

## FSR Climate Annual Conference 2021 – 7<sup>th</sup> edition

Dates: 29 & 30 November on Zoom Webinar

Monday 29 November

*14:00-16:00 – Session on Environmental taxation*

**Presenter:** Mirjam Kosch (PIK Potsdam)

**Title:** *Impacts of carbon pricing on electricity prices - The case of the EU ETS*

**Abstract:**

The electrification of industries, transportation, and heating is an important step towards the deep decarbonization of the economy. While several climate policies incentivize this transformation, carbon prices in the power sector increase electricity prices and, thus, the cost for electrification. Using hourly electricity market data, we estimate the impact of carbon prices on wholesale electricity prices in 20 European countries. We find that - despite an (almost) uniform carbon price - the impact on electricity prices significantly differs across countries: For a carbon price increase of 10€/t, the price impact ranges from 1-13 €/MWh. The magnitude of the impact significantly increases with the carbon intensity of a country's fossil generation. Our results imply that for countries with a coal-based electricity portfolio it becomes even more important to decarbonize power generation to avoid other sectors not being electrified due to high electricity costs.

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Webpage and programme [here](#)