

**Table A4. Residential sector key indicators and consumption**  
(quadrillion Btu per year, unless otherwise noted)

Key indicators and consumption	Reference case							Annual growth 2010-2035 (percent)
	2009	2010	2015	2020	2025	2030	2035	
<b>Key indicators</b>								
<b>Households (millions)</b>								
Single-family .....	81.73	82.11	85.49	89.94	94.26	98.56	102.54	0.9%
Multifamily .....	25.41	25.52	26.98	29.31	31.47	33.70	35.96	1.4%
Mobile homes .....	6.65	6.56	6.25	6.56	6.86	7.04	7.14	0.3%
<b>Total .....</b>	<b>113.78</b>	<b>114.19</b>	<b>118.73</b>	<b>125.82</b>	<b>132.60</b>	<b>139.30</b>	<b>145.64</b>	<b>1.0%</b>
<b>Average house square footage .....</b>	<b>1646</b>	<b>1653</b>	<b>1684</b>	<b>1705</b>	<b>1725</b>	<b>1743</b>	<b>1759</b>	<b>0.2%</b>
<b>Energy intensity</b>								
<b>(million Btu per household)</b>								
Delivered energy consumption .....	97.8	102.1	94.6	90.3	86.8	84.2	81.9	-0.9%
Total energy consumption .....	184.0	193.1	175.3	169.8	166.1	162.8	159.9	-0.8%
<b>(thousand Btu per square foot)</b>								
Delivered energy consumption .....	59.4	61.8	56.2	52.9	50.3	48.3	46.6	-1.1%
Total energy consumption .....	111.8	116.8	104.1	99.6	96.3	93.4	90.9	-1.0%
<b>Delivered energy consumption by fuel</b>								
<b>Electricity</b>								
Space heating .....	0.28	0.30	0.28	0.30	0.31	0.33	0.34	0.5%
Space cooling .....	0.81	1.08	1.01	1.06	1.12	1.18	1.24	0.6%
Water heating .....	0.44	0.45	0.47	0.50	0.52	0.53	0.53	0.7%
Refrigeration .....	0.38	0.37	0.37	0.38	0.39	0.41	0.43	0.6%
Cooking .....	0.11	0.11	0.11	0.12	0.13	0.14	0.15	1.4%
Clothes dryers .....	0.19	0.19	0.19	0.18	0.18	0.17	0.18	-0.3%
Freezers .....	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.3%
Lighting .....	0.70	0.69	0.52	0.48	0.46	0.46	0.47	-1.5%
Clothes washers <sup>1</sup> .....	0.03	0.03	0.03	0.03	0.02	0.02	0.02	-1.2%
Dishwashers <sup>1</sup> .....	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.4%
Color televisions and set-top boxes .....	0.32	0.33	0.32	0.34	0.37	0.40	0.43	1.1%
Personal computers and related equipment ..	0.17	0.17	0.19	0.22	0.24	0.26	0.27	1.8%
Furnace fans and boiler circulation pumps ..	0.14	0.13	0.14	0.14	0.14	0.15	0.15	0.4%
Other uses <sup>2</sup> .....	0.90	0.92	0.92	1.03	1.16	1.31	1.44	1.8%
<b>Delivered energy .....</b>	<b>4.66</b>	<b>4.95</b>	<b>4.75</b>	<b>4.96</b>	<b>5.23</b>	<b>5.55</b>	<b>5.86</b>	<b>0.7%</b>
<b>Natural gas</b>								
Space heating .....	3.31	3.50	3.39	3.34	3.27	3.24	3.19	-0.4%
Space cooling .....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.3%
Water heating .....	1.32	1.29	1.31	1.33	1.33	1.31	1.27	-0.1%
Cooking .....	0.22	0.22	0.22	0.22	0.22	0.23	0.23	0.3%
Clothes dryers .....	0.05	0.06	0.06	0.06	0.06	0.06	0.07	0.7%
<b>Delivered energy .....</b>	<b>4.90</b>	<b>5.06</b>	<b>4.97</b>	<b>4.95</b>	<b>4.88</b>	<b>4.84</b>	<b>4.76</b>	<b>-0.2%</b>
<b>Distillate fuel oil</b>								
Space heating .....	0.50	0.53	0.48	0.42	0.38	0.34	0.31	-2.1%
Water heating .....	0.10	0.10	0.07	0.06	0.05	0.04	0.04	-3.9%
<b>Delivered energy .....</b>	<b>0.60</b>	<b>0.63</b>	<b>0.55</b>	<b>0.48</b>	<b>0.43</b>	<b>0.38</b>	<b>0.35</b>	<b>-2.3%</b>
<b>Liquefied petroleum gases</b>								
Space heating .....	0.26	0.30	0.26	0.25	0.24	0.23	0.22	-1.1%
Water heating .....	0.08	0.07	0.05	0.04	0.04	0.04	0.03	-3.0%
Cooking .....	0.03	0.03	0.03	0.03	0.03	0.03	0.02	-0.9%
Other uses <sup>3</sup> .....	0.14	0.16	0.17	0.18	0.20	0.21	0.22	1.3%
<b>Delivered energy .....</b>	<b>0.51</b>	<b>0.56</b>	<b>0.51</b>	<b>0.50</b>	<b>0.50</b>	<b>0.51</b>	<b>0.51</b>	<b>-0.4%</b>
Marketed renewables (wood) <sup>4</sup> .....	0.43	0.42	0.43	0.43	0.43	0.43	0.43	0.1%
Other fuels <sup>5</sup> .....	0.04	0.04	0.03	0.03	0.03	0.03	0.03	-1.6%

**Table A4. Residential sector key indicators and consumption (continued)**  
(quadrillion Btu per year, unless otherwise noted)

Key indicators and consumption	Reference case							Annual growth 2010-2035 (percent)
	2009	2010	2015	2020	2025	2030	2035	
<b>Delivered energy consumption by end use</b>								
Space heating .....	4.81	5.08	4.86	4.78	4.67	4.60	4.52	-0.5%
Space cooling .....	0.81	1.08	1.01	1.06	1.12	1.18	1.24	0.6%
Water heating .....	1.94	1.91	1.90	1.92	1.94	1.91	1.88	-0.1%
Refrigeration .....	0.38	0.37	0.37	0.38	0.39	0.41	0.43	0.6%
Cooking .....	0.35	0.35	0.36	0.37	0.38	0.39	0.40	0.5%
Clothes dryers .....	0.25	0.25	0.25	0.25	0.24	0.24	0.25	-0.0%
Freezers .....	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.3%
Lighting .....	0.70	0.69	0.52	0.48	0.46	0.46	0.47	-1.5%
Clothes washers <sup>1</sup> .....	0.03	0.03	0.03	0.03	0.02	0.02	0.02	-1.2%
Dishwashers <sup>1</sup> .....	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.4%
Color televisions and set-top boxes .....	0.32	0.33	0.32	0.34	0.37	0.40	0.43	1.1%
Personal computers and related equipment ..	0.17	0.17	0.19	0.22	0.24	0.26	0.27	1.8%
Furnace fans and boiler circulation pumps ..	0.14	0.13	0.14	0.14	0.14	0.15	0.15	0.4%
Other uses <sup>5</sup> .....	1.04	1.08	1.09	1.21	1.36	1.52	1.67	1.8%
<b>Delivered energy .....</b>	<b>11.13</b>	<b>11.66</b>	<b>11.24</b>	<b>11.36</b>	<b>11.51</b>	<b>11.73</b>	<b>11.93</b>	<b>0.1%</b>
<b>Electricity related losses .....</b>	<b>9.80</b>	<b>10.39</b>	<b>9.58</b>	<b>10.01</b>	<b>10.52</b>	<b>10.95</b>	<b>11.35</b>	<b>0.4%</b>
<b>Total energy consumption by end use</b>								
Space heating .....	5.41	5.70	5.42	5.37	5.29	5.24	5.17	-0.4%
Space cooling .....	2.52	3.34	3.06	3.19	3.36	3.51	3.65	0.4%
Water heating .....	2.87	2.85	2.85	2.93	2.98	2.96	2.90	0.1%
Refrigeration .....	1.17	1.15	1.11	1.14	1.18	1.23	1.28	0.4%
Cooking .....	0.58	0.58	0.59	0.61	0.64	0.67	0.69	0.7%
Clothes dryers .....	0.65	0.65	0.64	0.62	0.59	0.58	0.60	-0.4%
Freezers .....	0.26	0.26	0.25	0.26	0.26	0.26	0.26	0.1%
Lighting .....	2.18	2.13	1.58	1.45	1.39	1.37	1.37	-1.7%
Clothes washers <sup>1</sup> .....	0.10	0.10	0.10	0.08	0.07	0.07	0.07	-1.4%
Dishwashers <sup>1</sup> .....	0.31	0.31	0.30	0.30	0.30	0.31	0.33	0.2%
Color televisions and set-top boxes .....	1.00	1.02	0.98	1.03	1.10	1.18	1.26	0.9%
Personal computers and related equipment ..	0.53	0.53	0.57	0.65	0.72	0.76	0.79	1.6%
Furnace fans and boiler circulation pumps ..	0.42	0.42	0.42	0.43	0.44	0.44	0.44	0.2%
Other uses <sup>5</sup> .....	2.94	3.01	2.96	3.29	3.70	4.10	4.47	1.6%
<b>Total .....</b>	<b>20.93</b>	<b>22.05</b>	<b>20.81</b>	<b>21.36</b>	<b>22.02</b>	<b>22.68</b>	<b>23.28</b>	<b>0.2%</b>
<b>Nonmarketed renewables<sup>7</sup></b>								
Geothermal heat pumps .....	0.00	0.01	0.01	0.02	0.02	0.02	0.03	6.4%
Solar hot water heating .....	0.01	0.01	0.02	0.02	0.02	0.02	0.02	2.4%
Solar photovoltaic .....	0.00	0.00	0.04	0.05	0.05	0.06	0.06	10.7%
Wind .....	0.00	0.00	0.01	0.01	0.01	0.01	0.01	9.1%
<b>Total .....</b>	<b>0.02</b>	<b>0.02</b>	<b>0.08</b>	<b>0.10</b>	<b>0.10</b>	<b>0.11</b>	<b>0.11</b>	<b>6.9%</b>
<b>Heating degree days<sup>8</sup> .....</b>	<b>4408</b>	<b>4382</b>	<b>4208</b>	<b>4172</b>	<b>4136</b>	<b>4101</b>	<b>4067</b>	<b>-0.3%</b>
<b>Cooling degree days<sup>8</sup> .....</b>	<b>1279</b>	<b>1498</b>	<b>1392</b>	<b>1409</b>	<b>1426</b>	<b>1443</b>	<b>1459</b>	<b>-0.1%</b>

<sup>1</sup>Does not include water heating portion of load.

<sup>2</sup>Includes small electric devices, heating elements, and motors not listed above. Electric vehicles are included in the transportation sector.

<sup>3</sup>Includes such appliances as outdoor grills and mosquito traps.

<sup>4</sup>Includes wood used for primary and secondary heating in wood stoves or fireplaces as reported in the *Residential Energy Consumption Survey 2005*.

<sup>5</sup>Includes kerosene and coal.

<sup>6</sup>Includes all other uses listed above.

<sup>7</sup>Represents delivered energy displaced.

<sup>8</sup>See Table A5 for regional detail.

Btu = British thermal unit.

-- = Not applicable.

Note: Totals may not equal sum of components due to independent rounding. Data for 2009 and 2010 are model results and may differ slightly from official EIA data reports.

Sources: 2009 and 2010 consumption based on: U.S. Energy Information Administration (EIA), *Annual Energy Review 2010*, DOE/EIA-0384(2010) (Washington, DC, October 2011). 2009 and 2010 degree days based on state-level data from the National Oceanic and Atmospheric Administration's Climatic Data Center and Climate Prediction Center. Projections: EIA, AEO2012 National Energy Modeling System run REF2012.D020112C.