

Pipeline transportation of CO₂ – Case study Germany

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Abstract

The report investigates the costs for large-scale transportation of carbon dioxide based on a Decision Support System (DSS) and a published methodology. Capture, compression and storage were not analysed.

The goal of the study was to provide decision support to the site selection process of a likely geologic storage site. Source in all scenarios was the lignite-fired power station Schwarze Pumpe with an annual emission volume of 10 Mton of CO₂. The scenarios are called short, medium and long distance and the cost per ton for each scenario was estimated to be lowest 1 €/ton and highest 22 €/ton.

The overall conclusion from the results is that the distance is the main variable that affects the total cost per ton. The uncertainty in the cost figures does also depend on the distance, i.e. long distances have greater uncertainty.