

Further Power, Energy, and Efficiency Questions (Student)

The average North American household uses about 30 kilowatt-hours per day. How much is this in Joules?

A professional cyclist can produce about 100 watt-hours in 1 hour. That's about enough energy to power:

- (a) A clock radio for 10 hours
- (b) A compact fluorescent light bulb for 6 hours, 40 minutes
- (c) A laptop computer for 2 hours
- (d) A 19-inch LCD TV for 1 hour, 40 minutes
- (e) A toaster for $7\frac{1}{2}$ minutes
- (f) An iron for 4 minutes

Adapted from 04_BL_Inhabitat_human_power.doc, Dr. Brian Lim, Rosedale Heights School of the Arts Physics Wiki, April 15, 2015.