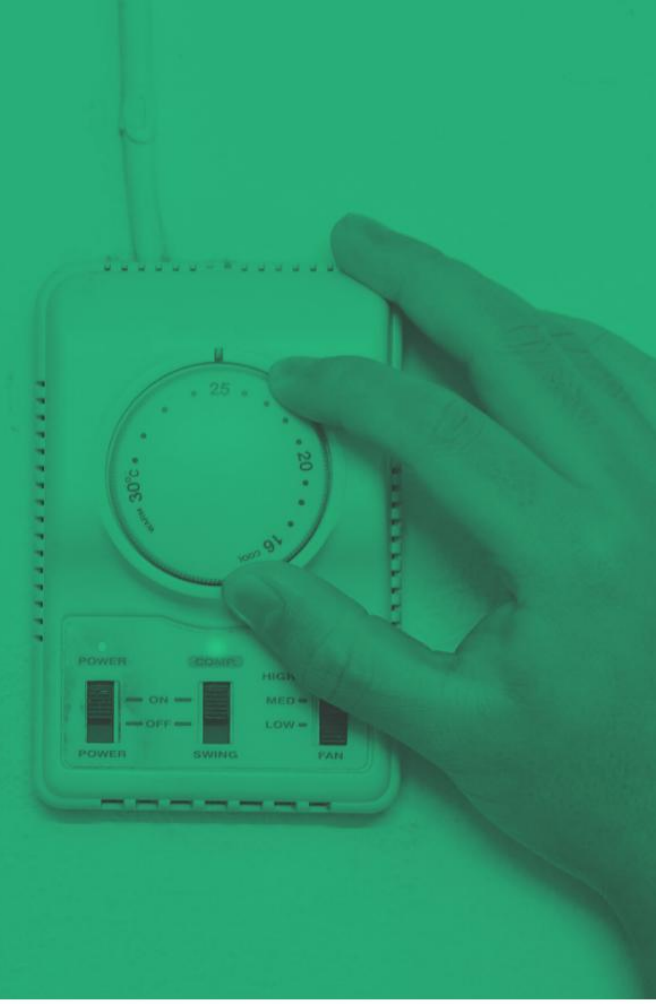
Hwb Adeiladau Cymunedol
Community Buildings Hub



Behaviour Change

Changing our behaviour as well as our buildings

***Summary*:**

This guide acknowledges that physical or structural changes to community assets only gets us so far. To reduce carbon emissions in the long term, attitudes and behaviours also need to change. This guide provides an overview of behaviour change and its impact.

Learner Level: Foundation

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Introduction

A community building does not run itself; it exists in relationship with many people, some of whom might visit for one activity once a week while others play a more active role in taking care of the building on a daily basis. Each one of these people can have an impact on the energy use of a building: someone leaving a light on when closing up the building for the night is an obvious example. But the impact of our attitudes and behaviour on the way we use our buildings is not always so obvious and can require a bit more careful consideration. That such consideration might be just as important as adding insulation or changing the boiler is reflected in the fact that an increasing number of national and regional government policy documents include sections on models of behaviour change.

This guide offers an overview of the need for behaviour change if we are to ensure the efficacy of adaptations to our buildings (and also reach climate targets). It looks at the model of behaviour change used by the Welsh government and finishes by suggesting ways that ICT tools offer a helping hand in establishing better patterns of use in a building.

Interacting with your building

We can "outsource" solutions to improving our energy efficiency to technology or to structural changes. But how we interact with the building determines the efficacy of these interventions. Many of the low-cost measures that can take as much as 10% off our energy bills rely on changes in habits and behaviour.

Let's imagine a community hall and some of the people using it. Perhaps an arrangement is in place that someone will go in and turn the heating on for an hour before a group is due to meet and the group have then agreed to turn off the heat

when they leave. But that day the group is cancelled, and the heating is left on because no one thinks to go and turn it off. This same community hall has recently installed solar panels which means that the interface for the heating system has changed. There's been no attempt to offer instruction on the new interface to hall users and no instructions have been left. As the weather is unseasonably warm, groups are finding they don't need the heating on, but no one is sure how to turn it off, so they are forced to open windows instead to try and cool things down. Finally, the hall used to get a lot more custom than it does and it was typical for the three different rooms in the hall to be used concurrently. Now, it is usually the case that only one room at a time is in use. However, people still think in terms of heating the hall rather than heating one space and consequently a lot more heat is being used than is necessary.

When we think about user behaviour we tend to focus on those habits and practices that have formed over time and in response to how the building has been used or how it has operated in the past. However, there is another element of user behaviour which has to do with forming new habits in response to changes and new systems in the building. Some years ago, several passivhaus developments drew negative press because of reports of overheating. Investigations into the problems revealed that occupant behaviour was a major cause of the overheating because simple but necessary practices (use of shades and blinds, knowing when and how to deactivate the heating element of mechanical heat recovery units) were not being followed.

A little bit of theory: the COM-B model

How do we interact with our buildings? Do we have good routines in place for how we use and maintain them? Are enough people on board with the need to follow some basic principles for optimising energy use in the building? If not, why not? What might make it difficult for people to establish good practices?

Welsh government policy documents relating to Net Zero targets published in the last five years acknowledge the vital role of human choices. They speak of "encouraging" behaviour change and delivering behaviour change initiatives (see, for example, Llwybr Newydd: the Wales Transport Strategy and Welsh Government's Net Zero Strategic Plan). The Climate Action Wales Public Engagement Strategy uses a specific model of behaviour change—the COM-B model—as a structure for defining the strategy's outcomes.

This model suggests that specific behaviours occur when three elements are at work namely, capability (C)—physical and psychological ability to do something; opportunity

(O)—social and/or physical; and motivation (M). Any intervention designed to promote a particular behaviour needs to target one, two, or all three of these elements.

In Government terms, an intervention is a "coordinated set of activities designed to change specified behaviour patterns" but at the level of our community groups, interventions are often focused on communication and education: making sure people have the information they need to be able to make the choices or take the actions that keep energy consumption where you want it.

While behaviour change theory may seem far from the day-to-day running of your building, the COM-B model does point to the need to think more intentionally about why certain habits and activities are happening and the role of education and mutual support in bringing about change.

A little bit of practice: an example

Here's a simple example of how the COM-B model might apply in a community building setting. Imagine a hall or community centre has a new, much more energy efficient, heating system in place. To ensure users have the capacity (C) to use it optimally, some instruction needs to be given in the new interface and any recommendations that have been set about temperature or timing. This could be done informally, on a 1:1, need to know basis or a short meeting for all hall users could be held to introduce (and celebrate!) the new system. Or instructions could be clearly written out (in this case make sure you give users the opportunity to look over drafts and advise on their intelligibility!).

For users to have the opportunity (O) to ensure they are using the new system optimally, reminders and written instructions should be located in obvious spots—perhaps with a phone number of someone who can help if the user runs into problems. The more accessible you can make the interface itself (while obviously ensuring safety and minimising interference) the better. Examples of these include Neuadd Rhiwlas, who provide links on their website directly to instruction manuals, and Burstall Village Hall, who have created their own instructions on their website to help users understand how to operate their heating controls.

For users to feel motivated (M) to use the heating system effectively, there are a few options. The ideal, of course, is that everyone is on board with the efforts of the building to save money and reduce emissions. If this mission has been communicated well then hopefully users already feel motivated to help with the effort. However, this may not always be the case.

Also, some users of the building are more occasional or do not feel an affiliation with the community it represents. To cover these situations, some form of penalty and reward system can help. This might make up part of the agreement between the group and the centre (and may exist in some form already): repeated failing to follow certain procedures around energy saving may result in the agreement being terminated; good behaviour may mean an invitation to an annual community get-together partly funded by the savings the centre has made on its energy bills that year!

How Information and Communication Technologies (ICT) can help

The thought of having to manage people's behaviour or trying to "educate" people around you can feel a bit overwhelming but sometimes just being aware of the connection between your building's efficiency and the actions and attitudes of those using it can be enough to set you on the course to change. Breaking old habits and establishing new ones isn't easy but help is available in the form of Information and Communication Technologies (ICT) that work at all three levels of the COM-B model: capability, opportunity, and motivation.

Using apps to allow temperatures and heating times to be set remotely (and at short notice) makes setting or adapting schedules much easier—and from the comfort of home. Hive and Genius Hub are examples of available smart heating systems.

The Energy Saving Trust lists some helpful apps here.