

# Is the depressive effect of renewables on power prices contagious? A cross border econometric analysis

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**Abstract** European power markets have become more integrated and the implementation of market coupling has reinforced the efficiency of cross-border trading. This paper investigates empirically the impact of renewables growth in Germany on German and French power price volatility. We find that renewables depress power prices on average and increase volatility not only domestically but also across borders. We also leverage market resiliency data to investigate the impact of increases in interconnection capacity. We find that power price volatility would decrease in France despite some contagion effects of volatility from German renewables production. Our findings have important policy implications as they demonstrate the need to coordinate cross-border support policies for renewables in order to mitigate the impact of volatility on power prices in coupled power markets.

**Keywords** electricity market, renewables, market coupling, GARCH

**JEL Classification** L1, L5, L94

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