

living
witness

Quakers for Sustainability



Calculate the greenhouse gas emissions from your meeting

The following pages will help you to work out the greenhouse gas emissions from your meeting.

Even if you do not have your own meeting house, your use of a building for meeting for worship will involve some greenhouse gas emissions. You might need to talk to whoever manages the building to find out about energy use, and consider how much should be allocated to your meeting.

We will calculate your emissions in kg of CO₂-equivalent gases. Some activities produce gases including methane and nitrous oxide which have a much larger climate impact per kg than CO₂.

Unless you are very good at mental arithmetic you will need a calculator!

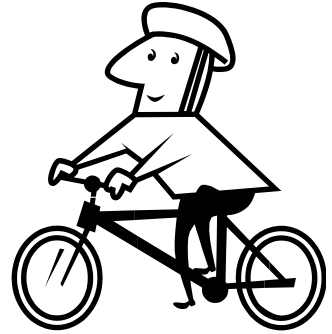
Members and attenders at your meeting may be interested in working out their own emissions.

A calculation guide *GHG calculating emissions* to accompany this leaflet is available from Laurie Michaelis at:

laurie@livingwitness.org.uk

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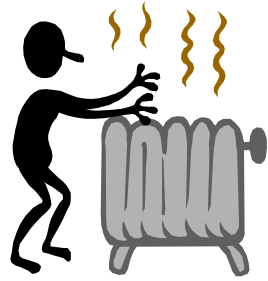
Travel to meeting:

This section accounts for CO₂ from energy use by vehicles, other exhaust emissions, and emissions in vehicle manufacture and disposal.

Find out how far each Friend travels to meeting, and what transport mode they use. Add up the distance travelled by each mode, and use the following table to work out the total transport emissions. Remember to count both directions of travel!

Transport mode	Miles per week (count return trips!)	Multiply by	To get your score
4x4, "people carrier" or sports utility vehicle		40	
Standard family car		20	
DI diesel engine		15	
Ultra small/efficient car		10	
Train, bus or underground		5	
Motorbike		10	
Bicycle or walk ¹		5	
Total Travel to Meeting Score			

¹ Notional accounting for emissions from additional food use for those on a typical diet. These emissions will be much lower for vegetarians and those consuming mostly organic foods. See *Your contribution to climate change*.



Energy

This section accounts for greenhouse gas emissions from electricity and fuel use.

You will need to know how much fuel and electricity you use per year.

- For gas and electricity it is best to use *actual meter readings* taken a year apart.
- If possible, take the average over several years to allow for variations in weather.
- If the meeting house is used by other groups, you will need to decide how much of the energy consumption to allocated to Friends and how much to other users.

Energy source	Amount used	Multiply by	To get your score
Standard, non-renewable electricity	kWh	0.5	
Gas: new meters	m ³	1.8	
older meters ²	100 ft ³	5	
Fuel oil	litres	2.7	
Coal	kg	2.5	
Renewable electricity	kWh	0.05	
Total Meeting Energy Score			

² It isn't always clear on the meter that it is measuring hundreds of cubic feet but it is. Don't count the coloured figure at the end. If you aren't quite sure what the units are, check against your bill, which will give your consumption converted to kWh. One cubic metre of gas is roughly 10kWh; 100 cubic feet (what used be called a gas "unit") is roughly one therm or 28kWh.

Materials and waste

This section accounts for emissions produced in manufacturing materials and disposing of waste.

	Amount per week in kg	Multiply by	Your score
Waste left out for the normal collection			
Paper		26	
Glass		18	
Metal		240	
Plastic including film/bags		260	
Kitchen and garden waste		40	
Sanitary waste		30	
Waste sent for recycling			
Paper		20	
Glass		13	
Metal		120	
Plastic		200	
Composted food and garden waste and cardboard		0	
Building waste	per skip	1000	
Total meeting score for waste			

It is very hard to find reliable estimates of emissions associated with construction. The main source of greenhouse gases is manufacture of materials, especially cement, bricks and steel. Emissions are of the order of 500kg per square metre of floor space.

If your meeting house was built or extended in the last 50 years, add 10kg per square metre of new building to your annual GHG emission total.

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