
Editorial

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Energy is the motor of the economy and is one of the most important factors affecting living standards. Energy is restricted in the long term, as indicated by increasing prices of oil and natural gas. Conversion of energy is not neutral with respect to climate and environment.

Perspectives in energy are perspectives in energy technologies: advanced approaches to reduce greenhouse gases, market introduction of renewable energies and new technologies like such as cells.

Fortunately, many innovative ideas and technologies are being developed. Some are almost ready to be marketed, e.g. solar thermal power plants or fuel cells for residential houses. Some technologies such as IGCC, PPCC concepts or combined fuel cells-gas turbine plants are almost at the prototype stage Other technologies for the future, such as bio fuel from algae, are undergoing intensive laboratory work.

The number of renewable energies is increasing rapidly producing a new dynamic in the electricity system. To fit the electricity stochastically produced by sun and wind into the grid, it is necessary to increase storage and quality by electrical power conditioning – this is a big challenge.

Many places throughout the world have a shortage of electrical power and energy in general. The economic and climate constraints in small rural villages are quite different from those in big cities. The adapted techniques also differ in their capacity, technical complexity and economics. In order to find the best solutions, planning procedures and technology assessments are used to answer the question of how sustainable our energy technologies are.

This special issue of the International Journal of Energy Technology and Policy is like a bunch of flowers for the readers. Different problems of energy, different energy sectors and different developments on different points on the time scale are considered. The papers give a consistent colourful picture about the perspectives of energy technologies for the coming decades, helping us to run the motor of the economy and standard of living without spluttering.

The guest editors would like to express their warm thanks to all authors of this special issue for writing their papers and to all reviewers who spent time and work on this issue to ensure the high quality of the contributions.