# RESOURCE PACK

## Community Energy Think Tank

This Resource Pack has been produced by LSE Housing & Communities for the purpose of the Community Energy Think Tank held at Trafford Hall on 17-18th January 2017. It is intended to provide participants with some helpful resources on community energy. The Resource Pack is based on web-based information found in January 2017.

# Community Energy Resource Pack

# Contents



**About the Housing Plus Academy**
The Housing Plus Academy is a partnership between 16 leading housing associations and local authorities, the National Housing Federation, the Chartered Institute of Housing, the University of Manchester, the Scottish Federation of Housing Associations, the National Communities Resource Centre at Trafford Hall and LSE Housing and Communities. The Joseph Rowntree Foundation also supports the Housing Plus Academy, which has been developed to promote knowledge exchange and participative learning among frontline staff and tenants of social landlords. The Academy tackles burning problems affecting social landlords today, particularly welfare reform, financial pressure, energy saving, work and skills, community enterprise, and resilience.

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The Housing Plus Academy reflects the diversity of social housing among our staff, tenants and customers because we believe that diversity gives us access to better ideas, innovation and solutions. Recognising the benefits of diversity means that we would like to invite more people from a wide variety of backgrounds to join us. So, for example, if you have a different thinking style, are from an ethnic minority background, are younger, or perhaps you have a disability, your experience will be invaluable in keeping us current and relevant, and will be welcome.

# What is community energy? [1]


Community energy is particularly relevant against the backdrop of rising fuel prices and fuel poverty. It is also important given the Government's commitment to achieving 20% of electricity consumption from renewable sources and 4% renewable heat by 2015; and the move to a low carbon economy which will require changes in the way we generate, buy and distribute our energy.

In order to maximise this opportunity, communities need to be an integral part of energy policy alongside government and the private sector. This has been clearly recognised by government.

The emphasis of community energy projects is on local engagement, leadership and control, and project outcomes which benefit local communities. They can be developed by a broad range of organisations including community groups, individuals, businesses, landowners, local authorities and housing associations. A wide range of different types of community energy projects can exist.

Examples could include:

- Installation of renewable electricity systems such as a wind turbine, a hydro scheme or solar photovoltaics. For example, a community group could install its own wind turbine thereby providing an income for over 20 years;

- Installation of renewable heating systems such as solar thermal systems, biomass boilers or heat pumps. These will help to heat buildings and save money on energy bills;

- Installation of energy saving measures in local people's homes in order to tackle fuel poverty. This could involve cavity wall insulation; roof and loft installation; insulating tanks and pipes etc;

[1] Source: http://www.communityenergyni.org/what-is-community-energy

- Initiatives which aim to reduce the carbon footprint of a local area, provide energy advice or encourage behaviour change;

- Installation of smart meters to help people manage their energy usage;

- Smart grid projects which can help to move energy demand away from peak times of the day;

- Individuals in the local area coming together to purchase heating oil in bulk thereby lowering their fuel bills;

- Collective switching – consumers could unite with the support of local authorities and third sector organisations to negotiate a cheaper tariff with energy suppliers.

# Benefits of community renewable energy


The benefits of community renewable energy projects
From the "Home Energy Handbook", 2012

# Ways to Save Heat & Fuel at Home (58 tips)[2]

For most households, energy is an expensive necessity. However, there are a number of things you can do to save heat and fuel at home this winter, which will not only save you money but will also make your house cosier and more sustainable to run.

Here are some things you can do:

1. **Understand your heating system and its controls.** Take time to learn how your heating system works - and how to use the controls properly - so that you can use it in the best and most cost-effective way for you. For example, your home will take about 30 minutes to cool down (longer in a well-insulated property) so consider turning the heating off half an hour before you go to bed.
2. **Turn your thermostat down.** Reducing it by 1°C could save you energy and money (around.£75 per year), without noticing any difference.
3. **Avoid drying clothes on your radiators.** This lowers the quantity of heat released by the radiators, so the boiler has to run for longer to achieve the same room temperature, thereby using more fuel overall.
4. **Use a hot water bottle.** It's cheaper than an electric blanket.
5. **Investigate switching to a different energy supplier.** You might be able to get a cheaper deal, especially if you haven't switched for at least three years.
6. **Keep furniture away from radiators.** The foam in upholstered furniture is a very effective heat insulator and prevents it getting into your room.
7. **Use the sun.** It's the most readily available source of heat and it's the cheapest! When it's sunny, make the most of it by opening your internal doors and let the warm air flow through your home.
8. **Draw the curtains.** Especially at night, to keep the warmth in and the cold out. Also, tuck your curtains behind the radiators.
9. **Fit extra curtains.** For example, put a curtain across any single-glazed external doors.
10. **Insulate your door furniture.** Fit covers for your letter boxes and keyholes. You'd be surprised how much heat can be lost!
11. **Fit a chimney balloon.** If you have an open fireplace and it's not being used, consider placing a chimney balloon in it.
12. **Check the insulation in your loft/roof.** Around 25% of heat lost in a typical uninsulated home escapes through the roof. You should have at least 270mm (11.5 inches) of insulation in the loft. If you add extra insulation, make sure it doesn't get compressed. Raised platforms, above the height of the insulation, can be installed for storage.
13. **Check your wall insulation.** Around 35% of heat lost in a typical uninsulated house is through the walls. If you have cavity walls, think about having them filled. Solid walls can also be insulated (either internally or externally) but this is more complex and costly.
14. **Fit double or triple glazing.** If your windows need replacing, consider fitting either double or triple glazing. Both reduce heat loss through the glass.
15. **Fit secondary glazing.** Putting a second pane of glass in an existing window can be almost as effective as sealed replacement units, but it costs a lot less.
16. **Fit radiator reflector panels.** You can lose heat if a radiator is on an external wall, especially if it isn't insulated. Reflector panels help to reflect that heat back into the

[2] Source: National Energy Foundation http://www.nef.org.uk/knowledge-hub/energy-in-the-home/ways-to-save-heat-fuel-at-home

room. You can buy them from hardware shops, fit them yourself and you don't need to remove the radiator.

17. **Fit a radiator booster.** This sits on top of a radiator and sucks up lost heat from behind it. It uses a small electrical fan to circulate the warm air round the room so you should be able to turn down your thermostat.
18. **Avoid estimated bills.** Keep your bills accurate by submitting regular meter readings to your energy supplier.
19. **Insulate your hot-water tank.** Put a jacket over your tank or buy one that's already covered with rigid foam.
20. **Install thermostatic radiator valves.** TRVs allow you to control your heating on a room-by-room basis so you can turn it off in rooms you don't use.
21. **Lag your pipes.** This will help keep heat inside the pipes and also prevent them freezing if they pass through an unheated space.
22. **Fit draught-proofing.** You can fit stick-on strips onto your windows and doors but also check for holes and gaps - loft hatches, floor boards, skirting boards, electrical fittings and places where pipes go through external walls.
23. **Insulate your loft hatch.** Make sure there's insulation on top of it.
24. **Replace your light bulbs with energy-efficient versions.** Lighting accounts for about 7% of a household's energy bill. Old-fashioned filament bulbs are only 5% efficient while energy-saving (CFL) bulbs use about 75-80% less energy. Light emitting diode (LED) bulbs are the most efficient and overcome many reservations people have with CFLs, but they are also the most expensive.
25. **Install motion detector or time-delay lights.** These turn off automatically so save electricity.
26. **Buy an energy monitor.** These allow you to see which appliances use the most electricity so you can adjust how much you use them.
27. **Fit a 'chop' device for your central heating.** These devices automatically turn your central heating off for a pre-set period during every hour it's working, thereby using less energy.
28. **Fit under-floor insulation.** If you home has a cellar space, under-floor insulation can help keep the warmth in.
29. **Only use energy when you really need to.** For example, switch lights off when you leave a room and turn your PC off when you're not using it.
30. **Buy energy-efficient appliances.** When replacing a household appliance, buy an energy-efficient model. Look for the energy rating.
31. **Avoid standby.** Leaving appliances on standby can use as much as 75% of the energy they use when they're fully switched on, and could cost you up to £80 per year.
32. **Unplug or turn off chargers**. Here's one for the teenagers in the house, especially as some older models use electricity even when they're not plugged into a device.
33. **Change your shower head to an 'eco' version.** This will reduce the amount of energy needed to heat the water.
34. **Buy a shower timer.** These act as an incentive to take shorter showers, reducing the amount of energy required.
35. **Cook sensibly.** On average, cooking accounts for about 4% of energy use. Choose the right-sized pan for the food and the cooker. Cut food into smaller pieces and put lids on pans. The food will cook a lot quicker and use less power.
36. **Use your toaster rather than your grill.** A toaster uses less energy than a grill.
37. **Don't overuse your kettle.** Kettles use quite a lot of energy so only boil as much water as you need.
38. **Leave your oven door open.** After you've finished cooking in the oven, leave the door open to keep the kitchen warm.
39. **Use a slow cooker.** Slow cookers take longer to cook food but they're cheaper to run than conventional ovens.
40. **Use your microwave.** If you're defrosting food, or just warming things up, microwave ovens use much less electricity than conventional ovens.

41. **Look after your fridge and freezer.** Regularly defrost your freezer and try to keep it reasonably full, to avoid wasting energy. Check the seals are tight to make sure that no warm air is getting in.
42. **Don't leave your fridge door open.** The longer it's open, the more energy it takes to get it back to its correct temperature.
43. **Get rid of your freezer.** If you don't use your freezer much - don't have one. It's a big electricity consumer.
44. **When washing, use full loads.** This will reduce the number of loads. If you need to do less than a full load, use the 'half load' or 'economy' setting on your washing machine.
45. **Use the 30°C wash setting.** Nowadays, this is more than adequate to clean clothes and will save you up to 75% of the cost of the hottest cycle.
46. **Use a shorter wash cycle.** A cycle that lasts an hour, for example, is adequate for most washes. If you combine a shorter cycle with a lower temperature setting, you can save energy on two fronts.
47. **Use your tumble drier sparingly.** Tumble driers can use a lot of energy. On nice sunny days, dry your clothes outside. If you have to use a tumble dryer, only tumble dry those clothes that really need it.
48. **Use the retained heat in your tumble drier.** If you have a lot of clothes to tumble dry, consider dividing them into more than one load. The tumble drier will retain heat after each load so it will use less energy during the second and subsequent loads.
49. **Clean your tumble drier filter.** Do this regularly as it helps your drier operate at its most efficient.
50. **Use eco balls in your tumble drier.** These create gaps between your clothes, allowing the heat to move freely around and dry your clothes more quickly.
51. **Clean the back of your fridge.** If you can, clean the coils at the back of your fridge to maximise energy efficiency.
52. **Don't heat your water to a scalding temperature.** For most people, 60°C/140°F is quite adequate.
53. **Use manual tools in the kitchen.** For example, bread making and whisking can be done by hand.
54. **Don't leave your iron on.** Irons consume a lot of electricity so switch yours off when you're not using it.
55. **When you can, either let your hair dry naturally, or towel dry it.** Hair dryers consume lots of electricity and drying your hair naturally is better for it.
56. **New computer?** Think about buying a laptop, which will use around 85% less energy than a new desktop.
57. **Time for a new boiler?** Install an energy-efficient condensing boiler. These are much more efficient than old boilers, use less fuel and are available for use with mains gas, oil or Liquefied Petroleum Gas (LPG).
58. **Finally, put on an extra layer!** Actually, this is a sensible suggestion. Adding more layers really does keep you warmer.

# Renewable energy sources – advantages and disadvantages[3]

Renewable energy sources quickly replenish themselves and can be used again and again. For this reason, they are sometimes called **infinite energy resources**.

| Type of energy | Where it is from | Advantages | Disadvantages |
|---|---|---|---|
| **Solar** | Energy from sunlight is captured in solar panels and converted into electricity. | Potentially infinite energy supply.<br>Single dwellings can have own electricity supply. | Manufacture and implementation of solar panels can be costly. |
| **Wind** | Wind turbines (modern windmills) turn wind energy into electricity. | Can be found singularly, but usually many together in wind farms.<br>Potentially infinite energy supply. | Manufacture and implementation of wind farms can be costly.<br>Some local people object to on-shore wind farms, arguing that it spoils the countryside. |
| **Tidal** | The movement of tides drives turbines.<br>A tidal barrage (a kind of dam) is built across estuaries, forcing water through gaps.<br>In future underwater turbines may be possible out at sea and without dams. | Ideal for an island such as the UK.<br>Potential to generate a lot of energy.<br>Tidal barrage can double as a bridge, and help prevent flooding. | Construction of barrage is very costly.<br>Only a few estuaries are suitable.<br>Opposed by some environmental groups as having a negative impact on wildlife.<br>May reduce tidal flow and impede flow of sewage out to sea. |
| **Wave** | The movement of seawater in and out of a cavity on the shore compresses trapped air, driving a turbine. | Ideal for an island country.<br>More likely to be small local operations, rather than done on a national scale. | Construction can be costly.<br>May be opposed by local or environmental groups. |
| **Geothermal** | In volcanic regions it is possible to use the natural heat of the earth. | Potentially infinite energy supply.<br>Used successfully in some countries, such | Can be expensive to set up and only works in areas of volcanic activity. |

[3] Source: http://www.bbc.co.uk/schools/gcsebitesize/geography/energy_resources/energy_rev2.shtml

| Type of energy | Where it is from | Advantages | Disadvantages |
|---|---|---|---|
| | Cold water is pumped under ground and comes out as steam.<br>Steam can be used for heating or to power turbines creating electricity. | as New Zealand and Iceland. | Geothermal and volcanic activity might calm down, leaving power stations redundant.<br>Dangerous elements found underground must be disposed of carefully. |
| **Hydrological or Hydroelectric Power (HEP)** | Energy harnessed from the movement of water through rivers, lakes and dams. | Creates water reserves as well as energy supplies. | Costly to build.<br>Can cause the flooding of surrounding communities and landscapes.<br>Dams have major ecological impacts. |
| **Biomass** | Decaying plant or animal waste.<br>An organic material, which can be burned to provide energy, eg heat, or electricity.<br>An example of biomass energy is oilseed rape (the fields of yellow flowers you see in the UK in summer), which produces oil.<br>After treatment it can be used as a fuel in diesel engines. | It is a cheap and readily available source of energy.<br>If replaced, biomass can be a long-term, sustainable energy source. | When burned, it gives off atmospheric pollutants, including greenhouse gases.<br>Biomass is only a renewable resource if crops are replanted. |
| **Wood** | Obtained from felling trees, burned to generate heat and light. | A cheap and readily available source of energy.<br>If the trees are replaced, wood burning can be a long-term, sustainable energy source | When burned it gives off atmospheric pollutants, including greenhouse gases.<br>If trees are not **replanted** then wood is a non-renewable resource. |

# Renewable technologies – things to consider[4]

## Solar


Solar panels take energy from the sun and use this to generate electricity (solar photovoltaic or 'PV') or to heat water (solar thermal).

Things to consider:

**Is the space south facing (this can range from south east to south west) and angled at roughly 350 degrees?**
In the UK a solar panel needs to be sited at an optimal angle to the sun to get good financial and environmental returns.

**Is the space free from shading?**
If the panels are shaded their efficiency, and therefore returns, will be reduced.

**For solar water heating only: is there a hot water demand in the summer months, particularly during and after sunny periods?**
The efficiency of solar hot water systems is considerably reduced if the hot water isn't regularly used during and soon after the heat is captured.

**For solar water heating only: is there space in the property for a new hot water tank?**
To effectively store heat from solar panels a hot water tank is needed. These are often a slightly different shape to existing tanks and have extra heat exchangers to allow for the solar input.

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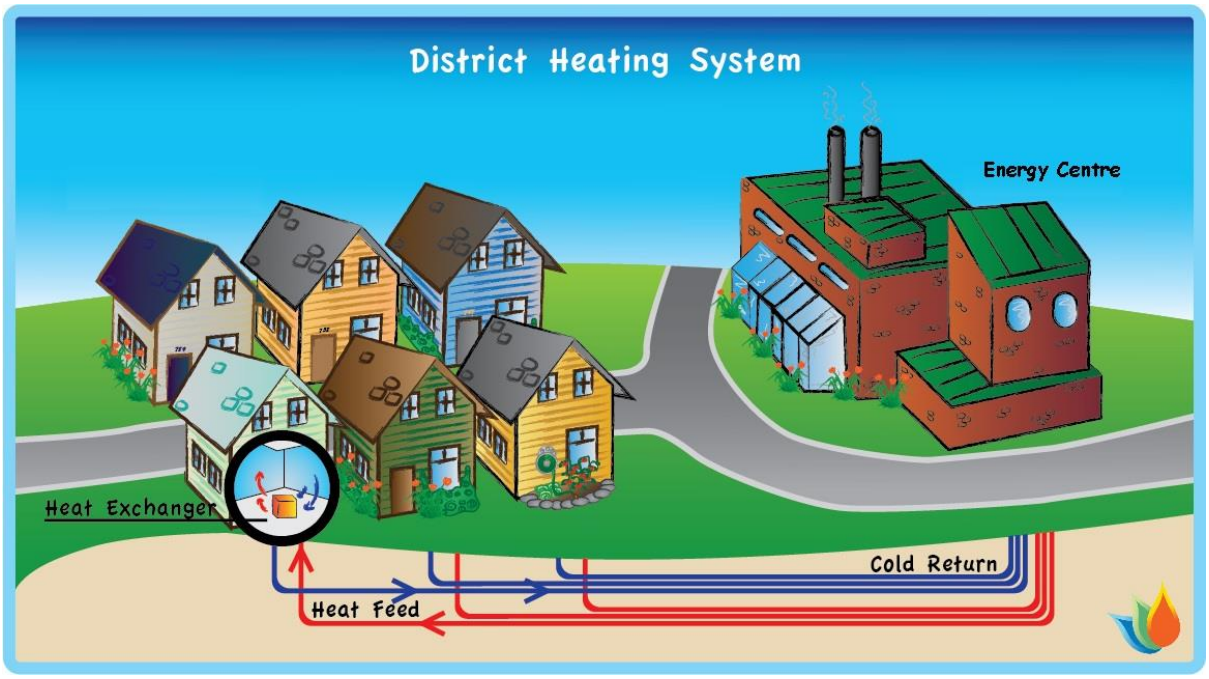
[4] Source: http://www.planlocal.org.uk/pages/renewable-energy/renewable-energy-technologies-1
NB: the pictures in this section of the resource pack were not included in the text and were found browsing the internet for images.

# Biomass




'Biomass' refers to burnable material from wood or other plants, which usually includes forestry residues, sawdust, straw, or fast-growing wood or grass plants. These can be burnt in a large boiler to provide heat for a district heating system, or to produce steam to generate electricity for a community (this is called 'combined heat and power' or CHP).

Things to consider:

**Do you have a sustainable local supply of fuel?**
You'll need a reliable source of good quality fuel, and the closer this is to the boiler, the lower the environmental cost of transportation.

**Do you have space for a boiler and fuel store?**
Biomass boilers tend to be bigger than conventional oil or gas boilers and the fuel needs to be stored on site, so consider if you have a big enough space.

**Will there be someone available to arrange fuel deliveries and maintenance of the system?**
Although the systems can be well automated, there will need to be someone available to provide help with deliveries of fuel. You will also need to have someone on hand to provide basic maintenance to the boiler on a regular basis.

**For combined heat and power: can the heat produced by the system be used locally?**
Combined heat and power systems produce significant amounts of heat alongside the electricity generated. If this is not used, the heat energy is wasted and the system is not as efficient.

# Wind

Wind power is one of the most efficient forms of renewable energy. But it does require the right site and conditions.

If, when considering a site for a potential wind power development, you can't answer yes to the following questions, then you should probably ask yourself if other low carbon projects would be more appropriate for your community.

**Is the site windy?**
An increase in wind speed results in a cubed increase in the power generated – so if the wind speed doubles, the turbine will produce eight times as much power. If the site isn't windy for a lot of the time, or has obstructions in the form of trees, hills or buildings, then it may not be a good place for a wind turbine.

**Is there space for a sufficiently large turbine?**
As wind turbines get bigger, they become more efficient. Much more efficient. For this reason it's better to put up a single big turbine then several small ones.

# Hydro


Hydroelectric plants convert the energy in flowing water into electricity using a turbine and a generator.

When considering a hydro project, some key things to consider are:

**Do you have a site where the turbine can be housed?**
You will need a suitable site to host the turbine, with landowners who are prepared to be involved in the project or lease the land to you.

**Does the site have good 'head' and 'flow'?**
A good site will rely on having a good head (how far the water drops) or fast flow (how many litres per second) – and ideally both.

**Is the flow consistent over time?**
The flow needs to be consistent throughout the year. It should also have a limited risk of big fluctuations after rain, which can be short-lived but significant.

# Heat pump

When considering the options for heating a space you may consider using a heat pump to harness the sun's heat stored in the ground, water or air. Heat pumps rely on electricity to extract heat and so are low carbon, not renewable, energy technologies – although this electricity could come from a renewable source, such as solar PV or a wind turbine. The key things to consider are:

**Is the building well insulated?**
Since heat pumps only work efficiently at lower temperatures, the building they are situated in needs to have limited heat loss.

**Are all other options environmentally and financially expensive?**
Heat pumps use electricity to drive the pump meaning they cost money in electricity to run. Since electricity is currently about three times more expensive than gas and results in about three times the CO2 emissions, it's worth considering the alternatives.

# Energy from waste

The main way of getting energy from waste is through a large piece of kit called an anaerobic digester. These capture biogas – mainly methane – from the natural breakdown of biological material by bacteria which is burned to generate electricity and heat, or, in some cases, fed into the gas grid.

The leftover solid material is a useful by-product, spread on agricultural land as low carbon nutrient-rich fertiliser.

Things to think about:

**Is there a reliable and sustainable supply of waste?**
For a successful anaerobic digestion project, a reliable supply of waste is needed. This will need to have the right mix of materials (such as slurry and food waste) and will need to include some ruminant waste to ensure that there are adequate bacteria in the mix.

**Are there suitable routes to get the waste from its source to the digester site?**
The waste material will need to be transported to the site. Early on in your planning, consider whether the routes are able to take heavy traffic and how this will affect the local community.

**Will there be a reliable demand for the fertiliser produced?**
Using the fertiliser you produce to replace energy-intensive alternatives plays a big part in how low carbon the plant really is. You will need to make sure that it can be used locally.

# The Rough Guide to Community Energy[5]

## Setting up a group

*We can all cut carbon and save energy through our individual lifestyle choices – just as we can all engage with our political representatives on climate change and energy security. But if we want to make a truly tangible impact, it's usually the community level that offers the most promise. The beauty of community energy projects is their scale: small enough to be within reach for ordinary people, but large enough to make a significant difference. As the following two chapters show, there are countless forms that a project could take, but they all have one thing in common – a group of people who, in some capacity, have decided to work together for the benefit of the local community and wider world.*

Community groups focusing on carbon and energy come in all shapes and sizes, from student environmental societies to well-funded coalitions of local charities, politicians, business owners and so on. The role of a community carbon reduction group in a given energy project will vary according to the capacity of the group and the scale of the project. For large-scale, capital-intensive schemes, the group usually plays a management role, steering proposals through the planning process, hiring contractors and coordinating the sale of shares (see Westmill Wind Cooperative case study, p.63). For less technically advanced projects, group members may play a direct role in rolling out energy-saving measures, as in the case of Transition Belsize and Peckham Power. On other occasions, the need might be for motivation or advice. Here, the group could use its local knowledge and promotional skills to encourage residents to take advantage of existing services, and advise them on the different options available.

Most groups working on community energy projects are concerned with climate change, local regeneration or some hybrid of the two. If there aren't any established community groups in your area (or if there are, but you can't get them interested in energy), you'll need to set one up yourself.

## Starting a group

### a) The first steps

While there's no doubting the allure of an entirely new project that you can arrange exactly as you want, setting up a group from scratch should usually be a last resort. Whether you're going it alone or starting out with a couple of like-minded friends, it's crucial to be aware of what's already going on in your area – community time and resources are in short supply, and the last thing you want to do is use them up by reinventing the wheel. Even if you're fairly sure there are no existing groups working or willing to work on energy, thorough local research will help you make useful contacts, and may also unearth sources of advice and support.

When you're recruiting people to be involved in a new project, it's important to strike a balance between having an exciting, well-thought-out idea that can inspire people to join, and leaving things sufficiently flexible and open-ended that you're able to adapt to changing circumstances and give new members an opportunity to feed in suggestions. In other words, make sure you have a strong idea, but don't get too attached to its specifics. Get this balance right, and you'll have the best chance not only of bringing people on board, but also keeping them enthusiastic and committed for the long haul.

[5] Source: http://www.roughguide.to/communityenergy/setting-up-group/

## b) The early days

You've dreamed up a project; now it's time to get the community involved by setting up your first meeting. This is your chance to grab people while they're still making up their minds, so it's worth putting in plenty of effort to ensure it goes well. Make the meeting productive, inclusive and enjoyable – and be sure that everyone leaves knowing what to do next.

## c) Your first meeting: things to think about

### *Beforehand*

- *Promotion*
  As well as posters and flyers (see next page), consider using online social networks and other channels such as local newpapers and radio.

- *Venue*
  Your home may be suitable though risks making it seem like "your" project, so consider a more neutral location such as a local hall, cafe or pub.

- *Incentive*
  Pizza, wine or any other refreshments can help encourage people to come along – especially if they are free. A guest speaker, if you can find someone suitable, could also help.

- *Agenda*
  Although you won't want to stick to it religiously, it's always useful to have an agenda sketched out to frame the discussion.

### *On the day*

- *Introductions*
  Make sure everyone knows who everyone else is. Also consider encouraging everyone to say what inspired them to come – this can be a good way to break the ice.

- *The discussion*
  Read out your draft agenda and let others suggest changes, then work through the items, trying to make sure everyone gets a chance to speak.

- *Wrapping up*
  Try to get agreement on basic principles and task a person or sub-group with writing up an initial governing document.

- *Next steps*
  Note down any other action points; try to set the date and time for the next meeting; and get names and contact details for everyone – this is the start of your mailing list

- *Follow up*
  Promptly circulate notes by email, confirming decisions, action points and the date of the next meeting.

## Promotion

Once your group is up and running, you might want to start promoting your activities and getting other people involved. But first have a think about who you want to communicate with, and for what purpose. Do you want people to attend events? Join the email list? Give money or volunteer time? Change their light bulbs? Or just be aware of your group's existence?

You might think you don't have the skills or experience to run a proper promotion drive, but that needn't be an obstacle. One of your members might have technical know-how, or you could seek in-kind help from a local business. For example, Climate Friendly Bradford-on-Avon works with a local graphic designer on a "pay if you can" basis. If that's not possible, don't give up, as many of the technical aspects of promotion have become much less demanding in recent years. User-friendly desktop publishing and fast, inexpensive printers have lowered the bar for high-quality DIY posters and flyers. And excellent free services such as Posterous, WordPress and Google Sites let you easily create, publish and update a website. Then there's the constellation of online social networks that enable you share news, photos and videos in seconds, giving even the most casual supporter an easy way to stay informed and spread the word.

Local media is another great way to get your message out – and strong ties in this area can be hugely valuable if you find yourself caught in a planning dispute later on. Local journalists are almost universally overworked and under-resourced, so the best way to get coverage is to do the bulk of the work for them. Write press releases to be easily adaptable into news copy, and provide copious bright, colourful photos with prominent human faces, preferably in both portrait and landscape orientation so they can be dropped into any available gap on the page without excessive cropping.

## Finding support and growing your network

Even if your group is just getting started, you're already sitting on a hugely valuable asset: your combined contacts. Once you've established a relatively stable core group (usually after the second or third meeting), sit down together and make a list of the individual people or networks you think might make useful allies. You may be surprised at how many key community figures you already have access to – MPs, councillors, headteachers, business owners, journalists, people working in community development charities, and so on. Next, make a list of links that you still need to establish, and work out how you'll make it happen. This might take some fairly ruthless networking, but it will reap dividends when you start working to get your project off the ground.

This is also the time to start developing your email list. Email is one of those things that's very easy to do, but much harder to do well. A few key things to consider:

- *Signing up*
  Give people plenty of opportunities to join your list (on your website, at all events etc) and be upfront about the frequency of messages. In deciding how much data to collect, strike a balance between making it quick to sign up and getting information (such as where the person lives) for better segmentation later on.

- *Segmentation*
  This means splitting up your mailing list so people get messages that are more relevant to them. Start simple by using a separate list for your core team, to avoid bombarding casual supporters with minutiae.

- *Frequency*
  Nobody likes being inundated with emails, but long unexplained silences can cause people to lose interest. Unless you're in the final stages of a heated planning battle, one message a fortnight should be about right.

- *Length*
  Less is more. It's fine to be chatty and personal, just don't take too long to get to the point. Detailed information is usually better on a blog post or webpage – which you can link to from your email.

- *Presentation*
  Complicated layouts can be time-consuming and often aren't compatible with every email system. Stick with simple formatting such as sub-headings to break up the text, and put the group's logo at the top to make each message recognisable at a glance.

- *Call to action*
  Be clear about what, if anything, you want the reader to do. Your call to action, if there is one, should be impossible to miss.

- *Opt-out*
  Hopefully most people will enjoy your messages, but it's crucial that each email contains instructions on how to opt out of receiving any more. The low-tech option is letting people know they can reply with the word "unsubscribe" in the subject line.

## Funding preliminaries

Even in the early stages, before you're actually implementing any concrete plans, your group may need some funding to cover small costs such as web hosting, speaker fees or event refreshments. Your first step is to set up a bank account and nominate a treasurer to oversee it. Most high-street banks offer accounts for community groups, but before you commit to one, talk to an advisor about your plans for the group's development and make sure what they're offering will be suitably flexible. It's good practice (and a basic requirement for many funders) to require two signatures for any transaction. By nominating three or four signatories to the account, you should avoid being caught out when a group member is on holiday or otherwise indisposed.

Although at first you may be able to operate on small donations and in-kind favours, access to significant funding usually requires the accountability that comes with a proper legal structure. There are plenty to choose from (see box, below), but the important thing is that the group itself becomes a recognized legal entity, independent of the individuals within it.

Compared to discrete projects, core costs for running a group are less glamorous and have fewer tangible outcomes, making them much more difficult to fundraise for. Most core funding for community groups is managed and distributed at a local level, often through councils or foundations. For a directory of the latter, visit Community Foundations, or if you'd like detailed advice on getting your group established and making it more fundable, try Fit4Funding.

Community Foundations: communityfoundations.org.uk

Fit4Funding: fit4funding.org.uk

## What next?

Once you have your group up and running, don't feel you should immediately be writing a planning application. Getting a major energy project off the ground can be a huge challenge, and new groups can benefit from building capacity and establishing a good local reputation before taking the plunge with a large scheme. In the words of Climate Friendly Bradford-on-Avon's Jane Laurie, "the most successful projects are slow and steady – community energy is all about the long haul". Getting to grips with the ins and outs of various types of project and the stages required to make them happen is a useful part of this preparation.

# Guidance on Community Energy from BEIS (The Department for Business, Energy and Industrial Strategy)[6]

A guide aimed at local groups who are interested in setting up a community energy project.
Last updated: January 2015

**Contents**



The following guide is aimed at communities who may be interested in energy activities or projects.

We have recently published the UK's first Community Energy Strategy and the Community Energy Strategy Update (March 2015) following our Call for Evidence on Community Energy in Summer 2013.

## What is community energy?

Community energy covers aspects of collective action to reduce, purchase, manage and generate energy.

Community energy projects have an emphasis on local engagement, local leadership and control and the local community benefiting collectively from the outcomes.

Community-led action can often tackle challenging issues around energy, with community groups well placed to understand their local areas and to bring people together with common purpose.

There are many examples of community energy projects across the UK, with at least 5000 community groups undertaking energy initiatives in the last five years. Examples of community energy projects include:

- Community-owned renewable electricity installations such as solar photovoltaic (PV) panels, wind turbines or hydroelectric generation.
- Members of the community jointly switching to a renewable heat source such as a heat pump or biomass boiler.

[6] Source: https://www.gov.uk/guidance/community-energy
NB: The funding section of this guidance was not included as its last update was in January 2015. For most up-to-date information and useful resources please visit the Community Energy Hub website: http://hub.communityenergyengland.org/

- A community group supporting energy saving measures such as the installation of cavity wall or solid wall insulation, which can be funded wholly or partly by the Green Deal.
- Working in partnership with the local Distribution Network Operator (DNO) to pilot smart technologies.
- Collective purchasing of heating oil for off gas-grid communities
- Collective switching of electricity or gas suppliers.

There are many case study examples of community energy activities across the UK in the Community Energy Call for Evidence, Strategy and Strategy update.

In the following sections there is further information on the options to consider, as well as sources of help and guidance.

## Support available for Community Energy

Different types of community energy activity may need different types of support from organisations outside of the community. For example, your Local Authority might be able to provide advice and guidance if you are considering applying for planning permission to do an electricity generation project. You might want to talk to local businesses if you are interested in reducing the carbon footprint of your area to see how they can help.

This page provides a list of the support available through Government-funded schemes to support specific types of community energy initiatives. At the end are links to other non-Government organisations that may be able to offer further advice.

## Powering Up conference

The Powering Up conference for local authorities and community energy groups took place on Thursday 4 September 2014 in Oxford. Speakers from pioneering projects around the UK shared their experience and a programme of workshop sessions helped build a practical understanding of how more communities can work together for local energy. A short report, written by Oxford City Council on behalf of the OxFutures partnership, captures some of the highlights of the programme and the notes taken in the afternoon workshop.

## Shared Ownership Taskforce

The Shared Ownership Taskforce are representatives from the renewables industry and the community energy sector. The Taskforce has developed a voluntary approach to increasing shared ownership of new, onshore, renewables developments. You can find out more about the Taskforce's aim, remit and progress to date.

## Reducing energy use in your community

Reducing energy use can reduce carbon emissions, and also save people money on their energy bills. Communities working together can save energy in a number of ways.

For example, communities may get together to improve the energy efficiency of a local building; share tips on how households can use less energy on a day-to-day basis; or advise people about what support is available to help them insulate their homes.

Communities can be particularly effective at engaging vulnerable consumers and reaching those in fuel poverty. DECC has launched the 2015/16 Big Energy Saving Network, a £1 million programme to support eligible third sector organisations and community groups, deliver help and advice to vulnerable consumers

The main Government programme for installing energy efficiency measures is the Green Deal. In July 2013, the Green Deal Communities scheme was launched to provide funding to

Local Authorities working with community groups to save energy by installing energy efficiency measures. In April 2014 this was extended to £88m.

Community groups can help access hard to reach consumers to support installation of energy efficiency measures via the Green Deal. More information is available on the Green Deal: energy saving for your home or business page. You can find out more about the Green Deal delivery through community groups or through PlanLoCaL's interactive pack for communities.

Some activities undertaken by communities relating to the Green Deal may require a licence under the Consumer Credit Act (1974). DECC, working with the Office of Fair Trading, has produced new guidance for Green Deal participants on licensing requirements under the Consumer Credit Act (1974), to help give community energy groups confidence about engaging with Green Deal.

To help support communities who want to promote the benefits of energy efficiency to others in their area, DECC has committed £430,000 funding to a new Green Open Homes national network being developed by the CSE with Bristol Green Doors. The network offers resources, advice and a new online hub to help local groups and organisations prepare, run and publicise events that show off home energy saving improvements in their communities. Community Energy Demand Management.

Some community groups who have undertaken energy generation and energy reduction projects have also considered energy demand management. With a progressively smarter grid, consumers are offered more information about their energy use and incentivised to shift their demand to help balance supply and therefore reduce the need for costly generation capacity to meet high peak demand. This also helps to accommodate renewable electricity generation, electrification of heating (eg heat pumps) and electric vehicles.

Communities wishing to undertake demand management projects will likely want to work with their local Distribution Network Operator (DNO). Such partnerships are eligible to apply to Ofgem's Low Carbon Networks Fund if they wish to pilot new approaches. Community groups may also wish to find out about the Technology Strategy Board Localised Energy Systems competition that closed in March 2014.

Future community energy management initiatives will benefit from better consumption data, available as a result of the roll-out of smart meters. Most households will have smart meters installed by their energy company between 2015 and 2020, although some energy companies are starting to install smart meters now.

## Community Collective Purchasing and Switching

Community energy purchasing and switching can help consumers secure better deals on electricity, gas, heating oil, insulation or renewable technologies through discounts or referral fees. Community groups can bring people together to purchase collectively or switch together, saving money. The involvement of a community group can reach out to the most vulnerable members of the community who may be most in need.

We've published a practical guide to setting up and running a collective purchasing or community buying group.

In 2012/13, we ran the Cheaper Energy Together scheme which supported the development of 31 innovative collective switching and purchasing schemes for energy, and many of these schemes involved collaboration with community groups. You can read more about what was

learnt from Cheaper Energy Together. A practical guide to setting up a collective switching scheme is also available.

## Further information

The following organisations have produced useful toolkits and links for people interested in establishing or involved with running a community energy project:

- Scottish Government Community Renewable Energy Toolkit
- Energy Saving Trust: Agencies supplying support and guidance to communities
- PlanLoCaL videos on the overall process
- PlanLoCaL: Getting people involved
- Energy Saving Trust: How to engage your community on climate change

The Department of Energy and Climate Change has also published guidance for communities and local authorities on the benefits available for and engagement with onshore wind developments.

## Governance and legal structures for community groups

A legal structure is needed to apply for the majority of grants and to qualify for loans. The following are examples of community group legal structures:

There are two types of **Industrial and Provident Society**:

- Community Benefit Society (BenCom). This is set up to benefit a particular stakeholder group. They cannot operate like a private company and IPSs can offer community shares (less than £20,000 limit).
- Co-operative Society. This is run by and for the interest of its members. Co-operatives pay out dividends to members, often on the basis of participation not investment. Each member gets one vote, regardless of the number of shares they own. For further free advice, contact the Co-operative Hub.

**Community Interest Companies (CICs)** cannot be formed or used solely for the personal gain of a particular person, or group of people. They have an asset lock and a limit on dividends. CICs are supervised by the CIC Regulator. CICs cannot run community share offers.

**Charities** are run by trustees, supported by donations and have charitable status (tax relief). They are regulated by the Charity Commission.

**Joint Ventures** involve a community group and one or more other bodies like a private investor who may bring business or technical skills, capital, legal expertise, local land etc.

For further advice:

- The Centre for Sustainable Energy (PlanLoCaL) offers “The Source”, an online resource which offers links to various information including advice on setting up a legal structure.
- You can find out more about setting up a social enterprise on the GOV.UK pages.

## Choosing a technology

The quality of a product and installation affects its performance. This in turn directly affects income and the financial payback period. Advice should be sought on installations that are less than 50kw (electricity) and less than 45kw (heat), with written estimates of outputs and costs, from MCS installer companies. Above these capacities, communities can get advice from consultants. ‘Due diligence’ on technologies/consultants is part of the process.

The following links provide comprehensive information on choosing suitable technologies:

- PlanLoCaL

- energyshare guide to technologies and services

## Choosing a consultant

A qualified and experienced consultant can assess on behalf of community groups the feasibility, likely performance and energy outputs, ie the long term income which repays the investment. They can also advise on the most appropriate technology.

Below 50kWs for electricity and 45kWs for heat, MCS installer companies can act as consultants. Communities are not covered by the MCS consumer code of practice but there are routes for any complaints should they arise via MCS. See the MCS site for further advice.

There is further advice on choosing a consultant on the WRAP website.

## Planning permission

All renewable energy installations that involve development require planning permission. This may be granted either by a permitted development right (PDR) or by a planning application to the local planning authority. Development is defined in section 55 of the Town and Country Planning Act.

Please see the Planning Portal for further guidance and contact your local planning officer. The following links offer further information:

- Planning Portal - Neighbourhood Development Plans
- Dept of Communities and Local Govt - Neighbourhood Forum
- Local Govt Association's energy infrastructure planning tool.
- PlanLoCaL videos

Communities should also bear in mind that issues such as landscape, ecology, environmental and archaeology, may affect different renewable technologies. For example:

- Wind turbines can affect radar. For more information, see the Ministry of Defence information, NATs and the Civil Aviation Authority.
- Hydropower - at every capacity, installations require permits and environmental assessment by the Environment Agency (EA) or its partner organisations in developed administrations. For more information, see Hydropower: a Guide for you and your community

## Business planning and funding

Community groups need to develop a business plan. This may have to fund an income and enough profit to pay interest on any premium or loans and give investors a reasonable rate of return. Other costs are likely to include administration, project management, communication, planning, testing, community share offers, land ownership/leasing, insurances, legal advice, installation, grid connection, ongoing maintenance, repair and taxes and decommissioning.

Funding for the up-front costs can come from loans, grants, private investors, or community share offers. Not for profit organisations like CICs and IPSs may find difficulty borrowing all of the funding for less than £1m and may only be able to raise a 50% bank loan.
Some banks specifically support community groups. These include: Charity Bank, Triodos and Cooperative Bank.

Communityshares.org.uk offers advice on community share offers. PlanLocal also have a number of useful videos on finding funding for community projects.

## Risk and insurances

It is the responsibility of the community to ensure that adequate insurances are put in place, at every stage of a project. Communities may want to undertake a risk assessment at the same time as drawing up their business plan.

Communities should undertake due diligence and put in place tight legal contracts with installer companies, to cover themselves should installations not perform as expected.

## Advice and information

- Community Biomass Guide
- PlanLocal
- Local Energy Scotland - database of community projects and information on loan schemes
- Carbon Trust - Guides on buildings and technologies
- Energy Saving Trust case studies
- Transition Streets – Transition Network information on community "street" programme and training
- The Greening Campaign - a community network of local voluntary groups offering community groups advice about starting up, grants, legal structures, retrofits etc. It offers a news update.
- Energy4all - offers resources to support community owned renewables (eg community owned wind farms)
- Cooperative Enterprise Hub - free advice and support for communities on forming cooperatives.
- Cooperative Community Share Fund – free advice on raising community shares
- Low Carbon Hub
- CLUES "interactive triangle tool" on analysing barriers
- BioRegional energy retrofit for buildings
- Business in You - Department for Business website with advice on how to set up a business
- Heat map for England
- ShareEnergy
- Biomass Energy Centre - online information on biomass
- Department for Communities and Local Government: Planning practice guidance for renewable and low carbon energy

## Community Energy Contact Group

The Community Energy Contact Group are representatives from community energy projects who meet regularly with DECC. You can find out more about the group and read the minutes from the quarterly meetings.

# Funding Opportunities[7]- latest updates from Community Energy England

**Northern Powergrid is calling for applications to its Community Energy Seed Fund**

The fund, now in its third year, is open for applications until 6th February 2017, from community groups within our operating area. We will consider any application under the broad definition of Community Energy: groups interested in reducing and managing their energy use or tackling community and social issues like fuel poverty and energy sustainability in rural communities are invited to apply.

**Big Energy Idea 2017**

Ignite are looking for the brightest business ideas that use energy to make a difference in people's lives. If you have an energy related idea, and are looking for investment from £50,000 to £2,000,000, they would be interested in hearing from you. www.ignitesocialenterprise.com/challenge/

Deadline for submissions is *31st January 2017*

**Horizon 2020 Energy Application Process**

Department of Energy and Climate Change fund an EU Energy Focus service aimed to help UK organisations with project proposals.

The EU Commission is seeking proposals in the following areas:

- Engaging Consumers
- Removing Market Barriers to Renovation of Buildings
- Innovative Financing for Energy Efficiency Investments

There has been some concern among UK applicants about their eligibility for H2020 funding post-Brexit. Recognising the importance of science and innovation to society, productivity and economic competitiveness, the government has now provided reassurance to UK participants of the European Union's Horizon 2020 Programme with a commitment to safeguard funding for research and innovation projects.

The Treasury has confirmed that it will underwrite funding for approved Horizon 2020 projects applied for before the UK leaves the European Union. As a result, British organisations have certainty over future funding and should continue to bid for Horizon 2020 calls while the UK remains a member of the EU. The Treasury will underwrite the payment of such awards, even when specific projects continue beyond the UK's departure from the EU.

If organisations have questions regarding H2020 Energy please direct them to the UK's National Contact Point, EU Energy Focus. It is a free UK Government-funded

[7] Source: http://communityenergyengland.org/members-area/funding-opportunities/

service providing one-to-one discussion of proposal ideas and ensure applicants are well informed.

Deadline for energy efficiency projects is *19th January 2017*

**Bristol Community Energy Fund**

The Bristol Community Energy Fund is back! Bristol City Council is offering up to £10k of grant funding for community-led projects across the city. They've got small and large grants designed to support community groups to deliver energy-efficiency and sustainability projects to benefit the whole city.

The first round of funding awarded grants to 12 local projects to the value of £53k. Now it's round two and time for you to get involved! For more information visit www.bristolcommunityenergy.co.uk

**Energy People Trust Funding**

Funding for charities working around fuel poverty and energy advice, particularly those focused on children.

**Charity Bank**

Loans to charities, community groups and social enterprises (£50k – £2.5m) for capital projects.

**CO2Sense**

Capital revolving loan fund for RE projects (100kW – 5MW) (set up and overseen by BIS). Loans available for development costs (feasibility), bridging loans (planning stage to construction) and short term loans to cover construction.

**Coop Financing**

Finance for community groups. Loans from £10k – £75k available, but can increase to £150k.

**Esmee Fairbairn Foundation**

Finance for community energy (grants and social impact loans).

**Pure Leapfrog**

Finance and support for community energy.

- Community Energy Fund: draws on a credit facility from Big Society Capital (social impact fund), which can be augmented through donations.
- Bridge Finance: £15 million revolving loan facility from BSC to support large scale community energy projects..

**Sainsburys Family Charitable Trust**

Grants to fund registered charities or activities with clearly defined charitable purposes.

**Tridos Bank**

Finance for community energy.

**Community Foundations**

Community foundations manage funds from individuals, businesses and other donors who want to support causes in their local area.

**Big Lottery Fund**

Funding for community groups.

**Greggs Foundation**

Grants of up to £10,000 for projects aiming to make a difference to a local area with clear consideration given to the environmental and social impact of the project.

**Marks and Spencer Energy Fund**

Grants of between £50,000 -£300,000 to support and develop community businesses in England.

**Smart Energy GB**

Funding for not-for-profit organisations working with those who may face barriers accessing a smart meter, for example individuals with learning disabilities, off-grid customers or social housing tenants.

**Heat Networks Investment Project**

The Heat Networks Investment Project (HNIP) is making available up to £320m of capital support to drive an increase in the number of heat networks being built. This investment project will run for five years and will help create the conditions necessary to develop a self-sustaining heat network market.

They are seeking views from current and potential heat network sponsors, investors, supply chain and any other stakeholders on how best to use the capital support funding to overcome barriers to investment in heat networks and increase heat network deployment rates. They are also inviting views on the organisations and types of schemes that should be eligible for investment support, what form this funding should take and the criteria that should be used to assess applications for funding.

**Power to Change – Community Business Fund**

The third round of The Power to Change £10million Community Business Fund has opened for applications until 16 December. The fund is aimed at existing community businesses that need funding for a business development project to become sustainable. If you're interested in applying, have a read of their guidance and register for an FAQs webinar on 10 November for tips to make a strong application.

**Crowd Funding:**

Crowd Funder

Microgenius

Indiegogo

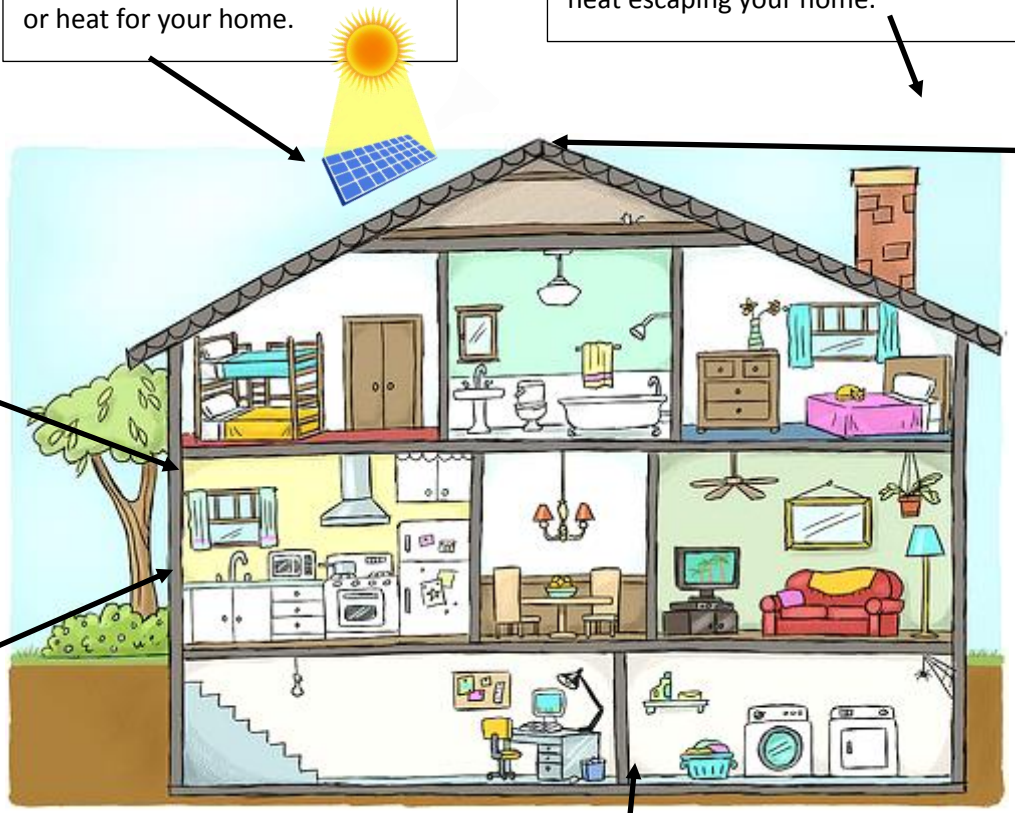
Spacehive

# What can landlords do?

**Create your own energy**
Technologies like wind turbines and solar panels can capture energy and turn it into electricity or heat for your home.

**Draught Proofing**
Gaps around doors, windows, loft hatches, fittings and pipework are common sources of draughts. Sealing up the gaps will stop heat escaping your home.

**Windows**
Homes leak heat through their windows. By replacing your windows with double or triple glazed windows, or installing secondary glazing to the windows you already have, you'll keep your home warmer and reduce outside noise.



**Loft Insulation**
Heat rises and it may be leaking into your loft. Insulating your loft or topping up your existing insulation will keep heat inside your living spaces for longer.

**Boilers**
Older boilers tend to lose a lot of heat so they use a lot of energy.
High efficiency condensing boilers and air or ground source heat pumps recover a lot of heat so they use less energy.

**External and Internal Solid Wall Insulation**
Older homes usually have solid walls. Installing insulation on the inside or outside of the wall can dramatically reduce the heat that escapes your home.

**Cavity Wall Insulation**
Some homes have walls with a hollow space in the middle. Putting insulation in this space is quick and makes no mess because the work can be done from outside your home.

# Working in partnership with a housing association[8]

**Project type:** Community energy efficiency project in partnership with a housing association

**Name of example:** Thornhill Community Energy Project

### The organisation

In April 2001, the Government awarded £48.7 million through the New Deal for Communities programme to regenerate the Thornhill area of Southampton. The 10-year programme was managed by a partnership of the local community, city council, business, police and health service known as Thornhill Plus You (TPY). At the end of this period, TPY became Plus You Limited, a registered charity with a mission to continue the regeneration of Thornhill.

### The project

Thornhill Community Energy Project was conceived by a group of residents as a response to local experiences of fuel poverty and wider concerns about climate change. The 12-month project was funded by TPY and managed by Radian (www.radian.co.uk), a local housing association, under the umbrella of the New Deal programme. Its aims were to:

- reduce the community's carbon footprint and energy bills; and
- provide support and education for those at risk of fuel poverty

Radian was selected as a delivery partner for the project because of its experience in energy efficiency and community development on its own estate, and its willingness to share this for the benefit of the wider community. Other partners that provided training and support for the project included the Environment Centre (tEC), Energy Saving Trust, Southampton City Council, Scottish & Southern Energy, Southern Electric, Dimplex and Thornhill schools and other local community groups.

The funding provided by TPY funded a dedicated Energy Efficiency Advisor for the area, with the aim of engaging and educating the local community. Specific project activities included:

- Holding a formal launch and attending monthly networking meetings
- Producing and distributing project leaflets
- Getting articles published in local newspapers and newsletters
- Updating the community website
- Attending established community events and setting up new ones
- Attending parent and baby/toddler groups

[8] Source: http://www.planlocal.org.uk/pages/energy-efficiency-and-the-green-deal/examples-and-case-studies-1

- Setting up energy workshops and holding a competition at the local primary schools
- Lending energy monitors to residents
- Establishing the network of resident volunteer Community Energy Champions (CECs)

The project also targeted specific households at risk of fuel poverty, improving access to energy-saving products and services to help reduce household running costs. This was achieved by:

- Giving energy efficiency advice
- Providing energy monitors and power down plug strips to residents
- Providing residents with the advice to access cheaper energy tariffs.

The project was also able to identify properties where further savings and energy efficiency improvements could be made, for example by improving insulation levels and providing advice on energy-related behaviour and mould treatment and information on grants.

## Achievements

The distribution of energy monitors provided the opportunity to measure changes in attitudes and behaviour among participating households. At the end of the 12-month project period:

- a total of 135 OWL Energy Monitors had been distributed to households to provide detailed analysis of their electricity use; and
- more than 80% people who responded to a feedback survey said having an energy monitor in their home had permanently changed their behaviour towards energy use

## Lessons learned

Much of the learning from the project arose from its limited 12-month lifespan, notably:

- A workable exit strategy should be developed early on, if the project's achievements were to be sustained and further developed after completion.
- In particular the work of the volunteer CECs, which formed an essential part of the project's legacy, required continued funding (e.g. to pay for training, phone and internet costs etc).
- Alternative monitoring strategies were required in cases where time constraints meant that baseline data on residents' energy consumption (to allow year-on-year comparisons) were not available;

In addition, the group found that working with partner agencies and companies it was able to lever in additional in-kind support for the project which helped deliver greater value for money.

## Next steps

A year and a half after the original project's funding ended, the Environment Centre (tEC) (www.environmentcentre.com), a local charity, came forward with a new project funded by Thornhill Community Health Group to re-grow and support the volunteers for two years. The energy champion work is still ongoing and has proven to be a particularly strong aspect of the project's legacy. A small additional fund from the NEA Community Footprint Award helped promote the continuation of this work across the community through the re-branded: 'Thornhill Community Energy Champions'.

Current activities include home visits, community events and public energy awareness training sessions. The current project is also developing a set of resources on energy efficiency and sustainability to be loaned out via the new Thornhill Community Library using funding provided by Southampton City Council for community energy champion work. These books, CDs, DVDs, leaflets, periodicals and the display stand purchased to house them will be branded with the Thornhill Community Energy Champions logo to provide both a community information point and a permanent reminder of the volunteers' ongoing work. The resources will include twenty energy monitors available for public loan.

**Resources**

People 

One full-time energy advisor and a network of local volunteers.

Technical skills 

Some technical knowledge needed to train community workers

Finances 

Secured from a collaboration of Thornhill Plus You community group and Radian Housing Association

Project partners 

A wide range of local and national partners to support training and outreach activities