

Economic Impacts of Future Changes in the Energy System - Global Perspectives - DTU Orbit (08/11/2017)

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In a climate constrained future, hybrid energy-economy model coupling gives additional insight into interregional competition, trade, industrial delocalisation and overall macroeconomic consequences of decarbonising the energy system. Decarbonising the energy system is critical in mitigating climate change. This chapter summarises modelling methodologies developed in the ETSAP community to assess economic impacts of decarbonising energy systems at a global level. The next chapter of this book focuses on a national perspective. The range of economic impacts is regionally dependent upon the stage of economic development, the level of industrialisation, energy intensity of exports, and competition effects due to rates of relative decarbonisation. Developed nation's decarbonisation targets are estimated to result in a manageable GDP loss in the region of 2 % by 2050. Energy intensive export driven developing countries such as China and India, and fossil fuel exporting nations can expect significantly higher GDP loss of up to 5 % GDP per year by mid-century.

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