We have prepared a revised version of our manuscript and have thereby responded to all comments made by the reviewers, according to our author comments published on 14 April. For reference, we provide a track-changes word document of the revised manuscript. In particular, the results from the pre-industrial control simulation have been updated and are now based on the extended 500-year simulation. We have expanded the analysis of the model's pre-industrial climate and interdecadal variability, and have included a comparison with the standard EC-Earth3 configuration, as requested by the reviewers. Moreover, results from hist-piAer have been added, and we now compare the temperature evolution in hist-piNTCF and hist-piAer to the range provided by the four-member historical ensemble. In addition, we more clearly distinguish between uncertainty ranges (e.g. in mean quantities) and ranges given in terms of standard deviations (in interannual quantities or across ensemble members).