

Tags

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energy tools

Energy labs-tools

1. Kill-a-Watt

1. Volts-should be around 120V, AC or DC?
2. Amperes-only when loaded, test with hot water heater
3. Watts-sometimes = volts x amps, but not always
4. power factor: only 1.00 with heaters (ohmic loads)
5. Hz: 60 here, 50 other countries
6. Use to determine vampire loads

2. VOM meter

1. Ohms-measure across your body-why does it change?
2. Volts;DC for batteries, AC for outlets

3. eGauge

1. campus energy used
2. campus energy produced
3. smaller buildings: faculty cottages only users
4. dorms: when do they sleep?
5. cafeteria: why so big?

4. Thermal camera

1. use to see vampire loads
2. use to see heat loss from hot water heaters
3. see leakage around refrigerators
4. see thermal changes in solar hot water panels

5. EMC and Mango

1. use to search for data
2. weather, solar radiation data for calculations
3. long term (12 years for EMC)
4. useful for efficiency (wind, solar thermal, solar)
5. EMC: 10.14.4.4
6. Mango: 10.14.4.123:8080 also 163, 15, 170
7. Elab server: 10.14.4.2 (12 year record)

6. Weather stations

1. solar radiation
2. temp
3. wind
4. 10.14.62.x