

TABLE 3

SOME CHARACTERISTICS OF IPCC SRES SCENARIOS							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Scenario	Average Annual Rate of Growth of Global GDP (1990-2100)	Average Annual Rate of Decline in Energy Intensity ^a (1990-2100)	Primary Energy (EJ) (2100)	Carbon-free energy EJ (2100)	Atmospheric Concentration at (ppmv) (2100)	Amount of Carbon-free Energy Needed to Stabilize Atmospheric CO ₂ Concentration at 550 ppmv	Estimated Average Annual Rate of Decarbonization (decline in C/E) Required to Stabilize CO ₂ Emissions
A1F1	2.97	-1.30	2073	643 = (20.4 TW)	~1200	~1720 EJ (54.6 TW)	-1.67
A1B	2.98	-1.25	2226	1146 = (45.9 TW)	~ 800	~1890 EJ (60 TW)	-1.73
A1T	3.01	-1.37	2021	1717 = (54.5 TW)	~ 650 ^b	~1700 EJ (54 TW)	-1.64
A2	2.25	-0.78	1717	321 = (10.2 TW)	~1000	~1370 EJ (43.5 TW)	-1.47
B1	2.53	-2.13	514	268 = (8.5 TW)	~ 550 ^b	~ 175 EJ (5.3 TW)	-0.40
B2	2.22	-0.96	1357	665 = (21.1 TW)	~ 750	~1000 EJ (31.5 TW)	-1.26
IS 92a (Hoffert)	2.30	-1.00	~1430		~720	(37 TW)	-1.30

^a Energy intensity is the ratio of energy (E) to output (or GDP = Y)

^b In long-run will stabilize at 450-500 ppmv

Source: Calculated from tables in the IPCC, Special Report on Emission Scenarios (2000).

Col (2) calculated from GDP figures in SRES Tables SPM. 1a, p.13

Col (3) calculated from energy and GDP figures in SRES Tables SPM-1 and 2a, pp. 13, 15

Col (4) from SRES Table SPM-2a, p. 15

Col (5) calculated from SRES Table SPM-2a (and converted to TW). The authors have adjusted the calculations for A2 to be consistent with other numbers in the SRES tables

Col (6) from SRES Figure SPM-3a, p. 7

Col (7) estimated by authors

Col (8) calculated from carbon emission and energy figures in SRES Tables SPM-3a and SPM-2a, pp. 15, 17