

Renewable generation and electricity prices: Taking stock and new evidence for Germany and Austria

Klaas Würzburg, Xavier Labandeira, Pedro Linares

Abstract

Economic theory predicts that the increase of renewable electricity production should reduce the price of electricity in the short-run, which is also known as the 'merit-order effect'. Although the merit-order effect is only one of several consequences of renewable production on the electricity system, it is crucial to determine its size for the economic evaluation of renewable energies. In this paper we present a comprehensive overview of relevant past research results on the price effect of renewables. Additionally, we conduct a new empirical analysis of the price effect of renewable production for the Austrian–German region, a market that clearly qualifies for a merit-order effect analysis given its characteristics. Based on the review and our own analysis, we show that the merit-order effect varies depending on the region and the assessment method chosen. We also find that the size of this effect is less dispersed throughout different markets than previously suggested by the literature.