## Quantifying climate forcings and feedbacks over the last millennium in the CMIP5/PMIP3 models

## Supplementary Material

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Fig. S1. Little Ice Age (1600-1850 CE) minus Medieval Climate Anomaly (950-1200 CE) change in globally averaged TOA energy fluxes ( $\Delta R$ ) associated with the forcings (volcanic, land use, solar, greenhouse gas), SW feedbacks (surface albedo, SW cloud, SW q, SW residual) and LW feedbacks (Planck, lapse rate, LW q, LW cloud, LW residual). The globally averaged surface energy flux ( $\Delta E_{sfc}$ ) is also plotted. Decomposition of SW and LW feedbacks was not performed for CSIRO due to the implementation of the volcanic forcing (see text for details), while decomposition of LW feedbacks was not performed for HadCM3 due to data availability.



Fig. S2. Little Ice Age (1600-1850 CE) minus Medieval Climate Anomaly (950-1200 CE) changes in tropospheric lapse rate (calculated as a pressure-weighted average between 1000-200 mbar).