

Editorial

Building energy efficiency: New challenges for incentive policies and sustainable business models

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Starting from the oil shock of the seventies, how buildings use energy generated by different sources has been under the spotlight [1]. At first, attention was paid mainly to short-term energy-saving goals, accomplished primarily through command and control policies. Later, especially in the last couple of decades, the focus shifted to long-term energy-efficiency targets, which were to be pursued through proactive and incentivizing policies. Accordingly, many national governments—not to mention supranational organizations such as the European Union—have updated their regulations and building codes in the first place and adopted and implemented novel incentive measures in the second place [2–6]. The variety of monetary incentive tools—ranging from grants and subsidies to tax rebates, from loan reliefs to green mortgages—can be seen among the reasons at the root of the rise and growth of innovative, sustainability-focused entrepreneurial practices and business models [7].

While considerable steps have been taken, and incentive policies jointly with sustainable business models are contributing to improving the renovation rate of the building stock and, perhaps, spreading the adoption of passive design strategies, much remains to be done. Under the above framework, this Special Issue—“Building energy efficiency: New challenges for incentive policies and sustainable business models”—aims to discuss the prospective challenges concerning the research strand of incentive policies and the related novel entrepreneurial approaches.

Two of the papers published in the Special Issue analyze energy use and energy efficiency at the city and building type levels, respectively. The review by El Hafdaoui et al. [8] focuses on the town of Ifrane, Morocco. Estimations of energy demand and its trend are considered and discussed in light of government programs meant to improve the efficiency of the country’s building stock. The article by Martínez-Corral et al. [9] focuses on protected housing built in Spain for railway workers. The efficiency of those dwellings is assessed through the thermal analysis of the building envelope. The

study brings to light the various technical and policy issues to be addressed—which sometimes require tailored solutions—for their retrofit to be effective.

The paper by Zhao et al. [10] deals with stimuli other than monetary, such as organizational incentives. The research question is how to establish an effective collaborative green innovation environment and, thus, how to stimulate the adoption of cooperative behavior by the players in the photovoltaic manufacturing industry—namely, enterprises, universities, and other scientific research institutions. The study builds on direct and indirect reciprocity mechanisms and tests them through an evolutionary game model.

Last but not least, the article authored by Estay et al. [11] deals with innovative business models suitable to increase the renovation rate of the building stock and improve the outcomes of retrofit actions. The so-called One-Stop Shop (OSS) business model [12,13] and its various sub-models are identified as feasible solutions to overcome numerous markets, behavioral, technical, information, and financial barriers to housing renovation. A few dozen OSS case studies are identified across Europe. Finally, the factors likely affecting the adoption of an OSS business model are also analyzed.

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