



an Open Access Journal by MDPI

# Impact of Demand Response in Energy System

Guest Editor:

### Dr. Carlos Silva

Department of Mechanical Engineering, Instituto Superior Técnico, University of Lisbon, 1049-001 Lisbon, Portugal

Deadline for manuscript submissions: closed (25 November 2021)

## Message from the Guest Editor

Dear Colleagues,

Demand response (DR) is a key feature in the transition to sustainable energy systems, as it enables the adjustment of the demand to varying renewable energy supply conditions through the empowerment of the users to participate more actively in grid management. The concept began to be implemented in the middle of the 20th century for large electricity consumers, but it gained a significant thrust with the development and deployment of smart grids. While the introduction of more distributed renewable resources increased the complexity of grid management, the use of information and communication technologies (ICT) in the grid, such as smart meters, allows for the use of much more complex management algorithms and the dissemination of DR to other sectors, in particular the residential sector.

The scope of this Special Issue is to provide a comprehensive overview of the impacts of DR in energy systems, trying to cover different topics such as:

- Legal frameworks, regulation, policies
- Technologies
- Algorithms
- Case studies
- Non-electricity applications, such as district heating networks









an Open Access Journal by MDPI

# **Editor-in-Chief**

#### Prof. Dr. Enrico Sciubba

Department of Mechanical and Aerospace Engineering, University of Roma Sapienza, Via Eudossiana 18, 00184 Roma, Italy

### Message from the Editor-in-Chief

*Energies* is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

# **Author Benefits**

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions. **High Visibility:** indexed within Scopus, SCIE (Web of Science), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: CiteScore - Q1 (Engineering (miscellaneous))

### **Contact Us**

*Energies* Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/energies energies@mdpi.com X@energies\_mdpi