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Editor comment on acp-2021-583

Andreas Richter (Editor)

Editor comment on "Exploiting satellite measurements to explore uncertainties in UK bottom-up NO_x emission estimates" by Richard J. Pope et al., Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2021-583-EC1>, 2021

The manuscript reports on a study aimed at improving NO_x emission estimates for the UK. While this is an interesting and relevant topic, a number of problems have been identified in the public discussion, including

- the use of cloudy satellite data ($q_a > 0.5$) which is not recommended
- the use of an outdated emission inventory
- conceptual problems such as the unclear justification for the background correction method
- interpretation problems such as the uncertainties introduced by sector dependent emission trends

Considering these points, I think that major data analysis changes and text revisions would be necessary before a revised version of this manuscript could be considered for publication in ACP. Unless the authors can show evidence for actual improvements in the UK bottom-up NO_x emission estimates achieved by this work, the revisions will also have to include a change in title.