



# Energy Out Event - Data Collection & Analysis

Work with your school or environmental learning area's (e.g. if you are a homeschooler group, etc) Facility Manager to use the energy metering technology or meter reading at your school or learning environment. Create an Energy Out Event where you will track your energy usage by turning off classroom and/or school lights, unplugging electronics, appliances, and any other devices. Record in the table below, the number of Watts (W) when the lights are turned on and off, and devices plugged and unplugged. Using GreenLearning's Electrical Energy Calculators, calculate the amount of electricity (kWh), greenhouses gases (GHGs) and cost per year.

**Hint:** make sure to review the Data Collection & Analysis section of the Assessment Rubric under the Learner Plans & Actions category)



**Note:** You may need to contact the facility team at your school to show you how to view the data from your school's energy metering system, if available.

Once the tables are complete, continue to the next section of your energy savings plan.

## Section A: Data Collection & Energy Calculations (10 points)

The first step in understanding energy usage is through the development of a baseline. A baseline serves as a reference point to help understand, manage, and improve energy efficiency over time. By investigating how energy is used and converted (using your school's energy metering technology), you can identify practices that are required to promote a more energy efficient environment. Additionally, you will gain an understanding of the societal and environmental effects of electrical energy use. Measuring energy savings or energy efficiency against this baseline will support the development of your energy savings plan and help set goals to implement future energy efficient strategies and technologies.

For reference (optional): All About the Baseline Activity: <https://programs.greenlearning.ca/course/all-about-the-baseline>



## Data Collection Table

\*Ensure the status is different for each time of day (i.e. Morning - ON; Afternoon - OFF **or** Morning - OFF; Afternoon - ON

Lights and/or Other Devices	Time of Day (morning/afternoon)	*Status On/Off (circle one)	Province	Number of Watts (W) (meter reading)	Notes (i.e. lights turned off at... , for _ hours)
	Morning	Electricity <b>On</b> / Off			
	Afternoon	Electricity On / <b>Off</b>			

## Energy Calculations

\*For this section use the [Electrical Energy Calculators](#)

Time of Day (morning/afternoon)	Electricity (kWh/year) (kWh/year = Watts x Hours per use x Number of times used per year / 1000)	Greenhouse Gases Expended (kg of GHG/year)	Cost (\$/year)



### **Section B: Get Creative (5 points)**

- a) Think of stickers, posters, or tags you can place around your school or learning environment as reminders to reduce your energy consumption
- b) Take part in some alternative activities/games to raise awareness and reflect on energy use. Show us what you come up with!

### **Section C: Now that you've filled out the tables above, complete the following questions. (5 points)**

1. Calculate your savings for each of the following based on your Energy Out Event: *(3 points)*

a) Electrical energy (kWh) saved

b) GHG emissions saved

c) Energy costs saved



2. Did you notice any significant changes in energy use when the lights or any other devices were on/off (plugged in or unplugged) during the morning versus afternoon? *(2 points)*