of the heat and electricity incorporated networks
- **Chapter 7:** Definition, structure, features, and challenges of the coordinated operation and planning of the modern heat and electricity incorporated networks
- **Chapter 8:** Hybrid energy generation systems for optimal operation and planning of the heat and electricity incorporated networks
- **Chapter 9:** Energy trading technologies in the coordinated operation and planning of the modern coupled heat and electricity networks

Important Dates:

- Deadline for Submission of Book Chapter Proposals: **November 5, 2021**
- Accept/Reject Notification for Submitted Proposals: **November 6, 2021**
- Full Chapter Submission: **December 5, 2021**
- Accept/Revise/Reject Notification for Submitted Chapters: **December 30, 2021**
- Revised Chapter Submission: **January 30, 2022**
- Final Print Version Available (Tentative): **March, 2022**

Editors:

Behnam Mohammadi-Ivatloo, Department of Energy, Aalborg University, Aalborg, Denmark and Faculty of Electrical and Computer Engineering, University of Tabriz, Tabriz, Iran. **Email:** mohammadi@ieee.org

Kazem Zare, Professor, Faculty of Electrical and Computer Engineering, University of Tabriz, Tabriz, Iran. **Email:** kazem.zare@tabrizu.ac.ir

Mohammadreza Daneshvar, Faculty of Electrical and Computer Engineering, University of Tabriz, Tabriz, Iran. Email: m.r.daneshvar@ieee.org

Submission Procedure:

Interested authors are welcome to send their book chapter proposals (abstract of the proposed book chapter, tentative sections and subsections of the proposed chapter) via <https://easychair.org/conferences/?conf=copmhe2021>. For any questions, please feel free to contact editors.

Wiley-IEEE Press