

Carbon Literacy Project Ideas

Doing it differently: Home energy

Low carbon heat



'Doing it differently' for home energy for heating means reducing the 'carbon intensity' of providing space heating and hot water.

Project aims

- Increase the number of households using a lower carbon heating source.

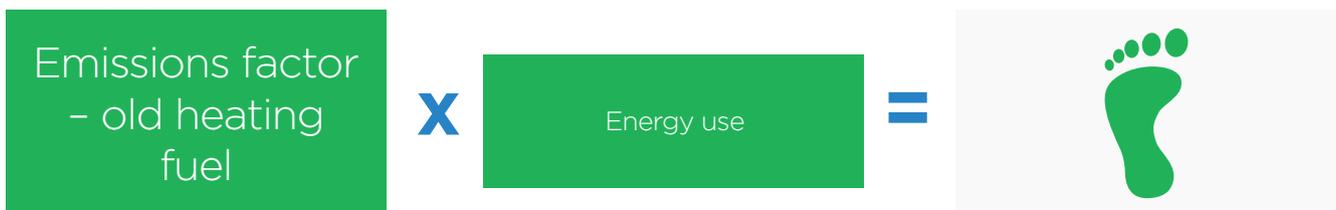
How does that save carbon? What's the measurable outcome?

Homes in Scotland use a variety of ways to provide space heating and hot water. For each 'fuel source' there is an emissions factor for each kWh of heat provided. If a household can switch to a fuel source with a lower 'carbon intensity' than the one they currently use, they will reduce their carbon footprint.

Measurable outcome: Reduce household energy carbon intensity (of heating fuel).

The CCF reporting tool and data collection guidance explains how you can monitor and evaluate how much your project has saved.

Before project



After project



Carbon footprint from heating fuel.

What are the co-benefits? What are the potential 'community outcomes'

Although there is an upfront cost to the householder for converting their heating system (this can sometimes be significant), there are financial benefits, which mean that over time it will 'pay for itself'.

- Householders can benefit from lower, or more predictable fuel costs.
- Householders may benefit financially from the Renewable Heat Incentive, a UK government subsidy which pays a fixed amount per year to the householder, depending on the size of heating system installed.

How do we demonstrate co-benefits?

Local economy: Alongside collecting data about items people have repaired, you may be able to collect evidence of increased use of local shops and services. Alternatively, you could work with local repair services to evidence increase in their use.

Improved skills, confidence and employability: There are a variety of methods you could use to monitor changes in skill, confidence and employability of participants in your project.

Financial savings: This is closely linked to the carbon savings you are already monitoring – any reduction in consumption will save carbon and money.

Intergenerational interaction: Evaluation Support Scotland have resources, guides and tools to help you monitor your impact. <http://www.evaluationsupportscotland.org.uk/resources/>

What are the risks?

Swapping fuel source isn't suitable for all households. Some factors to consider when considering running this type of project are:

1. Are houses in your community off the gas grid? Low carbon heating systems will benefit most households that are not on the gas grid the most.
2. Do people in your community own or rent their homes? If your community are mostly tenants it's probably not appropriate to run this kind of project.
3. Do people live in houses or tenements/flats? Biomass boilers need to be situated on the ground floor.
4. Are people willing and able to pay for the technologies? Some financial support is available (see section 3.1) and although costs are recovered over time, these technologies involve significant upfront costs for householders.

Changing heating system can significantly change the way a home's heating is managed. For example switching to wood fuel means finding a local, reliable supply of wood fuel; switching to an air source heat pump may mean that the heating system is running all-day, rather than at set times. Your project should support households to live with and make the most of their new system.

How do you increase low carbon heat in your community?

Designing your project: If you wish to develop a project to increase home renewables in your community, you should investigate what are the most important barriers and opportunities in your community. Your consultation could look into:

1. Which technologies are most appropriate in your community (given the building types, tenure of homes and average incomes).
2. How likely people are to take part in your proposed activities.
3. The real or perceived barriers to people installing home renewables.
4. What assets are there in the community, or wider opportunities, that could support your project aims?

Example project activities

Below are some examples of typical activities that CCF projects run in order to increase home renewables or low carbon heating systems in their communities.

Information evenings: With expert speakers and people who have already had renewables installed helps to dispel myths and assist householders to make informed decisions. Impartial advice about costs, benefits and which technologies are suitable in which situations will be well received.

Individual home energy visits: Knowledgeable advisors can help householders understand which technology would be best for them. Ongoing, local and impartial support to help householders make sense of quotes helps remove some of the uncertainty and confusion for householders.

Ongoing support: Carbon emissions reductions depend greatly on how technologies are used by householders. Providing information, ongoing and peer support are important ways that community projects can help.

Co-ordinating surveys, assessments and installation: In addition to providing the advice and promotion above, some groups have acted as a co-ordinator to organise surveys and assessments of households' suitability for renewable technologies, and to streamline processes with installers. Providing this kind of project support can sometimes lead to lower costs overall for the householder.

Visit our website to view a selection of case studies from past CCF projects:

www.keepsotlandbeautiful.org/ccf

