

Peer Review

Review of: "ETS Price Signal in the Power Sector: Evidence on Decarbonisation and Policy Overlap"

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The manuscript, "*ETS Price Signal in the Power Sector: Evidence on Decarbonisation and Policy Overlap*," examines the relative roles of subsidies and EU Allowance (EUA) prices in shaping renewable energy investment decisions in Europe. The study combines panel-data regression analysis, survey evidence, and estimates of rents generated by the EU ETS across several countries. The authors conclude that subsidies play a more important role than the EU ETS in driving renewable energy investments.

The topic is both timely and policy-relevant, and the manuscript is generally well-written and clearly structured. The three empirical components complement one another and each provides an interesting perspective on the broader research question.

That said, I believe the manuscript would benefit from further clarification and strengthening in several areas.

First, I found the third analysis somewhat difficult to follow. It is not entirely clear what specific methodology was employed, how the results should be interpreted, or how this analysis contributes to the overall argument of the paper. This may partly reflect my own limited familiarity with some institutional aspects of the EU ETS. Nevertheless, I would encourage the authors to provide additional explanation of the analytical approach, the intuition behind it, and its connection to the paper's central research question. Doing so would make this section more accessible to a broader audience.

Second, I am not fully convinced by the conclusions drawn from the regression analysis. The estimated relationships appear relatively weak, yet the interpretation sometimes seems stronger than the evidence warrants. In addition, there may be concerns regarding endogeneity. Since subsidies are themselves a component of the economic incentives underlying renewable energy investments, the interpretation of

the significant subsidy coefficient deserves further discussion. It is possible that part of the observed relationship reflects this close conceptual link. To strengthen the empirical identification, the authors might consider whether a more robust strategy could be implemented, such as an instrumental variables approach, a regression discontinuity design, or a difference-in-differences framework, if suitable settings and data are available.

The survey analysis provides what I found to be the most direct support for the paper's main conclusions. However, the presentation of the survey evidence could be expanded. In particular, it would be useful to include the exact wording of the survey questions, either in the main text or in an appendix, as responses can be sensitive to question framing. Moreover, the manuscript currently reports only aggregate responses to two questions. A more detailed exploration of the survey data—for example, by respondent characteristics, sector, geography, or other relevant dimensions—could provide additional insights and strengthen the contribution of this component of the study.

I would also encourage the authors to consider including more figures and visualizations. Although this is partly a matter of presentation preference, graphical summaries of the data and key findings would likely improve readability and help readers better understand the empirical results. At present, the manuscript contains no visual representations of the data.

Overall, the manuscript addresses an important question and is clearly written. However, I do not yet find the evidence fully persuasive. The regression results would benefit from a stronger identification strategy and a more cautious interpretation, the survey analysis could be developed in greater depth, and the role and contribution of the third analysis should be clarified. The paper's central conclusion—that subsidies appear to influence investment decisions more strongly, while EUA prices may have a greater effect on operational decisions—may well be correct. Nevertheless, in its current form, the empirical support for this conclusion remains somewhat limited. Addressing the points above would substantially strengthen the manuscript and improve its contribution to the literature.

Declarations

Potential competing interests: No potential competing interests to declare.