

Data Journey: Finding Peak Consumption

I'm a
Scientist
Decipher my data!

Introduction

Electricity consumption varies a lot at schools. Each day is different. Each week is different. Each month is different. Factors like the seasons, holidays, school trips and the weather especially if you have solar pv panels can make a big difference.

In this Data Journey we will look at how these factors impact on your school's usage as we try to find the peak use of electricity.



The Journey

1. Select the **Data** page — By default it will display the *Day Profile Line Chart for Last Month compared to the Average School grouped by Day of Week*. Change the *Compare To:* to *No Comparison* and click **Draw**
2. Can you spot the peak time? Move the cursor down the screen towards the highest data point. The *Day, Time, Level of Consumption & Cloud Cover* will appear once the cursor reaches the data point.
3. Select **Time Period** > *[Month of the peak]*. Look more closely at that peak day. Is it typical? If not how else might we look for the usual peak time? Check the weather for that day. Is it sunny or overcast?
4. Select **Group By** > Day of Week. Is that clearer? Is there one peak? Are all days the same? What is the peak time?
5. Check that the month you are analysing is normal. Select **Time Period** > *[This academic year]* — Has that changed anything? What is the peak time? Make a note.
6. Select **Time Period** > *[Each month for a year]*, and note down the peak time for each month. Does it change? Why? (Remember if you find something you can't explain, write a LabLog and ask for help.)
7. What is/are the peak times? Why are they the peaks? What is happening within school at that time?

In this journey you should have been able to see:

- Independent variables — Weather
- Dependent variables — Activity with the school
- Mean averages — When Grouping by Day of Week to get a clearer view of when peaks are occurring