Table 10.2c Renewable Energy Consumption: Electric Power Sector (Trillion Btu)

Powers		Hydro-	0.55			Biomass			
955 Total 1,322 NA NA NA NA 3 NA 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		electric Power ^a	Geo- thermal ^b		Wind ^d	Woode	Waste ^f	Total	Total
1.55 Total	350 Total	1 346	NΔ	NΔ	NΔ	5	NΔ	5	1,351
166 Total	155 Total	1 322				ž	NΔ	3	1,325
65 Total	60 Total	1,522				3	NA	2	1,571
770 Total	65 Total		(3)					2	2,031
75 Total									
									2,609
185 Total 2,937 97 (s) (s) 8 7 14 3 3 3 3 3 3 3 3 3						(S)			3,158
1997 Total						•	2		2,925
195 Total							7		3,049
100 Total 2,768	90 lotal9								3,524
101 Total	95 Total								3,747
02 Total	00 lotal								3,427
1005 Total 2,749	001 Total								2,763
100 Total	002 Total								3,288
104 Total	003 Total	2,749				167	230	397	3,411
1005 Total	004 Total	2,655	148	6	142	165	223	388	3,339
06 Total 2,839 145 5 264 182 231 412 3 06 Total 2,430 145 6 341 186 237 423 3 06 Total 2,494 146 9 546 170 288 431 3 06 Total 2,696 148 9 722 196 264 459 437 44 11 Total 3,085 149 17 1,167 182 255 437 44 11 Total 2,529 151 83 1,600 207 262 453 43 13 Total 2,529 151 83 1,600 207 262 470 4 141 January 205 13 7 170 21 24 45 February 164 11 8 1333 20 22 42 46 April 241 12 14 177 170	05 Total	2,670	147	6	178	185	221	406	3,406
107 Total	06 Total	2.839	145	5	264	182	231	412	3,665
108 Total 2,494 146 9 546 177 258 435 3 3 109 Total 2,650 146 9 721 180 261 441 3 3 110 Total 2,521 148 12 923 196 264 459 4 411 Total 3,085 149 17 1,167 182 255 437 4 111 Total 2,606 148 40 1,339 190 262 453 4 112 Total 2,529 151 83 1,600 207 262 470 4 113 Total 2,529 151 83 1,600 207 262 470 4 141 15 141 15 141 177 18 2 25 4 141 141 177 18 2 2 2 4 4 4 4 4 4 4	007 Total			6					3,345
109 Total	08 Total								3,630
	009 Total			ğ					3.967
111 Total	110 Total								4,064
M2 Total 2,606	111 Total	3 085							4,855
Mathematical Math	112 Total								4,586
February	113 Total								4,833
February	14 January	205	13	7	170	21	24	45	440
March 230 13 12 169 22 24 46 April 241 12 14 177 18 23 41 May 251 13 16 148 17 24 41 June 244 12 18 150 22 24 45 July 231 13 17 116 23 25 48 August 187 13 17 197 23 24 46 September 152 12 17 109 21 22 43 October 162 13 16 138 20 22 24 40 Newember 176 13 13 179 22 22 23 45 Total 2,454 151 165 1,726 251 279 530 5 15 January 224 13 11 141 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>359</td></th<>									359
April 241 12 14 177 18 23 41 May 251 13 16 148 17 24 41 July 234 12 18 150 22 24 45 July 231 13 17 116 23 25 48 August 187 13 17 97 23 24 46 September 152 12 17 109 21 22 43 October 162 13 16 138 20 22 42 November 176 13 13 179 22 22 24 November 176 13 13 179 22 22 24 November 211 13 10 140 22 23 45 Total 2,454 151 165 1,726 251 279 530 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>22</td><td>24</td><td></td><td>469</td></t<>						22	24		469
May 251 13 16 148 17 24 41 June 244 12 18 150 22 24 45 July 231 13 17 116 23 25 48 August 187 13 17 190 23 24 46 September 152 12 17 109 21 22 43 October 162 13 16 138 20 22 42 November 176 13 13 179 22 22 44 December 211 13 10 140 22 23 45 Total 24 151 165 1,726 251 279 530 5 15 January 224 13 11 141 22 23 45 February 207 12 14 139 21 20							24		485
Jurie 244 12 18 150 22 24 45 July 231 13 17 16 23 25 48 August 187 13 17 97 23 24 46 September 152 12 17 109 21 22 43 October 162 13 16 138 20 22 42 November 176 13 13 179 22 22 44 December 211 13 10 140 22 23 45 Total 2,454 151 165 1,726 251 279 530 5 145 January 224 13 11 141 22 23 45 February 207 12 14 139 21 20 41 March 225 13 19 143 21 22							23		469
July 231 13 17 116 23 25 48 August 187 13 17 97 23 24 46 September 152 12 17 109 21 22 43 October 1162 13 16 138 20 22 42 November 176 13 13 179 22 22 24 December 211 13 10 140 22 23 45 Total 2,454 151 165 1,726 251 279 530 5 M5 January 224 13 11 141 22 23 45 February 207 12 14 139 21 20 41 March 225 13 19 143 21 22 23 45 February 207 12 14 139 21									
August 187 13 17 97 23 24 46 September 152 12 17 109 21 22 43 October 162 13 16 138 20 22 42 November 176 13 13 179 22 22 44 December 211 13 10 140 22 23 45 Total 2,454 151 165 1,726 251 279 530 5 15 January 224 13 11 141 22 23 45 February 207 12 14 139 21 20 41 March 225 13 19 143 21 22 43 April 208 12 22 166 18 22 40 May 186 13 23 160 18 23							24		470
September 152						23			423
October 162 13 16 138 20 22 42 November 176 13 13 179 22 22 24 December 211 13 10 140 22 23 45 Total 2,454 151 165 1,726 251 279 530 5 915 January 224 13 11 141 22 23 45 February 207 12 14 139 21 20 41 March 225 13 19 143 21 22 43 April 208 12 22 166 18 22 40 May 186 13 23 160 18 23 41 July 195 13 24 127 22 26 48 August 177 13 25 122 23 25									361
November	September								334
December 211	October								371
Total 2,454 151 165 1,726 251 279 530 5 M15 January 224 13 11 141 22 23 45 February 207 12 14 139 21 20 41 March 225 13 19 143 21 22 43 April 208 12 222 166 18 22 40 May 186 13 23 160 18 23 41 June 189 12 23 125 21 23 44 July 195 13 24 127 22 26 48 August 177 13 25 122 23 25 48 September 149 11 20 130 20 23 43 October 154 12 17 152 17 24 <	November	176	13	13	179	22	22	44	425
Total 2,454 151 165 1,726 251 279 530 5 015 January 224 13 11 141 22 23 45 February 207 12 14 139 21 20 41 March 225 13 19 143 21 22 43 April 208 12 22 166 18 22 40 May 186 13 23 160 18 23 41 June 189 12 23 125 21 23 44 July 195 13 24 127 22 26 48 July 195 13 24 127 22 26 48 August 177 13 25 122 23 25 48 September 149 11 20 130 20 23 4	December	211	13	10	140	22	23	45	419
February 207 12		2,454	151	165	1,726	251	279	530	5,026
March 225 13 19 143 21 22 43 April 208 12 22 166 18 22 40 May 186 13 23 160 18 23 41 June 189 12 23 125 21 23 44 July 195 13 24 127 22 26 48 August 177 13 25 122 23 25 48 September 149 11 20 130 20 23 43 October 154 12 17 152 17 24 41 November 179 12 16 183 19 25 44 December 214 13 14 187 21 25 47 Total 2,308 148 228 1,776 244 281 525	15 January						23		433
March 225 13 19 143 21 22 43 April 208 12 22 166 18 22 40 May 186 13 23 160 18 23 41 July 189 12 23 125 21 23 44 July 195 13 24 127 22 26 48 August 177 13 25 122 23 25 48 September 149 11 20 130 20 23 43 October 154 12 17 152 17 24 41 November 179 12 16 183 19 25 44 December 214 13 14 187 21 25 47 Total 2,308 148 228 1,776 244 281 525	February								412
April 208 12 22 166 18 22 40 May 186 13 23 160 18 23 41 June 189 12 23 125 21 23 44 July 195 13 24 127 22 26 48 August 177 13 25 122 23 25 48 September 149 11 20 130 20 23 43 October 154 12 17 152 17 24 41 November 179 12 16 183 19 25 44 December 214 13 14 187 21 25 47 Total 2,308 148 228 1,776 244 281 525 47 Total 235 14 14 172 21 25	March	225	13		143	21	22		443
May 186 13 23 160 18 23 41 June 189 12 23 125 21 23 44 July 195 13 24 127 22 26 48 August 177 13 25 122 23 25 48 September 149 11 20 130 20 23 43 October 154 12 17 152 17 24 41 November 179 12 16 183 19 25 44 December 214 13 14 187 21 25 47 Total 2,308 148 228 1,776 244 281 525 4 M16 January 235 14 14 172 21 25 45 February 224 13 22 188 21 23 43 March 250 14 24 203 20 23		208		22			22		448
June 189 12 23 125 21 23 44 July 195 13 24 127 22 26 48 August 177 13 25 122 23 25 48 September 149 11 20 130 20 23 43 October 154 12 17 152 17 24 41 November 179 12 16 183 19 25 44 December 214 13 14 187 21 25 47 Total 2,308 148 228 1,776 244 281 525 4 16 January 235 14 14 172 21 25 45 February 224 13 22 188 21 23 43 March 250 14 24 203 20 23				23			23		423
July 195 13 24 127 22 26 48 August 177 13 25 122 23 25 48 September 149 11 20 130 20 23 43 October 154 12 17 152 17 24 41 November 179 12 16 183 19 25 44 December 214 13 14 187 21 25 47 Total 2,308 148 228 1,776 244 281 525 4 M6 January 235 14 14 172 21 25 45 February 224 13 22 188 21 23 43 March 250 14 24 203 20 23 43 April 236 12 27 191 15 25				23			23		393
August 177 13 25 122 23 25 48 September 149 11 20 130 20 23 43 October 154 12 17 152 17 24 41 November 179 12 16 183 19 25 44 December 214 13 14 187 21 25 47 Total 2,308 148 228 1,776 244 281 525 4 7016 January 235 14 14 172 21 25 45 February 224 13 22 188 21 23 43 March 250 14 24 203 20 23 43 May 236 12 27 191 15 25 40 May 235 14 32 175 16 24 40 June 212 13 32 152 19 24				24			26		407
September 149 11 20 130 20 23 43 October 154 12 17 152 17 24 41 November 179 12 16 183 19 25 44 December 214 13 14 187 21 25 47 Total 2,308 148 228 1,776 244 281 525 4 I16 January 235 14 14 172 21 25 45 February 235 14 14 172 21 25 45 February 224 13 22 188 21 23 43 March 250 14 24 203 20 23 43 April 236 12 27 191 15 25 40 May 235 14 32 175 16 24				25			25		384
October 154 12 17 152 17 24 41 November 179 12 16 183 19 25 44 December 214 13 14 187 21 25 47 Total 2,308 148 228 1,776 244 281 525 4 M16 January 235 14 14 172 21 25 45 February 224 13 22 188 21 23 43 March 250 14 24 203 20 23 43 April 236 12 27 191 15 25 40 May 235 14 32 175 16 24 40 June 212 13 32 152 19 24 42 July 197 13 37 164 20 24 <							23		354
November 179 12 16 183 19 25 44 December 214 13 14 187 21 25 47 Total 2,308 148 228 1,776 244 281 525 4 I16 January 235 14 14 172 21 25 45 February 224 13 22 188 21 23 43 March 250 14 24 203 20 23 43 April 236 12 27 191 15 25 40 May 236 14 32 175 16 24 40 June 212 13 32 152 19 24 42 July 197 13 37 164 20 24 45 August 180 13 36 126 21 25 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>378</td></t<>									378
December 214 13 14 187 21 25 47 Total 2,308 148 228 1,776 244 281 525 4 916 January 235 14 14 172 21 25 45 February 224 13 22 188 21 23 43 March 250 14 24 203 20 23 43 April 236 12 27 191 15 25 40 May 235 14 32 175 16 24 40 June 212 13 32 152 19 24 42 July 197 13 37 164 20 24 45 August 180 13 36 126 21 25 46 September 151 14 33 153 18 23 <									434
Total 2,308 148 228 1,776 244 281 525 4 #16 January 235 14 14 172 21 25 45 February 224 13 22 188 21 23 43 March 250 14 24 203 20 23 43 April 236 12 27 191 15 25 40 May 235 14 32 175 16 24 40 June 212 13 32 152 19 24 42 July 197 13 37 164 20 24 45 August 180 13 36 126 21 25 46 September 151 14 33 153 18 23 41 October 160 14 29 190 15 24 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
February 224 13 22 188 21 23 43 March 250 14 24 203 20 23 43 April 236 12 27 191 15 25 40 May 235 14 32 175 16 24 40 June 212 13 32 152 19 24 42 July 197 13 37 164 20 24 45 August 180 13 36 126 21 25 46 September 151 14 33 153 18 23 41 October 160 14 29 190 15 24 39 10-Month Total 2,080 133 286 1,714 185 239 424 4									476 4,985
February 224 13 22 188 21 23 43 March 250 14 24 203 20 23 43 April 236 12 27 191 15 25 40 May 235 14 32 175 16 24 40 June 212 13 32 152 19 24 42 July 197 13 37 164 20 24 45 August 180 13 36 126 21 25 46 September 151 14 33 153 18 23 41 October 160 14 29 190 15 24 39 10-Month Total 2,080 133 286 1,714 185 239 424 4	16 January	235	14	14	172	21	25	45	480
March 250 14 24 203 20 23 43 April 236 12 27 191 15 25 40 May 235 14 32 175 16 24 40 June 212 13 32 152 19 24 42 July 197 13 37 164 20 24 45 August 180 13 36 126 21 25 46 September 151 14 33 153 18 23 41 October 160 14 29 190 15 24 39 10-Month Total 2,080 133 286 1,714 185 239 424 4				22			23		490
April 236 12 27 191 15 25 40 May 235 14 32 175 16 24 40 June 212 13 32 152 19 24 42 July 197 13 37 164 20 24 45 August 180 13 36 126 21 25 46 September 151 14 33 153 18 23 41 October 160 14 29 190 15 24 39 10-Month Total 2,080 133 286 1,714 185 239 424 4							23		534
May 235 14 32 175 16 24 40 June 212 13 32 152 19 24 42 July 197 13 37 164 20 24 45 August 180 13 36 126 21 25 46 September 151 14 33 153 18 23 41 October 160 14 29 190 15 24 39 10-Month Total 2,080 133 286 1,714 185 239 424 4									
June 212 13 32 152 19 24 42 July 197 13 37 164 20 24 45 August 180 13 36 126 21 25 46 September 151 14 33 153 18 23 41 October 160 14 29 190 15 24 39 10-Month Total 2,080 133 286 1,714 185 239 424 4									506
July 197 13 37 164 20 24 45 August 180 13 36 126 21 25 46 September 151 14 33 153 18 23 41 October 160 14 29 190 15 24 39 10-Month Total 2,080 133 286 1,714 185 239 424 4									496
August									452
September 151 14 33 153 18 23 41 October 160 14 29 190 15 24 39 10-Month Total 2,080 133 286 1,714 185 239 424 4	July								456
September 151 14 33 153 18 23 41 October 160 14 29 190 15 24 39 10-Month Total 2,080 133 286 1,714 185 239 424 4	August								401
October 160 14 29 190 15 24 39 10-Month Total 2,080 133 286 1,714 185 239 424 4	September	151	14	33	153	18	23	41	392
10-Month Iotal 2,080 133 286 1,714 185 239 424 4	October		14	29	190	15		39	431
45 40 Month Total 4 044 400 400 400 405 000 000	10-Month Total								4,637
15 TU-MONTH LOTAL 1,914 123 198 1,405 203 231 434 4	15 10-Month Total	1,914	123	198	1,405	203	231	434	4,074

tire-derived fuels).

9 Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#renewable (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

beginning in 1973. Sources: Tables 7.2b, 7.4b, and A6.

a Conventional hydroelectricity net generation (converted to Btu by multiplying by the total fossil fuels heat rate factors in Table A6).

^b Geothermal electricity net generation (converted to Btu by multiplying by the total fossil fuels heat rate factors in Table A6).

^c Solar photovoltaic (PV) and solar thermal electricity net generation in the electric power sector (converted to Btu by multiplying by the total fossil fuels heat rate factors in Table A6). See Table 10.5.

^d Wind electricity net generation (converted to Btu by multiplying by the total fossil fuels heat rate factors in Table A6).

^e Wood and wood-derived fuels.

^f Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and