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Editorial - International Journal of Sustainable Energy Planning and Management Vol 5

Poul Alberg Østergaard[1], Editor-in-Chief

Department of Development and Planning, Aalborg University, Aalborg, Denmark

ABSTRACT

This editorial introduces the fifth volume of the International Journal of Sustainable Energy Planning and Management. Topics include electricity for heating purposes based on a case study of Tirana, the Norwegian system for licensing wind power plants, analyses of energy security for the Indian residential sector, the link between energy sector reforms, sustainable development and energy use and finally the transformation of the European power sector.

Keywords:

Electricity share for electric heating
Licensing systems for wind power
Energy security in the residential sector
Sustainable development and energy usage
Power sector transition

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Editorial

This editorial introduces the fifth volume of the International Journal of Sustainable Energy Planning and Management. In this volume, work is presented ranging from statistical analyses of the usage of electricity for heating, to energy policy for sustainable development.

Electricity use is a growing demand in most countries, but is also a demand that is associated with very high losses in the conversion system. Electricity use should therefore optimally cover uses where there are no other alternatives or uses where the entire energy chain efficiency is high. Low temperature heat demands for house heating of domestic hot water are typically demands that could be better covered by district heating [1–4]. In this volume, Bidaj *et al*. [5] have performed a statistical analysis of the electricity demand in Tirana, Albania, showing that 21.6% of the electricity demand in the residential sector goes to cover heating demands. The demand for producing domestic hot water is the largest single demand, and – as the authors suggest – a demand that might be covered by e.g. solar collectors.

From statistical analyses of electric heating in Albania, the discussion moves to Norway and the planning of wind power. Norway is a country of large potential wind resources, however these potentials are not exploited to a very high degree. Blindheim [6] argues that a contributing factor to this situation is the handling of licensing and issues by the Norwegian Ministry of Petroleum and Energy which acts as a deterrent to potential investors.

Narula [7] investigates energy security in the residential sector in India by setting up an evaluation methodology consisting of four indices within Availability, Affordability, Efficiency and Environmental Acceptability. Six different fuel types used in the residential sector are hence assessed, coming to the conclusion that firewood ranks the highest in both urban and rural settings. A sensitivity analyses reveals that the result is relatively robust to changes in the weights of the different indices. Finally, Narula argues that policies should target the improved usage of biomass.

Abdallah *et al.* [8] probe into the energy sector reforms that have occurred in various industrialised countries and deliberate how these reforms have been imitated in

[1] Corresponding author e-mail: poul@plan.aau.dk

developing countries – irrespective of these countries having other and more pressing energy concerns. Energy reforms should thus take local conditions into consideration to ensure a sustainable future.

Verbuggen et al [9] end this volume by looking into some of main factors compromising the evolution towards electricity systems living up to the IPCCs recommendations of drastic carbon dioxide emission reductions. A carbon lock-in situation exists, which needs to be handled to reduce emissions and the authors probe into different options in this position paper.

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