

Ranked Actions and Behaviors for Climate Impact

Simplified from:

[Household actions can provide a behavioral wedge to rapidly reduce US carbon emissions](#) by Thomas Dietza, Gerald T. Gardnerb, Jonathan Gilliganc, Paul C. Sternd,1, and Michael P. Vandenberghe

Action or Behavior Change	Reasonable Achievable US Emissions Reductions within 10 years (RAER)(MtC)	RAER as percentage of total US individual/household sector emissions (%/H)
Totals	123 MtC	20%
Fuel-efficient vehicle	31.4	5.02
Weatherization	21.2	3.39
Appliances	11.7	1.87
HVAC equipment	10.7	1.72
Driving behavior	7.7	1.23
Low rolling resistance tires	6.5	1.05
Carpooling and trip-chaining	6.4	1.02
Efficient water heater	5.4	0.86
Thermostat setbacks	4.5	0.71
Routine auto maintenance	4.1	0.66
Change HVAC air filters	3.7	0.59
Standby electricity	3.2	0.52
Line drying clothes	2.2	0.35
Tune up AC	1.4	0.22
Low-flow showerheads	1.1	0.18
Water heater temperature	1	0.17
Laundry temperature	0.2	0.04

Table 1. Percentage of total U.S. individual/household energy consumed by end use, ranked in order of magnitude, 2005

End use	Percent
Transportation	
Private motor vehicles	38.6
Air travel	3.4
Mass transportation and other	1.4
Subtotal	43.4
In-home uses	
Space heating	18.8
Air conditioning	6.2
(Space conditioning subtotal	25.0)
Water heating ^a	6.5
Lighting	6.1
Refrigeration and freezing	4.3
Electric (heating elements, small appliances, and small motors)	3.9
Clothes washing/drying ^a	2.5
Color TVs	2.5
Cooking	1.5
Computers	0.8
Propane and natural gas (swimming pool heaters, grills, and lamps)	0.5
Dishwashers	0.2
Other	3.0
Subtotal	56.6
Total	100.0

^aHot water for "Clothes washing" is included under "Water heating."

NOTE: Please see *Environment's* Web site, www.environmentmagazine.org, for a description of calculation strategies and methods and a complete list of sources.