Supplementary information for "Extending CMIP5 projections of global mean temperature change and sea level rise due to thermal expansion using a physically-based emulator"

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Table S1: Table of CMIP5 models and associated Institutions

Modelling Center	**Models**	**Institution**
CSIRO-BOM	ACCESS1-0, ACCESS1-3	CSIRO (Commonwealth Scientific and Industrial Research Organisation, Australia), and BOM (Bureau of Meteorology, Australia)
BCC	BCC-CSM1-1	Beijing Climate Center, China Meteorological Administration
GCESS	BNU-ESM	College of Global Change and Earth System Science, Beijing Normal University
CCCma	CanESM2	Canadian Centre for Climate Modelling and Analysis
NCAR	CCSM4	National Center for Atmospheric Research
CNRM-CERFACS	CNRM-CM5	Centre National de Recherches Meteorologiques / Centre Europeen de Recherche et Formation Avancees en Calcul Scientifique
CSIRO-QCCCE	CSIRO-Mk3-6-0	Commonwealth Scientific and Industrial Research Organisation in collaboration with the Queensland Climate Change Centre of Excellence
NOAA GFDL	GFDL-CM3, GFDL-ESM2G, GFDL-ESM2M	Geophysical Fluid Dynamics Laboratory
NASA GISS	GISS-E2-R	NASA Goddard Institute for Space Studies
MOHC	HadGEM2-ES	Met Office Hadley Centre
INM	INM-CM4	Institute for Numerical Mathematics
IPSL	IPSL-CM5A-LR, IPSL-CM5A-MR	Institut Pierre-Simon Laplace
MIROC	MIROC-ESM, MIROC-ESM-CHEM, MIROC5	Japan Agency for Marine-Earth Science and Technology, Atmosphere and Ocean Research Institute (The University of Tokyo), and National Institute for Environmental Studies
MPI-M	MPI-ESM-LR, MPI-ESM-MR	Max Planck Institute for Meteorology
MRI	MRI-CGCM3	Meteorological Research Institute
NCC	NorESM1-M, NorESM1-ME	Norwegian Climate Centre

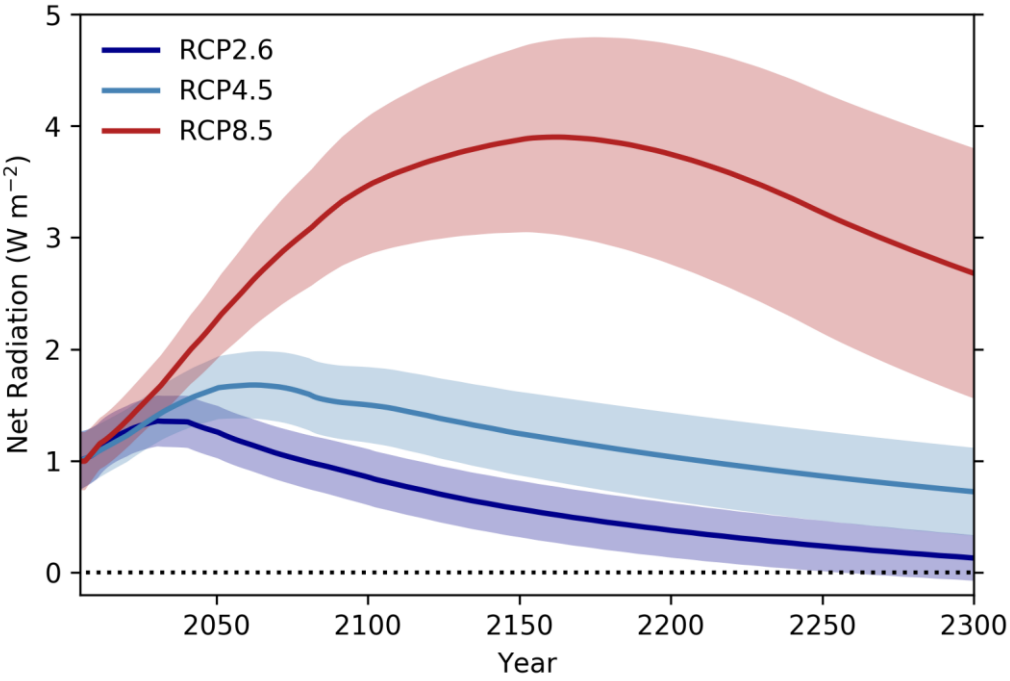

Figure S1: Two layer model (TLM) ensemble time series of the net radiation at top-of-atmosphere (W m^{-2}) based on the parameter settings summarised in Table 1. Bold lines indicate the TLM 14-member ensemble mean. Shaded regions indicate the 90% confidence interval based upon the ensemble standard deviation.