Table CO2.T1. Total CO2 emissions estimates from energy consumption by source, 1960-2023, lowar (million metric tons of carbon dioxide (CO2))

Year	Coal	Natural gas ^a	Petroleum ^b	Total
		-	I	
1960	11.0	10.2	18.8	40.0
1965	12.0	13.1	19.3	44.4
1970	12.4	18.5	22.6	44.4 53.5
1975	12.5	18.3	24.4	55.2
1980	22.3	14.1	22.8	59.2
1985	25.6	10.0	20.6	59.2 56.2 61.3 69.1 72.2
1990	31.8	9.0	20.4	61.3
1995	35.4	11.0	22.8	69.1
1996	36.4	11.7	24.1	72.2
1997	37.2	10.9	23.7	71.8
1998	40.4	9.6	24.6	74.6
1999	41.1	10.5	24.8	76.4
2000	42.4	10.6	24.7	77.8
2001	42.2	10.1	24.2	76.6
2002	42.1	10.2	24.9	77.1
2003	42.4	10.4	24.4	77.2
2004	42.3	10.4	25.8	78.5
2005	41.0	11.1	26.3	78.4
2006 2007	41.5	10.9 13.8	27.1	79.5 85.3
2007	44.3	15.6	27.2 26.8	85.3 88.6
2008	46.3	10.0	20.8	88.0
2009 2010	42.4 47.1	14.9	26.3	83.5
2010	44.2	14.6 14.5	26.8 26.8	0.00 0F F
2012	44.2	13.9	25.3	83.5 88.5 85.5 79.5
2012	38.4	16.0	26.2	79.5 80.7
2013	38.3	16.3	20.2	81.6
2014	20.3 22.2	15.7	26.4	75.3
2016	33.3 28.5	16.4	27.0	73.3 71.9
2017	28.7	19.4	25.7	73.8
2017	31.2	22.3	26.4	79.8
2019	25.5	22.4	27.1	79.0 75.0
2020	17.5	20.5	25.2	63.3
2021	25.3	19.8	25.2 25.9	71.1
2022	25.3 21.8	22.5	27.2	71.7
2023	19.3	23.1	25.7	71.5 68.0
	10.0	20.1	20.1	00.0

^a Excludes supplemental gaseous fuels.

— = No consumption. Where shown, R = Revised data and (s) = Value less than 0.05.

Notes: • Data are carbon dioxide (CO2) emissions estimates from fossil fuels primary energy consumption for all sectors, excluding renewable energy. The state data do not account for interstate flow of electricity and represent CO2 emissions in the state where fossil fuels are burned to generate electricity, although the electricity might be sold to ultimate customers in other states and sectors. the technical notes for each type of energy.

Web page: All data are available at https://www.eia.gov/state/seds/seds-data-complete.php.

Data source: Table by the U.S. Energy Information Administration, State Energy Data System. See technical notes. http://wwws.eia.gov/state/seds/

b Excludes biofuels.

 $[\]cdot$ Totals may not equal sum of components due to independent rounding. \cdot The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See

Table CO2.T2. Residential sector CO2 emissions estimates from energy consumption, 1960-2023, lowa (million metric tons of carbon dioxide (CO2))

Year	Coal ^a	Natural gas ^b	Petroleum ^c	Total
1960	1.1	3.2	2.0	7.2
1960 1965	0.6	3.2 4.1	2.9 2.8 2.8	7.2 7.5 8.2 7.7 6.6 5.1 4.2 4.9 5.6 5.2 4.3 5.0 5.1
1970 1975	0.2	5.1 5.0	2.8	8.2
1975	0.1	5.0	2.6	7.7
1980	(s) 0.1	4.5 3.5	2.0	6.6
1985	0.1	3.5	1.5	5.1
1990	0.1	2.9 3.5 3.8 3.5 2.9 3.3 3.4	1.1	4.2
1995	(s) 0.1	ა.ე ე ი	1.4 1.7	4.9 5.6
1996 1997	0.1	3.0 3.5	1.7	5.0 5.2
1998	0.1 0.1	2.9	1.6 1.3	4.3
1999	0.1	3.3	1.6	5.0
2000	0.1	3.4	1.6	5.1
2001	0.1	3.2 3.2 3.3 3.3 3.1	1.1	4.4
2002	0.1	3.2	1.4	4.4 4.7 4.8 4.4 4.4
2003 2004	0.1	3.3	1.4	4.8
2004	(s)	3.1	1.2 1.2	4.4
2005	(s) (s) 0.1 0.1	3.1	1.2	4.4
2006 2007	U.I O.1	2.8 2.2	1.1 1.2	4.U 4.A
2006 2007 2008	0.1 —	2.8 3.2 3.6	1.1 1.2 1.5	4. 4 5.1
2009	_	3.3	1.4	4.8
2010	_	3.2	1.2	4.4
2011	-	3.2	1.2	4.4
2012	_	3.3 3.2 3.2 2.7	1.0	4.0 4.4 5.1 4.8 4.4 4.4 3.6 4.8 5.0 4.2 4.1
2013 2014 2015	_	3.6 3.8 3.2 3.1	1.2 1.2	4.8
2014	-	3.8	1.2	5.0
2015	_	3.2	1.0 1.0	4.2
2016 2017	_	3.1 3.1	1.0	4.1
2017	_	3.6	1.U 1.5	4.1 5.1
2019	_	3.7	1.0 1.5 1.6	5.1 5.4
2020		3.3	1.5	4.9
2021	_	3.2	1.4	4.1 5.1 5.4 4.9 4.6 5.4 4.6
2021 2022 2023	-	3.7	1.7	5.4
2023	_	3.2	1.4	4.6

 $^{^{\}rm a}$ Beginning in 2008, consumption data not collected and assumed to be zero. $^{\rm b}$ Excludes supplemental gaseous fuels.

— = No consumption. Where shown, R = Revised data and (s) = Value less than 0.05. Notes: • Data are carbon dioxide (CO2) emissions estimates from fossil fuels primary energy consumption, excluding renewable energy. The state data do not account for interstate flow of electricity and represent CO2 emissions in the state where fossil fuels are burned to generate electricity, although the electricity might be sold to ultimate customers in other states and sectors.

Totals may not equal sum of components due to independent rounding. The continuity of these

the technical notes for each type of energy.

Web page: All data are available at https://www.eia.gov/state/seds/seds-data-complete.php. Data source: Table by the U.S. Energy Information Administration, State Energy Data System. See technical notes. https://www.eia.gov/state/seds/

^c Excludes biofuels.

data series estimates may be affected by changing data sources and estimation methodologies. See

Table CO2.T3. Commercial sector CO2 emissions estimates from energy consumption, 1960-2023, lowa (million metric tons of carbon dioxide (CO2))

Year	Coal	Natural gas ^a	Petroleum ^b	Total
- L				
1960	0.8 0.4 0.2 0.2	1.5	0.8	3.1
1965 1970	0.4	2.1	0.7	3.2
1970	0.2	3.1	0.7	3.9
1975	0.2	3.6	0.7	4.4
1980	0.1 0.4	2.7	0.6 0.7	3.4
1985	0.4	2.1	0.7	3.2
1990	0.5	1.8	0.4 0.3	2.7
1995 1996 1997	0.5 0.2 0.5 0.7 0.6	1.8 2.1 2.3 2.2	0.3	2.6
1996	0.5	2.3	0.4	3.2
1997	0.7	2.2	0.5 0.5	3.4
1998	0.6	1.8	0.5	2.9
1999	0.8	2.1	0.5	3.4
2000 2001	0.6 0.6	2.1 2.1	0.6 0.6	ა.∠ ი ი
2002	0.6	2.1	0.6	ა.∠ ე.ე
2003	0.6 0.6	2.2	0.6	3.3 3.4
2003	0.0	2.1	0.7	3.4
2005	0.4 0.6	2.1	0.7	3.2
2006	0.0	2.1	0.5	3.5
2007	0.0	22	0.9 0.9	3.7
2008	0.0	2.0 2.2 2.7 2.7 2.4 2.5 2.1	0.9	4.1
2009	0.6	27	11	4 4
2010	0.6	2.4	1.2	4.2
2010 2011	0.5	2.5	1.2	4.2
2012	0.5	2.1	1.1 1.2 1.2 1.3	3.9
2012 2013 2014	0.6 0.6 0.6 0.6 0.5 0.5 0.5	2.8	1.3	4.6
2014	0.5	2.8 2.9	1.3	4.6
2015	0.4 0.3	2.5 2.5	1.4 0.7	4.3
2016	0.3	2.5	0.7	3.5
2017	0.3	2.5	0.8	3.6
2018	0.3 0.2 0.2	2.9	0.9	3.1 3.2 3.9 4.4 3.4 3.2 2.7 2.6 3.2 3.4 2.9 3.4 3.2 3.2 3.3 3.4 3.2 3.2 3.3 3.4 4.1 4.4 4.2 4.2 4.2 4.2 3.9 4.6 4.6 4.3 3.5 3.5 3.6 4.0 4.0 4.2 3.8 3.9 3.6 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
2019	0.2	3.0	1.0	4.2
2020	0.2	2.6	1.0	3.8
2021 2022 2023	0.2	2.6	0.8	3.6
2022	0.2	3.0	1.5 0.7	4.8
2023	0.2 0.2 0.2 0.2 (s)	2.8	0.7	3.6

^a Excludes supplemental gaseous fuels.

Notes: Data are carbon dioxide (CO2) emissions estimates from fossil fuels primary energy consumption, excluding renewable energy. The state data do not account for interstate flow of electricity and represent CO2 emissions in the state where fossil fuels are burned to generate electricity, although the electricity might be sold to ultimate customers in other states and sectors.

Web page: All data are available at https://www.eia.gov/state/seds/seds-data-complete.php.

Data source: Table by the U.S. Energy Information Administration, State Energy Data System. See technical notes. https://www.eia.gov/state/seds/

b Excludes biofuels.

^{— =} No consumption. Where shown, R = Revised data and (s) = Value less than 0.05.

[•] Totals may not equal sum of components due to independent rounding. • The commercial sector includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants. • The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the technical notes for each type of energy.

Table CO2.T4. Industrial sector CO2 emissions estimates from energy consumption, 1960-2023, lowa (million metric tons of carbon dioxide (CO2))

Year Coal Natural gas a Petroleum b Total 1980 4.9 2.3 5.0 122 1995 5.4 3.5 5.1 14.0 1970 4.1 5.1 5.3 14.4 1975 2.7 6.3 4.3 14.4 1980 3.1 5.9 4.0 13.0 1985 3.4 3.8 3.5 10.6 1990 5.0 3.6 2.9 11.5 1995 5.5 4.6 3.9 14.0 1996 6.2 4.7 3.7 14.6 1997 6.1 4.4 3.7 14.1 1998 5.7 4.2 4.1 14.0 1999 6.0 4.5 4.0 14.5 2000 5.7 4.5 4.0 14.5 2001 5.6 4.1 4.4 14.0 2002 5.5 4.0 4.2 13.7					
1960	Year	Coal	Natural gas ^a	Petroleum ^b	Total
1970 41 5.1 5.3 14.4 1975 2.7 6.3 4.3 13.2 1980 3.1 5.9 4.0 13.0 1985 3.4 3.8 3.5 10.6 1990 5.0 3.6 2.9 11.5 1985 5.5 4.6 3.9 14.0 1986 6.2 4.7 3.7 14.6 1997 6.1 4.4 3.7 14.3 1988 5.7 4.2 4.1 14.0 1999 6.0 4.5 4.0 14.5 2000 5.7 4.5 4.1 14.3 2011 5.6 4.1 4.4 14.0 2002 5.5 4.0 4.2 13.7 2003 5.6 4.1 4.4 14.0 2004 5.5 4.1 3.2 13.0 2005 5.5 4.1 3.2 13.7 2004 5.5 4.1 3.2 13.0 2005 5.6 4.1 3.2 3.8 13.6 2006 5.8 4.5 3.8 14.1 15.7 2008 5.4 7.6 3.9 </th <th></th> <th></th> <th></th> <th><u> </u></th> <th><u></u></th>				<u> </u>	<u></u>
1970 41 5.1 5.3 14.4 1975 2.7 6.3 4.3 13.2 1980 3.1 5.9 4.0 13.0 1985 3.4 3.8 3.5 10.6 1990 5.0 3.6 2.9 11.5 1985 5.5 4.6 3.9 14.0 1986 6.2 4.7 3.7 14.6 1997 6.1 4.4 3.7 14.3 1988 5.7 4.2 4.1 14.0 1999 6.0 4.5 4.0 14.5 2000 5.7 4.5 4.1 14.3 2001 5.6 4.1 4.4 14.0 2002 5.5 4.0 4.2 13.7 2003 5.6 4.1 4.4 14.0 2004 5.5 4.1 3.2 13.0 2005 5.5 4.1 3.2 13.7 2004 5.5 4.1 3.2 13.7 2003 5.6 4.1 3.2 13.7 2004 5.5 4.2 3.8 13.6 2005 5.6 4.3 3.9 18.8 <tr< td=""><td>1960</td><td>4.9</td><td>2.3</td><td>5.0</td><td>12.2</td></tr<>	1960	4.9	2.3	5.0	12.2
1970 41 5.1 5.3 14.4 1975 2.7 6.3 4.3 13.2 1980 3.1 5.9 4.0 13.0 1985 3.4 3.8 3.5 10.6 1990 5.0 3.6 2.9 11.5 1985 5.5 4.6 3.9 14.0 1986 6.2 4.7 3.7 14.6 1997 6.1 4.4 3.7 14.3 1988 5.7 4.2 4.1 14.0 1999 6.0 4.5 4.0 14.5 2000 5.7 4.5 4.1 14.3 2001 5.6 4.1 4.4 14.0 2002 5.5 4.0 4.2 13.7 2003 5.6 4.1 4.4 14.0 2004 5.5 4.1 3.2 13.0 2005 5.5 4.1 3.2 13.7 2004 5.5 4.1 3.2 13.7 2003 5.6 4.1 3.2 13.7 2004 5.5 4.2 3.8 13.6 2005 5.6 4.3 3.9 18.8 <tr< td=""><td>1965</td><td>5.4</td><td>3.5</td><td>5.1</td><td>14.0</td></tr<>	1965	5.4	3.5	5.1	14.0
1975 2.7 6.3 4.3 13.2 1980 3.1 5.9 4.0 13.0 1985 3.4 3.8 3.5 10.6 1980 5.0 3.6 2.9 11.5 1985 5.5 4.6 3.9 14.0 1986 6.2 4.7 3.7 14.8 1997 6.1 4.4 3.7 14.3 1989 5.7 4.2 4.1 14.0 2000 5.7 4.5 4.1 14.3 2001 5.6 4.1 4.4 14.0 2002 5.5 4.0 4.2 13.7 2004 5.5 4.0 4.2 13.7 2004 5.5 4.0 4.2 13.7 2004 5.5 4.0 4.2 13.7 2004 5.5 4.0 4.2 13.7 2004 5.5 4.2 3.8 13.6 2006 5.8 4.5 3.8 14.1 2007 5.8 4.5 3.8 14.1 2008 5.4 7.6 3.9 16.9 2009 5.0 7.6 3.8 3.9 18.8<	1970	4.1	5.1	5.3	14.4
1985 34 38 35 106 1990 50 36 29 115 1995 55 46 39 140 1996 62 4.7 3.7 143 1998 57 42 4.1 140 1999 60 45 40 145 2000 57 45 41 44 140 2002 55 40 42 137 2003 56 41 32 130 2004 55 40 42 137 2005 56 41 32 130 2006 58 41 32 130 2005 56 43 39 138 2006 58 45 38 141 2007 58 65 35 157 2008 54 76 39 169 2009 54 76 39 169 2009 54 76 38 164 2011 6.7 7.8 39 184 2012 6.0 7.8 37 17.6 2014 56 84	1975	2.7	6.3	4.3	13.2
1995 55 4.6 3.9 14.0 1997 6.1 4.7 3.7 14.6 1998 5.7 4.2 4.1 14.0 1999 6.0 4.5 4.0 14.5 2000 5.7 4.5 4.1 14.3 2001 5.6 4.1 4.4 14.0 2002 5.5 4.0 4.2 13.7 2003 5.6 4.1 4.4 14.0 2002 5.5 4.0 4.2 13.7 2003 5.6 4.1 3.2 13.0 2004 5.5 4.2 3.8 13.6 2005 5.6 4.1 3.2 13.0 2006 5.8 4.5 3.8 13.8 2007 5.8 6.5 3.5 15.7 2008 5.4 7.6 3.8 16.7 2009 5.0 7.6 3.8 16.4 2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.7 17.6 2013 6.1 8.4 4.3 3.9 18.4 2014 5.6 8.4 4.7 18.6 </td <td>1980</td> <td>3.1</td> <td>5.9</td> <td>4.0</td> <td>13.0</td>	1980	3.1	5.9	4.0	13.0
1995 55 4.6 3.9 14.0 1997 6.1 4.7 3.7 14.6 1998 5.7 4.2 4.1 14.0 1999 6.0 4.5 4.0 14.5 2000 5.7 4.5 4.1 14.3 2001 5.6 4.1 4.4 14.0 2002 5.5 4.0 4.2 13.7 2003 5.6 4.1 4.4 14.0 2002 5.5 4.0 4.2 13.7 2003 5.6 4.1 3.2 13.0 2004 5.5 4.2 3.8 13.6 2005 5.6 4.1 3.2 13.0 2006 5.8 4.5 3.8 13.8 2007 5.8 6.5 3.5 15.7 2008 5.4 7.6 3.8 16.7 2009 5.0 7.6 3.8 16.4 2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.7 17.6 2013 6.1 8.4 4.3 3.9 18.4 2014 5.6 8.4 4.7 18.6 </td <td>1985</td> <td>3.4</td> <td>3.8</td> <td>3.5</td> <td>10.6</td>	1985	3.4	3.8	3.5	10.6
1997 6.1 4.4 3.7 14.3 1998 5.7 4.5 4.0 14.5 2000 5.7 4.5 4.1 14.3 2001 5.6 4.1 4.4 14.0 2002 5.5 4.0 4.2 13.7 2003 5.6 4.1 3.2 13.0 2004 5.5 4.2 3.8 13.6 2005 5.6 4.3 3.9 13.8 2006 5.8 4.5 3.8 14.1 2007 5.8 6.5 3.5 15.7 2008 5.4 7.6 3.9 16.9 2009 5.0 7.6 3.8 16.4 2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.9 18.8 2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 18.8 2014 <td>1990</td> <td>5.0</td> <td>3.6</td> <td>2.9</td> <td>11.5</td>	1990	5.0	3.6	2.9	11.5
1997 6.1 4.4 3.7 14.3 1998 5.7 4.5 4.0 14.5 2000 5.7 4.5 4.1 14.3 2001 5.6 4.1 4.4 14.0 2002 5.5 4.0 4.2 13.7 2003 5.6 4.1 3.2 13.0 2004 5.5 4.2 3.8 13.6 2005 5.6 4.3 3.9 13.8 2006 5.8 4.5 3.8 14.1 2007 5.8 6.5 3.5 15.7 2008 5.4 7.6 3.9 16.9 2009 5.0 7.6 3.8 16.4 2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.9 18.8 2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 18.8 2014 <td>1995</td> <td>5.5</td> <td>4.6</td> <td>3.9</td> <td>14.0</td>	1995	5.5	4.6	3.9	14.0
1999 6.0 4.5 4.0 14.5 2000 5.7 4.5 4.1 14.3 2001 5.6 4.1 4.4 14.0 2002 5.5 4.0 4.2 13.7 2003 5.6 4.1 32 13.0 2004 5.5 4.2 3.8 13.6 2005 5.6 4.3 3.9 13.8 2006 5.8 4.5 3.8 14.1 2007 5.8 6.5 3.5 15.7 2008 5.4 7.6 3.9 16.9 2009 5.0 7.6 3.8 16.4 2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.9 18.4 2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 3.8 2014 5.6 8.4 4.7 18.8 2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 <td>1996</td> <td>6.2 6.1</td> <td>4.7</td> <td>3./</td> <td>14.6</td>	1996	6.2 6.1	4.7	3./	14.6
1999 6.0 4.5 4.0 14.5 2000 5.7 4.5 4.1 14.3 2001 5.6 4.1 4.4 14.0 2002 5.5 4.0 4.2 13.7 2003 5.6 4.1 32 13.0 2004 5.5 4.2 3.8 13.6 2005 5.6 4.3 3.9 13.8 2006 5.8 4.5 3.8 14.1 2007 5.8 6.5 3.5 15.7 2008 5.4 7.6 3.9 16.9 2009 5.0 7.6 3.8 16.4 2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.9 18.4 2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 3.8 2014 5.6 8.4 4.7 18.8 2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 <td>1000</td> <td>0.1 5.7</td> <td>4.4 4.2</td> <td>3.7 4.1</td> <td>14.0</td>	1000	0.1 5.7	4.4 4.2	3.7 4.1	14.0
2001 5.6 4.1 4.4 14.0 2002 5.5 4.0 4.2 13.7 2003 5.6 4.1 3.2 13.0 2004 5.5 4.2 3.8 13.6 2005 5.6 4.3 3.9 13.8 2006 5.8 4.5 3.8 14.1 2007 5.8 6.5 3.5 15.7 2008 5.4 7.6 3.9 16.9 2019 5.0 7.6 3.9 16.9 2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.9 18.4 2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 3.8 2014 5.6 8.4 4.7 18.8 2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 2.1 2019 4.1 12.5<	1000	5.7 6.0	4.2	4.1	14.0
2001 5.6 4.1 4.4 14.0 2002 5.5 4.0 4.2 13.7 2003 5.6 4.1 3.2 13.0 2004 5.5 4.2 3.8 13.6 2005 5.6 4.3 3.9 13.8 2006 5.8 4.5 3.8 14.1 2007 5.8 6.5 3.5 15.7 2008 5.4 7.6 3.9 16.9 2019 5.0 7.6 3.9 16.9 2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.9 18.4 2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 3.8 2014 5.6 8.4 4.7 18.8 2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 2.1 2019 4.1 12.5<	2000	5.0 5.7	4.5	4.0	14.3
2002 5.5 4.0 4.2 13.7 2003 5.6 4.1 3.2 13.0 2004 5.5 4.2 3.8 13.6 2005 5.6 4.3 3.9 13.8 2006 5.8 4.5 3.8 14.1 2007 5.8 6.5 3.5 15.7 2008 5.4 7.6 3.9 16.9 2009 5.0 7.6 3.8 16.9 2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.9 18.4 2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 18.8 2014 5.6 8.4 4.7 18.6 2015 5.0 8.6 4.7 18.6 2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 20.7 2018 </td <td>2001</td> <td>5.6</td> <td>4.1</td> <td>4.4</td> <td>14.0</td>	2001	5.6	4.1	4.4	14.0
2006 5.8 4.5 3.8 14.1 2007 5.8 6.5 3.5 15.7 2008 5.4 7.6 3.9 16.9 2009 5.0 7.6 3.8 16.4 2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.9 18.4 2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 18.8 2014 5.6 8.4 4.7 18.6 2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 20.7 2018 4.2 12.6 4.6 21.4 2019 4.1 12.5 5.1 21.7 2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 11.3 4.7 19.6 2022 4.1 <t< td=""><td>2002</td><td>5.5</td><td>4.0</td><td>4.2</td><td>13.7</td></t<>	2002	5.5	4.0	4.2	13.7
2006 5.8 4.5 3.8 14.1 2007 5.8 6.5 3.5 15.7 2008 5.4 7.6 3.9 16.9 2009 5.0 7.6 3.8 16.4 2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.9 18.4 2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 18.8 2014 5.6 8.4 4.7 18.6 2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 20.7 2018 4.2 12.6 4.6 21.4 2019 4.1 12.5 5.1 21.7 2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 11.3 4.7 19.6 2022 4.1 <t< td=""><td>2003</td><td>5.6</td><td>4.1</td><td>3.2</td><td>13.0</td></t<>	2003	5.6	4.1	3.2	13.0
2006 5.8 4.5 3.8 14.1 2007 5.8 6.5 3.5 15.7 2008 5.4 7.6 3.9 16.9 2009 5.0 7.6 3.8 16.4 2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.9 18.4 2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 18.8 2014 5.6 8.4 4.7 18.6 2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 20.7 2018 4.2 12.6 4.6 21.4 2019 4.1 12.5 5.1 21.7 2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 11.3 4.7 19.6 2022 4.1 <t< td=""><td>2004</td><td>5.5</td><td>4.2</td><td>3.8</td><td>13.6</td></t<>	2004	5.5	4.2	3.8	13.6
2006 5.8 4.5 3.8 14.1 2007 5.8 6.5 3.5 15.7 2008 5.4 7.6 3.9 16.9 2009 5.0 7.6 3.8 16.4 2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.9 18.4 2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 18.8 2014 5.6 8.4 4.7 18.6 2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 20.7 2018 4.2 12.6 4.6 21.4 2019 4.1 12.5 5.1 21.7 2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 11.3 4.7 19.6 2022 4.1 <t< td=""><td>2005</td><td>5.6</td><td>4.3</td><td>3.9</td><td>13.8</td></t<>	2005	5.6	4.3	3.9	13.8
2008 5.4 7.6 3.9 16.9 2009 5.0 7.6 3.8 16.4 2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.9 18.4 2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 18.8 2014 5.6 8.4 4.7 18.6 2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 20.7 2018 4.2 12.6 4.6 21.4 2019 4.1 12.5 5.1 21.7 2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 12.3 4.6 21.0	2006	5.8	4.5	3.8	14.1
2009 5.0 7.6 3.8 16.4 2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.9 18.4 2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 18.8 2014 5.6 8.4 4.7 18.6 2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 20.7 2018 4.2 12.6 4.6 21.4 2019 4.1 12.5 5.1 21.7 2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 4.6 21.0	2007	5.8	6.5	3.5	15.7
2010 6.3 7.7 4.1 18.0 2011 6.7 7.8 3.9 18.4 2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 18.8 2014 5.6 8.4 4.7 18.6 2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 20.7 2018 4.2 12.6 4.6 21.4 2019 4.1 12.5 5.1 21.7 2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 12.3 4.6 21.0	2008	5.4	7.6	3.9	16.9
2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 18.8 2014 5.6 8.4 4.7 18.6 2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 20.7 2018 4.2 12.6 4.6 21.4 2019 4.1 12.5 5.1 21.7 2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 12.3 4.6 21.0	2009	5.0	/.6 7.7	3.8	16.4
2012 6.0 7.8 3.7 17.6 2013 6.1 8.4 4.3 18.8 2014 5.6 8.4 4.7 18.6 2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 20.7 2018 4.2 12.6 4.6 21.4 2019 4.1 12.5 5.1 21.7 2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 12.3 4.6 21.0	2010	0.3 6.7	/./ 7.0	4.1 2.0	10.0
2013 6.1 8.4 4.3 18.8 2014 5.6 8.4 4.7 18.6 2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 20.7 2018 4.2 12.6 4.6 21.4 2019 4.1 12.5 5.1 21.7 2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 12.3 4.6 21.0	2011	6.7 6.0	7.0 7.8	3.9 3.7	10. 4 17.6
2014 5.6 8.4 4.7 18.6 2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 20.7 2018 4.2 12.6 4.6 21.4 2019 4.1 12.5 5.1 21.7 2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 12.3 4.6 21.0	2012	6.0	7.0 8.1	5.7 A 3	17.0
2015 5.0 8.6 4.7 18.3 2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 20.7 2018 4.2 12.6 4.6 21.4 2019 4.1 12.5 5.1 21.7 2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 12.3 4.6 21.0	2014	5.6	8.4	4.7	18.6
2016 4.3 9.2 4.8 18.4 2017 4.3 11.7 4.6 20.7 2018 4.2 12.6 4.6 21.4 2019 4.1 12.5 5.1 21.7 2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 12.3 4.6 21.0	2015	5.0	8.6	4.7	18.3
2017 4.3 11.7 4.6 20.7 2018 4.2 12.6 4.6 21.4 2019 4.1 12.5 5.1 21.7 2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 12.3 4.6 21.0	2016	4.3	9.2	4.8	18.4
2019 4.1 12.5 5.1 21.7 2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 12.3 4.6 21.0	2017	4.3	11.7	4.6	20.7
2020 3.7 11.7 5.0 20.4 2021 3.6 11.3 4.7 19.6 2022 4.1 12.3 4.6 21.0	2018	4.2	12.6	4.6	21.4
2022 4.1 12.3 4.6 21.0	2019	4.1	12.5	5.1	21.7
2022 4.1 12.3 4.6 21.0	2020	3.7	11.7	5.0	20.4
2022 4.1 12.3 4.6 21.0 2023 3.6 13.0 4.5 21.1	2021	3.6	11.3	4.7	19.6
2023 3.6 13.0 4.5 21.1	2022	4.1	12.3	4.6	21.0
	2023	3.6	13.0	4.5	21.1

^a Excludes supplemental gaseous fuels.

— = No consumption. Where shown, R = Revised data and (s) = Value less than 0.05.

Notes: • Data are carbon dioxide (CO2) emissions estimates from fossil fuels primary energy consumption, excluding renewable energy. The state data do not account for interstate flow of electricity and represent CO2 emissions in the state where fossil fuels are burned to generate electricity, although the electricity might be sold to ultimate customers in other states and sectors.

Web page: All data are available at https://www.eia.gov/state/seds/seds-data-complete.php.

Data source: Table by the U.S. Energy Information Administration, State Energy Data System. See technical notes. https://www.eia.gov/state/seds/

b Excludes biofuels.

 $[\]cdot$ Totals may not equal sum of components due to independent rounding. \cdot The industrial sector includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants. \cdot The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the technical notes for each type of energy.

Table CO2.T5. Transportation sector CO2 emissions estimates from energy consumption, 1960-2023, lowa (million metric tons of carbon dioxide (CO2))

Year Coal a Natural gas b Petroleum c Total 1960 0.1 0.5 10.0 10.5 1965 (s) 0.6 10.6 11.2 1970 (s) 0.0 13.6 14.6 1975 (s) 0.9 16.5 17.4 1880 — 0.6 14.9 15.5 1980 — 0.6 14.9 15.5 1980 — 0.6 14.9 15.5 1980 — 0.6 14.9 15.5 1980 — 0.6 14.9 15.5 1980 — 0.6 14.9 15.5 1980 — 0.7 18.3 19.0 1997 — 0.7 18.3 19.0 1998 — 0.5 18.6 19.1 1999 — 0.4 18.5 18.8 2001 — 0.4 18.5 18.0					
1960	.,	- 10			
1965 (s)	Year	Coal ^a	Natural gas ^b	Petroleum ^c	Total
1965 (s)	1960	0.1	0.5	10.0	10.5
1970 (s)	1965	(s)	0.6	10.6	11.2
1975 (s) 0.9 16.5 17.4 1980 — 0.6 14.9 15.5 1995 — 0.6 14.9 15.5 1996 — 0.5 15.9 16.4 1995 — 0.6 17.1 17.7 1986 — 0.6 17.1 17.7 1997 — 0.6 17.9 18.5 1998 — 0.6 17.9 18.5 1999 — 0.4 18.5 18.9 2000 — 0.4 18.3 18.8 2001 — 0.4 18.3 18.8 2002 — 0.6 18.6 19.1 2003 — 0.6 18.6 19.2 2004 — 0.5 20.0 20.5 2004 — 0.5 20.0 20.5 2004 — 0.5 20.0 20.5 2005 — 0.6 20.5 21.1 2007 — 0.7 21.0 21.7 2007 — 0.7 21.4 22.0 2010 — 0.6 20.2 20.8 2011 <td>1970</td> <td>(s)</td> <td>1.0</td> <td>13.6</td> <td>14.6</td>	1970	(s)	1.0	13.6	14.6
1980	1975	(S)	0.9	16.5	17.4
1990	1980	-	0.7	16.1	16.7
1995	1985		0.6	14.9	15.5
1996 — 0.7 18.3 19.0 1997 — 0.6 17.9 18.5 1998 — 0.4 18.5 18.9 2000 — 0.4 18.3 18.8 2001 — 0.4 18.3 18.8 2001 — 0.5 18.1 18.6 2002 — 0.6 18.6 19.2 2003 — 0.5 19.0 19.0 19.6 2004 — 0.5 20.0 20.5 21.1 2005 — 0.6 20.5 21.1 2006 — 0.6 20.5 21.1 2007 — 0.7 21.4 22.0 2008 — 0.7 19.9 20.6 2010 — 0.7 19.9 20.6 2011 — 0.6 20.2 20.8 2012 — 0.6 20.2 20.8 2012 — 0.6 19.3 19.9 2014	1990		0.5	15.9	16.4
1997 — 0.6 17.9 18.5 1998 — 0.4 18.5 19.1 2000 — 0.4 18.5 18.9 2001 — 0.4 18.3 18.8 2002 — 0.6 18.1 18.6 2003 — 0.6 18.6 19.2 2003 — 0.5 19.0 19.6 2004 — 0.5 19.0 19.6 2005 — 0.6 20.5 21.1 2006 — 0.6 20.5 21.1 2007 — 0.6 20.5 21.1 2007 — 0.7 21.4 22.0 2008 — 0.8 20.3 21.1 2009 — 0.8 20.3 21.1 2010 — 0.6 20.2 20.8 2011 — 0.6 20.2 20.8 2012 — 0.6 19.1 19.7 2013 — 0.6 19.3	1995		0.6	17.1	1/./
1998 — 0.5 18.6 19.1 1999 — 0.4 18.5 18.9 2000 — 0.5 18.1 18.6 2002 — 0.6 18.6 19.2 2003 — 0.5 19.0 19.6 2004 — 0.5 20.0 20.5 2004 — 0.5 20.0 20.5 2005 — 0.6 20.5 21.1 2006 — 0.6 20.5 21.1 2007 — 0.7 21.0 21.7 2008 — 0.7 21.4 22.0 2019 — 0.7 19.9 20.6 2011 — 0.6 20.3 21.1 2012 — 0.6 20.2 20.8 2012 — 0.6 20.3 20.8 2012 — 0.6 19.3 19.9 2014 — 0.6 19.3 19.9 2015 — 0.6 19.2	1996		0.7	18.3	19.U 10.F
1999 — 0.4 18.5 18.9 2000 — 0.4 18.3 18.8 2001 — 0.5 18.1 18.6 2002 — 0.6 18.6 19.2 2003 — 0.5 19.0 19.6 2004 — 0.5 20.0 20.5 2005 — 0.6 20.5 21.1 2006 — 0.7 21.0 21.7 2007 — 0.7 21.4 22.0 2008 — 0.7 19.9 20.6 2010 — 0.6 20.3 21.1 2009 — 0.6 20.2 20.8 2011 — 0.6 20.3 20.8 2011 — 0.6 20.3 20.8 2012 — 0.6 19.3 19.9 204 — 0.6 19.3 19.9 204 — 0.5 19.1 19.8 2015 — 0.6 19.2 </td <td>1997</td> <td></td> <td>0.0 0.5</td> <td>17.9 18.6</td> <td>10.5 10.1</td>	1997		0.0 0.5	17.9 18.6	10.5 10.1
2000 — 0.4 18.3 18.8 2001 — 0.6 18.1 18.6 2002 — 0.6 18.6 19.2 2003 — 0.5 19.0 19.6 2004 — 0.5 20.0 20.5 2005 — 0.6 20.5 21.1 2006 — 0.7 21.0 21.7 2007 — 0.7 21.0 21.7 2008 — 0.8 20.3 21.1 2009 — 0.6 20.2 20.8 2011 — 0.6 20.2 20.8 2011 — 0.6 20.3 20.8 2012 — 0.6 20.3 20.8 2011 — 0.6 19.1 19.7 2012 — 0.6 19.3 19.9 2014 — 0.6 19.2 19.8 2015 — 0.6 19.2 19.8 2016 — 0.5 20.4	1990		0.5	18.5	18.0
2001 — 0.5 18.1 18.6 2002 — 0.6 18.0 19.2 2003 — 0.5 19.0 19.6 2004 — 0.5 20.0 20.5 2005 — 0.6 20.5 21.1 2006 — 0.7 21.0 21.7 2007 — 0.7 21.4 22.0 2008 — 0.8 20.3 21.1 2010 — 0.6 20.2 20.8 2011 — 0.6 20.2 20.8 2011 — 0.6 20.3 20.8 2012 — 0.5 19.1 19.7 2013 — 0.6 19.3 19.9 2014 — 0.6 19.3 19.9 2015 — 0.6 19.2 19.8 2016 — 0.5 20.4 20.9 2017 — 0.6 19.2 19.8 2018 — 0.7 19.3 20.0 2019 — 0.7 19.3 20.0 2019 — 0.7 19.3 20.0 2020	2000		0.4	18.3	18.8
2003 — 0.5 19.0 19.6 2004 — 0.5 20.0 20.5 2005 — 0.6 20.5 21.1 2006 — 0.7 21.0 21.7 2007 — 0.7 21.4 22.0 2008 — 0.8 20.3 21.1 2009 — 0.7 19.9 20.6 2010 — 0.6 20.2 20.8 2011 — 0.6 20.2 20.8 2012 — 0.5 19.1 19.7 2013 — 0.6 19.3 19.9 2014 — 0.6 19.3 19.9 2014 — 0.6 19.3 19.9 2016 — 0.6 19.2 19.8 2017 — 0.6 19.2 19.8 2018 — 0.6 19.2 19.8 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6	2001		0.5	18.1	18.6
2003 — 0.5 19.0 19.6 2004 — 0.5 20.0 20.5 2005 — 0.6 20.5 21.1 2006 — 0.7 21.0 21.7 2007 — 0.7 21.4 22.0 2008 — 0.8 20.3 21.1 2009 — 0.7 19.9 20.6 2010 — 0.6 20.2 20.8 2011 — 0.6 20.2 20.8 2012 — 0.5 19.1 19.7 2013 — 0.6 19.3 19.9 2014 — 0.6 19.3 19.9 2014 — 0.6 19.3 19.9 2016 — 0.6 19.2 19.8 2017 — 0.6 19.2 19.8 2018 — 0.6 19.2 19.8 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6	2002	_	0.6	18.6	19.2
2004 — 0.5 20.0 20.5 2005 — 0.6 20.5 21.1 2006 — 0.7 21.0 21.7 2007 — 0.7 21.4 22.0 2008 — 0.8 20.3 21.1 2009 — 0.6 20.2 20.8 2010 — 0.6 20.2 20.8 2011 — 0.6 20.3 20.8 2012 — 0.6 20.3 20.8 2013 — 0.6 19.1 19.7 2013 — 0.6 19.3 19.9 2014 — 0.6 19.3 19.9 2015 — 0.6 19.2 19.8 2016 — 0.5 20.4 20.9 2017 — 0.6 19.2 19.8 2018 — 0.7 19.3 20.0 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6	2003	_	0.5	19.0	19.6
2007 — 0.7 21.4 22.0 2008 — 0.8 20.3 21.1 2009 — 0.7 19.9 20.8 2010 — 0.6 20.2 20.8 2011 — 0.6 20.3 20.8 2012 — 0.5 19.1 19.7 2013 — 0.6 19.3 19.9 2014 — 0.6 19.8 20.6 2015 — 0.6 19.2 19.8 2016 — 0.5 20.4 20.9 2017 — 0.6 19.2 19.8 2018 — 0.7 19.3 20.0 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6 18.2 2021 — 0.4 19.0 19.5	2004	_	0.5	20.0	20.5
2007 — 0.7 21.4 22.0 2008 — 0.8 20.3 21.1 2009 — 0.7 19.9 20.8 2010 — 0.6 20.2 20.8 2011 — 0.6 20.3 20.8 2012 — 0.5 19.1 19.7 2013 — 0.6 19.3 19.9 2014 — 0.6 19.8 20.6 2015 — 0.6 19.2 19.8 2016 — 0.5 20.4 20.9 2017 — 0.6 19.2 19.8 2018 — 0.7 19.3 20.0 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6 18.2 2021 — 0.4 19.0 19.5	2005	_	0.6	20.5	21.1
2008 — 0.8 20.3 21.1 2009 — 0.7 19.9 20.6 2010 — 0.6 20.2 20.8 2011 — 0.6 20.3 20.8 2012 — 0.5 19.1 19.7 2013 — 0.6 19.3 19.9 2014 — 0.6 19.2 19.8 2015 — 0.6 19.2 19.8 2016 — 0.5 20.4 20.9 2017 — 0.6 19.2 19.8 2018 — 0.7 19.3 20.0 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6 18.2 2021 — 0.6 17.6 19.5	2006	_	0.7	21.0	21.7
2009 — 0.7 19.9 20.6 2010 — 0.6 20.2 20.8 2011 — 0.6 20.3 20.8 2012 — 0.5 19.1 19.7 2013 — 0.6 19.3 19.9 2014 — 0.6 19.2 19.8 2015 — 0.6 19.2 19.8 2016 — 0.5 20.4 20.9 2017 — 0.6 19.2 19.8 2018 — 0.6 19.2 19.8 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6 18.2 2021 — 0.4 19.0 19.5	2007	_	0.7	21.4	22.0
2010 — 0.6 20.2 20.8 2011 — 0.6 20.3 20.8 2012 — 0.5 19.1 19.7 2013 — 0.6 19.3 19.9 2014 — 0.7 19.8 20.6 2015 — 0.6 19.2 19.8 2016 — 0.5 20.4 20.9 2017 — 0.6 19.2 19.8 2018 — 0.7 19.3 20.0 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6 18.2 2021 — 0.4 19.0 19.5	2008	_	0.8	20.3	21.1
2011 — 0.6 20.3 20.8 2012 — 0.5 19.1 19.7 2013 — 0.6 19.3 19.9 2014 — 0.7 19.8 20.6 2015 — 0.6 19.2 19.8 2016 — 0.5 20.4 20.9 2017 — 0.6 19.2 19.8 2018 — 0.7 19.3 20.0 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6 18.2 2021 — 0.4 19.0 19.5	2009	_	0.7	19.9	20.6
2012 — 0.5 19.1 19.7 2013 — 0.6 19.3 19.9 2014 — 0.7 19.8 20.6 2015 — 0.6 19.2 19.8 2016 — 0.5 20.4 20.9 2017 — 0.6 19.2 19.8 2018 — 0.7 19.3 20.0 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6 18.2 2021 — 0.4 19.0 19.5	2010	-	0.6	20.2	20.8
2013 — 0.6 19.3 19.9 2014 — 0.7 19.8 20.6 2015 — 0.6 19.2 19.8 2016 — 0.5 20.4 20.9 2017 — 0.6 19.2 19.8 2018 — 0.7 19.3 20.0 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6 18.2 2021 — 0.4 19.0 19.5	2011		0.0	20.3 10.1	20.8 10.7
2015 — 0.6 19.2 19.8 2016 — 0.5 20.4 20.9 2017 — 0.6 19.2 19.8 2018 — 0.7 19.3 20.0 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6 18.2 2021 — 0.4 19.0 19.5	2012		0.5	19.1	19.7
2015 — 0.6 19.2 19.8 2016 — 0.5 20.4 20.9 2017 — 0.6 19.2 19.8 2018 — 0.7 19.3 20.0 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6 18.2 2021 — 0.4 19.0 19.5	2013		0.0	19.5	20.6
2016 — 0.5 20.4 20.9 2017 — 0.6 19.2 19.8 2018 — 0.7 19.3 20.0 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6 18.2 2021 — 0.4 19.0 19.5	2015		0.6	19.2	19.8
2017 — 0.6 19.2 19.8 2018 — 0.7 19.3 20.0 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6 18.2 2021 — 0.4 19.0 19.5	2016		0.5	20.4	20.9
2018 — 0.7 19.3 20.0 2019 — 0.7 19.3 20.0 2020 — 0.6 17.6 18.2 2021 — 0.4 19.0 19.5	2017	_	0.6	19.2	19.8
2019 — 0.7 19.3 20.0 2020 — 0.6 17.6 18.2 2021 — 0.4 19.0 19.5	2018	_	0.7	19.3	20.0
2020 — 0.6 17.6 18.2 2021 — 0.4 19.0 19.5	2019	_	0.7	19.3	20.0
2021 — 0.4 19.0 19.5 2022 — 0.5 19.2 19.7 2023 — 0.5 19.0 19.5	2020	_	0.6	17.6	18.2
2022 — 0.5 19.2 19.7 2023 — 0.5 19.0 19.5	2021	_	0.4	19.0	19.5
- 0.5 19.0	2022	-	0.5	19.2	19.7
	2023	_	0.5	19.0	19.5

^a Beginning in 1978, consumption data not collected and assumed to be zero.

Notes: Data are carbon dioxide (CO2) emissions estimates from fossil fuels primary energy consumption, excluding renewable energy. The state data do not account for interstate flow of electricity and represent CO2 emissions in the state where fossil fuels are burned to generate

electricity, although the electricity might be sold to ultimate customers in other states and sectors. Totals may not equal sum of components due to independent rounding. The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the technical notes for each type of energy.

Web page: All data are available at https://www.eia.gov/state/seds/seds-data-complete.php.
Data source: Table by the U.S. Energy Information Administration, State Energy Data System. See technical notes. https://www.eia.gov/state/seds/

^b Transportation use of natural gas to operate pipelines and as vehicle fuel. Excludes supplemental gaseous fuels.

^{'c'} Excludes biofuels.

^{— =} No consumption. Where shown, R = Revised data and (s) = Value less than 0.05.

Table CO2.T6. Electric power sector CO2 emissions estimates from energy consumption, 1960-2023, lowa (million metric tons of carbon dioxide (CO2))

.,			-	
Year	Coal	Natural gas ^a	Petroleum ^b	Total
1960	4.2	2.7	0.1	7.0
1965	4.2 5.6	2.8	0.1	7.0 8.5
1970	8.0	4.2	0.2	12.3
1975	9.6	2.5	0.3	12.4
1980	19.0	0.4	0.1	19.5
1985	21.6	0.1	(s) 0.1	21.8
1990	26.2	0.2	0.1	26.5
1995 1996	29.7 29.7	0.2 0.1	0.1 0.1	29.9 29.9
1996	30.2	0.1	0.1	29.9 30.5
1998	34.0	0.2	0.1	30.5 34.4
1999	34.1	0.2	0.1	34.5
2000	36.0	0.2 0.3	0.1	34.5 36.3 36.4 36.1 36.4 36.8 36.0
2001	36.0	0.3	0.1	36.4
2002	35.8 36.1 36.3	0.2	0.1	36.1
2003	36.1	0.2	0.1	36.4
2004	36.3	0.4	0.1	36.8
2005	34.8	1.0	0.2	36.0
2006 2007	35.1 37.9	0.9 1.2	0.2 0.3	36.2 39.4
2007	40.3	0.9	0.3	41.3
2009	36.8	0.5	0.1	37.4
2010	40.3	0.6	0.2	41.0
2011	37.0	0.5	0.1	37.6
2012 2013	33.8 31.8 32.2	0.8	0.1	34.7 32.5 32.8 28.8
2013	31.8	0.6	0.1	32.5
2014	32.2	0.5	0.1	32.8
2015	27.9 23.9 24.2	0.8	(s) 0.1	28.8
2016 2017	23.9	1.1	U.1	25.0
2017	24.2	1.5 2.5	0.1 0.1	25.7 29.2
2019	21.2	2.5	0.1	23.7
2020	13.7	2.3	0.1	16.0
2021	21.6	2.2	0.1	23.9
2022	17.6	2.9	0.1	20.6
2023	15.6	3.6	0.1	19.3

^a Excludes supplemental gaseous fuels.

Notes: Data are carbon dioxide (CO2) emissions estimates from fossil fuels primary energy consumption, excluding renewable energy. The state data do not account for interstate flow of electricity and represent CO2 emissions in the state where fossil fuels are burned to generate electricity, although the electricity might be sold to ultimate customers in other states and sectors.

consists of 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. • The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the technical notes for each type of energy.

Web page: All data are available at https://www.eia.gov/state/seds/seds-data-complete.php.
Data source: Table by the U.S. Energy Information Administration, State Energy Data System. See technical notes. https://www.eia.gov/state/seds/

b Excludes biofuels.

^{— =} No consumption. Where shown, R = Revised data and (s) = Value less than 0.05.

[·] Totals may not equal sum of components due to independent rounding. · The electric power sector