

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	
Key indicators								
Households (millions)								
Single-family	81.73	82.11	85.51	89.96	94.22	98.49	102.53	0.9%
Multifamily	25.41	25.52	27.00	29.38	31.47	33.61	35.76	1.4%
Mobile homes	6.65	6.56	6.28	6.66	6.99	7.20	7.31	0.4%
Total	113.78	114.19	118.79	126.00	132.69	139.30	145.60	1.0%
Average house square footage	1646	1653	1683	1704	1724	1743	1760	0.3%
Energy intensity								
(million Btu per household)								
Delivered energy consumption	97.8	102.1	95.1	90.6	87.3	84.9	82.6	-0.8%
Total energy consumption	184.0	193.1	176.6	171.1	167.9	164.8	161.9	-0.7%
(thousand Btu per square foot)								
Delivered energy consumption	59.4	61.8	56.5	53.2	50.6	48.7	46.9	-1.1%
Total energy consumption	111.8	116.8	104.9	100.4	97.4	94.5	92.0	-0.9%
Delivered energy consumption by fuel								
Electricity								
Space heating	0.28	0.30	0.28	0.30	0.32	0.33	0.34	0.6%
Space cooling	0.81	1.08	1.02	1.06	1.12	1.19	1.25	0.6%
Water heating	0.44	0.45	0.48	0.51	0.53	0.54	0.54	0.8%
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	0.20	0.19	0.18	0.18	0.19	-0.2%
Freezers	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.3%
Lighting	0.70	0.69	0.53	0.49	0.47	0.47	0.48	-1.5%
Clothes washers ¹	0.03	0.03	0.03	0.03	0.02	0.02	0.02	-1.2%
Dishwashers ¹	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	0.33	0.35	0.37	0.40	0.44	1.2%
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 ²	0.90	0.92	0.94	1.06	1.20	1.34	1.48	1.9%
Delivered energy	4.66	4.95	4.79	5.02	5.30	5.63	5.94	0.7%
Natural gas								
Space heating	3.31	3.50	3.40	3.34	3.28	3.25	3.20	-0.4%
Space cooling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.2%
Water heating	1.32	1.29	1.31	1.32	1.32	1.30	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%
Delivered energy	4.90	5.06	4.99	4.95	4.88	4.84	4.76	-0.2%
Distillate fuel oil								
Space heating	0.50	0.53	0.48	0.43	0.38	0.34	0.31	-2.1%
Water heating	0.10	0.10	0.07	0.06	0.05	0.04	0.04	-4.0%
Delivered energy	0.60	0.63	0.55	0.48	0.43	0.38	0.35	-2.3%
Liquefied petroleum gases								
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 ³	0.14	0.16	0.17	0.18	0.20	0.21	0.22	1.3%
Delivered energy	0.51	0.56	0.51	0.50	0.50	0.51	0.51	-0.4%
Marketed renewables (wood) ⁴	0.43	0.42	0.43	0.43	0.43	0.44	0.44	0.1%
Other fuels ⁵	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	
Delivered energy consumption by end use								
Space heating	4.81	5.08	4.88	4.79	4.68	4.62	4.54	-0.4%
Space cooling	0.81	1.08	1.02	1.06	1.12	1.19	1.25	0.6%
Water heating	1.94	1.91	1.91	1.93	1.94	1.92	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	0.09	0.09	0.09	0.09	0.3%
Lighting	0.70	0.69	0.53	0.49	0.47	0.47	0.48	-1.5%
Clothes washers ¹	0.03	0.03	0.03	0.03	0.02	0.02	0.02	-1.2%
Dishwashers ¹	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	0.33	0.35	0.37	0.40	0.44	1.2%
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 ⁶	1.04	1.08	1.11	1.24	1.39	1.55	1.70	1.8%
Delivered energy	11.13	11.66	11.30	11.42	11.58	11.83	12.02	0.1%
Electricity related losses	9.80	10.39	9.68	10.15	10.70	11.12	11.56	0.4%
Total energy consumption by end use								
Space heating	5.41	5.70	5.45	5.39	5.32	5.28	5.21	-0.4%
Space cooling	2.52	3.34	3.07	3.21	3.38	3.54	3.68	0.4%
Water heating	2.87	2.85	2.87	2.95	3.01	2.99	2.94	0.1%
Refrigeration	1.17	1.15	1.11	1.14	1.19	1.23	1.28	0.4%
Cooking	0.58	0.58	0.59	0.62	0.64	0.67	0.69	0.7%
Clothes dryers	0.65	0.65	0.65	0.63	0.61	0.60	0.61	-0.3%
Freezers	0.26	0.26	0.25	0.26	0.26	0.26	0.26	0.1%
Lighting	2.18	2.13	1.60	1.48	1.42	1.40	1.41	-1.7%
Clothes washers ¹	0.10	0.10	0.10	0.08	0.07	0.07	0.07	-1.4%
Dishwashers ¹	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	0.99	1.05	1.12	1.20	1.29	1.0%
Personal computers and related equipment ..	0.53	0.53	0.57	0.66	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 ⁶	2.94	3.01	3.02	3.38	3.81	4.20	4.57	1.7%
Total	20.93	22.05	20.98	21.56	22.28	22.95	23.58	0.3%
Nonmarketed renewables⁷								
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	0.01	0.05	0.06	0.06	0.06	0.06	7.9%
Wind	0.00	0.00	0.01	0.01	0.01	0.01	0.01	8.6%
Total	0.02	0.03	0.08	0.10	0.11	0.11	0.12	6.2%

¹Does not include water heating portion of load.

²Includes small electric devices, heating elements, and motors not listed above.

³Includes such appliances as outdoor grills and mosquito traps.

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

⁵Includes kerosene and coal.

⁶Includes all other uses listed above.

⁷Represents delivered energy displaced.

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 based on: U.S. Energy Information Administration (EIA), *Annual Energy Review 2010*, DOE/EIA-0384(2010) (Washington, DC, October 2011). Projections: EIA, AEO2012 National Energy Modeling System run REF2012.D121011B.