Thank you, Jim, for your review and conditional acceptance of the manuscript. Below we list the additional edits requested by Reviewer #3.

Technical point 1:

In response to the comments of reviewer #3 and the editor regarding our initial statement on line 83-84: "The HSRL-derived extinction profiles could be directly translated into aerosol heating rates for regions where HRE is available, bypassing, and thus directly constraining, radiative transfer calculations.", we updated the text to "It is possible that the HSRL-derived extinction profiles could be directly translated into aerosol heating rates for regions where HRE and downwelling irradiance are available." where we also added the caveat that the reviewer and editor both point out. We acknowledge that this may limit the practical use of HRE. However, in a previous response, we showed that the sensitivity to changes in the downwelling irradiance is small. In addition, the real power of the HRE is in cross-comparing HRE across regions and data sets more efficiently.

Similarly, we included additional text at lines 392-393 to reflect the concern: "This small variability shows HRE could be used to translate extinction profiles in the region directly into aerosol heating rates if mid-visible cloud albedo and SSA are also known. In other words, the variability in extensive parameters (e.g., extinction) is higher than intensive parameters (e.g., SSA, g) and therefore, regionally and seasonally defined HRE are useful. If available for a specific region, the HRE concept would allow a direct translation from mid-visible extinction to heating rate, provided that the downward irradiances are available either through observations or radiative transfer calculations. Of course, if SSA varies appreciably within the layer, that dependence may have to be made explicit. Alternatively, if in the future the absorption coefficient were available at sufficient accuracy in addition to the extinction coefficient, the HRE could be redefined to normalize by the absorption coefficient, thereby accounting for the SSA vertical dependence."

Technical Point 2:

To address the concern regarding the discussion of the heating rate calculation technique limitations, we included the following text at lines 200-201 per the reviewer's suggestion: "This technique is appropriate where the removed component introduces a small perturbation to the downward flux, such as the cases presented here. However, very thick absorbing aerosol layers may induce shading effects on the downwelling flux, leading to a low bias in the calculated heating rates towards the bottom of the aerosol layer. This effect is minimal for our cases, but a modified technique should be considered for optically thick aerosol layers."