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**THE ROLE OF NUCLEAR POWER, RENEWABLES AND CARBON  
CAPTURING AND STORAGE IN GLOBAL CLIMATE PROTECTION  
SCENARIOS – LESSONS FROM THE HYBRID MODEL REMIND.**

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There is an emerging consensus that there is no silver bullet for climate policy. A portfolio of mitigation options is required for achieving stabilization levels below 500 ppm. The option value indicates the relative importance of a single mitigation technology within the overall portfolio. The option value of different combinations of mitigation technologies is derived within the Hybrid Model REMIND incorporating an energy system model within an intertemporal macroeconomic general equilibrium model. The energy system component explicitly resolves all energy types and technologies that are considered to be important in the course of the century and includes learning effects of innovative technologies. The Hybrid Model allows therefore for a detailed analysis of mitigation options. An extensive sensitivity analysis and Monte Carlo simulation are used to explore option values within the parameter space. The results of this study are used for assessing the priorities for promoting energy technologies.