

Rural Action Yorkshire

A guide to energy efficiency in Community Buildings

A warm, comfortable and well lit community building holds appeal for potential and current users, which in turn makes it easier to let and increases the income and long term sustainability of the building.

However heating and lighting come at a cost, and in an era of rising fuel bills, it is essential that our community buildings are using energy as efficiently as possible to ensure we pay as little as possible for our fuel.

This guide aims to outline a few simple steps that you can take to prioritise your buildings improvement programme and improve energy efficiency.

The **four** key areas where you could make the most significant impact on your buildings energy efficiency are:

- Heating
- Insulation
- Lighting
- Building management practices

The most effective approach to making improvements is to:

- Identify areas of improvement with service users
- Carry out a thorough **technical review** of your building
- Identify any financial support available
- Prioritise your actions
- Carry out the agreed work
- Monitor and evaluate the impact of the improvements.

Where to start?

How and when the building was constructed, and what it is now used for will be two important factors to consider when planning improvements to your building.

- Who uses the building, and what temperature do they require for comfort?
- How often, and when is the building used?
- What facilities are provided?
- How is the building heated?
- How is the building insulated?
- Are some rooms warmer than others?
- What type of windows and doors are there?
- Is the building draughty?

By asking your users about the building, you will begin to develop a picture of what improvements need to be made.



Carry out a Technical Review of the building

Once you have identified broad areas of improvement with your service users, it's time to carry out a more detailed appraisal of the building.

Starting with the building generally, consider:

1. What fuel is used to power the heating?
2. What is the building made from?
3. The boiler - What is the kWh rating? What make is it? How old is it? Where is it positioned? When was it last serviced? Is it insulated?
4. Radiators - How many are there? Where are they positioned? How are they controlled? Are they all in use? What condition are they in? How old are they?
5. Heating controls - Who has access to them? What are the current settings? Is there a zone control option? Is there a thermostat?
6. Pipe work - Is it insulated? How old is it? Is it in good repair?
7. Hot water - Is there a tank jacket? What is the thermostat set to?
8. Costs - What are the current heating costs and energy usage?

For each room, including the toilets and stairways, consider:

1. Insulation and draughts
2. Lighting
3. Ventilation
4. Appliances

Financial support

Some of the improvements that you identify will almost certainly need money to make them happen. You don't have to rely solely on your cash reserves or fundraising events though as there are a range of public and private funding sources available including Trusts, Community Foundations, Big Lottery Fund, Government and European funding.

More information can be found on the [Energy Saving Trust](#) website.

Going green...

Renewable energy may pay dividends in the long term, but in the short term may be costly to implement and take much time and effort to manage.

To see if renewable energy is for you, carry out a Renewable Energy Feasibility Assessment to assess the potential contribution that renewable energy might make to reducing the buildings costs and environmental impact.

Practical solutions

Heating a community building accounts for approximately 65-70% of the total energy costs, making it an important area to control.

- Make sure you are paying as little as possible for your fuel by checking you are on the right tariff.
- Explore if a heat recovery system might work in your building.
- Older gas and oil heating boilers can be made more efficient by installing a time delay optimiser.

Lighting typically accounts for 15% of energy use in the building.

- Reducing fluorescent lighting tubes from 35mm to 26mm will save on average 10-15% per tube.
- Regular cleaning of reflectors and shades can improve efficiency and light output.
- Energy saving bulbs will save up to 80% energy, and last 8 years, but make sure they are fitted in places where they cannot easily be stolen.

Insulation starts to operate effectively when a building reaches a state of steady heat loss, i.e. where it has been warmed for a minimum of 2 hours and the heat is slowly lost due to leakage. Installing insulation will raise the temperature of the building by 2°C and therefore reduce condensation on walls.

For more in-depth advice on the options available please see the **Further help** section overleaf.



Further help

Whether you are looking to reduce your running costs, reduce your buildings impact upon the environment or improve the appeal of your community building; there is a whole raft of detailed information available to help you.

As well as local suppliers and building professionals, there are a range of national charities established to support you in saving energy and improve the sustainability of your community building.

National Energy Action (www.nea.org.uk) is the national charity which aims to eradicate fuel poverty and campaigns for greater investment in energy efficiency.

The Energy Saving Trust (www.energysavingtrust.org.uk) provides free, impartial advice and tips that can help you save energy and money.

Contact Rural Action Yorkshire

Rural Action Yorkshire (RAY) is an independent charity which works with local communities to improve the quality of life for all people living and working in rural Yorkshire.

At Rural Action Yorkshire we specialise in supporting Community Building Management Committees to make the most of their assets.

Our experienced team are able to carry out reviews, provide you with checklists so you can carry out your own review, advise on developing and prioritising an Improvement Plan and provide basic funding advice.

Our Energy Audit service has helped many community buildings across Yorkshire to identify energy saving measures and implement practical, affordable solutions.

For more information, please call 0870 313 0270.

