

How much electricity do we use ?

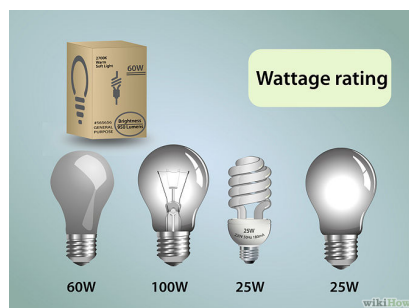
How much does it cost?



Electrical Power for Light Bulbs

The unit of measurement for power is **Watt**

**Power = Voltage x Current**



A portable hair dryer plugged into a 110 V outlet, has a current of 10 A flowing through it. What is the power rating of the hair dryer?

Electrical Power in your House

Energy used by your house = Power of the device x Time it is used

$$E = P \times T$$

The unit of measurement is kW.hr

Problem: If the hair drier is used for 15 min how much energy does it use?

Recall

1000 W = 1 kW

60 min = 1 hr

List 5 electrical appliances you use in your house on a regular basis.

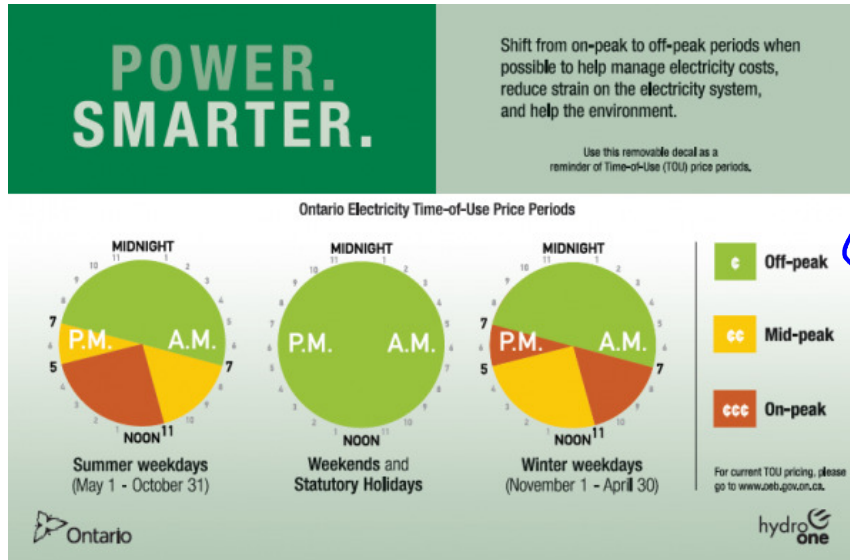
Rank them from highest to lowest energy consumption?

If you were going to make breakfast which included coffee, toast and fried eggs and bacon how much energy would it take? (note: you must estimate the time it takes to cook eat of the items)

$$\text{Cost} = \text{kWhr} \times \$/\text{kWhr}$$

If electricity costs 12 cents per kilowatt hour,  
what is the cost of operating the hair dishwasher for 45 minutes?

## Time of use billing in the Province of Ontario



8.3¢  
12.8¢  
17.5¢  
/kWh

## Reading your electricity bill

**Festival Hydro**  
P.O. Box 397, Stratford, Ontario N5A 6T5

Account Number: 12345-001

Due Date of New Charges: 05-22-2012

Current Amount Due: 57.47

Previous Balance: .00

Total Amount Due: \$57.47

Amount Paid:

Late interest: 1.5% 1st day after due date.  
1.5% monthly thereafter.

Please return this portion with your payment

12345-001

Account No.: 12345-001  
Customer Name: JOE, CUSTOMER  
Service Address: 123 ANYSTREET RD S APT 1  
Billing Date: 05-07-2012  
Billing Period: 03-16-2012 to 04-18-2012 Days 33

REGULAR BILL-RESIDENTIAL

Account Summary

Previous Balance	74.82
Adjustments	.00
Payments Thank You for Your Payment	74.82
Past Due Balance	\$ .00

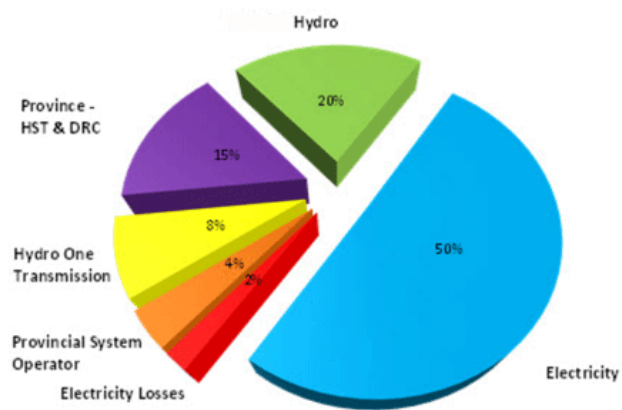
Current Charges (account details on reverse)

Electrical Services	57.47
Total Current Charges	\$57.47

Electric Usage History (KWH)

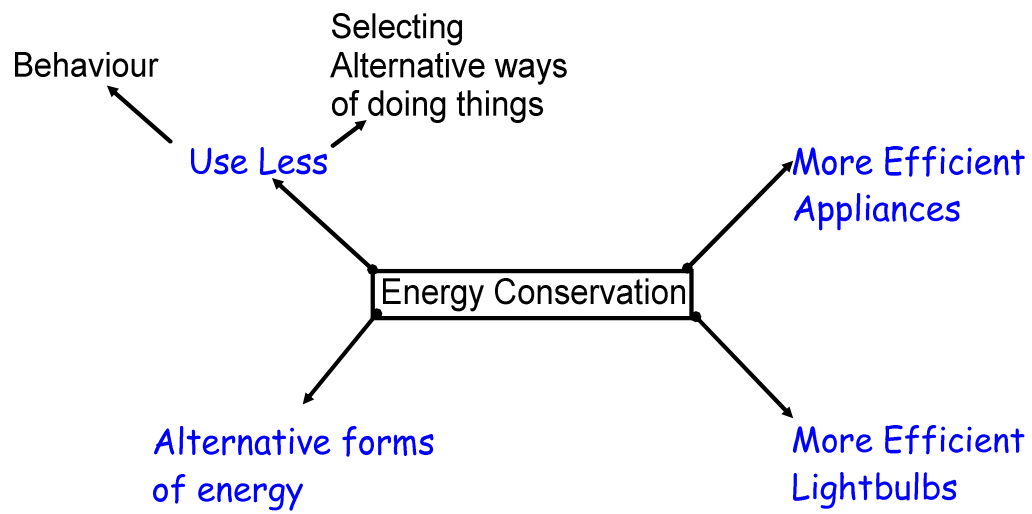
The Ontario Government has taken 10% off your electricity bill to help you with cost of building a clean

## Your Residential Electricity Dollar



List 10 ways I can reduce my monthly electricity bill.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10



Read 12.7 p 530-535

Q 1-7 p 535

Where does our electricity come from?

How much are we using?

[Download Gridwatch](#)