# Sustainability steps and Quaker meeting houses

## Some simple actions

1. Seal up drafts around windows and doors.
2. Carpet your floors, especially the meeting room, it feels warmer and covers floor board gaps.
3. Be aware that extensive draft proofing can lead to ventilation problems, so be alert to development of mould growth after draft proofing measures. Mould can affect people’s health and increase the incidence of respiratory disease. Consider taking specialist advice on mechanical ventilation should this occur.
4. Insulate your loft with at least 270 mm of glass wool or approximately this depth of other materials such as rock wool or lamb’s wool.
5. Have lined curtains (ideally bump wadding interlining) or blinds in rooms that are used during darkness to retain warmth.
6. Purchase your electricity (and gas) from a renewable energy supplier, but still economise as much as possible. You are not actually using renewable energy, just the normal energy from the grid which comes from a mix of sources. However you are encouraging the increase in renewable energy generation by creating demand for renewable energy.
7. Monitor your fuel use via the bill statements or monthly meter readings. Consider displaying the readings on the noticeboard – it might inspire building users to think about use of heating etc.
8. Form an environmental action group within the meeting, but do not allow this to mean that all environmental concerns are compartmentalised to that group. Find out more about the subject using the Eco church scheme or other means. As people become more informed and aware of the changes they can make, the effect will ripple out into their personal lives where their carbon footprint is probably much bigger than their share of the meeting house footprint.
9. Get an energy surveyor and advisor to visit and report on;
	1. what actions can be taken
	2. what effect they will have
	3. what the actions would cost
	4. A template for an energy survey remit to a specialist can be found in the BYM Property Advice Sheets

## Medium term possibilities

1. Ensure that any damp coming in from the roof or walls is dealt with properly. It makes the place feel cold and encourages mould growth which is unhealthy and damages walls and wooden windows etc.
2. Replace your gas boiler if it is more than about 10 years old. The more recent condensing gas boilers are much more efficient than older ones. The time to replace them is a judgement call, if you use it a lot during the week then it is probably financially worth replacing boilers less than ten years old. Conversely, little used boilers are probably not worth replacing until they need an expensive repair or are 15+ years old.
3. Heating controls can increase the efficiency of your heating system. Consider more advanced controls with ‘weather compensation’ (which adjusts boiler function to external temperature) and ‘optimum start’ (which ensures that the building reaches its correct temperature when you want it to, not hours before). Have heating controls that can be set to reflect the times when heat is needed in the building. Well-designed heating systems with good control systems allow a building to be zoned so that you can heat some rooms but not others at different times. Try reduction of temperatures for some times/users. Use the system to its full extent.
4. If you don’t use the building for much more than Sunday meeting for worship and you find it feels damp and cold, experiment with having the heating operating for a short period each day or at a low level (storage heaters) for part or all of the week. This will probably use more fuel but make it warmer on Sunday mornings. Try monitoring temperatures and fuel consumption with a variety of regimes and see how the building feels to users and how much fuel you are using. Sustainability doesn’t mean you need to sit in the cold on Sunday mornings – though Quakers wore hats or bonnets in days of old during meeting for worship! Maybe have some blankets available for members of meeting to use if it is slightly chilly.
5. Double glaze windows or secondary glaze if double glazing is problematic. The financial pay back is likely to be quite long in terms of fuel savings, so there may be better things to spend money on. Secondary glazing can be very effective at reducing drafts from leaky windows but less good at insulating from the cold outside.
6. Switch to efficient lighting – fit Light Emitting Diodes (LEDs) wherever possible as these use only a fraction of the energy of old style filament bulbs, earlier generation halogen long life bulbs or even fluorescent and compact fluorescent fittings. LEDs are more costly to buy but the price is coming down quickly, widely available and they have a longer life span than other types of bulb.

## Longer term thinking

1. Look at the layout and use of rooms, can this be changed e.g. an internal door or room hires concentrated in fewer rooms - therefore less heat needed?
2. Remember that significant investments in the building fabric efficiency need to be thought through carefully. The best guidance now says that it is important to develop a plan for the whole building before undertaking major work. This must include insulation measures, addressing the issue of thermal bridges, airtightness and an appropriate ventilation strategy. Making major investments without understanding how everything will work together can be ineffective and potentially risky both for the fabric of the building and Friends’ health.
3. Major measures you could consider include:
	1. zoning the building to have higher and lower insulated areas with different uses, and maybe seasonal uses
	2. insulating walls to high standards, including dealing with thermal bridges
	3. insulating floors
	4. improving airtightness
	5. installing mechanical ventilation with heat recovery
	6. creating an entrance ‘buffer’ space, e.g. external or internal porch or vestibule area
4. You might also consider photovoltaic solar panels, or the installation of heat pumps (ground source or air source), although this may not be the best use of significant capital spend, depending on the current regime for feed in tariffs and renewable heat incentives.

## Not just heat and light

1. Install low flush/dual flush toilets to reduce water use.
2. Consider rain water butts for the garden.
3. Think about food miles when buying food for meeting events. Primarily plant based diets have much lower environmental impact, so consider a policy of only vegetarian or vegan food in your Meeting House. Encourage Friends to consider their diets.
4. Think about a Meeting travel plan to and from the meeting house, maybe lift sharing, hold meeting for worship at times to suit public transport timetables. Encourage cycling and include suitable facilities – locking points for bikes or even a covered bike area.
5. Recycle whatever the council waste collection will take. Compost ‘green’ waste if you have a garden and enthusiasm.

## Radical

1. Move to very efficient air tight approach to the building which will need major work and advice from architects or other specialist building/energy advisors. This is likely to need substantial money and change to the building and is only practical in some cases.
2. Sell up and move to a modern building created with high sustainability standards i.e. Passivhaus or similar plus consider material used carefully for their sustaiblity impact!
3. BUT, always consider the most effective use of time and money. Should the priority for your time and money be on your building or maybe on other environmental measures in your community? How much is your building used, does it justify major investment of time and money? Would Friends’ energy be more effectively used on environmental campaigning? Discerning the answer to these questions might be an important step for any meeting.

Huw Davies, May 2019

Property Support Project Manager