Dear editors,

Thank you very much for your advices. We have carefully considered your comment, and made corresponding revisions in the revised manuscript and marked every change in red.

The changing in the manuscript follows the calculation results below:

Pre-APEC:

averaged HCHO VCD, marked as a=10 $\times 10^{15}$ molecules cm$^{-2}$

During APEC

averaged HCHO VCD, marked as b=6 $\times 10^{15}$ molecules cm$^{-2}$

Post- APEC

averaged HCHO VCD, marked as c=9 $\times 10^{15}$ molecules cm$^{-2}$

the averaged total relative error of VCD = 17%, which is derived from the discussion in Sect. 2.3.

Since the reduction of Pre-APEC and APEC is calculated as following:

X=U/V=(b-a)/b

The absolute error of reduction is

$$\sigma X = \sqrt{\left[(\frac{\sigma_u}{u})^2 + (\frac{\sigma_v}{v})^2\right]} = \sqrt{(\frac{\sigma_{a-b}}{a-b})^2 + (\frac{\sigma_b}{b})^2} = \sqrt{\frac{\sigma^2_a + \sigma^2_b}{(a-b)^2} + (\frac{\sigma_b}{b})^2}$$

$$= \sqrt{\frac{(0.17 \times 10 \times 10^{15})^2 + (0.17 \times 6 \times 10^{15})^2}{(10 \times 10^{15} - 6 \times 10^{15})^2} + \frac{(0.17 \times 6 \times 10^{15})^2}{(6 \times 10^{15})^2}}$$

$$= \sqrt{\frac{0.17^2 \times 136}{4^2} + 0.17^2} \approx 0.52$$

So the difference of Pre-APEC and APEC is ~40% $\pm$ 52%.

As the same method, the reduction of Post-APEC and APEC is 0.63

So the difference of Pre-APEC and APEC is ~33% $\pm$ 63%.

**Changes in manuscript:**

P2L1: During the period of the APEC conference, the average HCHO VCDs were ~40% $\pm$ 52%, and ~33% $\pm$ 63% lower than that during the pre-APEC and post-APEC periods, respectively.

P14L3-4: A noticeable decrease of ~40% $\pm$ 52%, and ~33% $\pm$ 63% during APEC was found compared with before and after APEC.

P19L19-20: During the period of the APEC conference, the average HCHO was 6 $\times 10^{15}$ molec cm$^{-2}$, which was ~40% $\pm$ 52%, and ~33% $\pm$ 63% lower than that during the pre-APEC and post-APEC periods, respectively.

Thank you for taking care of our manuscript.

Kind regards,
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