

Greening your Organisation



With support from



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Greening your organisation

Protecting the environment is good for the planet – and for your organisation's bottom-line. Reducing the use of energy and making better use of resources, whether it's minimising or recycling waste, limiting staff travel or installing solar panels, can reduce your costs over the longer term. Such measures can also promote your organisation as environmentally responsible and help comply with statutory and regulatory requirements. Work with residents can raise their awareness and have practical benefits such as cutting their fuel bills.

The ideas in this **practice brief** are a starting point for reducing your organisation's environmental impact. If you take on board the majority of the issues covered here you will be well on the way to 'greening' your housing organisation.

There are five main ways in which social landlords can become more 'green':

- **Buildings** – can they be made more energy efficient?
- **The ways buildings are used** – can less resources be consumed?
- **Operations** – can they be run more efficiently, eg. by making staff travel more efficient?
- **Tenants and residents** – how can they contribute?
- **Houses** – can the stock be made 'greener' to benefit tenants and benefit the environment?

This **practice brief** outlines what can be done, describes the policy and legal backgrounds where appropriate and provides ideas and practical examples. The **practice brief** deals

with the **organisational** challenge and does **not** deal with the housing stock – this will be covered in a CIH **practice online** chapter: www.cih.org/practice/online

But it does include working with residents as they are potentially important partners in changing your organisation.

The aim of the **practice brief** is to:

- show what it means for an organisation to go 'green'
- look at the reasons why it is important
- emphasise the need to take people along with you – staff, board members/councillors, tenants and residents
- set out the basic steps and give practical examples
- outline how organisational change can be resourced
- show how going green fits into your business plan and helps meet statutory and regulatory requirements.

The **practice brief** is principally aimed at social landlords across the UK, and will also be of interest to other office-based organisations.



What is a 'green' organisation?

'Going green' in a nutshell

First, what is a 'green' organisation? Drum Housing Association, who won a Gold Award for environmental sustainability in 2007, summarised it as:

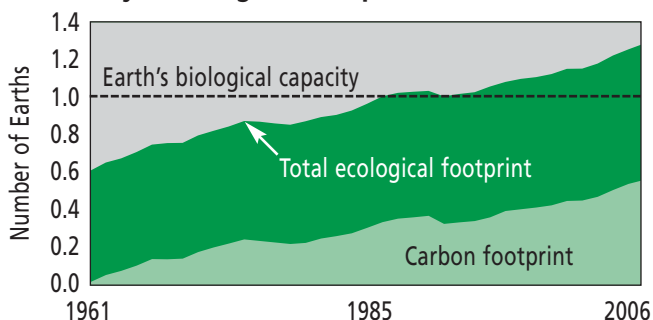
'...minimising the negative impact and maximising the positive impact of the association's activities on the environment and biodiversity, and contributing positively to sustainable development.'

Whether, like Drum, you are motivated by your impact on the environment, or whether you simply want to cut your costs by saving on the energy and resources that your organisation uses, this **practice brief** will be relevant for you. However, its starting point is that becoming a green housing organisation is a serious challenge requiring hard work and devoted staff time. The **practice brief** aims to show that the effort will be worth it.

Your organisation's environmental impact

How do we measure the impact on the environment? Just as in other aspects of an organisation's performance, it is important to know where you are starting from in order to be able to measure your progress.

Humanity's ecological footprint



Source: www.footprintnetwork.org

A good way of doing this is by measuring the organisation's environmental 'footprint'. Your footprint is the impact that you have on the earth's resources. A typical person now uses in a year an amount of resources that the Earth needs one year and five months to replace. Or, put another way, if everyone lived like we do in Britain, we would need three planet Earths. As the graph below shows, humanity began to fully use the Earth's capacity in about 1988.

Of course, the graph uses global figures. Later on in the **practice brief** we will discuss in detail how to measure your organisation's footprint (see pages 52-54). But it is a good idea to have the concept in mind now – because everything in the **practice brief** is about making your footprint **smaller**.

Avoiding 'greenwash' and gaining a genuine green branding

No organisation wants to be branded as environmentally unfriendly. But there are plenty examples of 'greenwash' – appearing green without actually making any of the major changes required to make your footprint smaller. 'Greenwash' is a claim more likely to be made about an oil company or airline than a housing organisation, but it's already common for housing providers to have one or two well-publicised 'eco-projects' while the rest of their stock and businesses carry on much as before. This **practice brief** will help you ensure that your organisation is really going green, not just producing greenwash.

You also need to be wary of the claims made for 'offsetting' – see the box on the next page.



Carbon offsetting – a brief guide

Can you carry on as you are but 'buy' your way to being a green organisation, by offsetting your carbon emissions or purchasing carbon credits? Carbon offsets are emissions reductions that have been made elsewhere and are sold to the organisation that seeks to reduce its impact. They are calculated by comparing the theoretical carbon emissions that would have resulted in the absence of the scheme, to the actual emissions afterwards.

Carbon offsetting and carbon trading are controversial, because they can result in little or no change to how an organisation runs its business and the resources it consumes. In addition, the organisation gets no 'bottom line' savings by reduced use of resources – in fact its costs could go up if it buys offsets and takes no other action.

The National Housing Federation's report *Carbon Offsetting for Social Housing* concluded that a national scheme wasn't a good idea (but the report is an excellent guide to offsetting from a housing perspective www.housing.org.uk/default.aspx?tabid=996&mid=1959&ctl=Details&ArticleID=2432).

For a more humorous take on offsetting, take a look at www.cheatneutral.com/ (but make sure you read the page 'small print').

This **practice brief** does not recommend using carbon offsets as a main plank of a green strategy. Nevertheless, social landlords might want to consider investing some of their funds in schemes which reduce emissions elsewhere, as part of their green profile. For example, several housing associations have funded a CIH-supported scheme installing solar energy kits in Nicaragua – see www.cih.org/nicaragua.

Another option is to invest in a scheme which uses supporters' money to buy CO₂ permits. Sandbag <http://sandbag.org.uk/> intervenes in the EU's emission trading system (which allocates tradable CO₂ permits to carbon-intensive industries) by buying permits then destroying them, so reducing the amount of CO₂ that companies are legally allowed to produce.

According to the *Rough Guide to Green Living*, the perverse thing about the EU cap and trade system is that it can effectively render individuals' efforts to reduce carbon ineffective. However, if more individuals (and housing organisations) make carbon saving choices, the picture could change. First, because it wouldn't be possible to sell all the surplus permits on the market, and secondly there is a good chance that government might lower the cap in the future due to the pressure of committed individuals and organisations.

While we are against greenwash, we are very much in favour of organisations getting real credit for going green. Not only is it a badge of what you have achieved, but it helps motivate staff, board members and residents, and is a real boost to your organisation's image. It might even bring resources that otherwise wouldn't have come your way. Different ways of getting recognition are discussed on pages 56-57.



Why go green?

It might seem obvious that going green is a good thing, but if so why are we so bad at it? Many organisations still don't see the relevance of tackling their impact on the environment, or they may be confused by conflicting information or too busy trying to deliver core services to engage with the issues.

It is a good idea to set out a range of different reasons for going green. Some might be more important to you, your organisation and your customers than others, and it will work best if the green agenda complements other 'agendas' you may have.

What are the benefits of going green?

Going green can bring about a number of positive benefits, both to the environment and your organisation:

Reduce your environmental impact

More than a quarter of the damage we do to the environment comes from our homes – their energy use, the other resources they use and the waste they produce. However, while the homes you own are a key element (but beyond the scope of this **practice brief**) every other aspect of your business counts too, and it's these other aspects that are covered here.

So, you use resources, produce waste and cause environmental damage through your offices and in your operations. Only if all businesses tackle these issues can the government meet its ambitious target of reducing carbon emissions by 80% by the year 2050.

Save you money

Going green is not guaranteed to save money but it certainly helps. A small example is from Gentoo – which has 30,000 homes – where staff suggested cutting down substantially on the numbers of keys that were being cut for new lettings – saving money, materials and energy with no disadvantage to the business.

Help you prepare for and/or minimise risks

Every organisation should be risk averse. Any evaluation of risks over say the next ten years is bound to throw up several that relate to the environment or resources. For example, Peabody identified rising energy costs as a major risk factor. Assessing risks and how to respond to them can produce many measures that fit in with a green agenda.

Remember too that responding to climate change means two things. We know that the climate is already changing, but what we can hope to do globally is slow down the change and prevent it reaching dangerous tipping points. This is called **mitigation**. But organisations also need to plan for climate change – more variable weather, hotter summers, increased risk of floods. This is called **adaptation**. If you invest in mitigation, you help reduce the general risk; but you also need to review your business and stock to see what parts might need adapting to face specific risks.

Develop your reputation

Many organisations believe that going green is good for their reputation and will help them to do better business. For instance many funders and sponsoring agencies already enquire about the green credentials of an organisation. Going green might therefore just give you the edge over your competitor! Also the current Tory/ Lib Dem Coalition Government claims to be 'the greenest government ever', which shows the usefulness of being able to boast about green credentials. But of course, it's important to be able to show that they are real ones.

Meet the expectations of your customers

Even if many customers don't specifically ask about green issues, some will be concerned about the environment and many will be worried about issues like energy costs, recycling, trees, illegal dumping and many other items on the green agenda.

Protect vulnerable groups

Who will suffer most as the climate changes? The *Third Sector Declaration on Climate Change* argues that it will have a massive negative impact on poor households:

'...there is overwhelming evidence that the worst impacts of climate change constitute one of the greatest social, environmental and economic threats to society. Issues such as health, housing, transport, waste, food production and equality are completely linked with environmental conditions.'
(see www.justact.org.uk/)

In the housing field, fuel poverty is a good example. Because vulnerable groups are likely to suffer the most – especially if the global effects are considered – it should be part of your equality agenda to aim to protect them.

Be ahead of the game and open new markets

Becoming green involves building up your expertise on green issues, and this presents opportunities. Many of the organisations mentioned in this **practice brief** are well-equipped to take new business opportunities such as the feed-in tariffs for producing renewable energy. The Gentoo group, for example, now has a division called Gentoo Green, which by the end of 2010 aims to have 15 staff.

Be a responsible employer

As a housing organisation, you aim to recruit staff who are aware of and want to respond to the issues which an organisation working in poor communities inevitably faces. People who are motivated to do this are also likely to be interested in – and expect you to respond to – the green agenda.

Become a sustainable organisation

Your organisation may already have a sustainability strategy. This may cover social and economic as well as environmental issues. So it may need more development in the areas covered by this **practice brief**. But bear in mind that environmental, social and economic issues are interlinked, as in the case of fuel poverty.

Meeting legal, regulatory and other requirements

Not only is it good to go green but in many respects it is essential. Many aspects of the legislation are relevant to housing organisations (see **practice online**). The government itself has an obligation to reduce UK carbon emissions by 80% by 2050 as a result of the 2008 Climate Change Act. Under the act, many public bodies are registered in the Carbon Reduction Commitment Energy Efficiency Scheme, the government's mandatory energy savings programme.

There are several other ways in which going green may be obligatory:

- **Regulatory requirements** – mean meeting the Decent Homes Standard and responding to tenant priorities such as maintaining the environment of an estate. In developing local offers, some associations like Hastoe have developed a local environmental standard, addressing the green agenda and saving tenants money.



- **Charitable objects** – if you are a charity then you are likely to be in the business of helping vulnerable people, most likely to be affected by environmental change.
- **Local decisions** – local authorities may have set carbon reduction and other environmental targets as part of Local Area Agreements; they may expect social landlords to help to achieve them.
- **Contractual requirements** – sustainability conditions are increasingly appearing in any sort of contract that your organisation might enter. Funders too may require evidence of sustainability in a wider sense than just financial sustainability.

How going green relates to other goals

It is useful to take a look at your organisation's business plan or other strategic document and ask how the green agenda relates to all the different goals that you have. For example, if you are building new homes, you face progressively tougher requirements on energy efficiency. If you are working with low-income tenants, their fuel bills might be a key part of their outgoings – and you could keep those costs down. It is almost certain that most of your wider goals and programmes will be helped by pursuing a green agenda.

Getting started – convincing people in your organisation

Becoming more environmentally responsible depends first of all on **people**. This section looks specifically at the people **within** the organisation; on pages 41-49 we talk about working with tenants and residents.

Who are the key people?

The answer to this question may seem obvious: everyone from the board or elected members down to frontline staff. This is true, but organisations which have gone green have learnt some useful lessons.

First, the finance director is key. Where organisations have made a real change, it's often because the finance director was convinced at an early stage or took a lead role.

Second, **any** member of staff can play a role. There are many examples of frontline staff such as caretakers or wardens who have welcomed the opportunity to get involved, using their experience of things like cleaning materials being wasted or lights being left on.

Third, you need some people who will set an example. If you are going to make changes that mean people have to alter their habits, can some senior people do this first?

Finally, it is vital that the board or elected members are signed up to the green agenda, especially if your aim is to transform the organisation.

What will motivate them?

Again, there are four potential factors:

- first, saving money motivates people, especially if they can see that money saved could be better used elsewhere
- second, getting involved and having influence – for example seeing ideas put into operation. The green agenda provides multiple opportunities for this to happen
- third, making a difference both inside and – even better – outside the organisation is always an excellent motivator. It can show that not only are you going green, but you are also influencing your customers, suppliers and other organisations in the neighbourhoods where you work
- and finally – make it fun! Several of the organisations we talked to found that the green agenda provided plenty of opportunities for staff and residents to have fun... which in itself can be a great motivator!

The role of environmental 'champions' or green teams

Opinion is divided as to whether it is best to give specific responsibilities to individuals or to spread them out across a broad range of staff. Different approaches follow.



Practice example

Accord Housing Association started with a dedicated sustainability officer for a period of 18 months to do some of the 'legwork'. While this certainly helped to get started, green issues were also rather marginalised – there was less ownership throughout the organisation.

Accord now has an Environmental Improvement Team – consisting of 35 people from across the group. The team has ownership of the agenda, is popular and its meetings are well-attended, and it includes staff from all levels in the business.

Every department has an individual action plan which is managed by the department itself. Departments feed into the overall plan.

Accord trained an internal group of auditors to audit departmental action plans. There are also champions on particular issues.

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Practice example

The **Trans-Pennine** green champions developed a green charter which outlines their commitment to tackling the challenges. Their initial aims were to:

- challenge environmental laziness
- use sustainable materials wherever practicable
- maximise recycling opportunities
- eliminate unnecessary waste
- encourage customers to be environmentally responsible and energy efficient
- make recycling simple for staff and customers
- challenge negativity and encourage positive behaviour
- work with partners to influence their behaviour.

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Getting commitment from all staff

Going green has some similarities to the equalities agenda as it also involves a cultural change across the organisation. Ideally, being green becomes a personal motivating factor and staff behave differently in the workplace, in dealing with customers and – perhaps – more generally in their lives. How can this culture change be achieved?

Start by **making an impact**. If you really are going to change the culture, do something different, memorable and perhaps a bit dramatic. For example, Accord held a staff awayday in 2007 at which their chief executive announced the goal of becoming the 'greenest' housing association in the country. The film *An Inconvenient Truth* was shown to get people motivated. Gentoo decided to focus initially on waste. They demonstrated the amount of waste within the organisation by collecting six months worth (31 tonnes) and putting it in two large lorries which they parked outside their offices so staff could see them.

Have a **small budget** to start to do things straight away and get some quick wins. It also helps to demonstrate that the organisation is serious.

Get the message across at staff meetings. It helps if senior management back up the messages you want to convey.

Training might be included in induction courses or more general programmes. To develop courses, there is plenty of material online – for example *The Shared Energy Toolkit* (see example). CIH offers training and there are specific housing-related courses offered by Sustainable Homes.

www.sustainablehomes.co.uk/



Practice example

The **Shared Energy Toolkit** illustrates the damage climate change has already caused and shows how different climate change scenarios could affect your organisation. It gives ideas about how to improve your organisation's sustainability, and how to raise awareness in local communities.

It contains a quiz, instructions for a climate change 'walk' and practical topics for discussion. It's intended to be used with *Future News*, a series of four newspapers from 2027.

www.neweconomics.org/publications/shared-energy-toolkit



Recruitment can be a tool in implementing your green agenda. Can you require basic understanding of the issues as a job requirement? Can appropriate knowledge/ understanding be a criterion in selecting staff? Can appropriate duties be included in job descriptions?

It is worth giving thought to **how to influence people's attitudes and behaviour**. There may be some resistance to change. Commitment from the top will help as you can make clear that some of the changes are now required across the organisation. It is best to respond to objections in a positive way. For example, if there are known sceptics, can you hold an event with experts who will (sympathetically) listen to and deal with their arguments? For the majority of people who are simply reluctant to change old habits, the team approaches already mentioned, incentives to change and 'quick wins' can be combined to persuade everyone to take part.

To **encourage new ideas and keep people motivated**, you also need to consider whether to have formal incentives. For example, Places for People have a 'Green Star Award' to encourage good ideas or performance among staff. Gentoo has an annual award called 'The Grafters' – one of these is for green achievement. One winner developed a successful schools programme on environmental issues.

Of course, staff need to know that their ideas will be listened to. **Empowering** people so that they are able to make a difference (regardless of position or role) is crucial if the green message is to be embedded in the organisational culture.

Remember to **tell people how they are doing**. You could have real-time displays giving information on energy use throughout the building. You could also have a target for reducing it, and show progress against it. If you assess your footprint (see pages 52-54) this will provide you with baseline information and you can choose some key targets and tell people how well they have done.

The TUC have produced a guide *Go Green at Work* aimed specifically at union members but which provides some useful general ideas about how to inspire staff and organisations to get involved: www.tuc.org.uk/extras/gogreenatwork.pdf

Where do we start?

Every organisation will have to think about the best way of getting started that suits their particular culture. There are ideas in this section which will help you to brainstorm how you could best get started.

As well as using this **practice brief** and following up the practical examples, it is always useful to exchange experience with others. Sharing knowledge within the sector can give you ideas on what (and what not) to do and motivate those involved.



Practice example

Chevin Housing Association held a half-day workshop to consider how to get started on becoming a green organisation, facilitated by consultants Chris Barnett Associates. From this emerged a 14-page action plan *Where Do We Start*.

Download the action plan at www.ecoreports.co.uk/stdreports/default.aspx?id=46



Practice checklist: Getting started

In setting out to convince people about your green agenda, have you:

- ✓ got commitment from senior management?
- ✓ given staff specific responsibilities?
- ✓ worked out how to have an immediate impact?
- ✓ set a small budget to help you get started?
- ✓ thought about a variety of ways to get your message across?
- ✓ worked out what to do if people are reluctant to change?
- ✓ built some incentives into the system to encourage action and new ideas?
- ✓ devised a plan for the initial steps you plan to take?
- ✓ collected the information from the start that will enable you to tell people what they have achieved?

Buildings and building services

Many housing organisations operate out of more than one building. You might occupy the space on your own or share with other organisations. Building type and fabric, age and whether you own or lease the premises will affect the extent of any potential energy efficiency measures. If you happen to be in a conservation area this will limit work to the external fabric, including the installation of low carbon technologies. But despite these potential challenges, there is plenty of scope to act.

Resource use and wastage in the office – what's the issue?

- office-based companies typically produce over two tonnes of CO₂ per year – more than the carbon output per person of the typical UK home
- lighting can be up to 40% of a company's electricity bill – lights left on overnight use enough energy in a year to heat a home for almost five months
- heating typically accounts for about half of the energy used in offices
- heating costs rise by about eight per cent for each 1°C of overheating
- a 2°C increase in office temperature creates enough CO₂ in a year to fill a hot air balloon
- a photocopier left on standby overnight wastes enough energy to make 30 cups of tea
- the average person in the UK uses 150 litres of water per day: flushing toilets accounts for a third of this – old toilets use up to 14 litres per flush
- a 5mm drip from a single tap can cost more than £900 p.a. in water and wastewater treatment costs.

Source: Carbon Trust: www.lowcarbonlife.net; <http://envirowise.wrap.org.uk/>

Knowing your energy consumption

A good place to start is getting to know the energy consumption patterns of your office(s). Take a look at your energy bills over the past 12-18 months. If you have difficulties understanding them you are not alone – the Carbon Trust's *Metering technology overview* will help – it covers electricity, gas and water (for this and other resources mentioned in this chapter go to www.carbontrust.co.uk). Do

consumption levels vary widely throughout the year or are they fairly steady? Are your bills based on actual readings or estimates? What tariff are you on? You might already be on a **smart meter**, in which case you will have access to accurate energy consumption data. Checking your bills might also spur you to shop around for a better deal, saving hard cash. You could also consider switching to a green energy tariff (see box on the next page).



Green energy tariffs

Is the environmental impact of electricity on a green tariff less than that of a conventional tariff? Things are not as simple as they seem! With a few exceptions, green tariff electricity is generated from various sources, including non-renewables. Where suppliers claimed that electricity supplied is from renewables only, Ofgem, the energy watchdog, found that some were only complying with legal requirements under the Renewable Obligation (RO). The RO requires all suppliers to source from renewable sources (for 2009-2010, the obligation is 9.7%).

Ofgem has now launched the Green Energy Supply Certification Scheme. Approved tariffs under the scheme must ensure that:

- all electricity used by the consumer is matched by renewable energy bought or generated by the tariff's supplier
- the supplier contributes a minimum level of additional environmental benefits for each customer
- the supplier signs up to the certification scheme, reports all its sources of electricity by type and submits its green tariffs to an annual independent audit.

At the time of writing, only two tariffs for small businesses (non-domestic customers using less than 55,000kWh a year) are approved by the scheme.

www.greenenergyscheme.org

Specialist **monitoring** equipment can make energy data collection and analysis more efficient, and help you properly **manage** your carbon footprint, energy use and/or go down the accreditation route. Devices such as the *Workplace Footprint Tracker* enable data collection for electricity, gas, heating/cooling and water www.buildingsustainability.net.

Installing energy displays in the office is a good way of bringing the issue alive. As well as displaying actual consumption (on its own rather meaningless), it will show the CO₂

emissions. Some devices change colour as energy demand changes.

Do an (initial) office **energy walk-about** to get a feel for energy consumption issues and do a spot-check for opportunities to carry out quick fixes (the Carbon Trust's *Assessing the energy use in your building* tells you what to look out for).

The remainder of this section will provide pointers on how you can improve the energy efficiency of your offices and make considerable cost savings.

Building fabric

Addressing the building fabric (or building 'envelope') is a good way to reduce energy demand and hence to cut carbon. A poorly treated or uninsulated building envelope means that valuable heat is simply going straight through it. The table (right) shows the typical heat loss of various building components.

Component (commercial buildings)	Proportion of heat loss
Ventilation and draughts	35%
Windows	26%
Roof	22%
Walls	9%
Floor	8%

Source: Carbon Trust

This Carbon Trust checklist can help identify ways to reduce these losses

Action

Minimal or no-cost good housekeeping measures

- provide instructions for door operations and signage to remind occupants to keep doors closed
- keep windows and skylights clean to maximise daylight in the space
- use blinds and curtains to control light and heat penetration in the space

Priority low-cost measures (excellent short-term payback)

- check levels of loft insulation. Add insulation to uninsulated roof space or top up to 200mm
- check uninsulated wall cavities and insulate cavity walls where suitable
- check draught proofing and add draught strips and seals to leaky windows and doors
- check insulation in suspended timber ground floors from below and add insulation where access is easy
- install door closers to external doors and to internal spaces with differing temperature requirements

Priority investment measures (worthwhile as part of refurbishment)

- check internal wall insulation and consider upgrading
- check flat roof insulation and incorporate new insulation as part of any re-roofing work
- fix solar shading devices to air-conditioned areas or consider planting deciduous trees

Long-term investment measures (when major work is planned)

- insulate suspended timber ground floors from above where access is not possible from below
- check quality of windows and replace with draught-proofed double or better triple glazing
- check internal wall insulation and apply to existing walls in good condition where relevant
- add a draught lobby where draughts cause discomfort
- take advantage of any refurbishment work by ensuring fabric is improved at the same time

Source: Carbon Trust, 2007, *Building fabric – Energy saving techniques to improve the efficiency of building structures*.
www.carbontrust.co.uk/publications/pages/publicationdetail.aspx?id=CTV014

To go further you could commission an Energy Performance Certificate (EPC) for each building. This helps to focus minds and provides accountability. Having obtained an EPC, South Tyneside Housing set a target to improve the rating of its main office by one 'band' during 2010/11. A carbon audit resulted in a target to reduce the building's footprint by 10% over the same period.

Electricity

Operating office equipment and lighting will account for most electricity use (consumption from ICT equipment is dealt with on pages 23-25). Relatively simple measures can reduce lighting costs, for instance, by up to 30%. Measures suggested by the Carbon Trust include:

- **Don't leave lights on when nobody is in the room** – this could cut lighting costs by as much as 15%. Put up signs to remind staff.
- **Let the sunshine in** – maximise the use of natural daylight by leaving blinds open. You could even install sensors which automatically adjust to the amount of daylight flooding in. Think also about installing skylights as part of any refurbishment.
- **Make sure you don't use more lights than you need** – is it possible to switch off lights in parts of the room not in use? If not then you will have to think about 'zoning', ie. installing controls which enable the most effective use of lighting in a room. Install light sensors in rooms that aren't in constant use, such as toilets and corridors.

Remove superfluous light bulbs (particularly if you have reflector fittings – those silver grid-like contraptions). Ditch some of those halogen lamps.

- **Use energy efficient lighting** – replace standard tungsten bulbs with compact fluorescent ones, ie. energy efficient light bulbs. You'll be able to get them now for almost all fittings (even halogen tubes).
- **Ensure that your system is properly maintained** – a regular maintenance schedule can reduce costs by up to 15% and of course increases efficiency. Remember to remove bulbs that don't work, as they still consume a certain amount.

For more information see the Carbon Trust guide *Lighting – Bright ideas for more efficient illumination*.

There are more 'technical' ways of reducing demand such as 'voltage optimisation'. Sentinel Housing Association for instance estimated that, using this, £3,200 of energy savings could be made each year. However, this measure is not suitable in all circumstances (see information box).

Voltage optimisation



This is a way of reducing energy demand. In the UK, electricity is supplied at a higher voltage than is actually required by electronic equipment. The average voltage in the UK grid is 242 volts. However, equipment is generally designed to run most efficiently at 220 volts. The excess energy is wasted in the form of heat, which you are paying for. By installing specialist equipment, the voltage is reduced to the optimum level required by the equipment on site and savings of 15-20% can be achieved. Beware! If you have a device that requires 230 volts to operate efficiently and you cap your supply at 220 volts you could lose more than you save through that device's inefficiency and potentially damage to the device. However, there are technical issues, so you should take advice from an impartial electrical engineer before going down this route.



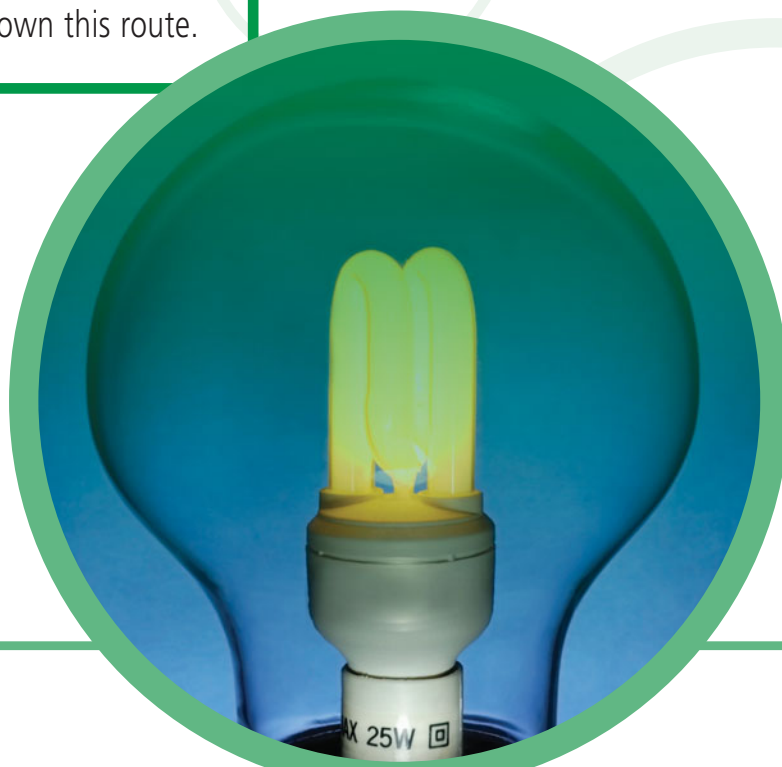
Practice example

Cross Keys Homes has considerably reduced their office energy consumption.

They managed to:

- achieve a 41% reduction in gas consumption through replacing the head office roof, cavity wall insulation and installing a more efficient boiler
- achieve a 31% reduction in electricity consumption through introducing sensory lighting, replacing T5 fluorescent tubes with more efficient lighting and replacing inefficient air conditioning units
- bring in a good housekeeping scheme which lists recommended tips for helping to cut the carbon footprint, eg. turning lights off
- replace desktop printers with multi-functional devices, saving 49% on paper costs as well as on energy.

Contact: Kelly.Field@crosskeyshomes.co.uk

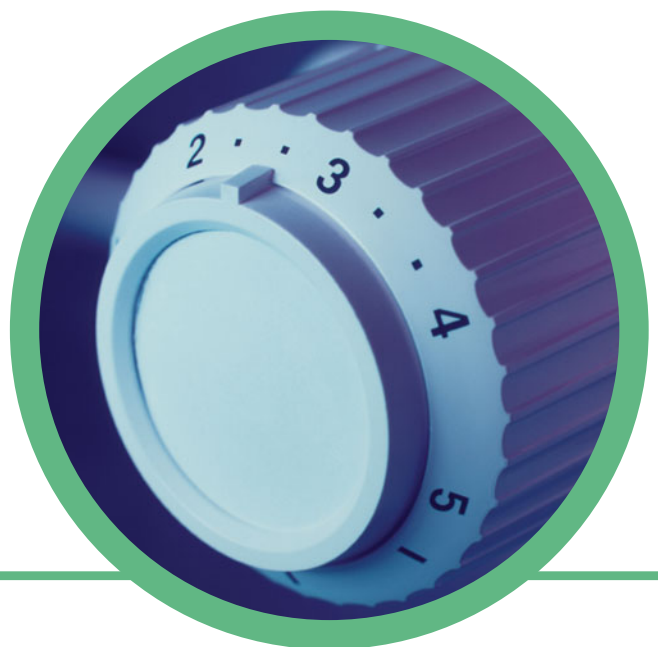


Heating and cooling

The Carbon Trust suggests these ways to cut costs and save carbon:

- **Get a basic understanding of your heating and cooling system** – so you can talk to your maintenance person about how to run it more efficiently and ask the ‘right’ questions
- **Don’t turn up the heating unless you need to** – try to keep your thermostat at 19°C and encourage staff to wear extra layers in colder weather. Remember, your heating costs will go up by 8% each time you increase the temperature by just one degree
- **Leave plenty of space around radiators** – blocking radiators with furniture means that your system will have to work harder to heat the room. Increase efficiency by sticking reflective foil behind radiators on outside walls
- **Don’t heat unused space** – do your storerooms or corridors really have to be as warm as the main office? Fit thermostatic valves to control individual radiators. As with lighting, you can apply the principles of ‘zoning’. Make sure that the heating is on a minimum setting over the weekend
- **Keep doors and windows closed and draught-proof** – in cold weather, turn down the heat first if the room temperature is too high
- **Keep the thermostat away from draughts or hot or cold spots** – these will increase your heating costs
- **Don’t let heating and cooling operate at the same time** – set a higher switch-on temperature for cooling and lower temperatures for heating. The gap between these two (also referred to as the ‘dead band’) is recommended to be 5°C
- **Reduce demand for air conditioning** – switch off unnecessary equipment – especially out of hours – to reduce heat build-up. If possible open windows instead of using the air con
- **Don’t put ‘hot’ equipment, like photocopiers, near cooling vents** – the cooling system will need to work harder
- **Maintain equipment properly** – you could add as much as 10% to heating bills by not carrying out regular checks on equipment. When it comes to replacing the system (or parts), ensure it is tailored to your needs. Energy efficiency should be top of the agenda.

For more information see the Carbon Trust guide *Heating, ventilation and air conditioning*.



Water

Treating and delivering water consumes energy and emits CO₂ – and heating water consumes more. Recent years have seen water shortages and, in future, drier and hotter summers are expected. So it is vital to reduce water consumption.

Here are some ideas:

- monitor your water consumption to identify any unusual patterns (monitoring equipment described above can help you with that; or have a look at past water bills). Make sure you are billed only for what you use.
- ensure that staff are aware of the importance of reducing consumption. Put signs up in washrooms and kitchens with a phone number to report drips and leaks.
- have a regular walk-about to identify opportunities to save water
- fitting passive sensors to control flush urinals can save up to £4,000 per year in water and sewerage costs. Make sure that timers are switched off outside business hours
- install cistern displacement devices to minimise wastage. Alternatively, install dual-flush systems which use far less water
- fit spray taps and reduce water use by 60-70%
- consider alternative water sources, such as rainwater and greywater
- only purchase water-efficient appliances
- contact your water supplier for advice to reduce consumption.

Source: <http://envirowise.wrap.org.uk/> ;
www.waterwise.sebenza-hosting.com



Financial incentives

Enhanced Capital Allowances (ECAs) provide a tax incentive to businesses that invest in equipment that meets published energy-saving criteria. The Energy Technology List (ETL) details the criteria for each type of technology, and lists products that meet them. Businesses can claim 100% first-year capital allowances on qualifying equipment.

Source: www.eca.gov.uk

You may be eligible for an interest-free Carbon Trust business loan to pay for energy efficiency measures. Loans of up to £100,000 are available to qualifying organisations, over periods up to four years.

For more information see www.carbontrust.co.uk



Practice example

Sanctuary's office in Kingsmead, London, incorporates:

- automatic lighting controls to turn off lights in areas not occupied
- sun tubes to illuminate internal areas with natural daylight
- a building management system to control heating and cooling
- a heat recovery system
- high-efficiency condensing boilers
- low-consumption sanitary fittings
- electric water heaters which only operate when the building is occupied
- solar reflective film on south-facing windows.

The office has secured an Energy Performance Asset Rating of 29 (Category B).

Contact: Sophie.Atkinson@sanctuary-housing.co.uk



Practice checklist: Saving energy in buildings

In the short term

- ✓ do an office energy walk-about to spot opportunities for quick wins
- ✓ calculate your historic/current carbon footprint
- ✓ ensure your heating and cooling systems are properly maintained
- ✓ ensure that staff are on message, such as turning off lights and equipment
- ✓ make this fun, for example by introducing departmental energy usage tables.

In the medium term

- ✓ install monitoring equipment to understand your energy consumption
- ✓ upgrade the lighting system as outlined in this **practice brief**
- ✓ consider upgrades to wall and roof insulation.

In the long term

- ✓ upgrade the boiler system
- ✓ consider voltage optimisation
- ✓ install renewables and make use of the feed-in tariff (FiT) and renewable heat incentive (RHI) payments.

But remember the order of priorities: **reduce energy demand – use energy efficiency measures – adopt low carbon technologies.**

Information and communication technology (ICT)

This section looks at the environmental impact of ICT and how you can reduce it.

ICT – what's the issue?

- office equipment accounts for 15% of total office energy consumption – across the UK this amounts to a staggering £300m per year
- 2% of global carbon emissions come from the manufacture and use of ICT
- non-domestic energy consumption from ICT rose by 70% from 2000 – 2006 and on a 'business as usual' basis is forecast to grow a further 40% by 2020
- 1.7 tonnes of raw materials and water go into the manufacturing of one PC – the process consumes over ten times its own weight in fossil fuels
- in 2007, there were an estimated 10m office PCs in the UK
- office equipment is the fastest growing energy user in the business world, yet cost savings of 70% are easily achievable.

Source: Energy Saving Trust; www.globalactionplan.org.uk; Carbon Trust

Most of the things you can do are straightforward and don't involve major changes. In fact some 'simply' rely on staff goodwill, such as switching off equipment when not in use. In any case, talk to colleagues in the IT department to see what is feasible as well as cost-effective within your set-up.

Here are some ideas for what you can do without spending anything:

- get staff to turn off equipment (including standby) when away from their desk for some time
- ensure that computers and printers are set to enter sleep mode when inactive, rather than using an energy-wasting screensaver
- ensure all IT equipment is completely turned off overnight
- fit timers or utilise technology such as *Bye bye standby*, which allows you to cut power to devices in standby mode www.byebystandby.co.uk
- unplug any chargers when not in use, as they still use power when plugged in, even though not connected
- recondition and upgrade – rather than replace – slightly outdated IT equipment
- cut down on business travel by utilising software to hold 'webinars', create online communities of practice and aid teleconferencing
- allow staff to access work files remotely, making home working easier.

Additional measures that may have a financial implication are:

- buy energy-efficient equipment (see information box)
- where feasible, replace PCs with laptops, which use around 80% less energy
- invest in **thin client** technology. Think of a thin client as a stripped-down computer which runs programs remotely on a server. They use much less energy and are cheaper and more environmentally friendly to produce. They require less administration so can save staff time too (see practice example)
- run multiple **virtual servers** on a single host machine. Most servers do not run at full capacity yet energy is wasted in running and cooling them. Hosting multiple virtual servers in one place allows you to pool resources and use less capacity. The result is less equipment, reduced production, and reduced power use.

Energy efficiency labelling

There is no mandatory labelling system, such as those for white goods. There are a number of voluntary schemes:

Energy Star – international standard focusing on energy efficiency 'in use'
www.energystar.gov

TCO certified – international labelling system which considers both environmental performance and usability
www.tcodevelopment.com

Energy Saving Trust (EST) recommended – products with low energy consumption
www.energysavingtrust.org.uk

Electronic Product Environmental Assessment Tool (EPEAT) – evaluates computers, thin clients, workstations and monitors against environmental criteria
www.epeat.net





Practice example

An innovative datacentre has been developed at **Sanctuary Group's** Worcester office which recycles waste energy generated by the computer servers. Using specialist technology, IT equipment located in the datacentre is cooled and the heat reclaimed via a heat exchange unit. This is then recycled to heat other buildings in the complex.

The system provides a sustainable source of heating, without the production of CO₂. It has proved so successful that it is due to be extended to two new buildings on the site. The scheme was awarded the Leadership in the Public Sector Award in the 2009 Datacentre Leader Awards.

Contact: Sophie.Atkinson@sanctuary-housing.co.uk



Practice example

In its drive to green its ICT infrastructure, the **Chartered Institute of Housing (CIH)** has put in place a number of measures:

- actively adopted the ten quick wins recommended by the Cabinet Office www.cabinetoffice.gov.uk/media/141533/greening_gov_ict080724.pdf
- reduced the numbers of servers by creating virtual servers. This has cut the amount of power needed to run and cool the server room, and has reduced the environmental impact of producing servers
- cut the number of printers by using multifunctional devices that can print, copy and scan, and encourages users to print duplex where possible
- insists that all newly procured equipment other than servers is energy star compliant. Use of thin clients means that power usage is reduced on PCs
- sets desktop power settings where available to go into hibernation after a short period of inactivity. Monitors are set to use powersave mode rather than screensavers
- recycles used toner cartridges
- refreshes used equipment with hardware upgrades, rebuilt for smooth running. CIH 'sweats the assets' by extending the replacement cycle for as long as economically possible. Used equipment is offered to charities or recycled by an approved IT waste contractor
- aims to reduce the number of pieces of kit per person – so some users have laptops instead of a PC, but not both.

Office supplies

This section suggests ways that you can reduce your consumption of office materials or make as little environmental impact as possible.

Office supplies – what's the issue?

- over 45m printer cartridges go into UK landfill sites each year. Each one takes up to 1,000 years to decompose.
- every tonne of non-recycled paper used means chopping down as many as 17 trees, using 2.5 barrels of oil, 31,780 litres of water – producing four tonnes of CO₂
- a refrigerated drink machine generates around three tonnes of greenhouse gas every year
- a large tea urn generates more greenhouse gas than 20 fluorescent lights
- data projectors and plasma TVs use up to 300 watts of power, producing about one kilo of CO₂ every three hours.

Paper and printing

Cutting down on paper usage saves money. But does it save the environment? The forestry industry argues that paper production preserves forests, because it provides the commercial incentive to plant trees. But a lot of paper doesn't come from sustainable forests, and all paper uses fuel and chemicals to make the paper and transport it. Typically, paper accounts for 70% of waste produced in offices. Here are some ways to cut paper use.

Reduce

- reduce or stop using printed forms – stocks often get thrown away when forms change
- print letterheads from the computer – don't keep printed supplies
- use default settings for computers that produce narrow margins; review the text to take out waste space and cut the number of pages
- print two-sided; use 'grey scale' or 'draft' and 'duplex' modes – set these as defaults on printers
- educate staff to use the least wasteful printer settings
- send faxes via computers to avoid printing
- create electronic publications where practicable
- if you do print, work with your designer/printer to minimise paper consumption, using certified paper that is as light in weight as possible
- ensure your office doesn't get junk mail, including free magazines.

Reuse

- reuse paper for printing drafts, if it's only printed on one side
- reuse printer cartridges – get a refill company to collect them or buy a refill kit.

Recycle

- have easily-accessible recycling points with clear instructions
- send used paper for recycling (make sure the service is a reliable one that is not dumping the paper)
- buy recycled or partially recycled paper where you can – try to use the highest

proportion of 'post-consumer content' that you can

- recycle printing cartridges and other materials
- carefully specify paper for printed publications (see box).

When the time comes to replace printers, invest in multi-function devices (ie. those which enable you to print, copy and scan). Only purchase duplex printers that allow you to automatically print on both sides. Even more can be achieved by investing in IT systems designed to replace paper files, reducing paper use and storage.

Specifying paper supplies



Aim to minimise environmental impact by specifying paper that has a 'post-consumer waste' content of at least 70%. Make sure that it is chlorine-free during production. It should be sold with an accredited environmental or green label that details emission standards and post consumer waste content. For paper supplies, the main label is that of the Forestry Stewardship Council. FSC material can be:

- recycled (all the fibre is post-consumer reclaimed material)
- mixed sources (a mixture of timber from an FSC-certified forest, post-consumer waste, or 'controlled sources' which exclude unacceptable forestry practices)
- pure (all the fibre comes from an FSC-certified forest) – at the moment there is very little availability of this type of paper.

More information is available at www.fsc-uk.org/





Practice example

Clyde Valley Housing Association moved into new offices in 2009 and made a whole cultural change to reduce the amount of paper being used and its carbon footprint. Part of this was thin client IT. Over a six-month period:

- managers were given presentations on the advantages of electronic document management
- a project plan was developed
- each area of the business designed a database structure
- agreement was reached on indexing criteria, system functionality and responsibilities
- replacement PC systems were researched, chosen and installed
- project progress was constantly reviewed.

The system was phased in over a period of four months:

- electronic document management was installed
- links were created into existing systems
- training provided staff with necessary skills
- scanning was completed to deadline and documentation uploaded
- staff accessed the system, with ongoing testing to identify problems.

Results achieved were:

- culture change and a reduced carbon footprint
- quick access to documents
- documents can be found easily
- reduced storage
- paper-based incoming documents are scanned to be available to multiple users
- outbound documents can be emailed and transferred, further reducing printing
- departmental printers have been replaced with fewer multi-functional devices
- improved customer service.

Contact: Andy.McVey@cvha.org.uk



Purchasing strategies – greener procurement

As a minimum, think about how to reduce, reuse and recycle the items used regularly in your offices – apply these principles when ordering new supplies or making decisions like whether to replacing desks. Before ordering something, check its environmental standing at www.gooshing.co.uk

Ideally, though, you will take a more comprehensive approach by adopting a **green procurement strategy**. There is already plenty of help available (see box) but you have to be aware of possible greenwash. The clearer

it is how the supply chain works, the more likely that you will be able to identify genuinely green products. You might also want to avoid products that cause other environmental damage like chemical pollution. You might want to go further still and buy certified Fairtrade products where available. Ideally, as with paper, you should purchase supplies made from recycled material. You might want to work with your suppliers to 'green' the supply chain or invest in training for them. And the more local your supplier, the less the transport costs (providing of course that the supplier sources locally, too).

Green procurement



Procurement for Housing (PfH) is the procurement arm of HouseMark, jointly owned by CIH and the NHF:

www.procurementforhousing.co.uk/about_us/sustainable_procurement

You can read the government's sustainable procurement plan at:

www.defra.gov.uk/sustainable/government/documents/SustainableProcurementActionPlan.pdf

The Mayor of London has a green procurement code and other advice at:

www.greenprocurementcode.co.uk/

The local government procurement strategy is at:

www.idea.gov.uk/idk/aio/7643299

Reducing waste

Finally, even if you reduce consumption, some things will end up as waste. Workplaces generate 250m tonnes of waste a year – ten times more than households. So whatever you do to reduce waste at home, you can achieve even more at work. It makes business sense too: waste costs UK industry at least £15bn per year.

To begin to get to grips with waste, you need to measure how much you produce. Classify the waste so you can set targets for reducing it by category. At this point, you need to raise staff awareness. The example cited earlier was of Gentoo's two lorry loads of waste, parked outside the main office to show people what they had thrown away over a six month period.

Once you have reduced waste to the minimum, you need to ensure as much as possible is recycled and also that you minimise the distance it travels (whether to be dumped or recycled). To do this you need to separate the waste at the time when it is thrown away (the most efficient time to do it), having clearly labelled receptacles with instructions on what goes where. Try to

make these as simple as possible and have some system of checking or (even better) rewarding people for meeting the rules.

Ideally, you should have a waste disposal contract in which the final points of recycling or disposal are specified. Here is a brief checklist to make sure your waste contractor is operating correctly:

- are they registered with the Environment Agency?
- do they have appropriate insurance policies?
- do they provide 'waste transfer' or 'duty of care' notes for each consignment?
- do they give you evidence of final disposal?
- do they have proper arrangements for separating hazardous waste?

More information on what to ask about waste is at: www.defra.gov.uk/environment/waste/

You should also consider recycling locally. Can you give old but serviceable computers away to staff? Will a charity (eg. Oxfam) take your used mobile phones? Housing organisations should try to recycle furniture that is suitable for domestic reuse to people who need it – maybe their own tenants.





Reducing and recycling waste

Here are some websites that offer advice (but remember also to check local sources – such as your council):

- general guidance – www.wasteonline.org.uk and www.envirowise.gov.uk
- reusing old furniture – www.frn.org.uk/
- Impact Furniture Services www.impacthousing.org.uk/CFS.html
- mobile phones – www.oxfam.org.uk/get_involved/recycle/
- unwanted but working computers – www.oxfam.org.uk/get_involved/recycle/computers.html



Practice checklist: Greening your office supplies

In looking at office supplies, have you:

- ✓ encouraged staff to make suggestions?
- ✓ looked seriously at reducing paper and printing?
- ✓ decided if you can change your IT system to cut paper use?
- ✓ implemented the principles of reduce-reuse-recycle for all office supplies?
- ✓ examined procurement systems?
- ✓ made the value-for-money case for any changes?

Staff travel

This section looks at the environmental impact of business travel and commuting and how it can be minimised.

Staff travel – what's the issue?

- commuting accounts for 15% of all trips, with business trips a further 3%
- nearly 70% of these trips are made by car
- in 85% of commuter/business trips, the car has only one occupant
- only 3% cycle to work
- the average commuter travels 1,340 miles per year, producing almost one tonne of CO₂ annually
- replacing the car for commuting only one day would cut the UK's CO₂ emissions by almost 1%.

Source: National Travel Survey 2008; 2009 www.workwiseuk.org

Developing a travel plan

A good way of addressing this issue is by developing a **travel plan**. This aims to reduce car use (for commuting or business) by promoting alternatives. Evidence shows that travel plans can reduce car use, typically by 15%.

Having a travel plan has many benefits – for the organisation and staff and for the local community where your premises are situated. DfT's *Essential Guide to Travel Planning* says they include:

- less demand for parking spaces and associated maintenance costs
- reduction in business travel costs
- improved image with customers and others
- contribution to achieving accreditation schemes such as ISO14001
- improved staff health through exercise

- reduction in traffic and congestion, and less dangerous streets
- enhanced staff punctuality due to fewer traffic-related delays
- savings on commuting costs
- reduction of travel-related stress
- moving away from traditional travel benefits linked to position and seniority
- improved public transport, cycling and pedestrian infrastructure
- enhanced local environment.

Download the guide at: www.dft.gov.uk/pgr/sustainable/travelplans/work/

Getting started

A good way to start is by giving someone overall responsibility for a travel plan. In most cases this will be a committed individual with

an interest in this topic, unless you have a dedicated post such as a sustainability manager.

There are plenty of free sources available to help, such as the DfT guide (see previous page). Local authorities may offer advice on travel planning. The Energy Saving Trust in Scotland offers free travel plans to Scottish organisations with more than 50 employees and/or 10,000 visitors per year (www.energysavingtrust.org.uk/scotland).

Before embarking on a travel plan, you need to decide on its **coverage**. Sanctuary Group prioritised large sites and those which would have the most environmental impact, before extending their plan to other locations.

Establishing a baseline

A quick way of assessing current travel patterns is to conduct **a staff travel survey** (see the *Essential Guide to Travel Planning* for a sample questionnaire www.dft.gov.uk/pgr/sustainable/travelplans/work/essentialguide.pdf). This needs to be accompanied by **additional information** such as available bus services and cycling infrastructure.

Convening a small group at this point is useful for getting the survey questions right and also to get a feel for the kinds of initiatives which might work.

This information will enable you to promote practical alternatives. For example, do not promote car-sharing if staff live in very dispersed places or start work at quite different times. In organisations where a high proportion of staff commute ten miles or

more, incentivising cycling will have very limited success. Check your current **travel policies**. Do they (inadvertently) encourage car use through high mileage payments?

Set some targets

It is important to be realistic about what is achievable. A car dependency culture won't change overnight. The DfT guide suggests expressing the target as the number of commuter cars per 100 employees (for smaller organisations adjust this figure accordingly). This way it is possible to track changes over time, even if staff numbers change, and compare performance with other organisations. You might want to set additional targets, such as reduction of car use for business travel and increased cycling to work.

Making the travel plan work

The plan will only work if staff **buy into** the policies. Remember that culture change takes time and 'incremental' is the watchword.

Communicating the motivation behind the plan is key to buy-in (get your marketing department involved). Make it part of an overall carbon reduction strategy or of meeting accreditation requirements. Use staff who already travel sustainably as **champions** of the travel plan.

Keep staff informed through regular updates. Publicise success stories to keep up morale. Involve staff in deciding how some of the money saved as a direct result of the plan should be spent.



Practice example

Cross Keys Homes' travel plan endeavors to reduce the carbon footprint of staff and business activities and support Peterborough's quest to become the UK environmental capital. Five pool bikes and cars are available for use for travelling to meetings. The HA committed

to replace its 13 fleet vehicles on a rolling programme with more environmentally-friendly ones, in accordance with business needs. The organisation received recognition for its travel plan at the regional Workplace Travel Plan Awards.

Cross Keys Homes' travel to work patterns	2008	2009	Trend
Car as driver (travelling alone)	81%	70%	- 11%
Car share	7%	9%	+ 2%
Cycle	2%	8%	+ 6%
Public bus	5%	1%	- 4%
Walk	3%	12%	+ 9%

Initiatives and incentives

Here are some ideas to get you started:

- get senior management to lead by example – could company cars be replaced with smaller or 'greener' models when the time comes?
- cut down on business travel by asking whether a journey is really necessary – would an email exchange, telephone conversation or video conference be a viable alternative?
- think about reducing the personal car user allowance or even withdraw it altogether, where alternative modes of travel can be arranged – Peabody Trust has gone down this route, despite initial resistance from staff
- match staff who are willing to car share
- introduce car parking fees – maintaining car parking space isn't cheap. Creating new car parking facilities is even more expensive. However, since this would have a greater impact on lower-paid staff, it needs to be carefully thought through
- provide cash payments or other benefits in kind every time an employee leaves their car at home
- make it a requirement that staff use public transport for business travel where feasible – look into options for getting cheaper tickets
- consider video conferencing – Places for People reduced business travel through video conferencing and were able to

demonstrate the cost and time savings. Even if you can't afford a fully fledged conferencing system, use Skype www.skype.com

- provide an emergency fund so that people who didn't come by car can get a taxi home in case of a family emergency, sickness, etc
- provide information on local public transport
- if your office is near a mainline train station, consider a shuttle service during rush hours
- make things fun – Accord's car-sharing scheme was run on the basis of a competition which saved a total of 11,000 miles, equal to a journey to New Zealand
- consider pay-as-you go car sharing services, such as Streetcar www.streetcar.co.uk/
- give staff the option (where appropriate and feasible) to work from home
- provide season ticket loans to help spread the cost (paid back by monthly deductions from the salary).



Practice example

The Northern Ireland Housing Executive (NIHE) promotes sustainable travel to work and has signed up to the **Tax Smart Travel Card** provided by Translink, the integrated public transport operation in Northern Ireland. NIHE offers staff a salary sacrifice for the purchase of a TaxSmart Travel Card before income tax and national insurance deductions which saves up to 31% on the annual bus fare. An **Annual Commuter Travel Card** is also available through salary sacrifice for train travellers, giving savings of 20%. At the time of writing 42 staff use the schemes for trains and 18 for buses.

Contact: Maurice.Jennings@nihe.gov.uk

Encouraging cycling

Here are some tips:

- support the **Cycling Guarantee** www.cycletoworkguarantee.org.uk/
- sign up to the **Cycle to Work scheme** (see information box on the next page)
- provide secure cycle storage and shower and changing facilities
- make use of any avid cyclists within your organisation to spread the word
- provide some pool bikes for staff to use during working hours
- encourage the formation of a bicycle user group

- 'match' experienced with budding cyclists to help them get started
- find out if your local authority is running cycle proficiency training and if so ask them to run a course in your organisation
- tie in promotional activity with the National Bike Week www.bikeweek.org.uk/
- provide information (for example, the *Active Travel Workplace Toolkit* www.sustrans.org.uk/).

Whilst many of the suggestions above are aimed at reducing car use for both commuting **and** business travel, the nature of housing organisations' businesses means that the scope is often limited. The focus must therefore be on **efficiency**. For instance, Solihull Community Housing had a 'green fleet review'. Riverside offered staff training on 'smarter driving' (see examples).

Cycle to Work scheme



The employee enters into an agreement with the employer to hire a bike and any accessories for a set period (usually 12 months). The hire fee is paid via salary sacrifice, taken from gross salary thus saving income tax and national insurance. At least half of all journeys on the bike should be for work. The employer has to sign up to the scheme beforehand.

Schemes are run by Cyclescheme www.cyclescheme.co.uk/ and by larger retailers.



Practice example

Staff at **Riverside** who cycled to work were given a voucher for a free lunch. There was also a display in reception on the benefits of cycling with giveaways like cycle maps and reflectors. Between them, 12 staff cycled 200 miles, saving 49 kg of CO₂ and up to £80 in travel costs. If they keep this up, over a year they would collectively travel 19,400 miles, saving over five tonnes of CO₂ and £7,760 in transport costs.

Contact: Alix.Johnson@riverside.org.uk



Practice example

In 2008, **Solihull Community Housing** reviewed the green credentials of their fleet with advice from the Energy Saving Trust. A new specification was developed which included:

- a mix of vehicles, including electric, hybrids, as well as traditional petrol or diesel
- speed limiters in all vehicles to make journeys safer and more fuel efficient
- training for drivers, including how to do basic checks and maintenance
- online facilities to access and share vehicle repair and service records with the maintenance company, including the facility to book services online
- availability of vehicle servicing facilities within five miles of the depot

- free health checks for vehicles at the depot
- a mobile tyre fitting service.

CO₂ emissions from company vehicles were estimated to be around 150 tonnes a year. Targets were put in place to reduce the fleet's environmental footprint over a 24-month period commencing January 2009, cutting CO₂ emissions by 40 tonnes, fuel used by 16,000 litres and fuel costs by £16,000.

Further work underway includes:

- monitoring fuel use, with extra training on fuel-efficient driving for those using too much
- exploring ways of reducing the number of vehicles in the fleet
- road-testing alternative vehicles for the future
- changing the way work is planned to reduce the distances travelled – via work scheduling software
- looking at how staff use their own vehicles for business purposes
- ensuring continued support from staff for any future changes.

Contact:

mcstanheira@solihullcommunityhousing.org.uk



Practice example

Working in partnership with the Energy Saving Trust, **Riverside** offered staff free **Smarter Driving** lessons by an advanced instructor to teach staff to drive more efficiently. At each session the savings in fuel use and costs are assessed. On average the 100 staff who took lessons each potentially reduced emissions by 18% – more than half a tonne of CO₂ and more than £300 per driver.

Contact: alix.Johnson@riverside.org.uk

Wider issues

Organisations can widen their considerations to take on board issues such as banking, investments and pensions.

Banking

A growing number of financial products and services have green credentials – there is certainly a choice in an increasingly competitive market where with research an organisation can achieve efficiencies as well as meet green objectives.

As green products emerged in the banking sector they were initially targeted at individuals, but there are now internet-based solutions for organisations which provide a high proportion of paperless transactions. Some providers apply qualifying criteria – for example, an organisation's level of turnover.

Charging for banking services has always been competitive, and with greener products this commercial aspect still remains. It is still important to test the market and find the provider that best suits the organisation. In some cases providers offer solutions that improve business process on the basis of speed or labour intensity.

The complexities of banking structures and the interrelationships locally and globally can make it a daunting task to identify a provider. But many are now making more of their green credentials. Whether an organisation is reviewing its processing facilities or its borrowing, it should check the credentials of providers against the goals of the organisation. Choice of provider may rest on environmental or social responsibility policies which in most cases are available on the provider's website or are a feature of marketing or advertising campaigns.

Some banks make a specific feature of their ethical or green agendas. For example, the Co-operative Bank and Smile have strong ethical banking policies and campaign on green issues. The smaller Triodos Bank offers services to business and charities (see www.triodos.co.uk/en/business/) and invests only in sustainable ventures, including a strong interest in renewables and in social enterprise.



Investment

The area of environmentally and socially responsible investment is a difficult one. With the fluidity of global investment markets, and the complexity of corporate structures worldwide, it becomes increasingly difficult to identify the global activities of an international company. It has become difficult to be sure that companies are adhering to environmental policies which creates a challenge for the investment manager, whether internal or as an external adviser, to ensure compliance.

The question of climate change is a complicated one for investors and advisers. For example, major international oil companies, a fundamental sector in UK markets, may be considered not only the creators of environmental problems but also possibly those most likely to invest in renewables.

To monitor such issues, many investment firms will have a specialist ethical screening function, either through an external agency or in-house. The availability of such screening may well be a key criterion in selecting an investment firm or adviser.

Boards and trustees of organisations have many responsibilities regarding invested assets, especially managing the balance between risk and return. It is appropriate for an organisation to have a policy which reflects its approach to socially or environmentally responsible investment. Care needs to be taken that such a policy is both workable and flexible. Features may include:

- instructing investment managers or advisers to follow an approach consistent with sustainable investment which forms part of their contractual relationship with you
- investments should not only offer sound returns but that companies should conduct themselves in ways that are socially and environmentally responsible
- favouring companies with ethical business practices and responsible corporate governance
- any specifically excluded area(s) in keeping with the organisation's aims and ethos
- conversely, any favoured areas, such as energy-efficient housing or micro-renewables.

There are a number of guides to green investment, such as EIRIS (www.eiris.org/). There is general background on green financial services and products at www.gooshing.co.uk/money/. In the housing field, the Ecological Building Society (www.ecology.co.uk/index.htm) specialises in mortgages for energy-efficient housing and offers investment accounts for charities as well as for individuals.

Pension Funds

Engagement with pension funds either individually or corporately makes us all potentially major shareholders in some of the largest and best known companies. Given that 70% of FTSE-related earnings are from overseas activities, it is increasingly difficult to assess the activities of a company, and therefore its environmental credentials. The ethical screening of pension funds is just as significant as it is with investment portfolios.

The requirement to state the extent to which ethical issues have been taken into account in investments by pension funds has been in place for many years. However, since the introduction of the first ethical fund in 1984 there have been debates as to whether following the ethical path compromises returns. Trustees and fund managers have been faced with the dilemma of the legal duty to act in the financial interests of members and the 'public' duty of socially and environmentally responsible fund management.

Performance of ethical funds is key to this debate, and they have demonstrated strong performance by investing in well-governed, forward thinking companies. Also, by becoming more mainstream ethical funds have attracted talented fund managers, drawn by environmental issues, with the result that they are an investment choice because of, rather than despite, their performance.

It is essential when identifying ethical pension funds to choose those that:

- perform favourably against relevant benchmarks in terms of returns
- comply with investment screening procedures
- have a comprehensive and robust environmental statement about their activities.

The report *Is your pension fund at risk from the carbon crunch* (www.trucost.com/uploads/downloads/Trucost_Pension_Report_Singles.pdf) identified the risks of long-term investments failing to take account of climate change.

Engaging with residents

Why engage on this issue?

There are at least three good reasons for this. First, the homes you manage are almost certainly a massive part of your business and therefore of your environmental impact. You can do a lot to tackle this by making them more energy efficient, but to be really effective you need to have residents' active engagement. This key issue will be dealt with in detail in the **practice online** www.cih.org/practice/online chapter on the housing stock.

Second, the green agenda potentially benefits residents themselves. As well as saving money on fuel bills, many landlords have found that the 'green' agenda is also perfect for getting residents involved in communal activities – as the ideas in this section show.

Third, working with residents is an ideal opportunity to broaden the impact of what you do. Climate change will only be tackled if people are aware about it and decide to act: as a landlord, you are in an excellent position to influence hundreds or even thousands of people – your residents!

Raising awareness – what's in it for residents?

It's important to give thought to the initial contact with residents: there may be a tendency to dismiss the 'green' agenda and if you can put forward specific reasons for addressing it that will be attractive to them, this can help get onto the right footing. One obvious approach is to focus initially on saving energy: many residents are likely to have problems with fuel bills, or need to keep their

homes warmer, or both. As part of their *Affordable Warmth* strategy, Herefordshire Housing identified that:

- 14% of their tenants have debt problems
- 38% have a disabled person in the household
- 11% use the services of a carer
- 41% are aged 60 or over
- 17% are not connected to the gas grid.

Their survey work helped make a convincing case for their strategy, given the proportion of households it was likely to benefit.

However, cutting fuel bills is by no means the only approach you can use. For example, a lot of surveys have shown concern about so-called 'crime and grime' issues in neighbourhoods. You might be able to use these as a starting point, working from local environmental issues towards more global ones. Another approach is to build on activities already taking place – for example, people who are interested in gardening might be interested in larger-scale vegetable growing or in healthy eating. This addresses several green issues, not least the 'food miles' involved in shipping food over long distances.



Engage individually or with groups?

In reality this isn't an either/or question, but you will have to decide whether to engage on a one-to-one basis and/or work through community networks. A compromise with one-to-one engagement is to work only with new tenants, and train staff appropriately. However, if you only do this you may well miss the larger proportions of tenants who could gain most from advice on (for example) saving on fuel bills.

Some golden rules

Many of the issues that arise are the same as with any type of community engagement, but some are particularly important for this agenda:

- green issues are a little like community cohesion or equality – as an organisation you may have a clear agenda but residents are likely to have their own views: take them into account as far as you can
- providers who are not giving a good service are unlikely to succeed with a wider agenda until they get the basics right
- avoid the temptation to treat green issues as technical (at least in the first instance). Wait for residents to ask for advice on technical matters then respond to their requests
- engage early on in the process – you won't be thanked if you give the impression (especially if it's true) that residents' views were not important in drawing up your green strategy

- build in space for bottom-up initiatives. Residents are likely to have ideas of their own – do you have some resources to take these forward?
- remember that – as on other issues – only a proportion of residents will attend meetings. Use two or three different ways of getting residents engaged
- think about 'hard to reach' groups and how you can involve them too
- Look for existing networks before you start up new ones – go 'with the grain' of how a particular community works
- check out what resources are available locally – many different groups are engaged with ordinary people about this agenda and may have already started work in your area.

The rest of the section covers a range of different practice examples to give you ideas.



Energy-saving initiatives

The most basic way to raise awareness about energy-saving is to provide booklets to go to all current and new tenants. A good example is the one produced by Isos Housing Group in the north-east: *The Isos Green Guide* (www.isoshousing.co.uk/aboutus/socialresponsibility/sustainability.htm). Places for People has an interactive guide on its website for residents to compare energy tariffs in their area, as well as a series of short video clips about how to save energy in the home (www.placesforpeople.co.uk/customers/save_money_and_energy.aspx).

In the private sector, Wates produced a guide for new residents in their developments explaining how to save energy, save money and at wider issues (www.wates.co.uk).

Some landlords have built on this to have broader approaches to energy saving, with incentives such as free devices. Here are examples from City West Homes and Knowsley Housing Trust.



Practice example

City West Homes

Over 1,800 residents of City West Homes (the ALMO in Westminster) took part in 11 events in which there was energy-saving advice and free gifts like energy-efficient bulbs, PowerDowns and scarves to help keep warm in the winter. Thirty partners of City West Homes participated. The events were so popular that follow up events covering wider issues were then planned. City West Homes won the 'Best Community Initiative' in the NFA national ALMO awards in 2009.

Contact: hshore@cwh.org.uk



Practice example

Knowsley Housing Trust (KHT) produced a booklet in the form of an 'energy saving wheel' that showed money-saving tips. Residents can have a free home energy audit to get specific advice. There are incentives such as money off more efficient white goods, and free energy-saving devices such as monitors. KHT judges that many tenants have saved several £100s in energy bills as a result of the audits.

Contact: anthony.jarvis@k-h-t.org

Creating more sustainable lifestyles

Some landlords are helping residents tackle their environmental footprints through wider schemes. Examples are Black Country Housing Association's Carbon Cutters and Sandwell Homes' eco-champions.



Practice example

Black Country Housing Association works with tenants in a scheme called 'Carbon Cutters' which gives advice about saving energy and also about reducing water consumption and waste, buying local produce and changing travel habits. The project started in one estate in 2009 and was then rolled out in a series of roadshows. The eventual aim is to cover all 1,700 tenants. Local agencies such as the CAB and Sure Start are partners in the project.

Contact: bainesr@bcha.co.uk



Practice example

From 50 tenants who applied, five suitable volunteers were chosen as potential eco-champions. **Sandwell Homes** assessed their home energy performance and carbon footprints. The champions agreed to try and lower these readings by taking on several challenges including reducing the amount of waste they create, increased recycling and reduced energy use.

As well as regular meetings, the champions have been on visits, including to the Centre for Alternative Technology. Working closely with the champions, Sandwell Homes created a unique Going Green 'micro-site' through which residents could follow progress and share opinions and personal experiences. The site has received hundreds of visits. Eco-champions were also given free training to help them use social networking to discuss green issues. To date the Twitter site has more than 280 followers, many of whom are Sandwell residents. There has been extensive media coverage, with eco-champions appearing and being quoted.

Partly as a result of the scheme, 80 tenants were chosen to receive free fridge-freezers in exchange for participating in a one-year trial with energy supplier N-power to see how they can help control energy fluctuations in the national grid.

Contact: andrew_walton@Sandwellhomes.org.uk



Initiatives to engage residents in environmental projects

The green agenda has great potential to encourage residents to work jointly to improve their environment.



Practice example

Trans-Pennine Housing has around 16,000 properties and its **Edible Pennine** project aims to:

- encourage tenants to start growing fruit and vegetables by offering free start-up packs – this could be a potato growing kit, a planting bag (for tenants in flats with balconies) and compost, or tomato/strawberry plants and a grow bag or a kitchen window sill planter.
- support groups of tenants who want to utilise HA land, including communal gardens, for community growing projects. This could be planting herbs/soft fruiting shrubs into communal beds or more complex projects like community orchards or allotments.
- develop tenants' cooking skills and encourage them to try 'new' foods. This involves roadshows in estates with a 'burger van' that provides good food for people to try, and recipes and bags of ingredients to take home.

The project is now in its second year and about 1,000 tenants have taken part. There are a number of community growing projects, one in a 'difficult' estate, which so far are working well. There have been other benefits, for example in Mixenden, Halifax there are four tower blocks with a very young community, and there is now a walking group which goes out monthly and afterwards tenants share a community meal – in a community where loneliness and isolation are issues.

Funding came from the Healthy Towns Initiative and the Big Lottery.

Contact: val.morris@ph2k.org.uk



Practice example

Adactus Housing Association manages a grant scheme where residents can apply for up to £1000 to deliver sustainable projects in their area that will involve and benefit the community. Residents are supported with the application and planning their project; it is then assessed by a panel of residents. So far £30,000 has been awarded to residents across the North West to deliver projects including alleyway gardens, street greening and vegetable growing.

Contact:

Chris.Twomey@adactushousing.co.uk

Engaging with different groups

Here are two examples of engaging with particular groups – young and old. But you might want to consider how to use the ideas in this part of the **practice brief** to engage with other groups who – for example – don't often attend meetings.



Practice example

Gentoo Green has a number of programmes to engage with children:

The Yoks is an environmental lesson for ages 4-11, which involves pupils designing their own environmentally themed comic strip. This could be as simple as stick figure drawings that encourage recycling or a detailed comic strip that tells a story about worms who struggle to cope with traffic congestion. The lesson is usually delivered in up to an hour, to classes of 30 pupils.

The Yoks is now one of the modules in Gentoo's *Community Kids Programme*. This is provided free to schools in Gentoo priority neighbourhoods but elsewhere there is a charge, although Gentoo has successfully applied for funding through Sunderland Council's Community Chest. In these cases the lesson is supported with Gentoo Green's mobile education unit, which can expand on the work started in the classroom lessons.

EcoHacks involves designing an environmentally focused newspaper. Pupils become reporters, editors and designers. Gentoo worked in partnership with The Sunderland Echo to arrange visits to the

newspaper and have the final newspapers printed by the Echo, giving pupils an understanding of how a newspaper is produced.

Priceless teaches the value of rubbish. Gentoo works with pupils (usually sixth form) to encourage waste reduction and support reduce – reuse – recycle. Pupils are given a brief to create a marketable product made almost entirely from rubbish. They need to prepare a business case, consider how they will market the product and costs, production and predicted sales. The project allows pupils to see the value of 'rubbish' and also helps to develop business skills.

Contact: paul.burns@gentooogreen.com



Practice example

Anchor Trust's customers are older people; to engage them the trust set up a competition to encourage resident-led initiatives from different Anchor communities. The competitive element appealed to tenants, and a range of different ideas emerged from 30 groups with over 900 tenants. The winners produced a regular energy newsletter, written by tenants, created recycling points and installed energy-efficient bulbs. The winners saved over £25,000 of fuel through the scheme – equivalent to almost 20 tonnes of CO₂. Anchor won the 'Energy Saving Initiative of the Year' prize in the Sustainable Housing Awards 2009.

More information: www.insidehousing.co.uk/ihstory.aspx?storycode=6507066

Training schemes

Green issues can provide excellent opportunities for training initiatives, such as apprenticeships in retrofit work.



Practice example

Accord Group with **Family and Black Country Housing Group, Sandwell Homes** and the **Energy Saving Trust** are running the 'Fit for the Future' campaign which aims to train a total of 600 residents on environmental issues.

The project will also see up to 20 paid 'community climate change champions', with a further 20 work placements at contractor Mears. Mears is also training its own workforce in fitting green technology. The £200,000 scheme is funded by Advantage West Midlands to help develop a low carbon economy.

To date more than 100 residents have been trained, with dozens opting to go on a further full course in Climate Change & Energy Management. A key part of the scheme is a new one-stop advice website for all things green: www.thegreenhouseproject.org.uk

One resident said:

'The training made me think about energy conservation in my own home and there were opportunities for me to discuss my situation with other residents and the trainers, who were both approachable and knowledgeable.'

Contact: enquiries@nrcce.org.uk

Using green issues to create more cohesive communities

An important feature of the green agenda is the 'feel good' factor – it can help make people feel better about themselves and where they live – and even affect outsiders' views of an area.



Practice example

Family Housing Association, Birmingham City Council and **Urban Living** worked with the local residents association to turn the Summerfield neighbourhood into Birmingham's first '**eco-village**'. Renewable energy and insulation measures were installed in 329 low-income owner-occupied homes, the Housing Education Initiative worked with school children from local schools, 20 unemployed residents undertook paid placements with the eco-contractors and six multi-occupied houses were refurbished as large family eco-homes. This attracted over 2,000 visitors (local, national and international) to Summerfield.

The project successfully engaged with most residents and was commended when it received the community involvement prize in the Sustainable Housing Awards 2009 because it 'engaged the whole community with deep buy-in'.

Family now has a further eco-neighbourhood in South Lozells with eco-installations in homes, home energy advice, paid trainee placements and the competitive 'Eco-Factor' scheme for young people (modelled on 'X Factor' and delivered by First Class Youth/E:ngage).

Family are currently delivering a Green Doctor programme (in partnership with Groundwork WM and Moseley Community Development Trust) which aims to make 600 home visits by March 2011 to help residents reduce fuel bills and live more sustainably, delivering the community engagement activity for the pilot phase of a Birmingham Energy Savers scheme.

Family HA's experience is unusual in putting such a strong emphasis on community-based work – and has gained results.

Contact: chardwick@family-housing.co.uk

Another neighbourhood-based initiative is the Barnet Green Home Zone, which covers 2,250 homes. It also has a network of local 'champions' and it has a dedicated website www.greenhomezone.org/

Community initiatives might benefit financially from installing renewable energy: *Green Streets* (www.ippr.org/pressreleases/?id=4142) looks at the potential for communities to fund projects in this way.

Making green issues the basis of a tenant engagement plan

In Wakefield, the stock transfer HA has actually made the green agenda the focus of tenant engagement, with promising results.





Practice example

Wakefield and District Housing

WDH manage 31,000 homes. This number of people can have a huge environmental impact. Following board approval of WDH's Climate Change Strategy in April 2008, WDH launched a tenant engagement plan. 'Influencing behaviour' was one of three underlying themes of a strategy that aims to make WDH carbon neutral by 2016. The three aims of the engagement plan are to:

- inform residents and increase their awareness of the climate change issue
- inform residents about the implementation of the WDH's new strategy
- receive feedback to improve the strategy and the information residents receive.

There were two focuses for active engagement in the initial stages:

- over 100 attended the annual tenants' conference, whose theme was climate change. Workshops covered fuel poverty, design standards for new housing, behaviour change and energy efficiency
- the WDH summer roadshow aimed to raise resident awareness of environmental issues. More than 800 residents attended and completed a climate change questionnaire. There were competitions for children and adults.

The budget for the initial stages was £14,000. The key messages from residents were that they are concerned about climate change and want WDH to do more by for example installing renewable energy systems. Tenants asked for more recycling facilities and for help with the problem of pre-payment meters. All the issues are now being investigated by WDH; they are actively developing a training programme for residents to be certified by CIH.

Contact: odaggett@wdh.co.uk

A strategy for becoming and staying 'green'

Action does not depend on a strategy

There are many things your organisation can do immediately to reduce its environmental impact. You will find quick-win solutions throughout this **practice brief** to help you get started. Implementing these doesn't depend on having an environmental strategy in place. Indeed, if there is only one message you take from this publication, it is **do something!** This can help pave the way for the more strategic approach discussed here.

Don't let bureaucracy or indifference from middle or senior management get in your way – persuade them, or offer to take the lead yourself. Time and again we have seen that change happens incrementally and from the bottom up rather than top-down. Of course, 'buy in' from the top is very desirable (particularly when it comes down to investment), as the examples have illustrated, but you don't necessarily have to wait for this before getting started.

Turning from individual actions to a strategy

However, in the end you will need a strategy or action plan if you are to really 'embed' change in your organisation. It's especially important if you want to gain accreditation (see practice example), as this will depend on having a plan and being able to demonstrate that it is being carried out.



Practice example

Accord Housing Association started with a range of piecemeal actions, but then they decided to develop a strategic approach. In part this was because they decided to aim for accreditation under the 'EMAS' standard (see page 56), and they became the first association to do so. This determined the shape of their strategy, designed to meet the EMAS requirements.

Key elements of the Accord strategy are:

Environmental responsibilities

Accord established a structure of shared responsibilities, including creating an environmental management team among existing staff, who take the lead role in implementation across the different parts of the group. Two senior managers report on progress to the group's executive team. The strategy's progress is now formally reviewed on an annual basis.

Management tools

Accord approved its group environmental policy in March 2009. The eco-management and audit scheme is the tool for implementing the policy and achieving the EMAS standard. It sets out the key steps to be followed, including an audit and review process, and a procedure for ensuring legal compliance. The EMAS appraises all the group's activities which have an environmental impact. Many of these are obvious, of course, like electricity use in offices and staff travel.

Environmental programme

Accord has set an environmental programme with five main objectives and associated activities. The aim was to have a limited number of clearly expressed goals, whose progress could be measured and would deliver significant change. The five objectives are:

1. *Reduce CO₂ emissions by 26-32% by 2020 from a 2005 baseline.* This produces a series of actions, from reducing the average SAP rating of Accord homes to reducing staff travel.
2. *Develop an enhanced management tool for controlling CO₂.* This will be an in-house tool to assist the drive towards goal 1.
3. *Develop low and zero carbon housing.* Several new developments are scheduled which will meet carbon targets.
4. *Campaign to develop staff and resident awareness.* All parts of the group have departmental action plans. Staff awareness is maintained by entering Accord for competitions (see below).
5. *Achieve EMAS accreditation.* This was gained in September 2009.

In addition to the five main goals and actions to achieve them, a number of other objectives and actions are set out, together with a procedure for reviewing and updating the strategy. Many of these actions pick up suggestions made by staff.

Measuring environmental performance

This is tackled in two ways. First, the strategy shows how Accord is meeting legal obligations and industry standards, such as the Code for Sustainable Homes and the relevant Audit Commission KLOE (which includes an expectation of tackling environmental issues in the housing stock). Second, the strategy shows how the Accord carbon footprint is calculated (see below) and kept under review. This is the key measure as it will show whether or not Accord is meeting its primary goal (see above).

Other aspects

A final section covers issues such as past activities which have a continuing impact, including purchase of contaminated land, and how new environmental risks are dealt with. It also covers the partnerships which Accord uses to further its environmental objectives.

The eco-management and audit scheme can be found at www.accordha.org.uk/



You will have to decide on the scope of your strategy – is it going to cover the whole business (like Accord's), including the stock? Or will it cover just the business activities? Obviously, the former is more ambitious and very desirable, but you might want to begin with a more limited strategy and then develop it further.

The remainder of this section of the **practice brief** looks at specific tasks that you will need to perform in developing your strategy:

calculating your carbon footprint, setting achievable goals, environmental audit and accreditation schemes and rewarding success.

Calculating your organisation's carbon footprint

One of the first steps in preparing a strategy is to establish a baseline measure in the form of your **carbon footprint** – the total amount of carbon that your organisation is **directly** and **indirectly** responsible for emitting.

Greenhouse gases

A carbon footprint takes into account six main greenhouse gases (GHGs):

- carbon dioxide (CO₂)
- methane (CH₄)
- nitrous oxide (N₂O)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulphur hexafluoride (SF₆)

Each has a different global warming potential (GWP): certain GHGs are more potent in trapping heat compared to CO₂ (which has a GWP of 1) and thus exacerbate the greenhouse effect. For instance, methane (a by-product of waste decomposition) is a far worse offender than CO₂ with a GWP of around 21.

Different GHGs are usually reported as CO₂ equivalents (CO₂e). A carbon footprint is measured in tonnes of CO₂ equivalent (tCO₂e), arrived at by multiplying the emissions of each GHG by its GWP.



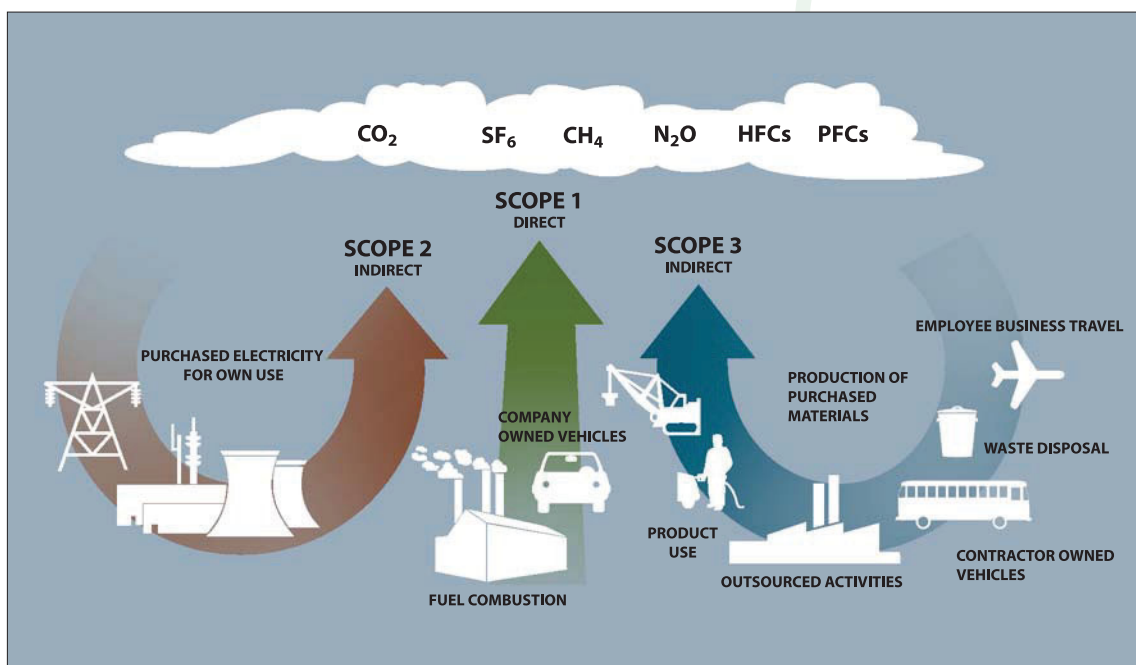
The Greenhouse Gas protocol is the most widely used methodology (www.wri.org/publication/hot-climate-cool-commerce). It distinguishes three types of emissions which together make up a comprehensive carbon footprint:

- **Scope 1 – direct emissions** over which your company has direct control, such as from gas use and company vehicles.
- **Scope 2 – indirect emissions** over which your company hasn't got direct control, but is indirectly responsible for, such as from electricity use.
- **Scope 3 – other indirect emissions** such as those from waste, employee travel and procurement.

While calculating scope 1 and 2 emissions is relatively straightforward, scope 3 is more difficult. You might therefore want to start with scope 1 and 2. The comprehensiveness of a footprint also depends on its purpose. One required for an energy management standard or accreditation system obviously needs to be done thoroughly.

It isn't necessary to detail the process of footprinting, as there are online calculation tools to help you with this.

All you need is to compile the relevant data – such as gas and electricity bills for scope 1 and 2 emissions – and the various calculators do the rest.



Source: New Zealand Business Council for Sustainable Development

There are a range of resources and tools to calculate scope 1 and 2 emissions:

www.ghgprotocol.org/calculation-tools

You don't have to manually apply the emission factors – these are embedded in the spreadsheets – you only have to input the quantity of kilowatt hours from your energy bills.

The Carbon Trust's online calculator is another tool and can be found at:

www.carbontrust.co.uk/cut-carbon-reduce-costs/calculate/footprint-calculator/Pages/footprinting-tools.aspx

The trust also produces a useful overview: www.carbontrust.co.uk/publications/pages/publicationdetail.aspx?id=CTV043

Personal carbon and ecological footprinting tools

There are plenty of online tools – encourage staff or residents to try one of these:

Energy Saving Trust – carbon cutter

www.energysavingtrust.org.uk/calculator/start

WWF footprint calculator

<http://footprint.wwf.org.uk/>

Carbon Footprint Ltd.

<http://calculator.carbonfootprint.com/calculator.aspx>

Resurgence carbon dioxide calculator

www.resurgence.org/education/carbon-calculator.html

Centre for Sustainable Economy

www.myfootprint.org/



Setting achievable goals

It is vital that goals are challenging but realistic: if you don't get the balance right staff and board members could easily get disillusioned. It is also important that the goals are yours – by all means learn from elsewhere (including from this **practice brief**) but you should set objectives that really relate to your circumstances. You need to incorporate some goals based on suggestions from staff or customers, for example.

If you are starting from scratch you will need some simple aims that can be achieved quickly then you can set more ambitious ones once people are more confident. Bron Afon Community Housing in Torfaen has 8,000 homes. It began its campaign to 'green Bron Afon' with activities during Wales Sustainability Week in May 2010. It set the immediate aim of reducing carbon emissions by 10% in 2010, so it has joined the 10:10 campaign (see page 57).

Remember, worthwhile goals will stay worthwhile no matter what happens to public opinion or government policy on climate change, because they are driven by your organisation's priorities, its staff and customers.



Practice example

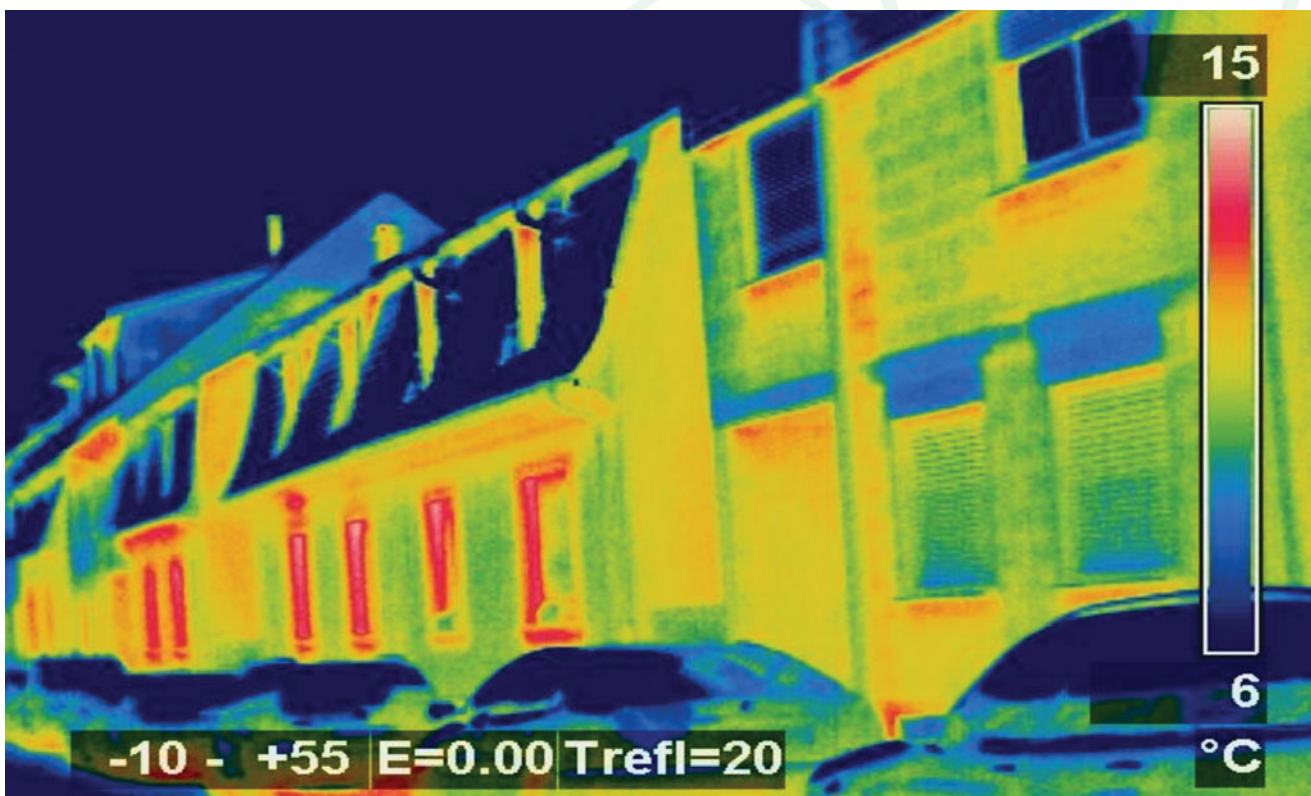
Sentinel Housing Association in North Hampshire has 7,900 homes. It committed to a set of goals over the three-year period to 2013, under its environmental programme called 'Re Think':

- reduce its operational carbon footprint per employee by 10%
- achieve an average SAP rating per home of 74% by 2013

- reduce the average property CO₂ production by 0.28 tonnes per annum – 15% over the three years
- generate customer energy savings of £400k over three years
- improve the insulation of 400 homes a year (saving on average £28.50 per property for tenants)
- reduce contractor travel by 3% over three years
- reduce the overall footprint by 3.1 tCO₂.

Sentinel has a climate change officer who shares her role with Hart District Council – a useful example of a partnership allowing two relatively small bodies to tackle this issue economically.

Contact: Val.Bagnall@sentinelha.org.uk



Environmental audit and accreditation schemes

Formal schemes to audit your environmental progress and accredit your achievements have a very useful role in driving change within the organisation, motivating staff by setting a clear target and – perhaps above all – being able to prove to the outside world that you are environmentally responsible.

Accreditation schemes



SHIFT (Sustainable Homes Index for Tomorrow) is a social housing benchmarking body which assesses member landlords on their environmental sustainability every two years, and provides a practice exchange.

www.sustainablehomes.co.uk

ISO 14001 2004 is an environmental management standard. It specifies a set of requirements for environmental management systems. The purpose is to help organisations protect the environment, prevent pollution, and improve environmental performance.

www.iso.org/iso/iso_catalogue/management_standards/iso_9000_iso_14000/iso_14000_essentials.htm

EMAS (Eco-Management and Audit Scheme) is a more demanding EU standard, which incorporates ISO 14001 but requires external verification. An organisation might therefore decide to aim for compliance initially with the ISO standard, then aim for EMAS. An EMAS-accredited organisation might decide to encourage or require its suppliers to comply with the ISO standard.

http://ec.europa.eu/environment/emas/about/summary_en.htm

BREEAM (BRE Environmental Assessment Method) is a long-established measure, applicable to any type of building.

<http://www.breeam.org/>

Rewarding success

Even if you don't initially want to aim for formal accreditation, there are many campaigns or competitions available (see box) which can help you promote green issues and motivate staff.

Social landlords can succeed in wider business competitions too. For example, Sandwell Homes was the first ALMO to achieve

validation by EMAS (see above) and was also named the second greenest social landlord this year, achieving number 21 on the Sunday Times '100 Greenest Companies' list. This was particularly because of their ambitious training scheme: to date more than 900 employees have completed half-day training sessions to promote best practice in the workplace, their responsibility as employees and how their work impacts on the community.

Green campaigns and competitions



The **Sustainable Housing Awards** take place each year, organised by Inside Housing. There are a number of separate awards covering not only retrofit and new build but also organisational change and work with residents.

www.insidehousing.co.uk/6503721.article?navCode=1170

10:10 is a campaign to get individuals and organisations to cut their carbon emissions by 10% in 2010.

www.1010global.org/uk

The Sunday Times **Best Green Companies award** takes place annually. It is open to organisations that have at least 50 staff.

www.bestgreencompanies.co.uk/



Practice checklist: Setting a strategy

In setting your strategy, have you:

- ✓ got started with some short-term actions or quick wins?
- ✓ looked at other organisations' strategies – then started your own?
- ✓ received commitment from a high level but ensured the strategy goes right through the organisation?
- ✓ set your starting point and your targets by assessing your carbon footprint?
- ✓ made sure the targets are achievable and relevant?
- ✓ decided whether to go for formal accreditation?
- ✓ looked at joining competitions or campaigns that might incentivise staff?

Finding out more

Selected reading

Christoph Sinn and John Perry (2008) *Housing, the environment and our changing climate*.

Published by CIH, this book provides a comprehensive and non-technical introduction to the topic.

Duncan Clark (2009) *The Rough Guide to Green Living*. Excellent overview of all things green.

Liz Barclay and Michael Grosvenor (2007) *Green Living for Dummies*. Good overview, similar to the Rough Guide.

Some useful websites

NetRegs

Environmental guidance and overview of legislative requirements for businesses.

www.netregs.gov.uk

Act on CO₂

Government initiative to raise awareness of climate change and how to mitigate it.

<http://actonco2.direct.gov.uk/home.html>

Sustrans

The UK's leading sustainable transport charity, working with policy-makers and practitioners to promote the health benefits of cycling and walking.

www.sustrans.org.uk/

Choose Another Way

Initiative of the Scottish Government, designed to encourage more sustainable transport choices through the creation and implementation of travel plans.

www.chooseanotherway.com

National Business Travel Network

Network which enables companies to share best practice and promote the rationale for travel plans.

www.nbtn.org.uk

Carbon Trust

Not-for-profit organisation providing advice and support for businesses to enable them to cut their carbon emissions.

www.carbontrust.co.uk

Energy Saving Trust

Free advice on energy efficiency and carbon reduction measures. EST also provides bespoke information for housing professionals.

www.energysavingtrust.org.uk

Energy Saving Secrets

One-stop-shop on saving money and the environment.

www.energysavingsecrets.co.uk

A Greener Office

Comprehensive resource on making your office greener.

www.agreeneroffice.co.uk

The Chartered Institute of Housing



The Chartered Institute of Housing (CIH) is the professional body for people involved in housing and communities.

We are a registered charity and not-for-profit organisation. We have a diverse and growing membership of over 22,000 people – both in the public and private sectors – living and working in over 20 countries on five continents across the world.

We exist to maximise the contribution that housing professionals make to the wellbeing of communities. Our vision is to be the first point of contact for – and the credible voice of – anyone involved or interested in housing.



Matrix Housing Partnership

leading the sector on the green agenda



The Matrix Housing Partnership is leading the sector on the green agenda by building innovative low carbon homes and improving the efficiency of our existing stock.

Through Matrix, The Accord Group's nationally acclaimed timber eco homes in Redditch are a mass market model of low carbon housing – with 300 completed or on site and 100 more planned.

The individual partners are delivering programmes to retro-fit existing stock with green technology and also jointly ran a competition in schools to encourage pupils across the region to design the 'eco house of the future'. A house based on the winning design will be built as part of an 80-home development in 2011.



Matrix is a partnership of seven housing associations delivering over £110m of new housing development and other services. Matrix comprises of Accord, Ashram, Caldmore, Rooftop, Trent & Dove and Trident housing associations as well as WATMOS Community Homes, and in addition provides services to a range of other housing organisations.



Matrix
housing partnership

www.matrixhousing.org.uk