

Influence of Technological Learning of Advanced Energy Conversion Technologies on Future Energy Perspectives

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This study examines the role of innovative technologies on mid- and long- term perspectives of the global energy system. In doing so, we use a scenario approach with and without CO₂ constraints in order to assess the effectiveness of chosen technologies in the energy system. In this study, we focus on combined cycle technologies, fuel cell technologies, CO₂ sequestration technologies and hydrogen production technologies, and attempt to determine which of these technologies could contribute most to the mitigation of CO₂ emissions. In addition, we analyze the economic perspectives of these new and currently rather expensive technologies using technological learning.

Keywords:

combined cycle technologies, fuel cell technologies, CO₂ sequestration technologies, hydrogen production technologies, technological learning