

Analysis of the Kyoto Mechanism Using a Global Energy System Model DNE21

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This study examines the potentials of the Kyoto Mechanism for CO₂ emissions through the use of a modified Dynamic New Earth 21 model. DNE21 model is an engineering process, and the world is geo-politically divided into 10 world regions in the model. The modified DNE21 model calculates the optimal energy systems up to the year 2020 at shorter time intervals of 2 years. Our analysis focuses on two points, i.e. the influences of the Kyoto Mechanism on the respective world regions, and the inter-temporal transactions of banking and/or borrowing of emission credits between the 1st and 2nd commitment periods.