

Abstract

This paper synthesizes the results from the model intercomparison exercise among regionalized global energy-economy models conducted in the context of the RECIPE project. The economic adjustment effects of long-term climate policy are investigated based on the cross-comparison of the intertemporal optimization models ReMIND-R and WITCH as well as the recursive dynamic computable general equilibrium model IMACLIM-R. A number of robust findings emerge. If the international community takes immediate action to mitigate climate change, the costs of stabilizing atmospheric CO₂ concentrations at 450 ppm (roughly 530–550 ppm-e) discounted at 3% are estimated to be 1.4% or lower of global consumption over the twenty-first century. Second best settings with either a delay in climate policy