



2030 CHALLENGE Targets: National Averages



U.S. Average Site Energy Use and 2030 Challenge Energy Reduction Targets by Space/Building Type (CBECS 2003)¹

From the Environmental Protection Agency (EPA): Use this chart to find the site fossil-fuel energy targets.

Primary Space/Building Type ²	Available in Target Finder ³	Average Source EU1 ⁴ (kBtu/Sq.Ft./Yr)	Average Percent Electric	Average Site EU1 ⁴ (kBtu/Sq.Ft./Yr)	2030 Challenge Site EU1 Targets (kBtu/Sq.Ft./Yr)				
					50% Target	60% Target	70% Target	80% Target	90% Target
Administrative/Professional & Government Office	✓								
Bank	✓								
Clinic/other outpatient health		219	76%	84.2	42.1	33.7	25.3	16.8	8.4
College/university (campus-level)		280	63%	120	60	48	36	24	12
Convenience store (with or without gas station)		753	90%	241.4	120.7	96.6	72.4	48.3	24.1
Distribution/shipping center		90	61%	44.2	22.1	17.7	13.3	8.8	4.4
Fast food		1306	64%	534.3	267.2	213.7	160.3	106.9	53.4
Fire station/police station		157	56%	77.9	39.0	31.2	23.4	15.6	7.8
Hospital/inpatient health	✓								
Hotel, Motel or inn	✓								
K-12 School	✓								
Medical Office	✓								
Non-refrigerated warehouse	✓								
Nursing home/assisted living		255	54%	124.3	62.2	49.7	37.3	24.9	12.4
Public Assembly		143	57%	66	33	26	20	13	7
Refrigerated warehouse	✓								
Religious worship		83	52%	45.9	23.0	18.4	13.8	9.2	4.6
Residence hall/Dormitory	✓								
Restaurant/cafeteria		612	53%	301.6	150.8	120.6	90.5	60.3	30.2
Retail store (non-mall stores, vehicle dealerships)		191	67%	82.2	41.1	32.9	24.7	16.4	8.2
Self-storage		12	44%	4.0	2.0	1.6	1.2	0.8	0.4
Supermarket/Grocery	✓								
Service (vehicle repair/service, postal service)		150	63%	77	38.5	30.8	23.1	15.4	7.7
Secondary Space/Building Type²									
Ambulatory Surgical Center	✓								
Computer Data Center	✓								
Garage	✓								
Open Parking Lot	✓								
Swimming Pool	✓								
Residential Space/Building Type^{5,6}									
Single-Family Detached		76.6	-	43.8	21.9	17.5	13.1	8.8	4.4
Single-Family Attached		70.7	-	43.7	21.9	17.5	13.1	8.7	4.4
Multi-Family, 2 to 4 units		93.2	-	58.2	29.1	23.3	17.5	11.6	5.8
Multi-Family, 5 or more units		99.4	-	49.5	24.8	19.8	14.9	9.9	5.0
Mobile Homes		153.2	-	73.4	36.7	29.4	22.0	14.7	7.3

Notes

- This table presents values calculated from the Energy Information Administration in the Commercial Building Energy Use Survey (CBECS), conducted in 2003.
- Space/Building Type use descriptions are taken from valid building activities as defined by the Energy Information Administration in the Commercial Building Energy Use Survey (CBECS), conducted in 2003.
- A "✓" indicates that this Space/Building Type is included in Target Finder. On the input page, use the 2030 Challenge Energy Reduction Target option and select 50%.
- The average Source EU1 and Site EU1 are calculated in kBtu/Sq.Ft./Yr as weighted averages across all buildings of a given space type in the CBECS 2003 data set. Source Energy is a measure that accounts for the energy consumed on site and the energy consumed during generation and transmission in supplying energy to the site.
Converting Site to Source Energy:
Source Energy values are calculated using a conversion for electricity of 1 kBtu Site Energy = 3.34 kBtu Source Energy; a conversion for natural gas of 1 kBtu Site Energy = 1.047 kBtu Source Energy; a conversion factor for district heat of 1 kBtu site energy = 1.40 source energy and a 1:1 conversion for fuel oil.
- Energy Information Administration (EIA), U.S. Residential Energy Intensity Using Weather-Adjusted Primary Energy by Census Region and Type of Housing Unit, 1980-2001, Table 8c.
- Energy Information Administration (EIA), U.S. Residential Energy Intensity Using Weather-Adjusted Site Energy by Census Region and Type of Housing Unit, 1980-2001, Table 6c.

EUI: Energy Use Intensity