

Comment ID	From Page	From Line	To Page	To Line	Comment	Response
29225	1	1	1	1	As Table AV.2 includes non-gas forcers/processes, revision of the title (greenhouse gas) is recommended. [Yugo Kanaya, Japan]	Accepted. Annex 3 title has been changed.
43751	3	2	3	2	The Law Dome records of CO ₂ , CH ₄ and N ₂ O published in MacFarling Meure et al. (2006) have recently been revised and should be replaced by Rubino et al. (2019) - Revised records of atmospheric trace gases CO ₂ , CH ₄ , N ₂ O, and $\delta^{13}\text{C-CO}_2$ over the last 2000 years from Law Dome, Antarctica (https://www.earth-syst-sci-data.net/11/473/2019/) [Mauro Rubino, Italy]	Accepted. Revised estimates have been included.
9581	3	6	3	6	Can you make it clear the uncertainties (unc) are for abundances and not RF? Please provide unit for ERF. [Olivier Boucher, France]	Accepted. These aspects are reported in the notes to the table, and unit is provided.
39609	3		3		Rubino et al., ESSD, 2019, could be added to the reference listed used to established GG level in 1750. Rubino et al., 2019, actually is an update of MacFarling Meure et al., 2006 (this last reference is not essential anymore, when citing Rubino et al., 2019). Maybe consider using all paper cited in Chapter 2 to evaluate the 1750 GG levels (eg for CH ₄ , Mitchell et al., 2013, explicitly used in chapter 2 for providing 1750 CH ₄ level). [Xavier Faïn, France]	Accepted. References relevant for this Annex have been added.
81405	4	1	4	5	The header should say "Perfluorocarbons". Also, could radiative forcings for all halogenated compounds please be given in mW m ⁻² ? As it is, many of these are just zero, which makes the calculation of their cumulative ERF untraceable. Finally, it appears that the choice of species here (and in Chapters 2 and 7) is not entirely driven by radiative impact since some of the compounds here have similar or lower ERFs than some that are not included at all (e.g., (e.g., -113a: Adcock et al., 2018; -114a: Laube et al., 2016; -124: Simmonds et al., 2019; -133a: Vollmer et al., 2015; -31: Schoenenberger et al., 2015; isoflurane, desflurane, and sevoflurane: Vollmer et al., 2015; SF ₅ CF ₃ : Sturges et al., 2012; c-C ₄ F ₈ O: Vollmer et al., 2019; n-C ₄ F ₁₀ , n-C ₅ F ₁₂ , n-C ₆ F ₁₄ , i-C ₆ F ₁₄ , and n-C ₇ F ₁₆ : Droste et al., 2020). A clear criterion for including a species needs to be defined. [Johannes Laube, Germany]	Accepted. We provide in this Table ERF for components <0.001 Wm ⁻² in 4 digits, as we want to point out the growing importance of these components.
9583	4	6	4	6	Can you make it clear the uncertainties (unc) are for abundances and not RF? Please provide unit for ERF. [Olivier Boucher, France]	Accepted. These aspects are reported in the notes to the table, and unit is provided.
14439	8	2	8	2	Eliminate the word "notes". [Maria Amparo Martinez Arroyo, Mexico]	Accepted. The word was a placeholder.
9585	8		8		Contrails should be contrails and contrail-cirrus. [Olivier Boucher, France]	Accepted. The specification is made.

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116803					Thanks for this well developed Annex I. Could it be possible to highlight novel datasets compared to AR5, or major changes to datasets compared to AR5, in the Introduction? Please also make sure that the Annex is cited in relevant chapters (provide guidance) and identify where they are used (tables, figures, sections). [Valerie Masson-Delmotte, France]	Rejected. This is referring to another Annex. Cross-referencing is added.