

U.S. Commercial Energy by Fuel (Quad Btu)

End-Use	2015 Reference Case Consumption	2025 Consumption by Case			2025 Savings Relative to Reference Case			
		Reference	High Technology	Best Available Technology	High Technology	Best Available Technology	Average	Priority
Purchased Electricity								
Lighting	0.89	0.88	0.67	0.65	0.21	0.23	0.22	High
Ventilation	0.53	0.57	0.45	0.44	0.12	0.14	0.13	High
Refrigeration	0.37	0.37	0.33	0.28	0.04	0.09	0.06	Medium
Space Cooling 1/	0.51	0.53	0.49	0.44	0.04	0.09	0.06	Medium
Office Equipment (non-PC)	0.22	0.27	0.24	0.21	0.03	0.06	0.04	Medium
Other Uses 2/	1.62	2.00	1.99	1.97	0.02	0.03	0.03	High
Space Heating 1/	0.16	0.16	0.14	0.14	0.02	0.02	0.02	Low
Water Heating 1/	0.09	0.09	0.08	0.08	0.01	0.01	0.01	Low
Cooking	0.02	0.02	0.02	0.02	0.00	0.00	0.00	Low
Office Equipment (PC)	0.09	0.05	0.05	0.05	0.00	0.00	0.00	Low
Delivered Energy	4.51	4.94	4.46	4.28	0.48	0.66	0.57	
Natural Gas								
Space Heating 1/	1.72	1.68	1.63	1.60	0.05	0.08	0.07	High
Cooking	0.20	0.22	0.20	0.20	0.02	0.02	0.02	Medium
Space Cooling 1/	0.04	0.04	0.03	0.03	0.00	0.00	0.00	Low
Water Heating 1/	0.49	0.51	0.51	0.51	(0.00)	0.00	0.00	Low
Other Uses 3/	0.74	0.84	0.90	0.90	(0.06)	(0.06)	(0.06)	Medium
Delivered Energy	3.18	3.29	3.27	3.24	0.02	0.05	0.03	n/a

Source: Energy Solutions analysis of U.S. Energy Information Administration (EIA), *Annual Energy Outlook 2014*.

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Notes:

1/ Includes fuel consumption for district services.

2/ Includes (but is not limited to) miscellaneous uses such as transformers, medical imaging and other medical equipment, elevators, escalators, off-road vehicles, laboratory fume hoods, laundry equipment, coffee brewers, and water services.

3/ Includes miscellaneous uses, such as pumps, emergency generators, combined heat and power in commercial buildings, and manufacturing performed in commercial buildings.

Cases:

Reference case projection is a business-as-usual trend estimate, given known technology and technological and demographic trends. See *AEO 2014* for more details on assumptions.

High Demand Technology case assumes that residential advanced equipment is available earlier, at lower costs, and/or at higher efficiencies. Existing building shell efficiencies exhibit 50% more improvement than in the Reference case after 2013. For new construction, building code compliance is assumed to improve after 2013, and building shell efficiencies are assumed to meet ENERGY STAR requirements by 2023. Consumers evaluate investments in energy efficiency at a 7% real discount rate.

Best Available Technology case assumes that all future residential equipment purchases are made from a menu of technologies that includes only the most efficient models available in a particular year for each technology class, regardless of cost. Existing building shell efficiencies have twice the improvement of the Reference case after 2013. For new construction, 100% compliance with building codes is assumed, and building shell efficiencies are assumed to meet the criteria for the most efficient components after 2013. Consumers evaluate investments in energy efficiency at a 7% real discount rate.