On the Cost-Effectiveness of National Economy-Wide Greenhouse Gas Emissions Abatement Measures

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ABSTRACT

This paper explores cost-effective greenhouse gas abatement options for the European Union Member State of Cyprus, for those sectors of the national economy that are not subject to the region's Emissions Trading System. The analysis leads to the construction of a baseline and several alternative marginal emission abatement cost curves. It addresses all economic sectors and considers all different types of mitigation measures – improving energy efficiency, switching to low- or zero-carbon fuels, and inducing behavioural changes. We apply nationally appropriate data that are mainly derived from local market information and judgement of national experts. Finally, we present results of several sensitivity analyses, which address main shortcomings of marginal abatement cost curves that have been identified in the literature, and discuss the policy implications of each one of them. Apart from its relevance for EU Member States, this assessment is useful for all countries seeking guidance in their decarbonisation strategies.

Keywords: Abatement cost curves; Decarbonisation strategy; EU ETS; Sensitivity analysis

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