

Interactive comment on “Feasibility and difficulties on China new air quality standard compliance: PRD case of PM_{2.5} and ozone from 2010 to 2025” by H. Liu et al.

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Dear authors,

Thanks for your effort in addressing my comments. I have two follow-up suggestions:

(1) On projection of future emissions outside the PRD region: it will be good to state how it is treated in the modeling section (4.1). Most likely, other regions will take control measures similar to the PRD region, so long-range transport from outside into the PRD will likely decrease in future. Thus the current projection of the air quality is a conservative one, that is, actual air quality will be better if a decrease of outside

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transport is considered. I think it is good to add this point.

(2) Again on the increase in ozone (Section 4.3): I suggest adding more discussions on why ozone non-attainment rate will increase. From the emission estimate for GZ; NO_x will reduce by 51.9% and VOC by 41.3% compared to 2010. The percentage of reduction rate is similar, so the VOC/NO_x ratio will only increase by about 20%? Will this together with large absolute decrease in NO_x and VOCs lead to a large increase in ozone production? This seems difficult to understand. Will future VOCs become more reactive? Will biogenic emissions be more important after a large reduction of anthropogenic sources? I think it is important to add some results and discussions to explain the modeled increase in ozone. This will also make the follow-up discussion of California experience in ozone control more relevant.

Yours sincerely,

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