The influence of the ocean circulation state on ocean carbon storage and CO_2 drawdown potential in an Earth system model

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Table S.1. Minimum (*min*) and maximum (*max*) of zonal average ocean overturning streamfunction [Sv] below 556 m for each ensemble member (*Ens. mem.*) for the Atlantic and Pacific basin, as well as for the Northern and Southern hemispheres.

Ens. mem.	Atlantic min	Atlantic max	Pacific min	Pacific max	N. Hem min	N. Hem max	S. Hem min	S. Hem max
PIES278	-0.72994	14.351	-10.622	0.82759	-3.0596	13.969	-8.5206	16.109
SE1	-0.90637	13.343	-9.5614	0.67199	-3.289	12.758	-7.821	17.496
SE2	-1.7676	13.393	-10.431	0.19119	-4.6907	13.037	-10.125	14.205
SE3	-0.8106	12.208	-10.614	-0.0054238	-1.1717	11.73	-9.8906	6.0054
SE4	-2.2848	17.18	-12.118	5.1812	-5.4032	19.826	-9.61	37.308
SE5	-0.9551	12.01	-8.216	0.35484	-2.5218	11.695	-5.685	17.737
SE6	-1.5467	18.001	-14.518	2.8046	-6.0425	17.998	-14.648	12.872
SE7	-1.2487	16.588	-9.3395	0.80844	-3.6345	16.071	-8.73	11.925
SE8	-0.69754	10.881	-10.634	1.2097	-2.2037	10.584	-8.3644	21.294
SE9	-0.58072	8.6163	-7.7396	0.63172	-1.956	7.9347	-5.4419	22.768
SE10	-1.0229	14.554	-15.156	2.4531	-4.9616	15.176	-14.387	18.074
SE11	-2.5161	15.909	-13.521	0.92228	-7.613	15.614	-15.484	11.301
SE12	-0.55727	3.5649	-6.7039	0.6078	-3.3234	2.4071	-7.6655	7.3873

S   Supplementary material

This document includes supplementary figures and tables, containing data that is described or shown in other forms in the manuscript. Table **??** lists the maxima and minima in ocean overturning streamfunction that are used to calculate $(\psi_{max} - \psi_{min})$ in Tables **??** and **??** and Figures **??** and **??**. Figure **??** shows the changes in T_{avg} for the SE ensemble, with respect to the control simulation $PIES278$, versus the change in pCO_2^{atm} that is estimated to result from the corresponding change in C_{sat}.
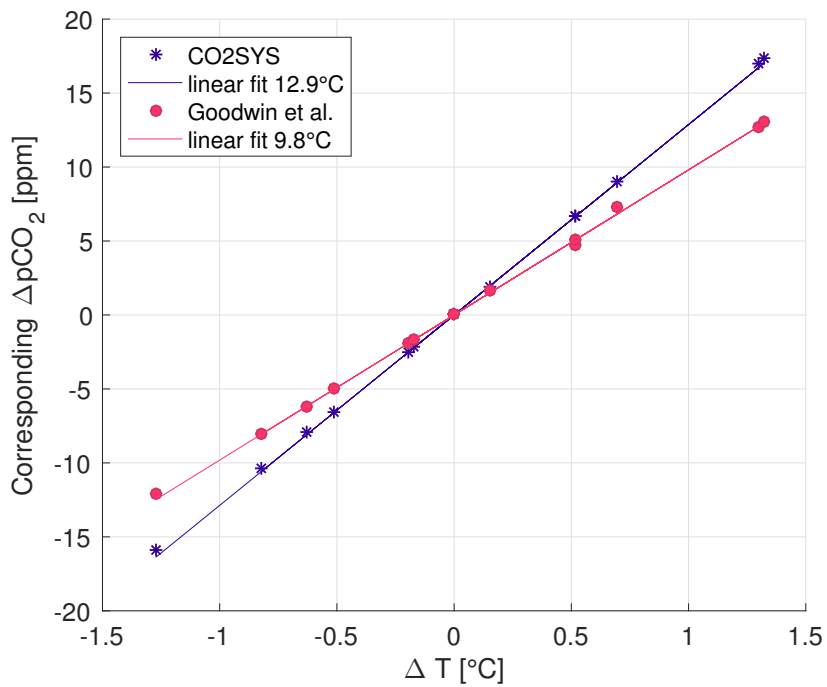
Figure S.1. Global ocean average temperature change (ΔT_{avg}) and the changes in pCO_2^{atm} corresponding to the ΔC_{sat} caused by the changes in temperature in the ensemble members $SE1 - SE12$. The control state is found at coordinates (0,0).