

Uncertainty Analysis of Energy Models

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Systematic uncertainty analysis is an important step in energy modeling practice. It provides a sense for the confidence that the analyst can place in conclusions and it can inform research priorities. However, a number of assumptions underlie several of the techniques typically employed for this purpose. Increased availability of computational power and some new uncertainty analysis techniques can allow analysts to avoid reliance on these assumptions.

We demonstrate these new techniques using the DICE model of climate change and conclude that the techniques can produce policy-relevant results that are qualitatively different from those arising from other techniques.