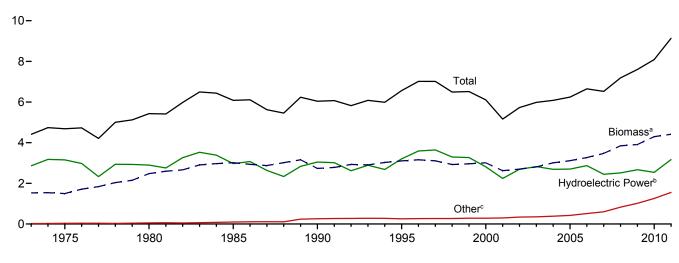
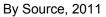
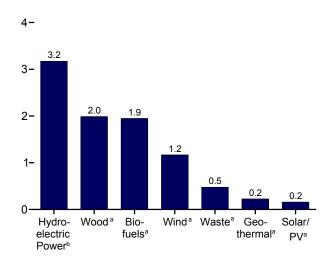
10. Renewable Energy

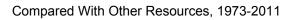
Figure 10.1 Renewable Energy Consumption (Quadrillion Btu)

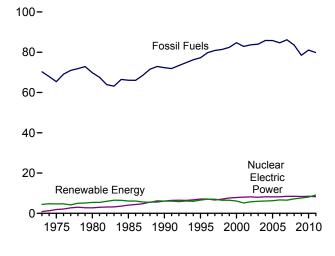
Total and Major Sources, 1973-2011



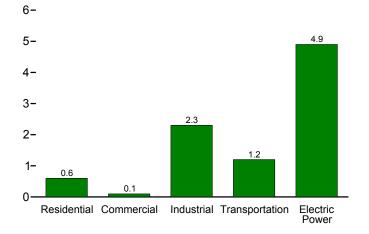




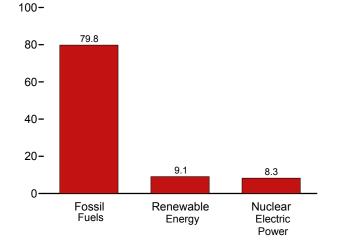




By Sector, 2011



Compared With Other Resources, 2011



Web Page: http://www.eia.gov/totalenergy/data/monthly/#renewable.

Sources: Tables 1.3 and 10.1-10.2c.

^a See Table 10.1 for definition.

^b Conventional hydroelectric power.

^c Geothermal, solar/PV, and wind.

138

Table 10.1 Renewable Energy Production and Consumption by Source (Trillion Btu)

fue 1973 Total 1975 Total 1985 Total 1985 Total 1995 Total 1995 Total 1996 Total 1997 Total 2001 Total 2001 Total 2002 Total 2003 Total 2006 Total 2007 Total 2007 Total 2007 Total 2007 Total 2007 Total 1,2009 Total 2009 Total 1,2009 Total 1,2010 January </th <th>NA 1 NA 93 93 111 1 198 3 141 3 141 3 202 2 211 3 2254 3 308 2 402 2 254 3 308 3 402 3 564 3 720 9 78 3 387 3 584 3 152 152</th> <th>Total^c 1,529 1,499 2,475 3,019 3,155 3,099 3,155 2,995 2,905 2,905 2,905 2,905 2,905 2,805 2,905 3,104 3,216 3,26 3,216 3,26 3,216 3,26 3,55 3</th> <th>Total Renew- able Energyd 4,411 4,687 5,428 6,084 6,084 6,084 6,084 6,084 6,070 6,104 5,164 5,764 5,782 6,070 6,229 6,599 6,599 6,599 6,509 7,202 7,616 672 610 682 661 717 753</th> <th>Hydro- electric Power^e 2,861 3,155 2,900 2,970 3,046 3,205 3,590 3,640 3,297 3,268 2,811 2,242 2,689 2,825 2,690 2,703 2,869 2,446 2,511 2,669 2,18 201 204 186 245 245</th> <th>Geo- thermal^f 20 34 53 97 171 152 163 167 168 171 164 164 164 164 171 175 178 181 181 181 186 192 200 18 16 18 17</th> <th>Solar/ PV9 NA NA NA (s) 59 70 69 69 69 69 69 69 68 66 64 63 63 68 63 63 63 63 89 9 9 9 10</th> <th>Wind^h NA NA (s) 29 33 34 31 46 57 70 105 115 142 178 264 341 546 721 67 53 84 95 85</th> <th>Woodⁱ 1,527 1,497 2,474 2,687 2,370 2,437 2,371 2,184 2,214 2,262 2,006 1,995 2,002 2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 168 168</th> <th>Wastej 2 2 236 408 531 551 542 540 511 364 402 401 389 403 397 413 436 453 39 35 40 39</th> <th>nass Bio- fuels^k NA NA 93 111 200 143 184 201 209 236 253 303 404 499 577 771 1,372 1,568 142 136 149 149 149</th> <th>Total 1,529 1,499 2,475 3,016 2,735 3,101 3,157 3,105 2,927 2,963 3,008 2,622 2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 357 348 356</th> <th>Total Renew- able Energy 4,411 4,687 5,428 6,084 6,084 6,560 7,014 6,560 7,014 6,560 7,016 6,493 6,516 6,106 5,163 5,729 5,983 6,082 6,242 6,649 6,523 7,186 7,600 662 605 673 657 715</th>	NA 1 NA 93 93 111 1 198 3 141 3 141 3 202 2 211 3 2254 3 308 2 402 2 254 3 308 3 402 3 564 3 720 9 78 3 387 3 584 3 152 152	Total ^c 1,529 1,499 2,475 3,019 3,155 3,099 3,155 2,995 2,905 2,905 2,905 2,905 2,905 2,805 2,905 3,104 3,216 3,26 3,216 3,26 3,216 3,26 3,55 3	Total Renew- able Energyd 4,411 4,687 5,428 6,084 6,084 6,084 6,084 6,084 6,070 6,104 5,164 5,764 5,782 6,070 6,229 6,599 6,599 6,599 6,509 7,202 7,616 672 610 682 661 717 753	Hydro- electric Power ^e 2,861 3,155 2,900 2,970 3,046 3,205 3,590 3,640 3,297 3,268 2,811 2,242 2,689 2,825 2,690 2,703 2,869 2,446 2,511 2,669 2,18 201 204 186 245 245	Geo- thermal ^f 20 34 53 97 171 152 163 167 168 171 164 164 164 164 171 175 178 181 181 181 186 192 200 18 16 18 17	Solar/ PV9 NA NA NA (s) 59 70 69 69 69 69 69 69 68 66 64 63 63 68 63 63 63 63 89 9 9 9 10	Wind ^h NA NA (s) 29 33 34 31 46 57 70 105 115 142 178 264 341 546 721 67 53 84 95 85	Wood ⁱ 1,527 1,497 2,474 2,687 2,370 2,437 2,371 2,184 2,214 2,262 2,006 1,995 2,002 2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 168 168	Wastej 2 2 236 408 531 551 542 540 511 364 402 401 389 403 397 413 436 453 39 35 40 39	nass Bio- fuels ^k NA NA 93 111 200 143 184 201 209 236 253 303 404 499 577 771 1,372 1,568 142 136 149 149 149	Total 1,529 1,499 2,475 3,016 2,735 3,101 3,157 3,105 2,927 2,963 3,008 2,622 2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 357 348 356	Total Renew- able Energy 4,411 4,687 5,428 6,084 6,084 6,560 7,014 6,560 7,014 6,560 7,016 6,493 6,516 6,106 5,163 5,729 5,983 6,082 6,242 6,649 6,523 7,186 7,600 662 605 673 657 715
fue 1973 Total 1975 Total 1980 Total 1985 Total 1995 Total 1995 Total 1995 Total 1996 Total 1997 Total 2001 Total 2001 Total 2002 Total 2003 Total 2004 Total 2005 Total 2006 Total 2007 Total 2008 Total 1,2009 Total 2010 January February March April August September December Total 1,2011 January R March April April 7 2011 January R March April Yebruary	els ^b T NA 7 NA 93 111 198 202 211 141 186 202 221 233 254 402 233 308 402 234 308 402 234 308 402 234 407 2564 402 235 487 2564 402 257 2564 2564 2564 2564 257 2564 2564 2564 2564 2564 2564 2564 2564	1,529 1,499 2,475 3,016 2,735 3,009 3,155 3,108 2,965 3,009 2,965 3,009 2,965 3,009 2,965 3,004 3,216 2,805 3,2624 2,705 2,805 3,2624 2,705 2,805 3,461 3,864 3,328 3,666 3,51 3,55	able Energy ^d 4,411 4,687 5,428 6,084 6,041 6,558 7,012 7,018 6,494 6,517 6,104 5,164 5,734 5,982 6,070 6,229 6,509 7,202 7,616 672 6,509 6,509 7,202 7,616 672 6,610 682 661 7,717	electric Power ^e 2,861 3,155 2,900 2,970 3,046 3,205 3,590 3,640 3,297 3,268 2,811 2,242 2,689 2,825 2,690 2,703 2,869 2,446 2,511 2,669 2,446 2,511 2,669	thermal ^f 20 34 53 97 171 152 163 167 168 171 164 164 164 164 171 175 178 181 181 181 182 200 18 16 18 17 18	PV9 NA NA (5) 59 70 70 69 69 69 69 68 66 63 63 63 63 63 63 63 63 63 99 98 99 910 10 10	NA NA (s) 29 33 34 31 46 57 70 105 115 142 178 264 341 536 721 67 53 84 95	1,527 1,497 2,474 2,687 2,216 2,370 2,437 2,371 2,184 2,214 2,006 1,995 2,002 2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 168	2 2 236 408 531 551 542 540 551 364 402 401 389 403 397 413 403 397 35 40 39 35	fuels ^k NA NA 93 1111 200 143 184 201 209 236 253 303 404 499 577 771 1,372 1,568 142 136 149 149	1,529 1,499 2,475 3,016 2,735 3,101 3,157 2,927 2,963 3,008 2,622 2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 357 348	able Energy 4,411 4,687 5,428 6,084 6,041 7,016 6,493 6,516 6,493 6,516 6,106 5,163 5,729 5,983 6,082 6,649 6,523 7,186 7,600 662 605 673 677 715
1975 Total 1980 Total 1980 Total 1980 Total 1990 Total 1995 Total 1995 Total 1997 Total 1997 Total 1998 Total 1999 Total 1999 Total 2000 Total 2001 Total 2001 Total 2002 Total 2003 Total 2004 Total 2005 Total 2006 Total 2007 Total 2008 Total 2009 Total 1,2009 Total 2001 Total 2006 Total 2007 Total 2009 Total 1,2009 Total 1,2009 Total 1,2009 Total 1,2009 Total 1,2010 January February March August September October November December Total 1,1,2 2011 January R March April </th <th>NA 2 93 32111 2 198 202 2211 2 233 3 202 254 254 2 308 2 402 254 3 308 2 564 3 564 3 584 3 152 152 157 152</th> <th>1,499 2,475 3,016 2,735 3,108 2,929 3,155 3,108 2,965 3,004 2,705 2,805 3,104 3,216 3,2624 3,2161 3,2461 3,864 3,928 3,55 3,55</th> <th>4,687 5,428 6,084 6,041 6,558 7,012 7,018 6,517 6,104 5,164 5,734 5,982 6,599 6,599 7,202 7,616 672 6,10 6,229 6,599 7,202 7,616 672 6,10 6,82 6,01 6,01 6,01 6,01 6,01 6,01 6,01 6,01</th> <th>3,155 2,900 2,970 3,046 3,297 3,205 3,590 3,640 3,297 3,268 2,811 2,242 2,669 2,703 2,869 2,426 2,511 2,669 2,446 2,511 2,669 2,446 2,511 2,669</th> <th>34 53 97 171 152 163 167 168 171 164 171 175 178 181 186 192 200 18 16 18 18 16 18 18 18 18 18 18 18 18 18 18 18</th> <th>NA (s) 59 60 70 68 66 64 63 63 63 63 63 63 63 63 63 98 98 10 9 10 10</th> <th>NA (s) 29 33 34 31 46 57 70 105 115 142 264 346 721 67 53 84 95</th> <th>1,497 2,474 2,687 2,216 2,370 2,437 2,371 2,184 2,214 2,262 2,006 1,995 2,002 2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 168 168</th> <th>2 236 408 531 577 551 542 540 511 364 402 401 389 403 397 413 436 453 39 35 40 39</th> <th>NA NA 93 111 200 143 184 201 253 303 404 499 577 771 1,372 1,568 142 136 149 149</th> <th>1,499 2,475 3,016 2,735 3,101 3,157 3,105 2,927 2,963 3,008 2,622 2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 357 348</th> <th>4,687 5,428 6,084 6,041 7,016 6,560 7,014 7,016 6,516 6,516 5,163 5,729 5,983 6,082 6,242 6,649 6,523 7,186 7,600 662 605 673 657 715</th>	NA 2 93 32111 2 198 202 2211 2 233 3 202 254 254 2 308 2 402 254 3 308 2 564 3 564 3 584 3 152 152 157 152	1,499 2,475 3,016 2,735 3,108 2,929 3,155 3,108 2,965 3,004 2,705 2,805 3,104 3,216 3,2624 3,2161 3,2461 3,864 3,928 3,55 3,55	4,687 5,428 6,084 6,041 6,558 7,012 7,018 6,517 6,104 5,164 5,734 5,982 6,599 6,599 7,202 7,616 672 6,10 6,229 6,599 7,202 7,616 672 6,10 6,82 6,01 6,01 6,01 6,01 6,01 6,01 6,01 6,01	3,155 2,900 2,970 3,046 3,297 3,205 3,590 3,640 3,297 3,268 2,811 2,242 2,669 2,703 2,869 2,426 2,511 2,669 2,446 2,511 2,669 2,446 2,511 2,669	34 53 97 171 152 163 167 168 171 164 171 175 178 181 186 192 200 18 16 18 18 16 18 18 18 18 18 18 18 18 18 18 18	NA (s) 59 60 70 68 66 64 63 63 63 63 63 63 63 63 63 98 98 10 9 10 10	NA (s) 29 33 34 31 46 57 70 105 115 142 264 346 721 67 53 84 95	1,497 2,474 2,687 2,216 2,370 2,437 2,371 2,184 2,214 2,262 2,006 1,995 2,002 2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 168 168	2 236 408 531 577 551 542 540 511 364 402 401 389 403 397 413 436 453 39 35 40 39	NA NA 93 111 200 143 184 201 253 303 404 499 577 771 1,372 1,568 142 136 149 149	1,499 2,475 3,016 2,735 3,101 3,157 3,105 2,927 2,963 3,008 2,622 2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 357 348	4,687 5,428 6,084 6,041 7,016 6,560 7,014 7,016 6,516 6,516 5,163 5,729 5,983 6,082 6,242 6,649 6,523 7,186 7,600 662 605 673 657 715
1980 Total 1 1985 Total 1 1995 Total 1 1995 Total 1 1995 Total 1 1996 Total 1 1997 Total 1 1998 Total 1 1998 Total 1 1998 Total 1 2000 Total 1 2001 Total 1 2002 Total 1 2003 Total 1 2006 Total 1 2007 Total 1 2008 Total 1 2009 Total 1 2009 Total 1 2010 January 1 February 4 June 1 July 4 August 1 September 1 December 1 Total 1 2011 January R February R March 4 April 1	NA 2 93 3 111 111 198 3 141 3 202 2 211 2 233 2 254 2 254 2 308 2 402 2 487 2 564 3 564 3 564 3 564 3 564 3 584 3 152 152 152	2,475 3,016 3,015 3,095 3,155 3,099 3,155 2,995 3,108 2,929 3,108 2,929 3,108 2,929 3,108 2,929 3,108 2,929 3,108 2,929 3,108 2,929 3,108 2,905 3,108 2,905 3,108 2,929 3,108 3,108 2,929 3,108	5,428 6,084 6,058 7,012 7,018 6,494 6,517 6,104 5,164 5,734 5,982 6,509 6,509 7,202 7,616 672 610 682 610 682 610 682 611 682 611	2,900 2,970 3,205 3,590 3,640 3,297 3,268 2,811 2,242 2,689 2,825 2,690 2,703 2,869 2,446 2,511 2,669 2,18 201 204 186 245	53 97 171 152 163 167 168 171 164 164 171 175 178 181 181 181 182 200 18 16 18 17 18	NA (s) 59 70 69 68 66 63 63 68 63 63 68 89 98 10 9 10 10	NA (s) 29 33 34 31 46 57 70 105 115 142 341 546 721 67 53 84 95	2,474 2,687 2,216 2,370 2,437 2,371 2,184 2,262 2,006 1,995 2,002 2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 168	2 236 408 531 577 551 542 540 511 364 402 401 389 403 397 413 436 453 39 35 40 39	NA 93 111 200 143 184 201 209 236 253 303 404 499 577 771 1,372 1,568 142 136 149 149	2,475 3,016 2,735 3,101 3,157 2,927 2,963 3,008 2,622 2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 357 348	5,428 6,084 6,041 6,560 7,014 7,016 6,493 6,516 6,106 5,163 5,729 5,983 6,082 6,242 6,649 6,523 7,186 6,523 7,186 662 605 673 657 715
1985 Total 1 1990 Total 1 1995 Total 1 1996 Total 1 1997 Total 1 1998 Total 1 1999 Total 1 2000 Total 1 2001 Total 1 2002 Total 1 2003 Total 1 2004 Total 1 2005 Total 1 2006 Total 1 2007 Total 1 2008 Total 1 2008 Total 1 2009 Total 1 2001 January February March April July 4 July 4 August 5 December 1 December 1 Total 1 2011 January R February R March April April 8 October 7 Narch 8	93 3 111 1 198 3 141 3 142 3 211 2 211 2 233 2 308 2 4402 2 564 3 564 3 5720 3 387 3 584 3 152 142 158 152 152 152	3,016 2,735 3,099 3,155 3,108 2,929 2,965 3,006 2,805 3,006 2,805 3,004 3,216 3,2624 2,705 2,805 3,104 3,216 3,298 3,461 3,864 3,398 3,461 3,55 3,55	6,084 6,041 6,558 7,012 7,018 6,494 6,517 6,104 5,164 5,734 5,982 6,509 7,202 7,616 672 6,509 7,202 7,616 672 6,10 6,822 6,509 7,202 7,616	2,970 3,046 3,205 3,590 3,640 3,297 3,268 2,811 2,242 2,689 2,825 2,690 2,703 2,869 2,446 2,511 2,669 2,18 201 204 186 245	97 171 152 163 167 168 171 164 164 175 178 181 186 192 200 18 16 18 16 18 17 18	(5) 59 69 70 70 69 68 64 63 63 63 63 63 63 63 89 89 98 10 9 10 10	(s) 29 33 34 31 46 57 70 105 115 142 178 264 341 546 721 67 53 84 95	2,687 2,216 2,370 2,437 2,371 2,184 2,214 2,262 2,006 1,995 2,002 2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 154	236 408 531 577 551 542 540 511 364 402 401 389 403 397 413 403 397 413 436 453	93 111 200 143 184 201 209 236 253 303 404 499 577 771 991 1,372 1,568 142 136 149 149	3,016 2,735 3,101 3,157 3,105 2,927 2,963 3,008 2,622 2,701 3,622 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 357 348	6,084 6,041 6,560 7,014 6,493 6,516 6,106 5,163 5,729 5,983 6,082 6,242 6,649 6,523 7,186 7,600 662 605 673 657 715
1990 Total 1 1995 Total 1 1996 Total 1 1997 Total 1 1998 Total 1 1999 Total 1 1999 Total 1 2000 Total 1 2001 Total 1 2002 Total 1 2003 Total 1 2005 Total 1 2006 Total 1 2007 Total 1 2008 Total 1 2009 Total 1 2008 Total 1 2009 Total 1 2010 January February March April August September October November December 1 Total 1 2011 January R April April	111 1 198 3 198 3 186 3 202 2 211 2 233 3 254 3 308 402 402 2 564 3 564 3 584 3 152 152	2,735 3,099 3,155 3,108 2,929 3,006 2,965 3,006 2,2624 2,805 2,624 2,805 3,104 3,216 3,216 3,216 3,216 3,2461 3,264 3,228 3,266 3,518 3,55	6,041 6,558 7,012 7,018 6,517 6,104 5,164 5,734 5,982 6,599 6,599 6,599 7,202 7,616 672 610 682 610 682 661 717	3,046 3,205 3,590 3,640 3,297 3,268 2,811 2,242 2,689 2,703 2,825 2,690 2,703 2,869 2,446 2,511 2,669 2,446 2,511 2,669 2,446 2,511 2,669	171 152 163 167 168 171 164 171 175 178 181 186 192 200 18 16 18 18 16 18 17 18	59 69 70 69 68 66 64 63 63 63 63 63 63 63 63 63 98 98 10 9 10 10	29 33 34 31 46 57 70 105 115 142 178 264 341 546 721 67 53 84 95	2,216 2,370 2,437 2,371 2,184 2,214 2,262 2,006 1,995 2,002 2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 154	408 531 577 551 542 540 511 364 402 401 389 403 397 413 436 453 39 35 40 39	111 200 143 184 201 253 303 404 499 577 771 1,372 1,568 142 136 149 149	2,735 3,101 3,157 3,105 2,927 2,963 3,008 2,622 2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 357 348	6,041 6,560 7,014 7,016 6,493 6,516 6,106 5,163 5,729 5,983 6,082 6,242 6,242 6,242 6,242 6,242 6,243 7,186 7,600 662 605 673 657 715
1995 Total 1 1996 Total 1 1997 Total 1 1998 Total 1 1999 Total 1 2001 Total 1 2001 Total 1 2002 Total 1 2004 Total 1 2005 Total 1 2006 Total 1 2007 Total 1 2008 Total 1 2009 Total 1 2009 Total 1 2009 Total 1 2010 January February March April August 1 July 1 August 1 December 1 December 1 Total 1 2011 January R February R March April	198 141 186 202 211 223 254 402 254 402 273 308 402 254 308 402 254 308 308 402 254 308 308 720 978 387 584 152 152	3,099 3,155 3,108 2,929 2,965 2,624 2,705 2,805 2,805 2,805 2,805 2,998 3,104 3,2461 3,864 3,928 332 3366 351 355	6,558 7,012 7,018 6,494 6,517 6,104 5,164 5,734 5,982 6,509 6,509 7,202 7,616 672 610 682 610 682 661 717	3,205 3,590 3,640 3,297 3,268 2,811 2,242 2,689 2,825 2,690 2,703 2,869 2,446 2,511 2,669 218 201 204 186 245	152 163 167 168 171 164 164 171 175 178 181 181 181 182 200 18 16 18 17 18	69 70 69 68 66 64 63 63 68 89 98 89 98 10 9 10 10	33 34 31 46 57 70 105 115 142 264 341 546 721 67 53 84 95	2,370 2,437 2,371 2,184 2,214 2,262 2,006 1,995 2,002 2,121 2,099 2,070 2,040 1,891 168 154 168 154	531 577 551 542 540 511 364 402 401 389 403 397 413 436 453 39 35 40 39	200 143 184 201 236 253 303 404 499 577 771 1,372 1,568 142 136 149 149	3,101 3,157 3,105 2,927 2,963 3,008 2,622 2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 357 348	6,560 7,014 7,016 6,493 6,516 6,106 5,163 5,729 5,983 6,082 6,242 6,649 6,523 7,186 6,523 7,186 6,523 7,186 662 605 673 657 715
1996 Total 1997 Total 1998 Total 1998 Total 1999 Total 2000 Total 2000 Total 2001 Total 2002 Total 2003 Total 2003 Total 2005 Total 2006 Total 2007 Total 2008 Total 2009 Total 2009 Total 2009 Total 2009 Total 2010 January February March April May July August September October November December Total 1,2 2011 January Reference March April March April Total 1,8 2011 January Reference April March April April April Ap	141 186 202 211 233 254 308 402 25 564 564 572 584 558 152 152	3,155 3,108 2,929 2,965 3,006 2,624 2,705 2,805 2,908 3,104 3,216 3,461 3,864 3,928 359 332 366 351 355	7,012 7,018 6,494 6,517 6,104 5,164 5,734 5,734 5,734 5,734 6,070 6,229 6,509 7,202 7,616 672 610 682 610 682 661 717	3,590 3,640 3,297 3,268 2,811 2,242 2,689 2,825 2,669 2,703 2,869 2,446 2,511 2,669 2,446 2,511 2,669 2,18 201 204 186 245	163 167 168 171 164 164 175 178 181 181 186 192 200 18 16 18 16 18 17 18	70 79 68 64 63 63 63 63 63 63 63 63 89 98 98 10 9 10 10	33 34 57 70 105 115 142 178 264 341 546 721 67 53 84 95	2,437 2,371 2,184 2,214 2,262 2,006 1,995 2,002 2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 168 168	577 551 542 540 511 364 402 401 389 403 397 413 436 453 39 35 40 39	143 184 201 209 236 253 303 404 499 577 771 1,372 1,568 142 136 149 149	3,157 3,105 2,927 2,963 3,008 2,622 2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 357 348	7,014 7,016 6,493 6,516 6,106 5,163 5,729 5,983 6,082 6,242 6,649 6,523 7,186 7,600 662 605 673 657 715
1997 Total 1 1998 Total 1 1999 Total 1 2000 Total 1 2001 Total 1 2002 Total 1 2003 Total 1 2005 Total 1 2006 Total 1 2007 Total 1 2006 Total 1 2007 Total 1 2008 Total 1 2009 Total 1 2009 Total 1 2009 Total 1 2010 January 1 February March April August September 0 October 1 November 1 December 1 Total 1 2011 January R February R March April	186 3 202 2 211 2 233 3 254 2 308 2 402 2 487 3 564 3 720 3 387 3 584 3 152 142 158 152 157 152	3,108 2,929 2,965 3,006 2,624 2,705 2,805 2,805 2,998 3,104 3,216	7,018 6,494 6,517 6,104 5,734 5,982 6,070 6,599 6,599 6,599 6,599 6,599 6,599 6,599 6,509 7,202 7,616 672 610 682 610 682 661 717	3,640 3,297 3,268 2,811 2,242 2,689 2,825 2,690 2,703 2,869 2,446 2,511 2,669 218 201 204 186 245	167 168 171 164 164 171 175 178 181 181 181 186 192 200 18 16 18 16 18 17 18	70 68 66 64 63 62 63 63 68 76 89 98 10 9 10 10	34 31 46 57 70 105 115 142 178 264 341 546 721 67 53 84 95	2,371 2,184 2,214 2,262 2,006 1,995 2,002 2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 154 168	551 542 540 511 364 402 401 389 403 397 413 436 453 39 35 40 39	184 201 209 236 253 303 404 499 577 771 1,372 1,568 142 136 149 149	3,105 2,927 2,963 3,008 2,622 2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 357 348	7,016 6,493 6,516 6,106 5,163 5,729 5,983 6,082 6,242 6,649 6,523 7,186 7,600 662 605 673 657 715
1998 Total 1 1999 Total 1 2000 Total 1 2001 Total 1 2001 Total 1 2003 Total 1 2004 Total 1 2005 Total 1 2006 Total 1 2007 Total 1 2008 Total 1 2009 Total 1 2009 Total 1 2010 January 7 February 7 March 7 July 1 July 1 August 7 December 7 Total 1 2011 January 8 February 8 March 7 April 8 October 7 November 7 December 7 Total 1 April 8 March 7 April 8 <td>202 2 211 2 233 3 254 2 308 2 487 2 564 3 564 3 7720 3 978 3 387 3 584 3 152 1 152 1 52</td> <td>2,929 2,965 3,006 2,624 2,705 2,805 3,104 3,216 3,3461 3,3464 3,3464 3,3464 3,3464 3,328 3,366 3,51 3,58 3,55</td> <td>6,494 6,517 6,104 5,164 5,734 5,982 6,599 6,599 6,599 6,599 7,202 7,616 672 610 682 610 682 661 717</td> <td>3,297 3,268 2,811 2,242 2,689 2,825 2,690 2,703 2,869 2,446 2,511 2,669 218 201 204 186 245</td> <td>168 171 164 164 175 178 181 181 181 182 200 18 16 18 16 18 17 18</td> <td>69 68 64 63 63 63 63 68 76 89 98 10 9 10 10</td> <td>31 46 57 70 105 142 178 264 341 546 721 67 53 84 95</td> <td>2,184 2,214 2,262 2,006 1,995 2,002 2,121 2,137 2,099 2,040 1,891 168 154 168 168 168</td> <td>542 540 511 364 402 401 389 403 397 413 436 453 39 35 40 39</td> <td>201 209 236 253 303 404 499 577 771 991 1,372 1,568 142 136 149 149</td> <td>2,927 2,963 3,008 2,622 2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 357 348</td> <td>6,493 6,516 6,106 5,163 5,729 5,983 6,082 6,242 6,649 6,523 7,186 7,600 662 605 673 657 715</td>	202 2 211 2 233 3 254 2 308 2 487 2 564 3 564 3 7720 3 978 3 387 3 584 3 152 1 152 1 52	2,929 2,965 3,006 2,624 2,705 2,805 3,104 3,216 3,3461 3,3464 3,3464 3,3464 3,3464 3,328 3,366 3,51 3,58 3,55	6,494 6,517 6,104 5,164 5,734 5,982 6,599 6,599 6,599 6,599 7,202 7,616 672 610 682 610 682 661 717	3,297 3,268 2,811 2,242 2,689 2,825 2,690 2,703 2,869 2,446 2,511 2,669 218 201 204 186 245	168 171 164 164 175 178 181 181 181 182 200 18 16 18 16 18 17 18	69 68 64 63 63 63 63 68 76 89 98 10 9 10 10	31 46 57 70 105 142 178 264 341 546 721 67 53 84 95	2,184 2,214 2,262 2,006 1,995 2,002 2,121 2,137 2,099 2,040 1,891 168 154 168 168 168	542 540 511 364 402 401 389 403 397 413 436 453 39 35 40 39	201 209 236 253 303 404 499 577 771 991 1,372 1,568 142 136 149 149	2,927 2,963 3,008 2,622 2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 357 348	6,493 6,516 6,106 5,163 5,729 5,983 6,082 6,242 6,649 6,523 7,186 7,600 662 605 673 657 715
1999 Total 2000 Total 2001 Total 2001 Total 2002 Total 2002 Total 2002 Total 2003 Total 2003 Total 2003 Total 2003 Total 2005 Total 2005 Total 2005 Total 2007 Total 2007 Total 2007 Total 1,2 2009 Total 1,2 2009 Total 1,2 2009 Total 1,2 2009 Total 1,2 2010 January February March 2007 Total 1,9 2010 January 7 2010 January 7 2010 January 2010 January 2010 January 2010 January 7 2010 January 2010 January 2010 January 2010 January 2010 January 2011	233 254 2 308 2 487 2 564 3 978 3 387 3 584 3 152 1 152 1 58 1 52 1 57 1 52 1 57 1 52 1 52 1 52 1 52 1 52 1 52 1 52 1 52	3,006 2,624 2,705 2,805 2,998 3,104 3,216 3,461 3,864 3,928 359 332 366 351 358 355	6,104 5,164 5,734 5,982 6,070 6,229 6,599 6,509 6,509 7,202 7,616 672 610 682 610 682 661 717	2,811 2,242 2,689 2,825 2,690 2,703 2,869 2,446 2,511 2,669 218 201 204 186 245	164 164 171 175 178 181 181 186 192 200 18 16 18 16 18 17 18	66 64 63 63 63 63 68 76 89 98 10 9 10 10 11	57 70 105 115 142 178 264 341 546 721 67 53 84 95	2,262 2,006 1,995 2,002 2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 168 168	511 364 402 401 389 403 397 413 436 453 39 35 40 39	236 253 303 404 499 577 771 991 1,372 1,568 142 136 149 149	3,008 2,622 2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 349 326 357 348	6,106 5,163 5,729 5,983 6,082 6,242 6,649 6,523 7,186 7,600 662 605 673 657 715
2001 Total 2002 Total 2002 Total 2003 Total 2004 Total 2004 Total 2005 Total 2005 Total 2005 Total 2005 Total 2007 Total 2008 Total 1, 2009 Total 1, 2011 January 5	254 2 308 2 402 2 487 2 564 3 978 3 978 3 978 3 387 3 584 3 152 1 152 1 57 1 52	2,624 2,705 2,805 2,998 3,104 3,216 3,461 3,864 3,928 359 332 366 351 358 355	5,164 5,734 5,982 6,070 6,229 6,599 6,599 7,202 7,616 672 610 682 661 717	2,242 2,689 2,825 2,690 2,703 2,869 2,446 2,511 2,669 218 201 204 186 245	164 171 175 178 181 181 186 192 200 18 16 18 16 18 17 18	64 63 62 63 63 68 76 89 98 10 9 10 10 11	70 105 115 142 178 264 341 546 721 67 53 84 95	2,006 1,995 2,002 2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 168 168	364 402 401 389 403 397 413 436 453 39 35 40 39	253 303 404 499 577 771 991 1,372 1,568 142 136 149 149	2,622 2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 357 348	5,163 5,729 5,983 6,082 6,242 6,649 6,523 7,186 7,600 662 605 673 657 715
2002 Total 2003 Total 2003 Total 2004 Total 2005 Total 2005 Total 2005 Total 2006 Total 1007 Total 11,2009 Total 1,1,2009 Total 1,1,2009 Total 1,1,2009 Total 1,1,2009 Total 1,2007 Total <t< td=""><td>308 2 402 2 487 2 564 3 720 3 978 3 387 5 584 3 152 142 158 152 157 157 152 157</td><td>2,705 2,805 2,998 3,104 3,216 3,461 3,864 3,928 359 332 366 351 358 355</td><td>5,734 5,982 6,070 6,229 6,599 6,599 7,202 7,616 672 610 682 661 717</td><td>2,689 2,825 2,600 2,703 2,869 2,446 2,511 2,669 218 201 204 186 245</td><td>171 175 178 181 181 186 192 200 18 16 18 16 18 17 18</td><td>63 62 63 68 76 89 98 10 9 10 10 11</td><td>105 115 142 178 264 341 546 721 67 53 84 95</td><td>1,995 2,002 2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 160</td><td>402 401 389 403 397 413 436 453 39 35 40 39</td><td>303 404 499 577 771 1,372 1,568 142 136 149 149</td><td>2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 326 357 348</td><td>5,729 5,983 6,082 6,242 6,649 6,523 7,186 7,600 662 605 673 657 715</td></t<>	308 2 402 2 487 2 564 3 720 3 978 3 387 5 584 3 152 142 158 152 157 157 152 157	2,705 2,805 2,998 3,104 3,216 3,461 3,864 3,928 359 332 366 351 358 355	5,734 5,982 6,070 6,229 6,599 6,599 7,202 7,616 672 610 682 661 717	2,689 2,825 2,600 2,703 2,869 2,446 2,511 2,669 218 201 204 186 245	171 175 178 181 181 186 192 200 18 16 18 16 18 17 18	63 62 63 68 76 89 98 10 9 10 10 11	105 115 142 178 264 341 546 721 67 53 84 95	1,995 2,002 2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 160	402 401 389 403 397 413 436 453 39 35 40 39	303 404 499 577 771 1,372 1,568 142 136 149 149	2,701 2,807 3,010 3,117 3,267 3,474 3,849 3,912 349 326 326 357 348	5,729 5,983 6,082 6,242 6,649 6,523 7,186 7,600 662 605 673 657 715
2003 Total 4 2004 Total 4 2005 Total 4 2005 Total 5 2005 Total 1, 2007 Total 1, 2009 Total 1, 2009 Total 1, 2010 January 6 April 6 June 1 July 6 July 6 July 6 October 7 December 7 Total 1, 2011 January R February 8 March 7	402 2 487 2 564 3 720 3 978 3 387 3 584 3 152 1 152 1 152 1 58 1 52 1 57 1 52	2,805 2,998 3,104 3,216 3,461 3,864 3,928 359 332 366 351 358 355	5,982 6,070 6,229 6,599 6,509 7,202 7,616 672 610 682 661 717	2,825 2,690 2,703 2,869 2,446 2,511 2,669 218 201 204 186 245	175 178 181 181 186 192 200 18 16 18 16 18 17 18	62 63 68 76 89 98 10 10 10 11	115 142 178 264 341 546 721 67 53 84 95	2,002 2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 160	401 389 403 397 413 436 453 39 35 40 39	404 499 577 771 991 1,372 1,568 142 136 149 149	2,807 3,010 3,117 3,267 3,849 3,849 3,912 349 326 357 348	5,983 6,082 6,242 6,649 6,523 7,186 7,600 662 605 673 657 715
2004 Total 4 2005 Total 5 2006 Total 5 2007 Total 1,5 2008 Total 1,5 2009 Total 1,5 2010 January 7 February 6 March 7 June 1 July 1 July 1 August 1 December 1 Total 1,6 2011 January 8 March 7 May 1 July 1 August 1 Cotober 1 November 1 December 1 Total 1 Yarch 8 March 7 April 1	487 2 564 3 720 3 978 3 387 3 584 3 152 142 158 152 157 157 152	2,998 3,104 3,216 3,461 3,864 3,928 359 359 359 352 366 351 358 355	6,070 6,229 6,599 6,509 7,202 7,616 672 610 682 661 717	2,690 2,703 2,869 2,446 2,511 2,669 218 201 204 186 245	178 181 186 192 200 18 16 18 16 18 17 18	63 68 76 89 98 10 9 10 10	142 178 264 341 546 721 67 53 84 95	2,121 2,137 2,099 2,070 2,040 1,891 168 154 168 168 168 168	389 403 397 413 436 453 39 35 40 39	499 577 771 991 1,372 1,568 142 136 149 149	3,010 3,117 3,267 3,474 3,849 3,912 349 326 357 348	6,082 6,242 6,649 6,523 7,186 7,600 662 605 673 657 715
2005 Total 4 2006 Total 5 2007 Total 1, 2008 Total 1, 2009 Total 1, 2009 Total 1, 2009 Total 1, 2010 January 1, February 6 March 6 April 6 July 1 July 6 July 6 October 7 November 7 December 1, 2011 January 8 February 8 March 7 April 7	564 3 720 3 978 3 387 3 584 3 152 142 158 152 157 157 152 157	3,104 3,216 3,461 3,864 3,928 359 332 366 351 358 355	6,229 6,599 6,509 7,202 7,616 672 610 682 661 717	2,703 2,869 2,446 2,511 2,669 218 201 204 186 245	181 181 186 192 200 18 16 18 17 18	63 68 76 89 98 10 10 10 10	178 264 341 546 721 67 53 84 95	2,137 2,099 2,070 2,040 1,891 168 154 168 168 160	403 397 413 436 453 39 35 40 39	577 771 991 1,372 1,568 142 136 149 149	3,117 3,267 3,474 3,849 3,912 349 326 357 348	6,242 6,649 6,523 7,186 7,600 662 605 673 657 715
2006 Total 2007 Total 2007 Total 1, 2008 Total 1, 1, 2008 Total 1, 2009 Total 1, 1, 2008 Total 1, 2008 Total 1, 1, 2008 Total 1, 2009 Total 1, 2008 Total 1, 2008 Total 1, 2010 January March April 1, 2011 January November 0 0 0 1, 2008 Total 1, 2011 January R 7 February R 7 March 4 3 2011 January R 7	720 3 978 3 387 3 584 3 152 142 158 152 152 157 152	3,216 3,461 3,864 3,928 359 332 366 351 358 355	6,599 6,509 7,202 7,616 672 610 682 661 717	2,869 2,446 2,511 2,669 218 201 204 186 245	181 186 192 200 18 16 18 17 18	68 76 89 98 10 10 10 11	264 341 546 721 67 53 84 95	2,099 2,070 2,040 1,891 168 154 168 168 160	397 413 436 453 39 35 40 39	771 991 1,372 1,568 142 136 149 149	3,267 3,474 3,849 3,912 349 326 357 348	6,649 6,523 7,186 7,600 662 605 673 657 715
2007 Total 9 2008 Total 1,2 2009 Total 1,2 2010 January 1,2 February 1,2 March 1,2 April 1,2 July 1,2 July 1,2 July 1,2 August 1,2 October 1,4 December 1,4 2011 January R February R March 1,4	978 387 3584 3152 152 152 152 152 152 152 157 152	3,461 3,864 3,928 359 332 366 351 358 355	6,509 7,202 7,616 672 610 682 661 717	2,446 2,511 2,669 218 201 204 186 245	186 192 200 18 16 18 17 18	76 89 98 10 9 10 10 11	341 546 721 67 53 84 95	2,070 2,040 1,891 168 154 168 168 160	436 453 39 35 40 39	991 1,372 1,568 142 136 149 149	3,474 3,849 3,912 349 326 357 348	6,523 7,186 7,600 662 605 673 657 715
2009 Total 1,5 2010 January February March April May June July July August September October December Total 1,5 2011 January R February R April R	584 3 152 142 158 152 157 157	3,928 359 332 366 351 358 355	7,616 672 610 682 661 717	2,669 218 201 204 186 245	200 18 16 18 17 18	98 10 9 10 10 11	721 67 53 84 95	1,891 168 154 168 160	453 39 35 40 39	1,568 142 136 149 149	3,912 349 326 357 348	7,600 662 605 673 657 715
2010 January February April June July August September October November December Total	152 142 158 152 157 152	359 332 366 351 358 355	672 610 682 661 717	218 201 204 186 245	18 16 18 17 18	10 9 10 10 11	67 53 84 95	168 154 168 160	39 35 40 39	142 136 149 149	349 326 357 348	662 605 673 657 715
February	142 158 152 157 152	332 366 351 358 355	610 682 661 717	201 204 186 245	16 18 17 18	9 10 10 11	53 84 95	154 168 160	35 40 39	136 149 149	326 357 348	605 673 657 715
MarchApril	158 152 157 152	366 351 358 355	682 661 717	204 186 245	18 17 18	10 10 11	84 95	168 160	40 39	149 149	357 348	673 657 715
April	152 157 152	351 358 355	661 717	186 245	17 18	10 11	95	160	39	149	348	657 715
May	157 152	358 355	717	245	18	11						715
June July August September October December December Total Total	152	355						160			300	
July						11	79	162 164	39 39	155 155	357	755
August Au	158	367	701	239	17	11	66	170	40	155	368	701
September October December Total 1,8 2011 January R February R March April	160	371	662	196	18	11	65	171	40	159	370	660
October November December Total	156	360	626	168	17	11	69	166	38	153	357	622
December 1,8 Total 1,8 2011 January R February R March	163	369	646	173	17	10	77	166	39	160	366	643
Total 1,8 2011 January R February R March	164	369	682	191	17	10	95	165	40	157	363	676
2011 January R February R March	168	383	726	226	18	10	88	174	41	163	377	720
February R March	884 4	4,341	8,136	2,539	208	126	923	1,988	469	1,837	4,294	8,090
March		R 382	754	255	20	12	84	174	40	^R 153	367	^R 738
April		R 343	^R 716	241	18	12	103	156	36 40	^R 145	R 336	^R 709
May R	171 163	377 359	822 ^R 820	310 309	20 18	13 13	103 121	166 158	40 38	160 154	366 ^R 350	811 ^R 811
	170	^R 370	840	309	18	13	114	160	40	^R 164	^R 364	^R 834
June R	168	R 376	R 829	315	19	14	106	168	40	^R 168	R 375	R 828
JulyR	171	R 383	^R 796	308	19	14	72	171	41	162	374	787
August R	174 1	^R 383	^R 745	257	19	14	72	169	41	^R 174	^R 383	744
	166	371	^R 679	210	18	13	67	165	40	160	^R 364	^R 672
October	176	379	^R 710	195	19	14	104	163	40	167	370 B 070	R 701
November R ? December	178 186	382 403	742 ^R 778	209 241	19 19	12 13	121 102	164 175	41 42	^R 167 ^R 176	^R 372 ^R 393	^R 732 ^R 768
Total R 2,0	044 R4	403 4,509	^R 9,233	3,171	226	158	1,168	1,987	42	R 1,948	R 4,413	^R 9,137
	177	389	792		19	45	135	173	40	154	367	769
	164	369	792 705	233 203	19	15 15	135	173	40 37	154	367	769 694
	172	372	703	203	18	16	132	161	40	163	364	788
	164	357	776	250	18	17	123	153	40	160	353	773
	173	377	819	283	19	19	121	164	40	172	376	819
June	165	367	783	264	19	19	115	162	40	164	365	782
	014 2	2,224	4,673	1,501	114	101	734	973	237	966	2,176	4,625
2011 6-Month Total 9 2010 6-Month Total 9		2,207	4,782 4.094	1,752 1.345	113 104	78 62	631 462	981 976	233 232	944 886	2,158 2.094	4,732 4.067

^a Production equals consumption for all renewable energy sources except biofuels. ^b Total biomass inputs to the production of fuel ethanol and biodiesel. ^c Wood and wood-derived fuels, biomass waste, and total biomass inputs to the

production of fuel ethanol and biodiesel. ^d Hydroelectric power, geothermal, solar thermal/photovoltaic, wind, and

^d Hydroelectric power, geomennan, solar unconservent
 ^e Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
 ^f Geothermal electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6), and geothermal heat pump and direct use energy.
 ^g Solar thermal and photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6), and solar thermal direct use energy.
 ^h Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6), and solar thermal direct use energy.
 ^h Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
 ⁱ Wood and wood-derived fuels.

^j 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

^k Fuel ethanol (minus denaturant) and biodiesel consumption, plus losses and co-products from the production of fuel ethanol and biodiesel.
 R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.

R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.
Notes: • Most data for the residential, commercial, industrial, and transportation sectors are estimates. See notes and sources for Tables 10.2a and 10.2b. • See Note, "Renewable Energy Production and Consumption," at end of section.
• 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 for all available data beginning in 1973.
Sources: Tables 10.2a–10.4.

Table 10.2a Renewable Energy Consumption: Residential and Commercial Sectors (Trillion Btu)

		Reside	ntial Sector					Co	mmercial	Sectora			
			Biomass		Hydro-					Bio	omass		-
	Geo- thermal ^b	Solar/ PV ^c	Wood ^d	Total	electric Power ^e	Geo- thermal ^b	Solar/ PV ^f	Wind ^g	Woodd	Wasteh	Fuel Ethanol ⁱ	Total	Total
1973 Total	NA	NA	354	354	NA	NA	NA	NA	7	NA	NA	7	7
1975 Total	NA	NA	425	425	NA	NA	NA	NA	8	NA	NA	8	8
1980 Total	NA	NA	850	850	NA	NA	NA	NA	21	NA	NA	21	21
1985 Total	NA	NA	1,010	1,010	NA	NA	NA	NA	24	NA	(s)	24	24
1990 Total	6	56	580	641	1	3	-	-	66	28	(s)	94	98
1995 Total	7	64	520	591	1	5	-	-	72	40	(s)	113	118
996 Total	7 8	65 64	540 430	612 502	1	5 6	-	-	76 73	53 58	(s)	129 131	135 138
1997 Total	о 8	64	430 380	452	1	7	-	_	64	50 54	(s)	118	130
1998 Total 1999 Total	9	63	390	452	1	7	_	_	67	54	(s) (s)	121	127
2000 Total	9	61	420	489	1	8	_	_	71	47	(s) (s)	119	129
2000 Total	9	59	370	438	1	8	_	_	67	25	(s) (s)	92	101
2002 Total	10	57	380	448	(s)	9	_	_	69	26	(s)	95	104
2003 Total	13	57	400	470	1	11	_	_	71	29	(3)	101	113
2004 Total	14	57	410	481	i	12	_	_	70	34	1	105	118
2005 Total	16	58	430	504	1	14	_	-	70	34	1	105	120
2006 Total	18	63	380	462	1	14	-	-	65	36	1	103	118
2007 Total	22	70	410	502	1	14	-	-	70	31	2	103	118
2008 Total	26	80	450	557	1	15	(s)	-	73	34	2	109	125
2009 Total	33	89	430	552	1	17	(s)	(s)	72	36	3	112	129
2010 January	3	10	36	48	(s)	2	(s)	(s)	6	3	(s)	9	11
February	3	9	32	44	(s)	1	(s)	(s)	5	3	(s)	8	10
March	3	10	36	48	(s)	2	(s)	(s)	6	3	(s)	9	11
April	3	9	35	47	(s)	2	(s)	(s)	6	3	(s)	9	11
May	3	10	36	48	(s)	2	(s)	(s)	6	4	(s)	10	12
June	3	9	35	47	(s)	2 2	(s)	(s)	6	3	(s)	9	11
July	3	10	36	48	(s)	2	(s)	(s)	6	3	(s)	9	11
August	3	10	36	48	(s)	2	(s)	(s)	6	3	(s)	10	11
September	3	9	35 36	47 48	(s)	2 2	(s)	(s)	6	3	(s)	9 9	11
October	3	10 9	36	48 47	(s)		(s)	(s)	6 6	3	(s)	9	11 10
November	3	9 10	35	47	(s)	2 2	(s)	(s)	6	3 3	(s)	9	10
December Total	37	114	420	571	(s) 1	19	(s) (s)	(s) (s)	72	36	(s) 3	111	130
2011 January	3	12	37	52	(s)	2	(s)	(s)	6	3	(s)	9	11
February	3	11	33	47	(S)	2	(s)	(s)	5	3	(s)	9	10
March	3	12	37	52	(s)	2	(s)	(s)	6	3	(s)	9	11
April	3	12	35	50	(s)	2	(s)	(s)	6	3	(s)	9	10
May	3	12	37	52	(s)	2	(s)	(s)	6	3	(s)	9	11
June	3	12	35	50	(s)	2	(s)	(s)	6	3	(s)	9	11
July	3	12	37	52	(s)	2	(s)	(s)	6	3	(s)	9	11
August	3	12	37	52	(s)	2	(s)	(s)	6	3	(s)	9	11
September	3	12	35	50	(s)	2	(s)	(s)	6	3	(s)	9	11
October	3	12	37	52	(s)	2	(s)	(s)	6	3	(s)	9	11
November	3	12	35	50	(s)	2	(s)	(s)	6	3	(s)	9	11
December	3	12	37	52	(s)	2	(s)	(s)	6	3	(s)	10	11
Total	40	140	430	610	1	20	(s)	(s)	71	36	3	110	131
2012 January	3	14	36	54	(s)	2	(s)	(s)	6	3	(s)	9	11
February	3	13	34	51	(s)	2	(s)	(s)	6	3	(s)	9	10
March	3 3	14	36 35	54 52	(s)	2 2	(s)	(s)	6 6	3 3	(s)	9	11
April	3	14 14	35	52 54	(s) (s)	2	(s) (s)	(s)	6	3	(s) (s)	9	11 11
May	3	14	35	54 52	(S) (S)	2	(S) (S)	(s) (s)	6	6	(S) (S)	9 12	14
June 6-Month Total	20	84	214	318	(s) (s)	10	(s) (s)	(s) (s)	35	20	2	57	67
2011 6-Month Total	20	70	213	303	1	10	(s)	(s)	35	17	2	54	64
2010 6-Month Total	18	57	208	283	1	9	(s)	(s)	35	19	2	56	65

^a Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. ^b Geothermal heat pump and direct use energy.

 ^b Geothermal heat pump and direct use energy.
 ^c Solar thermal direct use energy, and photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
 Includes distributed solar thermal and PV energy used in the commercial, industrial, and electric power sectors.

Wood and wood-derived fuels.

e Conventional hydroelectricity net generation (converted to Btu using the

Gosil-fuels heat rate—see Table A6).
^f Photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6) at commercial plants with capacity of 1 megawatt or greater.
^g Wind electricity net generation (converted to Btu using the fossil-fuels heat

rate—see Table A6). ^h 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 the derivative function. tire-derived fuels).

 tret-derived fuels).
 The fuel ethanol (minus denaturant) portion of motor fuels, such as E10, consumed by the commercial sector.
 NA=Not available. -=No data reported. (s)=Less than 0.5 trillion Btu.
 Notes:
 Data are estimates, except for commercial sector solar/PV, hydroelectric power, wind, and waste.
 Totals may not equal sum of components due to independent rounding.
 Geographic coverage is the 50 States and the District of Columbia District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#renewable for all available data beginning in 1973.

Sources: See end of section.

Table 10.2b Renewable Energy Consumption: Industrial and Transportation Sectors (Trillion Btu)

					Industria	al Sector ^a					Trans	portation §	Sector
							Biomass					Biomass	
	Hydro- electric Power ^b	Geo- thermal ^c	Solar/ PV ^d	Wind ^e	Wood ^f	Wasteg	Fuel Ethanol ^h	Losses and Co- products ⁱ	Total	Total	Fuel Ethanol ^j	Bio- diesel	Total
1973 Total 1975 Total 1980 Total 1980 Total 1990 Total 1995 Total 1997 Total 1997 Total 1998 Total 1997 Total 1998 Total 1999 Total 2000 Total 2001 Total 2002 Total 2003 Total 2005 Total 2005 Total 2006 Total 2007 Total 2008 Total 2009 Total	35 32 33 31 55 61 58 58 58 49 42 33 39 43 33 32 29 16 17 18	NA A A 2 3 3 3 3 4 4 5 5 3 4 4 4 5 5 4	NA NA - - - - - - - - - - - - - - - - -	NA NA - - - - - - - - - - - - - - - - -	1,165 1,063 1,600 1,645 1,442 1,652 1,683 1,731 1,600 1,636 1,432 1,363 1,363 1,363 1,476 1,452 1,472 1,405 1,340 1,208	NA NA 230 192 195 224 184 184 145 145 146 142 148 130 144 144 155	NA NA NA 1 1 2 1 1 1 1 3 3 4 6 7 10 112 13	NA NA 49 86 61 80 90 99 108 130 203 230 285 377 532 617	1,165 1,063 1,918 1,684 1,969 1,996 1,872 1,882 1,881 1,676 1,679 1,817 1,837 1,837 1,837 1,837 1,837 1,936 2,028 1,994	1,200 1,096 1,633 1,951 1,717 2,033 2,057 1,929 1,934 1,928 1,719 1,726 1,726 1,853 1,873 1,930 1,956 2,049 2,016	NA NA 50 60 112 81 102 113 118 135 141 168 228 327 442 557 786 894	NA NA NA NA NA NA NA NA 2 2 3 12 33 40 40	NA NA 50 60 112 81 102 113 118 135 142 170 230 230 339 475 602 826 935
2010 January February March April June July August September October November December Total	2 2 2 2 2 2 1 1 1 1 1 1 1 1 6	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)		109 100 110 105 106 107 111 111 110 110 108 114 1,301	15 13 15 14 14 13 14 13 15 15 15 169	1 1 1 2 2 1 2 1 2 1 2 1 7	60 56 62 60 62 63 61 64 65 67 742	185 170 188 181 183 182 188 190 185 190 190 198 2,230	187 172 190 183 185 183 190 191 187 192 191 199 2,250	81 76 83 84 89 90 91 91 86 91 88 92 1,040	(s) 3 2 4 3 2 3 3 4 3 3 3 4 3 3 34	81 79 85 87 92 93 94 94 94 94 91 94 1,074
2011 January February April May July August September October December December Total	1 2 2 2 1 1 1 1 1 2 1 8	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	115 102 109 105 112 112 110 109 107 110 116 1,311	15 14 14 14 14 14 14 14 15 15 15 172	1 1 1 2 1 2 1 1 1 2 7 7	66 59 8 65 62 8 64 63 64 65 65 66 69 8 771	197 176 190 182 185 R 191 192 191 187 R 188 192 202 R 2,272	199 178 192 R 184 187 192 R 193 192 188 190 194 204 R 2,294	R 82 R 80 87 R 82 90 92 R 86 R 95 83 89 R 86 R 91 R 91 R 1,044	3 4 6 8 8 8 8 8 8 10 8 12 8 11 8 11 8 11 8 11	86 R 84 93 R 90 R 98 102 96 R 107 R 96 100 R 99 R 105 R 1,157
2012 January February March April May June 6-Month Total	2 2 2 2 2 1 10	(s) (s) (s) (s) (s) (s) 2	(s) (s) (s) (s) (s) (s) (s)	(s) (s) (s) (s) 1 1	114 106 104 101 108 106 641	15 14 14 14 14 14 86	1 1 1 2 2 9	67 61 64 61 64 61 378	197 183 184 178 188 183 1,113	199 185 186 180 190 185 1,126	81 82 87 86 93 90 519	5 8 10 11 14 11 59	86 89 98 107 101 578
2011 6-Month Total 2010 6-Month Total	10 10	2 2	(s) (s)	(s) _	647 637	85 84	9 8	380 359	1,120 1,088	1,132 1,100	514 502	40 15	554 517

^a Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.
 ^b Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
 ^c Geothermal heat pump and direct use energy.
 ^d Photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6) at industrial plants with capacity of 1 megawatt or greater.
 ^e Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
 ^f Wood and wood-derived fuels.
 ^g Municipal solid waste from biogenic sources landfill gas sludge waste

⁹ 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 tire-derive fuels).
^h The fuel ethanol (minus denaturant) portion of motor fuels, such as E10,

consumed by the industrial sector.

Losses and co-products from the production of fuel ethanol and biodiesel.
 Does not include natural gas, electricity, and other non-biomass energy used in the production of fuel ethanol and biodiesel—these are included in the industrial sector consumption statistics for the appropriate energy source.
 The fuel ethanol (minus denaturant) portion of motor fuels, such as E10 and E85, consumed by the transportation sector.

R=Revised. NA=Not available. - =No data reported. (s)=Less than 0.5 trillion

Btu. Notes: • Data are estimates, except for industrial sector hydroelectric power in 1973-1978 and 1989 forward, solar/PV, and wind. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States

and the District of Columbia. We can also be a set of the set of t

Sources: See end of section.

Table 10.2c Renewable Energy Consumption: Electric Power Sector

(Trillion Btu)

973 Total	electric Power ^a	Geo- thermal ^b	Seler/DV/C	Mar Id				
			Solar/PV ^c	Wind ^d	Wood ^e	Waste ^f	Total	Total
	2,827	20	NA	NA	1	2	3	2.851
975 Total	3.122	34	NA	NA	(s)	2	2	3.158
980 Total	2,867	53	NA	NA	3	2	4	2,925
	2,807	97			8	7	14	3.049
985 Total			<u>(s)</u>	<u>(s)</u>				
990 Total ^g	3,014	161	4	29	129	188	317	3,524
995 Total	3,149	138	5	33	125	296	422	3,747
996 Total	3,528	148	5	33	138	300	438	4,153
997 Total	3,581	150	5	34	137	309	446	4,216
998 Total	3,241	151	5	31	137	308	444	3,872
999 Total	3,218	152	5	46	138	315	453	3,874
000 Total	2,768	144	5	57	134	318	453	3,427
001 Total	2,209	142	6	70	126	211	337	2,763
002 Total	2.650	147	6	105	150	230	380	3,288
003 Total	2,781	148	5	115	167	230	397	3,445
004 Total	2,656	148	6	142	165	230	388	3,445
005 Total	2,670	147	6	178	185	221	406	3,406
006 Total	2,839	145	5	264	182	231	412	3,665
007 Total	2,430	145	6	341	186	237	423	3,345
008 Total	2,494	146	9	546	177	258	435	3,630
009 Total	2,650	146	9	721	180	261	441	3,967
010 January	217	13	(s)	67	17	21	39	335
February	199	11	(s)	53	16	20	36	300
March	202	13	1	84	16	22	39	338
April	184	12	1	95	15	21	36	329
May	243	13	1	85	14	22	36	378
June	290	12	2	79	16	23	39	421
	238	12	2	66	17	23	40	358
July		12	2	65		23		
August	195				18		41	315
September	168	12	1	69	16	22	38	288
October	171	12	1	77	15	22	37	298
November	190	12	1	95	16	23	39	337
December	225	13	(s)	88	17	23	41	367
Total	2,521	148	12	923	196	264	459	4,064
011 January	254	14	(s)	84	16	21	38	391
February	239	13	1	103	15	20	35	390
March	308	14	1	103	15	23	38	463
April	307	13	2	121	12	22	33	476
May	321	14	2	113	13	22	35	486
June	313	13	2	106	15	22	38	400
	307		2	72		23	38 40	473
July		13	2		16			
August	256	13		72	16	23	39	383
September	209	13	2	67	15	22	37	327
October	194	14	2	104	13	23	36	349
November	207	13	1	120	13	23	36	377
December	239	14	1	102	16	23	39	396
Total	3,153	163	18	1,168	175	269	444	4,945
12 January	232	14	1	135	16	22	38	420
February	201	13	1	108	15	21	35	359
March	255	14	2	132	14	23	37	440
April	259	13	3	123	14	23	33	440
	239	13	4			22		
May				121	13		36	457
June	263	14	5	114	15	20	34	429
6-Month Total	1,491	82	16	733	83	131	214	2,536
011 6-Month Total 010 6-Month Total	1,741 1,335	82 74	8 5	631 462	86 95	131 129	217 225	2,679 2,101

^a Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
 ^b Geothermal electricity net generation (converted to Btu using the fossil-fuels heat orbit enter Table and Table

Geothermal electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
 ^c Solar thermal and photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
 ^d Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
 ^e Wood and wood-derived fuels

^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

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

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#renewable for all available data beginning in 1973. Sources: • **Biomass:** Table 7.4b. • **All Other Data:** Tables 7.2b and A6.

1985 Total 1 1990 Total 11 1995 Total 16 1996 Total 16 1997 Total 16 1998 Total 22 2000 Total 22 2000 Total 22 2000 Total 22 2000 Total 22 2001 Total 22 2002 Total 33 2003 Total 46 2005 Total 46 2006 Total 46 2007 Total 91 2008 Total 1,3 2009 Total 1,51 2008 Total 16 April 12 June 14 June 14 June 15 June 16 September 16 November 16 Total 18 2011 January 16 February 17 March 16 November 16 March 16 September 16	TBtu TBtu 13 44 11 44 38 88 41 63 66 88 41 63 66 88 41 93 30 93 30 16 33 90 53 10 07 13 00 16 34 20 05 22 23 38 82 88 28 14 37 53 30 53 20 53 20 53 20 53 20 53 20 53 20 53 20 53 20 53 20 53 20 53 20 53 20 53 20 53 20 53 20 20 20 20 20 20 20 20 20 20 20 20 20	Mbbl 40 294 356 647 464 613 669 698 773 841 1,019 1,335 1,621 1,859 2,326 3,105 4,433 5,688	Mbbl 1,978 14,693 17,802 32,325 23,178 30,674 33,453 34,881 38,627 42,028 50,956 66,772 81,058 92,961 116,294 155,263 221,637 260,424	roduction ^d MMgal 83 617 748 1,358 973 1,288 1,405 1,405 1,465 1,622 1,765 2,140 2,804 3,404 3,904 4,884 6,521 9,309	TBtu 7 52 63 115 83 109 119 124 138 150 182 238 289 331 414 4553	Imports ^e Mbbl NA NA 387 313 385 66 87 116 315 306 292 3,542 3,234 17,408	Stocks ^{d,f} Mbbl NA NA 2,186 2,065 2,925 3,406 4,024 3,400 4,024 3,400 4,298 6,200 5,978	Change ^{d,g} Mbbl NA NA -207 -121 860 481 618 -624 898 1,902 -222	Mbbl 1,978 14,693 17,802 32,919 23,612 29,899 33,038 34,350 39,367 41,445 49,360	NSUMPTION MMgal 83 617 748 1,383 992 1,256 1,388 1,443 1,653 1,741 2,073	TBtu 7 52 63 117 84 107 118 122 140	Denaturant [®] TBtu 7 51 62 114 82 104 115 119 137 144
1985 Total 1 1990 Total 1 1995 Total 1 1995 Total 1 1997 Total 1 1997 Total 1 1998 Total 21 1999 Total 22 2000 Total 22 2000 Total 23 2000 Total 23 2001 Total 25 2003 Total 44 2005 Total 44 2005 Total 44 2005 Total 65 2007 Total 91 2008 Total 1,51 2008 Total 1,51 2010 January 14 February 12 March 16 August 16 September 16 November 16 November 16 April 12 March 16 April 16 November 16 February 16 April 16 April 16	33 4. 11 4. 38 8. 41 6 36 8. 31 9 33 9 33 9 33 9 33 9 33 9 33 9 33 9 33 9 33 9 33 9 34 20 52 23 38 28 14 37 30 53	294 356 647 464 613 669 698 773 841 1,019 1,335 1,621 1,859 2,326 3,105 4,433 5,688	14,693 17,802 32,325 23,178 30,674 33,453 34,881 38,627 42,028 50,956 66,772 81,058 92,961 116,294 155,263 221,637	617 748 1,358 973 1,288 1,405 1,465 1,622 1,765 2,140 2,804 3,404 3,904 4,884 4,884	52 63 115 83 109 119 124 138 150 182 238 289 331 414 553	NA NA 387 313 85 66 87 116 315 306 292 3,542 3,234	NA 2,186 2,065 2,925 3,406 4,024 3,400 4,298 6,200 5,978	NA NA -207 -121 860 481 618 -624 898 1,902	14,693 17,802 32,919 23,612 29,899 33,038 34,350 39,367 41,445 49,360	617 748 1,383 992 1,256 1,388 1,443 1,653 1,741	52 63 117 84 107 118 122 140	51 62 114 82 104 115 119 137
1985 Total 1 1990 Total 1 1995 Total 1 1996 Total 14 1997 Total 14 1997 Total 14 1998 Total 21 2000 Total 22 2000 Total 23 2000 Total 23 2002 Total 33 2003 Total 44 2004 Total 46 2005 Total 44 2005 Total 44 2005 Total 46 2007 Total 91 2008 Total 1,51 2009 Total 1,51 2010 January 12 Karch 16 April 12 June 14 June 14 September 16 October 16 November 16 April 12 March 14 September 16 Total 18 2011 January 16 February 17 </td <td>33 4. 11 4. 38 8. 41 6 36 8. 31 9 33 9 33 9 33 9 33 9 33 9 33 9 33 9 33 9 33 9 33 9 34 20 52 23 38 28 14 37 30 53</td> <td>294 356 647 464 613 669 698 773 841 1,019 1,335 1,621 1,859 2,326 3,105 4,433 5,688</td> <td>14,693 17,802 32,325 23,178 30,674 33,453 34,881 38,627 42,028 50,956 66,772 81,058 92,961 116,294 155,263 221,637</td> <td>617 748 1,358 973 1,288 1,405 1,465 1,622 1,765 2,140 2,804 3,404 3,904 4,884 4,884</td> <td>52 63 115 83 109 119 124 138 150 182 238 289 331 414 553</td> <td>NA NA 387 313 85 66 87 116 315 306 292 3,542 3,234</td> <td>NA 2,186 2,065 2,925 3,406 4,024 3,400 4,298 6,200 5,978</td> <td>NA NA -207 -121 860 481 618 -624 898 1,902</td> <td>14,693 17,802 32,919 23,612 29,899 33,038 34,350 39,367 41,445 49,360</td> <td>617 748 1,383 992 1,256 1,388 1,443 1,653 1,741</td> <td>52 63 117 84 107 118 122 140</td> <td>51 62 114 82 104 115 119 137</td>	33 4. 11 4. 38 8. 41 6 36 8. 31 9 33 9 33 9 33 9 33 9 33 9 33 9 33 9 33 9 33 9 33 9 34 20 52 23 38 28 14 37 30 53	294 356 647 464 613 669 698 773 841 1,019 1,335 1,621 1,859 2,326 3,105 4,433 5,688	14,693 17,802 32,325 23,178 30,674 33,453 34,881 38,627 42,028 50,956 66,772 81,058 92,961 116,294 155,263 221,637	617 748 1,358 973 1,288 1,405 1,465 1,622 1,765 2,140 2,804 3,404 3,904 4,884 4,884	52 63 115 83 109 119 124 138 150 182 238 289 331 414 553	NA NA 387 313 85 66 87 116 315 306 292 3,542 3,234	NA 2,186 2,065 2,925 3,406 4,024 3,400 4,298 6,200 5,978	NA NA -207 -121 860 481 618 -624 898 1,902	14,693 17,802 32,919 23,612 29,899 33,038 34,350 39,367 41,445 49,360	617 748 1,383 992 1,256 1,388 1,443 1,653 1,741	52 63 117 84 107 118 122 140	51 62 114 82 104 115 119 137
1990 Total 11 1995 Total 14 1995 Total 14 1997 Total 14 1997 Total 14 1998 Total 22 1998 Total 21 1999 Total 21 2000 Total 22 2001 Total 24 2003 Total 40 2004 Total 44 2005 Total 40 2007 Total 91 2008 Total 1,3 2009 Total 1,3 2010 January 16 August 16 September 16 December 16 December 16 <	38 8 41 6 36 8 02 8 11 9 33 9 53 10 07 13 00 16 34 20 52 23 38 28 14 37 00 53	647 464 613 669 698 773 841 1,019 1,335 1,621 1,859 2,326 3,105 4,433 5,688	17,802 32,325 23,178 30,674 33,453 34,881 38,627 42,028 50,956 66,772 81,058 92,961 116,294 116,294 1155,263 221,637	1,358 973 1,288 1,405 1,465 1,622 1,765 2,140 2,804 3,404 3,904 4,884 6,521	115 83 109 119 124 138 150 182 238 289 331 414 553	387 313 85 66 87 116 315 306 292 3,542 3,234	2,186 2,065 2,925 3,406 4,024 3,400 4,298 6,200 5,978	-207 -121 860 481 618 -624 898 1,902	17,802 32,919 23,612 29,899 33,038 34,350 39,367 41,445 49,360	1,383 992 1,256 1,388 1,443 1,653 1,741	117 84 107 118 122 140	114 82 104 115 119 137
1996 Total 14 1997 Total 16 1998 Total 22 2000 Total 22 2000 Total 22 2000 Total 23 2001 Total 25 2002 Total 30 2003 Total 40 2004 Total 66 2005 Total 67 2006 Total 68 2007 Total 97 2008 Total 1,3 2009 Total 1,51 2009 Total 1,51 2010 January 14 June 14 June 14 June 14 June 15 October 16 November 16 Total 18 2011 January 16 Rober 16 Narch 15 Quagust 16 November 16 August 14 June 14 June 14 September 16	41 6 36 8 502 8 11 9 33 9 53 10 57 13 50 16 34 20 52 23 38 28 14 37 50 53	464 613 669 698 773 841 1,019 1,335 1,621 1,859 2,326 3,105 4,433 5,688	23,178 30,674 33,453 34,881 38,627 42,028 50,956 66,772 81,058 92,961 116,294 155,263 221,637	973 1,288 1,405 1,465 1,622 1,765 2,140 2,804 3,404 3,904 4,884 6,521	83 109 119 124 138 150 182 238 289 331 414 553	313 85 66 87 116 315 306 292 3,542 3,234	2,065 2,925 3,406 4,024 3,400 4,298 6,200 5,978	-121 860 481 618 -624 898 1,902	23,612 29,899 33,038 34,350 39,367 41,445 49,360	992 1,256 1,388 1,443 1,653 1,741	84 107 118 122 140	82 104 115 119 137
1997 Total 18 1998 Total 20 1999 Total 21 1999 Total 22 2000 Total 22 2001 Total 22 2001 Total 23 2002 Total 33 2003 Total 40 2004 Total 33 2005 Total 40 2005 Total 55 2006 Total 68 2007 Total 91 2008 Total 1,33 2009 Total 1,51 2010 January 14 April 14 June 14 June 16 November 16 November 16 Total 1,83 2011 January 16 April 16 April 16 April 16 June 16 June 17 March 16 August 816 August 816 September 16	36 8 302 8 11 9 33 9 53 10 53 10 53 10 54 20 55 23 38 28 34 37 50 53	613 669 698 773 841 1,019 1,335 1,621 1,859 2,326 3,105 4,433 5,688	30,674 33,453 34,881 38,627 42,028 50,956 66,772 81,058 92,961 116,294 155,263 221,637	1,288 1,405 1,465 1,622 1,765 2,140 2,804 3,404 3,404 4,884 6,521	109 119 124 138 150 182 238 289 331 414 553	85 66 87 116 315 306 292 3,542 3,234	2,925 3,406 4,024 3,400 4,298 6,200 5,978	860 481 618 -624 898 1,902	29,899 33,038 34,350 39,367 41,445 49,360	1,256 1,388 1,443 1,653 1,741	107 118 122 140	104 115 119 137
1998 Total 22 1999 Total 21 1999 Total 21 2000 Total 22 2001 Total 22 2001 Total 22 2001 Total 22 2001 Total 36 2002 Total 36 2005 Total 46 2005 Total 55 2006 Total 91 2007 Total 91 2008 Total 1,51 2010 January 14 February 15 2010 January 14 March 15 June 14 July 15 October 16 November 16 October 16 April 11 June 14 April 15 June 16 April 16 August 16 September 16 June 14 June<	D2 8 11 9 33 9 53 10 07 13 00 16 34 20 52 23 38 28 14 37 00 53	669 698 773 841 1,019 1,335 1,621 1,859 2,326 3,105 4,433 5,688	33,453 34,881 38,627 42,028 50,956 66,772 81,058 92,961 116,294 155,263 221,637	1,405 1,465 1,622 1,765 2,140 2,804 3,404 3,904 4,884 6,521	119 124 138 150 182 238 289 331 414 553	66 87 116 315 306 292 3,542 3,234	3,406 4,024 3,400 4,298 6,200 5,978	481 618 -624 898 1,902	33,038 34,350 39,367 41,445 49,360	1,388 1,443 1,653 1,741	118 122 140	115 119 137
1999 Total 21 2000 Total 22 2001 Total 22 2002 Total 33 2003 Total 40 2004 Total 40 2005 Total 40 2006 Total 68 2007 Total 91 2008 Total 1,33 2009 Total 1,51 2009 Total 1,51 2010 January 14 July 15 June 14 July 15 September 16 November 16 December 16 Pebruary 16 November 16 December 16 Narch 16 September 16 December 16 November 16 August 14 June 14 June 14 September 16 August 81 August 81 August 81	11 9 33 9 53 10 57 13 00 16 84 20 52 23 38 28 14 37 00 53	698 773 841 1,019 1,335 1,621 1,859 2,326 3,105 4,433 5,688	34,881 38,627 42,028 50,956 66,772 81,058 92,961 116,294 155,263 221,637	1,465 1,622 1,765 2,140 2,804 3,404 3,904 4,884 6,521	124 138 150 182 238 289 331 414 553	87 116 315 306 292 3,542 3,234	4,024 3,400 4,298 6,200 5,978	618 -624 898 1,902	34,350 39,367 41,445 49,360	1,443 1,653 1,741	122 140	119 137
2000 Total 23 2001 Total 25 2002 Total 33 2003 Total 44 2004 Total 44 2005 Total 55 2006 Total 55 2006 Total 66 2007 Total 91 2008 Total 1,33 2009 Total 1,33 2009 Total 1,51 2010 January 14 February 13 March 16 June 14 July 16 August 16 November 16 November 16 November 16 April 14 March 16 April 17 May 16 June 16 April 16 September 16 June 17 May 14 June 14 June <t< td=""><td>33 9 53 10 07 13 00 16 34 20 52 23 38 28 14 37 00 53</td><td>773 841 1,019 1,335 1,621 1,859 2,326 3,105 4,433 5,688</td><td>38,627 42,028 50,956 66,772 81,058 92,961 116,294 155,263 221,637</td><td>1,622 1,765 2,140 2,804 3,404 3,904 4,884 6,521</td><td>138 150 182 238 289 331 414 553</td><td>116 315 306 292 3,542 3,234</td><td>3,400 4,298 6,200 5,978</td><td>-624 898 1,902</td><td>39,367 41,445 49,360</td><td>1,653 1,741</td><td>140</td><td>137</td></t<>	33 9 53 10 07 13 00 16 34 20 52 23 38 28 14 37 00 53	773 841 1,019 1,335 1,621 1,859 2,326 3,105 4,433 5,688	38,627 42,028 50,956 66,772 81,058 92,961 116,294 155,263 221,637	1,622 1,765 2,140 2,804 3,404 3,904 4,884 6,521	138 150 182 238 289 331 414 553	116 315 306 292 3,542 3,234	3,400 4,298 6,200 5,978	-624 898 1,902	39,367 41,445 49,360	1,653 1,741	140	137
2001 Total 25 2002 Total 30 2003 Total 40 2004 Total 44 2005 Total 55 2006 Total 66 2007 Total 91 2008 Total 1,35 2009 Total 1,51 2010 January 14 February 13 March 15 June 14 June 14 July 15 September 16 November 16 November 16 Total 1,83 2011 January 16 Rotober 16 November 16 Total 1,83 2011 January 16 April 12 June 14 March 16 August 81 June 81 June 81 July 81 September	53 10 07 13 00 16 34 20 52 23 38 28 14 37 00 53	841 1,019 1,335 1,621 1,859 2,326 3,105 4,433 5,688	42,028 50,956 66,772 81,058 92,961 116,294 155,263 221,637	1,765 2,140 2,804 3,404 3,904 4,884 6,521	150 182 238 289 331 414 553	315 306 292 3,542 3,234	4,298 6,200 5,978	898 1,902	41,445 49,360	1,741		
2002 Total 33 2003 Total 46 2004 Total 46 2005 Total 46 2005 Total 55 2006 Total 66 2007 Total 91 2008 Total 1,3 2009 Total 1,51 2009 Total 1,51 2010 January 12 April 14 June 14 June 14 July 15 September 16 November 16 November 16 Petruary 16 April 18 2011 January 16 November 16 December 16 April 18 2011 January 16 April 17 March 16 September 16 August R 16 August R 16 August R 16	00 16 34 20 52 23 38 28 14 37 00 53	1,335 1,621 1,859 2,326 3,105 4,433 5,688	66,772 81,058 92,961 116,294 155,263 221,637	2,140 2,804 3,404 3,904 4,884 6,521	238 289 331 414 553	292 3,542 3,234	6,200 5,978				148	144
2004 Total 44 2005 Total 55 2006 Total 66 2007 Total 91 2008 Total 1,30 2009 Total 1,51 2010 January 14 February 13 March 16 April 14 June 14 June 14 June 14 June 15 October 16 November 16 Total 1,83 2011 January 16 November 16 Pebruary 16 Narch 16 Naugust 16 February 16 June 16 June 16 April 17 June 16 June 16 June 17 June 16 September 16 September 16	34 20 52 23 38 28 14 37 00 53	1,621 1,859 2,326 3,105 4,433 5,688	81,058 92,961 116,294 155,263 221,637	3,404 3,904 4,884 6,521	289 331 414 553	3,542 3,234		-222	67 006		176	171
2005 Total 55 2006 Total 66 2007 Total 91 2008 Total 1,33 2009 Total 1,51 2009 Total 1,51 2010 Total 1,51 2011 January 12 May 14 December 16 December 16 Pebruary 18 2011 January 16 August 14 March 16 August 17 May 14 June 15 August 16 September 16 September <t< td=""><td>52 23 38 28 14 37 00 53</td><td>1,859 2,326 3,105 4,433 5,688</td><td>92,961 116,294 155,263 221,637</td><td>3,904 4,884 6,521</td><td>331 414 553</td><td>3,234</td><td></td><td></td><td>67,286</td><td>2,826</td><td>240</td><td>233</td></t<>	52 23 38 28 14 37 00 53	1,859 2,326 3,105 4,433 5,688	92,961 116,294 155,263 221,637	3,904 4,884 6,521	331 414 553	3,234			67,286	2,826	240	233
2006 Total 66 2007 Total 91 2008 Total 1,33 2009 Total 1,51 2010 January 14 February 13 March 15 April 14 June 14 July 15 August 16 November 16 November 16 December 16 Total 1,83 2011 January 16 Pebruary 17 March 16 November 16 December 16 Total 1,83 2011 January 16 August 8 June 8 June 8 July 8 July 8 September 16 September 16 September 16 September 16 November <t< td=""><td>38 28 14 37 00 53</td><td>2,326 3,105 4,433 5,688</td><td>116,294 155,263 221,637</td><td>4,884 6,521</td><td>414 553</td><td></td><td>6,002</td><td>24</td><td>84,576</td><td>3,552</td><td>301</td><td>293</td></t<>	38 28 14 37 00 53	2,326 3,105 4,433 5,688	116,294 155,263 221,637	4,884 6,521	414 553		6,002	24	84,576	3,552	301	293
2007 Total 91 2008 Total 1,33 2009 Total 1,51 2010 January 14 February 13 March 16 April 14 June 14 June 14 July 15 August 16 September 16 November 16 Total 1,83 2011 January 16 November 16 Total 1,83 2011 January 16 April 16 August 16 September 16 December 16 June 14 June 14 June 14 June 14 September 15 July R 16 September 17 October R 16 November 16 December	14 37 00 53	3,105 4,433 5,688	155,263 221,637	6,521	553	17,400	5,563 8,760	-439 3.197	96,634 130,505	4,059 5.481	344 465	335 453
2008 Total 1,33 2009 Total 1,51 2009 Total 1,51 2010 January 12 February 13 March 15 April 14 June 14 June 14 July 15 August 16 September 16 October 16 December 16 December 16 Total 1,83 2011 January 16 April 15 June 16 August 16 August 17 March 16 April 18 June 14 May 8 June 8 June 8 July 8 July 8 August 8 Cotober 7 October 16 December 17 Total 8 <td< td=""><td>00 53</td><td>4,433 5,688</td><td>221,637</td><td></td><td></td><td>10,457</td><td>10,535</td><td>1,775</td><td>163,945</td><td>5,401 6,886</td><td>465 584</td><td>453 569</td></td<>	00 53	4,433 5,688	221,637			10,457	10,535	1,775	163,945	5,401 6,886	465 584	453 569
2009 Total 1,51 2010 January 12 February 13 March 15 April 14 June 14 July 15 August 15 August 15 October 16 November 16 December 16 Total 1,83 2011 January 16 April 16 June 16 April 16 June 16 Total 18 2011 January 16 February 8 March 16 June 8 June 8 June 8 June 8 June 8 October 7 November 16 November 16 November 16 November 17		5,688			790	12,610	14,226	3,691	230,556	9,683	821	800
February 13 March 14 April 14 May 15 June 14 July 15 August 15 August 15 September 15 October 16 December 16 Total 1,83 2011 January 16 February 816 April 16 June 816 September 16 September 16 November 16			200,724	10,938	928	4,720	16,594	2,368	262,776	11,037	936	910
March 11 April 14 May 15 June 14 July 15 June 14 July 15 August 15 September 16 November 16 December 16 Total 1,83 2011 January 16 February R 14 April 15 June R 16 June R 16 June R 16 June R 16 September 16 September 16 October R 16 November 16 November 16 December 17 Total R 1,91			25,625	1,076	91	-234	18,251	1,657	23,734	997	85	82
April 14 May 15 June 14 July 15 September 16 October 16 December 16 December 16 Total 1,83 2011 January 16 February R 12 March 16 June R 16 July R 16 July R 16 July R 16 July R 16 September 16 December 16 December 16 December 17 Total R 19			23,802	1,000	85	-482	19,297	1,046	22,274	936	79	77
May 15 June 14 July 15 August 15 October 16 November 16 December 16 Total 1,83 2011 January 16 February 8 March 16 June 8 June 8 June 8 July 8 September 16 September 16 Dure 8 June 8 October 7 November 16 December 16 November 16 December 17 Total 8			26,486	1,112	94	-1,104	20,222	925	24,457	1,027	87	85
June 14 July 15 August 15 September 16 October 16 November 16 December 16 Total 1,83 2011 January 16 February R 14 April 15 June R 16 June R 16 June R 16 September 15 October R 16 June R 16 September 16 December 17 October R 16 November 16 December 17 Total R 1,91			25,384 26,244	1,066 1,102	90 93	-927 -368	20,042 19.851	-180 -191	24,637 26.067	1,035 1.095	88 93	85 90
July 15 August 15 September 15 October 16 November 16 December 16 December 16 Total 1,83 2011 January 16 February R 12 March 16 June R 16 June R 16 July R 16 September 15 October R 16 November 16 December 17 Total R 19			25,632	1,102	93 91	-300	18,565	-1,286	26,067	1,095	93 95	90
August 15 September 16 October 16 November 16 December 16 Total 1,83 2011 January 16 February 81 March 16 June 81 June 81 July 816 September 16 November 16 Duce 816 June 816 Sugust 816 November 16 December 17 Total 81,91			26,584	1,117	95	-578	17,809	-756	26,762	1,124	95	93
September 11 October 16 November 16 December 16 Total 1,83 2011 January 16 February 812 March 16 June 812 June 815 July 816 September 15 October 816 November 16 December 17 Total 81,91			26,964	1.132	96	-695	17.380	-429	26.698	1.121	95	93
November 16 December 16 Total 1,83 2011 January 16 February 81 March 16 June 81 June 816 June 816 September 16 September 16 November 16 Duceber 816 October 816 November 16 December 17 Total 81,91	52 6	533	26,221	1,101	93	-924	17,437	57	25,240	1,060	90	88
December 16 Total 1,83 2011 January 16 February R12 March 16 April 15 June R15 June R15 July R16 August R16 September 16 November 16 December 17 Total R19			27,471	1,154	98	-830	17,278	-159	26,800	1,126	95	93
Total 1,83 2011 January 16 February R 14 March 16 April 15 June R 16 July R 16 September 15 October R 16 November 16 December 17 Total R 1,91			27,747	1,165	99	-923	18,150	872	25,952	1,090	92	90
2011 January 16 February R 14 March 16 April 17 May R 16 June R 16 July R 16 September 16 November 16 December 17 Total R 191			28,457	1,195	101	-1,711	17,941	-209	26,955	1,132	96	93
February R 14 March 16 April 17 May R 16 June R 16 July R 16 August R 16 October R 16 November 16 December 17 Total R 191	39 74	6,506	316,617	13,298	1,127	-9,115	17,941	1,347	306,155	12,858	1,090	1,061
March 16 April 15 May R 16 June R 16 June R 16 July R 16 August R 16 September 16 17 October R 16 December 17 17 Total R 1,91			R 28,467	^R 1,196 ^R 1.063	^R 101 90	-1,359	R 20,826	^R 2,885 ^R 190	^R 24,223 ^R 23.685	^R 1,017 ^R 995	^R 86 ^R 84	^R 84 ^R 82
April 15 May R 16 June R 16 July R 16 August R 16 September 15 October R 16 November 16 December 17 Total R 191			^R 25,300 ^R 28,178	^R 1,063	90 100	-1,425 -2,003	^R 21,016 ^R 21,593	^R 190	R 23,685	R 1,075	^{∿84} 91	82
May R 16 June R 15 July R 16 August R 16 September 15 October R 16 November 16 December 17 Total R 191	54 6		R 26,538	^R 1,115	R 94	-2,003	R 21,095	R -528	R 24,201	R 1,075	^R 86	R 84
June R 15 July R 16 August R 16 September 15 October R 16 November 16 December 17 Total R 191	50 6·	^R 550	R 27,720	^R 1.164	99	-1,743	^R 20,609	^R -456	26,433	1 110	94	92
August R 16 September 15 October R 16 November 16 December 17 Total R 191	58 6	^R 540	^R 27,224	^R 1,143	^R 97	-1,533	^R 19,217	^R -1,392	^R 27,083	^R 1,137	96	94
September 15 October R 16 November 16 December 17 Total R 1,91	59 6		^R 27,541	^R 1,157	98	-2,731	^R 18,788	^R -429	^R 25,239	^R 1,060	^R 90	^R 88
October R 16 November 16 December 17 Total R 1,91			^R 27,976	^R 1,175	100	^R -665	^R 18,123	^R -665	^R 27,976	^R 1,175	100	97 8 97
November 16 December 17 Total ^R 1,91	54 6 52 6		^R 26,588 ^R 28,013	^R 1,117 ^R 1,177	95	^R -1,745 -2,388	^R 18,465 ^R 18,038	^R 342 ^R -427	^R 24,501 ^R 26,052	^R 1,029 ^R 1,094	^R 87 93	^R 85 90
December 17 Total ^R 1,91			R 28,013	R 1,177	100 101	-2,388 ^R -2,911	^R 18,038	R -427 R 270	R 25,202	^R 1,094 ^R 1,058	R 90	90 R 87
Total R 1,91	72 6		R 29,718	^R 1,248	106	R-2.997	R 18,238	^R -70	R 26,791	R 1.125	R 95	R 93
2012 January 16	19 ^R 76	^R 6,649	R 331,646	R 13,929	^R 1,181	^R -24,365	R 18,238	R 297	R 306,984	^R 12,893	R 1,093	R 1,065
			29,063	1,221	103	-1,789	21,753	ⁱ 3,492	23,782	999	85	82
February 15	67 6		26,653	1,119	95	-1,785	22,572	819	24,049	1,010	86	83
	54 6		27,706	1,164	99	-1,626	22,952	380	25,700	1,079	91	89
	54 6 60 6		26,368 27,718	1,107 1,164	94 99	-1,549 -1,013	22,370 21,851	-582 -519	25,401 27,224	1,067 1,143	90 97	88 95
	54 6 60 6 52 6		26.611	1,164	99 95	-1,013	21,851	-519	26.393	1,143	97 94	95
6-Month Total 94	54 6 60 6 52 6 60 6		164,119	6,893	584	-8,375	21,450	3,195	152,549	6,407	543	530
2011 6-Month Total 94	54 6 50 6 52 6 50 6 54 6	3,262	163,427	6,864	582	-10,927	19,217	1,276	151,224	6,351	538	525

Table 10.3 Fuel Ethanol Overview

^a Total corn and other biomass inputs to the production of undenatured ethanol

used for fuel ethanol. ^b Losses and co-products from the production of fuel ethanol. Does not include natural gas, electricity, and other non-biomass energy used in the production of fuel ethanol—these are included in the industrial sector consumption statistics for the appropriate energy source.

^d Includes denaturant.

e Through 2009, data are for fuel ethanol imports only; data for fuel ethanol exports are not available. Beginning in 2010, data are for fuel ethanol imports minus fuel ethanol exports.

 ^f Stocks are at end of period.
 ^g A negative value indicates a decrease in stocks and a positive value indicates an increase. ^h Consumption of fuel ethanol minus denaturant. Data for fuel ethanol minus

denaturant are used to develop data for "Renewable Energy/Biomass" in Tables 10.1–10.2b, as well as in Sections 1 and 2.

ⁱ Derived from the preliminary 2011 stocks value (18,261 thousand barrels), not the final 2011 value (18,238 thousand barrels) that is shown under "Stocks."
 R=Revised. NA=Not available.
 Notes: • Mbbl = thousand barrels. MMgal = million U.S. gallons. TBtu = trillion

Notes: • Mbbl = thousand barrels. MMgal = million U.S. gallons. TBu = trillion Btu. • Fuel ethanol data in thousand barrels are converted to million gallons by multiplying by 0.042, and are converted to Btu by multiplying by the approximate heat content of fuel ethanol—see Table A3. • Through 1980, data are not available. For 1981-1992, data are estimates. For 1993-2008, only data for feedstock, losses and co-products, and denaturant are estimates. Beginning in 2009, only data for feedstock, and losses and co-products, are estimates. • See "Denaturant," "Ethanol," "Fuel Ethanol," and "Fuel Ethanol Minus Denaturant" in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia. Columbia. Web Page: See http://www.eia.gov/totalenergy/data/monthly/#renewable for all

available data beginning in 1981. Sources: See end of section.

								Trade				Del			
201 Total 1 (a) 204 9 1 78 39 33 NA NA NA NA NA S35 16 2020 Total 1 16 338 14 2 94 110 15 NA NA NA NA NA A 325 16 2020 Total 2 (5) 565 12 124 -26 NA NA NA A 640 27 2020 Total 32 (6) 5963 250 32 1,069 828 242 NA NA NA A 6204 261 2020 Total 667 1 11,662 490 62 3,342 6,477 -3,135 NA NA NA A 6204 261 2020 Total 67 1 12,281 516 66 1,844 6,332 -4,489 711 711 659 275 326				Pi	oduction		Imports	Exports		Stocksd			Cor	nsumptio	n
2002 Total 1 1 191 56 135 NA Constant Constant Constant Size Size Size Size Size Size Size NA NA NA NA NA Constant Size Size Size Size NA NA NA NA		TBtu	TBtu	Mbbl	MMgal	TBtu	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	MMgal	TBtu
0002 Total 1 1 191 56 135 NA Constant Constant Constant Constant Constant Constant Size NA NA NA NA Size Size Size Size NA NA NA NA Size Size Size Size Size Size Size NA Size Size Size NA	001 Total	1	(s)	204	9	1	78	39	39	NΔ	NΔ	ΝΔ	243	10	
2003 Total 2 (s) 338 14 2 94 110 -16 NA NA NA State 0004 Total 12 (s) 2,162 91 12 207 206 1 NA NA NA KA 620 213 2063 21 1069 223 1069 828 242 NA NA NA 620 261 NA NA NA 620 261 1007 1016 261 261 1049 338 0 40 2 2 260 7,750 326 1040 1039 10 0 599 25 1049 338 0 40 2 2 1060 1039 10 0 599 25 1049 338 0 40 2 2 1069 46 0 582 24 1069 46 0 582 24 1069 46 0 582 24 <t< td=""><td>002 Total</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	002 Total														
004 Total 4 (s) 666 28 4 97 124 -26 NA NA NA 640 27 005 Total 32 (s) 5,663 250 32 1,069 828 242 NA NA NA NA NA RA 6,204 261 007 Total 63 1 11,662 6477 -3,135 NA NA NA RA 669 7,750 326 008 Total 67 1 12,281 516 66 1,844 6,332 -4,489 711 711 669 7,750 326 010 January 3 (s) 633 27 3 41 296 -256 1,049 338 0 40 2 7,750 326 010 January 4 (s) 644 34 4 40 52 27 1,057 18 0 412 17 Amarch 4															
D05 Total 12 (a) 2,162 91 12 207 206 1 NA NA NA Extra constraints D05 Total 63 1 11,662 490 622 3,342 6,477 3,135 NA NA NA NA RA 6,204 261 D09 Total 67 1 12,281 516 66 1,844 6,332 -4,489 711 711 669 7,750 326 D10 January 3 (s) 633 27 3 41 296 -256 1,049 338 0 40 2 February 4 (s) 696 29 4 31 139 -106 1,039 -10 0 599 25 April 4 (s) 664 27 -182 1,0057 18 0 412 17 April 4 (s) 657 28 4 32 199 -167 330 -138 0 628 28 28 28 28															
D06 Total 32 (s) 5;963 250 32 1,069 828 242 NA NA <td></td>															
D07 Total G3 1 11.662 490 62 3.342 64.77 -3.135 NA NA <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>															
D08 Total 88 1 16/145 678 87 7/502 16/128 -8/626 NA N															
D09 Total 67 1 12,281 516 66 1,844 6,332 -4,489 711 711 711 669 7,750 326 N0 January 3 (s) 633 27 3 41 296 -256 1,049 338 0 40 2 February 4 (s) 804 34 4 60 433 -374 1,057 18 0 412 21 April 4 (s) 814 34 4 45 227 -182 1,009 -48 0 680 29 May 4 (s) 657 28 4 32 199 -167 830 -138 0 622 22 24 July 4 (s) 657 28 4 18 132 -117 771 59 0 539 23 23 23 25 3 34 109 -75 672 -4 0 617 20 20 26 24 25 3 <td></td>															
O10 January 3 (s) 633 27 3 41 296 -256 1.049 338 0 40 2 February 4 (s) 696 29 4 31 139 -108 1.039 -10 0 599 25 March 4 (s) 814 34 4 45 227 -182 1.009 -48 0 680 29 24 May 4 (s) 644 27 3 54 304 -249 968 -48 0 443 19 June 4 (s) 657 28 4 32 199 -167 830 -138 0 628 29 0 599 25 33 433 132 -117 830 -138 0 628 29 0 599 25 33 30 -138 0 628 29 0 739 73 73 73 73 74 313 65 652 22 0 6,258<			-						.,				, · · ·		
February 4 (s) 696 29 4 31 139 -108 1.039 -10 0 599 25 March 4 (s) 814 34 4 460 433 -374 1.067 18 0 412 17 May 4 (s) 644 27 3 52 227 -162 1.009 -48 0 432 19 June 4 (s) 657 28 4 32 199 -167 830 -138 0 628 24 August 4 (s) 655 27 3 52 225 173 71 -59 0 539 23 23 September 4 (s) 676 28 413 131 -62 682 -89 0 749 31 October 3 (s) 588 25 3 30 109 -75 672 -4 0 617 22 70 62 62 632 <			•				,-	,	,				,		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $															(
April 4 (s) 814 34 4 45 227 -182 1,009 -48 0 680 29 May 4 (s) 760 32 4 80 221 -171 1,016 7 0 582 24 June 4 (s) 644 27 3 54 304 -249 968 -48 0 443 19 July 4 (s) 657 28 4 32 199 -167 830 -138 0 628 26 August 4 (s) 676 28 4 131 -62 682 -89 0 749 31 October 3 (s) 588 25 3 34 109 -75 672 4 0 671 22 December 3 (s) 588 25 3 34 109 -758 672 -40 671 22 Total 44 18,177 343 44 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>															
May 4 (s) 664 27 3 54 304 -249 968 -48 0 443 19 July 4 (s) 657 28 4 32 199 -167 830 -138 0 628 26 August 4 (s) 653 27 3 52 225 -173 771 -59 0 539 23 September 4 (s) 676 28 4 18 132 -114 650 -32 0 594 25 November 3 (s) 528 22 3 30 57 -27 676 26 0 475 20 December 3 (s) 588 25 3 34 109 -75 672 -39 0 6,258 263 11 January 5 (s) 841 35 5 49 217 -169 R1,016 R39 0 R 634 R27 February 5 (s		-				-									
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$															
July 4 (s) 657 28 4 32 199 -167 830 -138 0 628 26 August 4 (s) 653 27 3 52 225 -173 771 -59 0 539 23 September 4 (s) 676 28 4 18 132 -114 650 -32 0 539 23 November 3 (s) 528 22 3 30 57 -27 676 26 0 4475 20 December 3 (s) 588 25 3 34 109 -75 672 -4 0 517 22 Total 44 1 8,177 343 44 546 2,503 -1,958 672 -39 0 6,258 263 M1 January 5 (s) 842 35 5 49 217 -169 R1,016 R 39 0 R 6,34 R 27 March 8	May														
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $															
September 4 (s) 723 30 4 69 131 -62 682 -89 0 749 31 October 3 (s) 528 22 3 30 57 -27 676 26 0 44 1 8,177 343 44 546 2,503 -1,958 672 -39 0 6,258 263 M1 January 5 (s) 842 35 5 49 217 -169 R 1,016 R 39 0 6,258 263 March 3 (s) 1,419 60 8 53 197 -144 R 1,217 R 201 0 R 634 R 27 February 5 (s) 1,419 60 8 53 197 -144 R 1,321 R 164 0 R 1,111 R 47 April 9 (s) 1,838 77 10 48 192 -144 R 1,576 R 168 0 R 1,526 R 64 July 12 (s) 2,183	July														
October 4 (s) 676 28 4 18 132 -114 650 -32 0 594 25 November 3 (s) 528 22 3 30 57 -27 676 26 0 475 20 Total 44 1 8,177 343 44 546 2,503 -1,958 672 -39 0 6,258 263 M1 January 5 (s) 842 35 5 49 217 -169 R 1,016 R 39 0 R 634 R 27 February 5 (s) 961 40 5 37 88 -51 R 1,217 R 201 0 R 709 R 30 March 8 (s) 1,419 60 8 53 197 -144 R 1,381 R 164 R 1,419 R 40 R 1,419 R 474 R 1,495 63 R 1,425 R 1,495 R 63 R 1,526 R 64 June 11 (s) 1,938 811 0 <t< td=""><td>August</td><td>4</td><td>(s)</td><td>653</td><td>27</td><td>3</td><td>52</td><td>225</td><td>-173</td><td>771</td><td>-59</td><td>0</td><td>539</td><td>23</td><td></td></t<>	August	4	(s)	653	27	3	52	225	-173	771	-59	0	539	23	
November 3 (s) 528 22 3 30 57 -27 676 26 0 475 20 December 3 (s) 588 25 3 34 109 -75 676 26 0 517 22 Dit January 5 (s) 842 35 5 49 217 -169 R 1,016 R 39 0 R 634 R 27 February 5 (s) 842 35 5 49 217 -169 R 1,016 R 39 0 R 634 R 27 March 8 (s) 1,419 60 8 53 197 -144 R 1,381 R 164 0 R 1,111 R 47 April 9 (s) 1,692 71 9 52 222 -169 R 1,408 R 27 0 R 1,495 63 Jule 111 (s) 1,938 81 10 48 117 -69 R 1,748 R 224 0 R 1,879 R 79 <td>September</td> <td>4</td> <td>(s)</td> <td>723</td> <td>30</td> <td>4</td> <td>69</td> <td>131</td> <td>-62</td> <td>682</td> <td>-89</td> <td>0</td> <td>749</td> <td>31</td> <td></td>	September	4	(s)	723	30	4	69	131	-62	682	-89	0	749	31	
December 3 (s) 588 25 3 34 109 -75 672 -4 0 517 22 Total 44 1 8,177 343 44 546 2,503 -1,958 672 -39 0 6,258 263 D11 January 5 (s) 842 35 5 49 217 -169 R 1,016 R 39 0 R 634 R 27 March 8 (s) 1,419 60 8 53 197 -144 R 1,381 R 164 0 R 1,111 R 47 April 9 (s) 1,692 71 9 52 222 -169 R 1,408 R 27 0 R 1,495 63 May 10 (s) 1,838 77 0 48 117 -69 R 1,524 R -53 0 R 1,922 R 81 July 12 (s) 2,183 92 12 65 71 -7 R 1,834 R 86 0 R 2,181 R 92 A86 <td>October</td> <td></td> <td>(s)</td> <td></td> <td></td> <td></td> <td></td> <td>132</td> <td>-114</td> <td></td> <td>-32</td> <td></td> <td></td> <td></td> <td></td>	October		(s)					132	-114		-32				
Total 44 1 8,177 343 44 546 2,503 -1,958 672 -39 0 6,258 263 D11 January 5 (5) 842 35 5 49 217 -169 R 1,016 R 39 0 R 634 R 27 February 5 (5) 961 40 5 37 88 -51 R 1,217 R 201 0 R 709 R 30 March 8 (5) 1,692 71 9 52 222 -169 R 1,408 R 27 0 R 1,526 R 64 June 10 (5) 1,838 77 10 48 192 -144 R 1,576 R 168 0 R 1,526 R 64 June 12 (5) 2,183 92 12 65 71 -7 R 1,834 R 66 0 R 2,181 R 92 September 12 (5) 2,284 96	November	3	(s)	528	22	3	30	57	-27	676	26	0	475	20	
D11 January 5 (s) 842 35 5 49 217 -169 R1,016 R 39 0 R 634 R 27 February 5 (s) 1,419 60 8 53 197 -144 R1,381 R164 0 R 634 R 27 March 8 (s) 1,419 60 8 53 197 -144 R1,381 R164 0 R 1,111 R 47 April 9 (s) 1,692 71 9 52 222 -169 R 1,408 R 27 0 R 1,495 63 May 10 (s) 1,838 77 10 48 192 -144 R 1,576 R 168 0 R 1,524 R-53 0 R 1,922 R 81 July 12 (s) 2,183 92 12 65 71 -7 R 1,834 R 86 0 R 2,181 R 92 September 12 (s) 2,508 105 13 82 132 -49 R 1,965 R 347 </td <td>December</td> <td>3</td> <td>(s)</td> <td>588</td> <td>25</td> <td>3</td> <td>34</td> <td>109</td> <td>-75</td> <td>672</td> <td>-4</td> <td>0</td> <td>517</td> <td>22</td> <td></td>	December	3	(s)	588	25	3	34	109	-75	672	-4	0	517	22	
February 5 (s) 961 40 5 37 88 -51 R 1,217 R 201 0 R 709 R 30 March 8 (s) 1,419 60 8 53 197 -144 R 1,381 R 164 0 R 1,111 R 47 April 9 (s) 1,632 71 9 52 222 -169 R 1,408 R 27 0 R 1,495 63 May 10 (s) 1,838 77 10 48 192 -144 R 1,576 R 168 0 R 1,226 R 64 June 11 (s) 2,183 92 12 62 142 -80 R 1,748 R 224 0 R 1,879 R 79 August 12 (s) 2,2173 95 12 65 193 -127 R 1,617 R-207 0 R 2,364 R 99 October 14 (s) 2,404 105 13 82 132 -49 R 1,617 R-87 0 R 2,216 R	Total	44	ີ 1	8,177	343	44	546	2,503	-1,958	672	-39	0	6,258	263	:
March 8 (s) 1,419 60 8 53 197 -144 R 1,381 R 164 0 R 1,111 R 47 April 9 (s) 1,692 71 9 52 222 -169 R 1,408 R 27 0 R 1,495 63 May 10 (s) 1,838 77 10 48 192 -144 R 1,576 R 168 0 R 1,526 R 64 June 11 (s) 1,938 81 10 48 117 -69 R 1,524 R -53 0 R 1,922 R 81 July 12 (s) 2,183 92 12 65 71 -7 R 1,834 R 60 R 2,2181 R 92 August 12 (s) 2,203 95 12 65 71 -7 R 1,834 R 60 R 2,2181 R 92 October 14 (s) 2,494 105 13 86 131 -65 R 1,877 R -87 0 R 2,364 R 99 0 R	11 January	5	(s)	842	35	5	49	217	-169			0			
April 9 (s) 1,692 71 9 52 222 -169 R 1,408 R 27 0 R 1,495 63 May 10 (s) 1,838 77 10 48 192 -144 R 1,576 R 168 0 R 1,526 R 64 June 11 (s) 1,338 81 10 48 192 -144 R 1,576 R 168 0 R 1,526 R 64 July 12 (s) 2,183 92 12 62 142 -69 R 1,524 R -53 0 R 1,922 R 81 Aggist 12 (s) 2,183 92 12 65 71 -7 R 1,834 R 86 0 R 2,181 R 92 Aggist 14 (s) 2,508 105 13 82 132 -127 R 1,617 R -87 0 R 2,181 R 99 October 14 (s) 2,494 105 13 66 131 -65 R 347 0 R 2,516 R 106	February	5	(s)	961	40	5	37	88	-51	^R 1,217		0			
May 10 (s) 1,838 77 10 48 192 -144 R 1,576 R 168 0 R 1,526 R 64 June 11 (s) 1,938 81 10 48 117 -69 R 1,524 R -53 0 R 1,922 R 81 July 12 (s) 2,183 92 12 62 142 -80 R 1,748 R 224 0 R 1,879 R 79 August 12 (s) 2,273 95 12 65 71 -7 R 1,847 R 86 0 R 2,181 R 92 September 12 (s) 2,273 95 12 65 71 -7 R 1,817 R 207 0 R 2,181 R 92 October 14 (s) 2,604 105 13 82 132 -49 R 1,965 R 3,47 0 R 2,516 R 106 December 14 (s) 2,604 109 14 234 39 195 R 2,012 R 1,045 0 R 2,516 <td>March</td> <td>8</td> <td>(s)</td> <td>1,419</td> <td>60</td> <td>8</td> <td>53</td> <td>197</td> <td>-144</td> <td></td> <td></td> <td>0</td> <td></td> <td>^R 47</td> <td></td>	March	8	(s)	1,419	60	8	53	197	-144			0		^R 47	
June 11 (s) 1,938 81 10 48 117 -69 R 1,524 R -53 0 R 1,922 R 81 July 12 (s) 2,183 92 12 62 142 -80 R 1,748 R R224 0 R	April	9	(s)	1,692	71	9	52	222	-169			0		63	
July 12 (s) 2,183 92 12 62 142 -80 R 1,748 R 224 0 R 1,879 R 79 August 12 (s) 2,273 95 12 65 71 -7 R 1,834 R 86 0 R 1,879 R 79 September 12 (s) 2,273 95 12 65 71 -7 R 1,834 R 86 0 R 2,181 R 92 October 14 (s) 2,508 105 13 82 132 -49 R 1,617 R -207 0 R 2,364 R 99 November 14 (s) 2,494 105 13 66 131 -65 R 347 0 R 2,516 R 106 December 14 (s) 2,494 105 13 66 131 -65 R 347 0 R 2,64 R 12 Total 125 2 R 23,035 967 123 861 1,740 -879 R 2,012 R 1,045 0 R 2,111 R 887 R	May	10	(s)	1,838	77	10	48	192	-144	^R 1,576	^R 168	0			1
August 12 (s) 2,273 95 12 65 71 -7 R 1,834 R 86 0 R 2,181 R 92 September 12 (s) R 2,284 96 12 65 193 -127 R 1,834 R 86 0 R 2,181 R 92 October 14 (s) 2,508 105 13 82 132 -49 R 1,817 R -207 0 R 2,181 R 92 November 14 (s) 2,508 105 13 866 131 -65 R 1,877 R -87 0 R 2,516 R 106 December 14 (s) 2,604 109 14 234 39 195 R 2,012 R 1,045 0 R 2,516 R 106 December 12 2 2,604 109 14 234 39 195 R 2,012 R 1,045 0 R 2,564 R 112 Total 125 2 R 23,035 967 123 861 1,740 -879 R 2,012 R 1,045	June	11	(s)	1,938	81	10	48	117	-69			0			R
August 12 (s) 2.273 95 12 65 71 -7 F1,834 F8,66 0 F2,181 F92 September 12 (s) 2,273 95 12 65 71 -7 F1,834 F8,66 0 F2,181 F92 September 14 (s) 2,508 105 13 82 132 -49 F1,617 F-207 0 F2,181 F99 November 14 (s) 2,494 105 13 66 131 -65 F1,877 F-87 0 F2,111 F899 December 14 (s) 2,604 109 14 234 39 195 F2,012 F1,877 F-87 0 F2,516 F106 Total 125 2 F23,035 967 123 861 1,740 -879 F2,012 F1,045 0 F2,111 R87 R 12 Janary 9 (s) 1,700 71 9 44 248 -204 2,527 <t< td=""><td>July</td><td>12</td><td>(s)</td><td>2,183</td><td>92</td><td>12</td><td>62</td><td>142</td><td>-80</td><td></td><td></td><td>0</td><td></td><td></td><td>R</td></t<>	July	12	(s)	2,183	92	12	62	142	-80			0			R
October 14 (s) 2,508 105 13 82 132 -49 R 1,965 R 347 0 R 2,111 R 89 November 14 (s) 2,494 105 13 66 131 -65 R 1,877 R -87 0 R 2,516 R 106 December 14 (s) 2,494 109 14 234 39 195 R 2,012 R 135 0 R 2,516 R 106 Total 125 2 R 23,035 967 123 861 1,740 -879 R 2,012 R 1,045 0 R 2,664 R 12 Total 10 (s) 1,837 77 10 58 119 -62 2,869 342 0 1,433 60 March 12 (s) 2,180 92 12 49 221 -171 2,932 -121 0 2,130 89 May 13 (s) 2,373 100 13 94 306 -212 2,514 -418 0 2,579		12	(s)	2,273	95	12	65	71	-7		^R 86	0			R
November 14 (s) 2,494 105 13 66 131 -65 R 1,877 R -87 0 R 2,516 R 106 December 14 (s) 2,604 109 14 234 39 195 R 2,012 R 135 0 R 2,516 R 106 Total 125 2 R 23,035 967 123 861 1,740 -879 R 2,012 R 1,045 0 R 2,164 R 112 Il 2 January 9 (s) 1,700 71 9 44 248 -204 2,527 9 625 0 872 37 February 10 (s) 1,837 77 10 58 119 -62 2,869 342 0 1,433 60 March 12 (s) 2,193 92 12 49 221 -171 2,932 -121 0 2,130 89 March 13 (s) 2,373 100 13 94 306 -212 2,514 -418 0 2,579	September	12	(s)	^R 2,284	96	12	65	193	-127		^R -207	0			R
November 14 (s) 2,494 105 13 66 131 -65 R 1,877 R-87 0 R 2,516 R 106 December 125 2 R 23,035 967 123 861 1,740 -879 R 2,012 R 135 0 R 2,664 R 112 Total 22 2 967 123 861 1,740 -879 R 2,012 R 1,045 0 R 2,664 R 112 M12 January 9 (s) 1,700 71 9 44 248 -204 2,527 9 625 0 872 37 February 10 (s) 1,837 77 10 58 119 -62 2,869 342 0 1,433 60 March 12 (s) 2,183 92 12 49 221 -171 2,932 -121 0 2,130 89 April 13 (s) 2,373 100 13 94 306 -212 2,514 -418 0 2,579 108	October	14	(s)	2,508	105	13	82	132	-49			0	^R 2,111	^R 89	R
Total 125 2 R 23,035 967 123 861 1,740 -879 R 2,012 R 1,045 0 R 21,111 R 887 R D12 January 9 (s) 1,700 71 9 44 248 -204 2,527 9 625 0 872 37 February 10 (s) 1,837 77 10 58 119 -62 2,869 342 0 1,433 60 March 12 (s) 2,183 92 12 55 149 -93 3,053 184 0 1,915 80 April 12 (s) 2,180 92 12 49 221 -171 2,932 -121 0 2,130 89 May 13 (s) 2,373 100 13 94 306 -212 2,514 -418 0 2,579 108 June 12 (s) 2,162 91 12 102 375 -273 2,363 -151 0 2,039 <td< td=""><td>November</td><td>14</td><td>(s)</td><td>2,494</td><td>105</td><td>13</td><td>66</td><td>131</td><td>-65</td><td></td><td></td><td>0</td><td></td><td></td><td></td></td<>	November	14	(s)	2,494	105	13	66	131	-65			0			
112 January 9 (s) 1,700 71 9 44 248 -204 2,527 9 625 0 872 37 February 10 (s) 1,837 77 10 58 119 -62 2,869 342 0 1,433 60 March 12 (s) 2,193 92 12 55 149 -93 3,053 184 0 1,915 80 April 12 (s) 2,180 92 12 49 221 -171 2,932 -121 0 2,130 89 May 13 (s) 2,373 100 13 94 306 -212 2,514 -418 0 2,579 108 June 12 (s) 2,162 91 12 102 375 -273 2,363 -151 0 2,039 86 6-Month Total 68 1 12,445 523 67 403 1,418 -1,015 2,363 461 0 10,969 461	December	14	(s)		109	14	234	39	195			0		^R 112	R
February 10 (s) 1,837 77 10 58 119 -62 2,869 342 0 1,433 60 March 12 (s) 2,193 92 12 55 149 -93 3,053 184 0 1,915 80 April 12 (s) 2,180 92 12 49 221 -171 2,932 -121 0 2,130 89 May 13 (s) 2,373 100 13 94 306 -212 2,514 -418 0 2,579 108 June 12 (s) 2,162 91 12 102 375 -273 2,363 -151 0 2,039 86 6-Month Total 68 1 12,445 523 67 403 1,418 -1,015 2,363 461 0 10,969 461	Total	125	2	R 23,035	967	123	861	1,740	-879	R 2,012	^R 1,045	0	R 21,111	^R 887	R 1
February 10 (s) 1,837 77 10 58 119 -62 2,869 342 0 1,433 60 March 12 (s) 2,193 92 12 55 149 -93 3,053 184 0 1,915 80 April 12 (s) 2,180 92 12 49 221 -171 2,932 -121 0 2,130 89 May 13 (s) 2,373 100 13 94 306 -212 2,514 -418 0 2,579 108 June 12 (s) 2,162 91 12 102 375 -273 2,363 -151 0 2,039 86 6-Month Total 68 1 12,445 523 67 403 1,418 -1,015 2,363 461 0 10,969 461	12 January	9	(s)	1,700	71	9	44	248	-204	2,527	⁹ 625	0	872	37	
March 12 (s) 2,193 92 12 55 149 -93 3,053 184 0 1,915 80 April 12 (s) 2,180 92 12 49 221 -171 2,932 -121 0 2,130 89 May 13 (s) 2,373 100 13 94 306 -212 2,514 -418 0 2,579 108 June 12 (s) 2,162 91 12 102 375 -273 2,363 -151 0 2,039 86 6-Month Total 68 1 12,445 523 67 403 1,418 -1,015 2,363 461 0 10,969 461		10		1,837	77	10	58	119	-62		342	0	1,433	60	
April 12 (s) 2,180 92 12 49 221 -171 2,932 -121 0 2,130 89 May 13 (s) 2,373 100 13 94 306 -212 2,514 -418 0 2,579 108 June 12 (s) 2,162 91 12 102 375 -273 2,363 -151 0 2,039 86 6-Month Total 68 1 12,445 523 67 403 1,418 -1,015 2,363 461 0 10,969 461															
May 13 (s) 2,373 100 13 94 306 -212 2,514 -418 0 2,579 108 June 12 (s) 2,162 91 12 102 375 -273 2,363 -151 0 2,039 86 6-Month Total 68 1 12,445 523 67 403 1,418 -1,015 2,363 461 0 10,969 461															
June 12 (s) 2,162 91 12 102 375 -273 2,363 -151 0 2,039 86 6-Month Total 68 1 12,445 523 67 403 1,418 -1,015 2,363 -461 0 10,969 461															
6-Month Total 68 1 12,445 523 67 403 1,418 -1,015 2,363 461 0 10,969 461															
)11 6-Month Total 47 1 8,689 365 47 287 1,033 -745 1,524 547 0 7,396 311															
010 6-Month Total 24 (s) 4,352 183 23 311 1,650 -1,340 968 257 0 2,756 116															

Table 10.4 **Biodiesel Overview**

^a Total vegetable oil and other biomass inputs to the production of biodiesel. ^b Losses and co-products from the production of biodiesel. Does not include natural gas, electricity, and other non-biomass energy used in the production of biodiesel—these are included in the industrial sector consumption statistics for the appropriate energy source. ^c Net imports equal imports minus exports. ^d Stocks are at end of period.

^e A negative value indicates a decrease in stocks and a positive value indicates

an increase. ^f Beginning in 2009, because of incomplete data coverage and different data sources, "Balancing Item" is used to balance biodiesel supply and disposition. ^g Derived from the preliminary 2011 stocks value (1,902 thousand barrels), not the final 2011 value (2,012 thousand barrels) that is shown under "Stocks."

R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu. Notes: • Mbbl = thousand barrels. MMgal = million U.S. gallons. TBtu = trillion Btu. • Biodiesel data in thousand barrels are converted to million gallons by multiplying by 0.042, and are converted to Btu by multiplying by 5.359 million Btu per barrel (the approximate heat content of biodiesel—see Table A3). • Through 2000, data are not available. Beginning in 2001, data not from U.S. Energy Information Administration (EIA) surveys are estimates. • 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.cov/totalenergy/data/monthh//ftrenewable.for.el/

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#renewable for all available data beginning in 2001. Sources: See end of section.

Renewable Energy

Note. Renewable Energy Production and Consumption. In Tables 1.1, 1.3, and 10.1, renewable energy consumption consists of: conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate-see Table A6); geothermal electricity net generation (converted to Btu using the fossil-fuels heat rate-see Table A6), and geothermal heat pump and geothermal direct use energy; solar thermal and photovoltaic electricity net generation (converted to Btu using the fossil-fuels heat rate ---see Table A6), and solar thermal direct use energy; wind electricity net generation (converted to Btu using the fossilfuels heat rate-see Table A6); wood and wood-derived fuels consumption; biomass waste (municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass) consumption; fuel ethanol (minus denaturant) and biodiesel consumption: and losses and co-products from the production of fuel ethanol and biodiesel. In Tables 1.1, 1.2, and 10.1, renewable production is assumed to equal consumption for all renewable energy sources except biofuels (biofuels production comprises biomass inputs to the production of fuel ethanol and biodiesel).

Table 10.2a Sources

Residential Sector, Geothermal

Oregon Institute of Technology, Geo-Heat Center. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

Residential Sector, Solar/PV

1989–2009: U.S. Energy Information Administration (EIA) estimates based on Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey," and Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey." Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

2010 forward: EIA estimates based on Form EIA-63B, "Annual Photovoltaic Cell/Module Shipments Report"; Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey" (pre-2010 data); and SEIA/GTM Research, *U.S. Solar Market Insight: 2010 Year in Review*. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for 2012 is derived using the average annual growth rate for 2009–2011.)

Residential Sector, Wood

1973–1979: EIA, *Estimates of U.S. Wood Energy Consumption from 1949 to 1981*, Table A2.

1980 forward: EIA, Form EIA-457, "Residential Energy Consumption Survey"; and EIA estimates based on Form EIA-457 and regional heating degree-day data. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

Commercial Sector, Hydroelectric Power

1989 forward: Commercial sector conventional hydroelectricity net generation data from EIA, Form EIA-923, "Power Plant Operations Report," and predecessor forms, are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

Commercial Sector, Geothermal

Oregon Institute of Technology, Geo-Heat Center. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

Commercial Sector, Solar/PV

2008 forward: Commercial sector solar thermal and photovoltaic (PV) electricity net generation data from EIA, Form EIA-923, "Power Plant Operations Report," are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

Commercial Sector, Wind

2009 forward: Commercial sector wind electricity net generation data from EIA, Form EIA-923, "Power Plant Operations Report," are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

Commercial Sector, Wood

1973–1979: EIA, Estimates of U.S. Wood Energy Consumption from 1949 to 1981, Table A2.

1980–1983: EIA, Estimates of U.S. Wood Energy Consumption 1980-1983, Table ES1.

1984: EIA estimate based on the 1983 value.

1985–1988: Values interpolated.

1989 forward: EIA, *Monthly Energy Review (MER)*, Tables 7.4a–7.4c; and EIA estimates based on Form EIA-871, "Commercial Buildings Energy Consumption Survey." Data for wood consumption at commercial combined-heatand-power (CHP) plants are calculated as total wood consumption at electricity-only and CHP plants (MER, Table 7.4a) minus wood consumption in the electric power sector (MER, Table 7.4b) and at industrial CHP plants (MER, Table 7.4c). Annual estimates for wood consumption at other commercial plants are based on Form EIA-871 (the annual estimate for the current year is set equal to that of the previous year); monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

Commercial Sector, Biomass Waste

EIA, MER, Table 7.4c.

Commercial Sector, Fuel Ethanol (Minus Denaturant) EIA, MER, Tables 3.5, 3.7a, and 10.3. Calculated as commercial sector motor gasoline consumption (Table 3.7a) divided by total motor gasoline product supplied (Table 3.5), and then multiplied by fuel ethanol (minus denaturant) consumption (Table 10.3).

Table 10.2b Sources

Industrial Sector, Hydroelectric Power

Industrial sector conventional hydroelectricity net generation data from Table 7.2c are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

Industrial Sector, Geothermal

Oregon Institute of Technology, Geo-Heat Center. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

Industrial Sector, Solar/PV

2010 forward: Industrial sector solar thermal and photovoltaic (PV) electricity net generation data from the U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report," are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

Industrial Sector, Wind

2011 forward: Industrial sector wind electricity net generation data from EIA, Form EIA-923, "Power Plant Operations Report," are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

Industrial Sector, Wood

1973–1979: EIA, Estimates of U.S. Wood Energy Consumption from 1949 to 1981, Table A2.

1980–1983: EIA, Estimates of U.S. Wood Energy Consumption 1980-1983, Table ES1.

1984: EIA, Estimates of U.S. Biofuels Consumption 1990, Table 1.

1985 and 1986: Values interpolated.

1987: EIA, *Estimates of Biofuels Consumption in the United States During 1987*, Table 2.

1988: Value interpolated.

1989 forward: EIA, *Monthly Energy Review (MER)*, Table 7.4c; and EIA estimates based on Form EIA-846, "Manufacturing Energy Consumption Survey." Data for wood consumption at industrial combined-heat-and-power (CHP) plants are from MER, Table 7.4c. Annual estimates for wood consumption at other industrial plants are based on Form EIA-846 (the annual estimate for the current year is set equal to that of the previous year); monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

Industrial Sector, Biomass Waste

1981: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8; and EIA, MER, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1982 and 1983: EIA estimates for total waste consumption based on *Estimates of U.S. Biofuels Consumption 1990*, Table 8; and EIA, MER, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1984: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8; and EIA, MER, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1985 and 1986: Values interpolated.

1987: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8; and EIA, MER, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1988: Value interpolated.

1989 forward: EIA, MER, Table 7.4c; and EIA estimates based on information presented in Government Advisory Associates, *Resource Recovery Yearbook* and *Methane Recovery Yearbook*, and information provided by the U.S. Environmental Protection Agency, Landfill Methane Outreach Program. Data for waste consumption at industrial CHP plants are from MER, Table 7.4c. Annual estimates for waste consumption at other industrial plants are based on the non-EIA sources listed above (the annual estimate for the current year is set equal to that of the previous year); monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

Industrial Sector, Fuel Ethanol (Minus Denaturant)

EIA, MER, Tables 3.5, 3.7b, and 10.3. Calculated as industrial sector motor gasoline consumption (Table 3.7b) divided by total motor gasoline product supplied (Table 3.5), and then multiplied by fuel ethanol (minus denaturant) consumption (Table 10.3).

Industrial Sector, Losses and Co-products

Calculated as fuel ethanol losses and co-products (Table 10.3) plus biodiesel losses and co-products (Table 10.4).

Transportation Sector, Fuel Ethanol (Minus Denaturant)

EIA, MER, Tables 3.5, 3.7c, and 10.3. Calculated as transportation sector motor gasoline consumption (Table 3.7c) divided by total motor gasoline product supplied (Table 3.5), and then multiplied by fuel ethanol (minus denaturant) consumption (Table 10.3).

Transportation Sector, Biodiesel

EIA, MER, Table 10.4. Transportation sector biodiesel consumption is assumed to equal total biodiesel consumption.

Table 10.3 Sources

Feedstock

Calculated as fuel ethanol production (in thousand barrels) minus denaturant, and then multiplied by the fuel ethanol feedstock factor—see Table A3.

Losses and Co-products

Calculated as fuel ethanol feedstock plus denaturant minus fuel ethanol production.

Denaturant

1981–2008: Data in thousand barrels for petroleum denaturant in fuel ethanol produced are estimated as 2 percent of fuel ethanol production; these data are converted to Btu by multiplying by 4.645 million Btu per barrel (the estimated quantity-weighted factor of pentanes plus and conventional motor gasoline used as denaturant).

2009–2011: U.S. Energy Information Administration (EIA), *Petroleum Supply Annual (PSA)*, annual reports, Table 1. Data in thousand barrels for net production of pentanes plus at renewable fuels and oxygenate plants are multiplied by -1; these data are converted to Btu by multiplying by 4.620 million Btu per barrel (the approximate heat content of pentanes plus). Data in thousand barrels for net production of conventional motor gasoline and motor gasoline blending components at renewable fuels and oxygenate plants are multiplied by -1; these data are converted to Btu by multiplying by 5.253 million Btu per barrel (the approximate heat content of conventional motor gasoline). Total denaturant is the sum of the values for pentanes plus, conventional motor gasoline, and motor gasoline blending components.

2012: EIA, *Petroleum Supply Monthly (PSM)*, monthly reports, Table 1. Data in thousand barrels for net production of pentanes plus at renewable fuels and oxygenate plants are multiplied by -1; these data are converted to Btu by multiplying by 4.620 million Btu per barrel (the approximate

heat content of pentanes plus). Data in thousand barrels for net production of conventional motor gasoline and motor gasoline blending components at renewable fuels and oxygenate plants are multiplied by -1; these data are converted to Btu by multiplying by 5.253 million Btu per barrel (the approximate heat content of conventional motor gasoline). Total denaturant is the sum of the values for pentanes plus, conventional motor gasoline, and motor gasoline blending components.

Production

1981–1992: Fuel ethanol production is assumed to equal fuel ethanol consumption—see sources for "Consumption."

1993–2004: Calculated as fuel ethanol consumption plus fuel ethanol stock change minus fuel ethanol net imports. These data differ slightly from the original production data from EIA, Form EIA-819, "Monthly Oxygenate Report," and predecessor form, which were not reconciled and updated to be consistent with the final balance.

2005–2008: EIA, Form EIA-819, "Monthly Oxygenate Report."

2009–2011: EIA, PSA, annual reports, Table 1, data for net production of fuel ethanol at renewable fuels and oxygenate plants.

2012: EIA, PSM, monthly reports, Table 1, data for net production of fuel ethanol at renewable fuels and oxygenate plants.

Trade, Stocks, and Stock Change

1992-2011: EIA, PSA, annual reports, Table 1.

2012: EIA, PSM, monthly reports, Table 1.

Consumption

1981–1989: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10; and interpolated values for 1982, 1983, 1985, 1986, and 1988.

1990–1992: EIA, *Estimates of U.S. Biomass Energy Consumption 1992*, Table D2; and interpolated value for 1991.

1993–2004: EIA, PSA, annual reports, Tables 2 and 16. Calculated as 10 percent of oxygenated finished motor gasoline field production (Table 2), plus fuel ethanol refinery input (Table 16).

2005–2008: EIA, PSA, annual reports, Tables 1 and 15. Calculated as motor gasoline blending components adjustments (Table 1), plus finished motor gasoline adjustments (Table 1), plus fuel ethanol refinery and blender net inputs (Table 15). 2009–2011: EIA, PSA, annual reports, Table 1. Calculated as fuel ethanol refinery and blender net inputs minus fuel ethanol adjustments.

2012: EIA, PSM, monthly reports, Table 1. Calculated as fuel ethanol refinery and blender net inputs minus fuel ethanol adjustments.

Consumption Minus Denaturant

Calculated as fuel ethanol consumption minus the amount of denaturant in fuel ethanol consumed. Denaturant in fuel ethanol consumed is estimated by multiplying denaturant in fuel ethanol produced by the fuel ethanol consumption-to-production ratio.

Table 10.4 Sources

Feedstock

Calculated as biodiesel production in thousand barrels multiplied by 5.433 million Btu per barrel (the biodiesel feedstock factor—see Table A3).

Losses and Co-products

Calculated as biodiesel feedstock minus biodiesel production.

Production

2001–2005: U.S. Department of Agriculture, Commodity Credit Corporation, Bioenergy Program records. Annual data are derived from quarterly data. Monthly data are estimated by dividing the annual data by the number of days in the year and then multiplying by the number of days in the month.

2006: U.S. Department of Commerce, Bureau of the Census, "M311K—Fats and Oils: Production, Consumption, and Stocks," data for soybean oil consumed in methyl esters (biodiesel). In addition, the U.S. Energy Information Administration (EIA) estimates that 14.4 million gallons of yellow grease were consumed in methyl esters (biodiesel).

2007: U.S. Department of Commerce, Bureau of the Census, "M311K—Fats and Oils: Production, Consumption, and Stocks," data for all fats and oils consumed in methyl esters (biodiesel).

2008: EIA, *Monthly Biodiesel Production Report*, December 2009 (release date October 2010), Table 11. Monthly data for 2008 are estimated based on U.S. Department of

Commerce, Bureau of the Census, M311K data, multiplied by the EIA 2008 annual value's share of the M311K 2008 annual value.

2009 forward: EIA, *Monthly Biodiesel Production Report*, monthly reports, Table 1.

Trade

For imports, U.S. Department of Agriculture, data for the Harmonized Tariff following Schedule codes: 3824.90.40.20, "Fatty Esters Animal/Vegetable Mixture" (data through June 2010); 3824.90.40.30, "Biodiesel/Mixes" (data for July 2010-2011); 3826.00.00.00, "Biodiesel B30-99" (data for 2012); and 3826.00.10.00, "Biodiesel B100" (data for 2012). For exports, U.S. Department of Agriculture, data for the following Schedule B codes: 3824.90.40.00, "Fatty Substances Animal/ Vegetable/Mixture" (data through 2010); 3824.90.40.30, "Biodiesel <70%" (data for 2011); and 3826.00.00.00, "Biodiesel B=>30" (data for 2012). Although these categories include products other than biodiesel (such as biodiesel coprocessed with petroleum feedstocks; and products destined for soaps, cosmetics, and other items), biodiesel is the largest component. In the absence of other reliable data for biodiesel trade, EIA sees these data as good substitutes.

Stocks and Stock Change

2009–2011: EIA, *Petroleum Supply Annual (PSA)*, annual reports, Table 1, data for renewable fuels except fuel ethanol.

2012: EIA, *Petroleum Supply Monthly*, monthly reports, Table 1, data for renewable fuels except fuel ethanol.

Balancing Item

Calculated as biodiesel consumption and biodiesel stock change minus biodiesel production and biodiesel net imports.

Consumption

2001–2008: Calculated as biodiesel production plus biodiesel net imports.

January and February 2009: EIA, PSA, Table 1, data for refinery and blender net inputs of renewable fuels except fuel ethanol.

March 2009 forward: Calculated as biodiesel production plus biodiesel net imports minus biodiesel stock change.