

Objective

Convert the energy you used to carbon equivalent emissions (CO₂e) so that you can establish the greenhouse gas emissions produced from your energy consumption.



1: Find a local calculator or conversion number for mains electricity

The conversion numbers for mains electricity vary a lot by region because it depends on what kind of energy your suppliers are using to generate your electricity. For example, electricity from coal has much higher emissions than nuclear energy. Using the wrong number can drastically under or over-estimate your greenhouse gas emissions.

You have three options for finding an accurate conversion number: -

- Ask your energy supplier for the conversion rate. You might also find it on your bill.
- Use a reputable online CO₂e calculator that is specific to your country or region. These are often provided by national or local government, industry groups (such as an energy association) or environmental organisations.
- Look online for a conversion rate that is specific to the energy sources in your country or region



2: Convert any non-metric measurements to metric units for other fuels*

You can use the Travelife conversion numbers for most other energy but you will need to have your measurements in metric units (litres, kilograms or cubic metres). If your measurements are in gallons, feet or cubic feet then you will need to convert them to the equivalent metric measurement first.

*Not required if you are using a calculator that has non-metric options.



3: Find reliable conversion numbers

Travelife have provided conversion numbers for some of the most common fuel types that our Members use that you can find in the Member Zone. If you have a different fuel source then you will need to go online to search for reliable numbers.



4: Convert the amount of each energy type used to kgCO₂e

Multiply the amount of fuel you used by the conversion rate to get the kilos of CO₂e. For example, if you used 2 litres of diesel and the conversion rate is 2.68779 then this is the calculation:

$$\text{(Diesel used) } 2 \text{ litres} \times 2.68779 \text{ (diesel conversion number)} = 5.37\text{kgCO}_2\text{e (5 kilograms of CO}_2\text{e)}$$



5: Update your report with the kgCO₂e for each fuel source

Transfer the number to your energy usage report and remember to note the conversion number you used somewhere just in case a Travelife auditor wants to verify your calculations.

More Information & Resources

[Travelife fuel conversion rates](#)

[Travelife energy consumption template](#)

[Travelife detailed energy management guide](#)