

Uncertainty in the Saving – Quantifying the “Rebound Effect”

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GHG-mitigation measures may reduce emissions directly. However, due to knock on effects through the economy, total emissions reductions (direct and indirect) may be different to the direct reductions, introducing uncertainty. We compute the relationship between direct emissions savings and indirect emissions and compare the difference – or the “rebound effect”. To do so, we employ a case study and use a straightforward input-output model to track the effect of energy-efficiency measures through the economy of South Africa. We conclude that though the positive “rebound” effects can be significant, the contribution ranges from being limited to encouraging more climate friendly economic development.