

IMPACT FACTOR 3.2



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# **Renewable Energy Communities (REC)**

Guest Editor:

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## **Message from the Guest Editor**

With increased penetration of photovoltaic renewables sources in residential buildings, and new blockchain-based schemes for secure transactions between trade partners, promising models of local energy communities (also called community microgrids) have emerged. Smart metering is required for collecting two-way flow data, and regulation is needed for defining the network costs to be paid to the DSO by the users.

The proposed goals of building a community vary from achieving a better match between aggregated demand and supply, maximizing the welfare of the community, and minimizing (operating or total) energy costs to climate-change-related goals such as maximizing the community (PV) self-consumption.

We aim in this Special Issue to advance the state-of-the-art on the different levels of a community ICT system: planning and overall architecture, forecasting demand and supply data, customer energy management, trading mechanisms, and storage control and performance evaluation with respect to the chosen system objectives.











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### **Message from the Editor-in-Chief**

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