

Weathering the Storm – Saving and Making Money in a Changing Climate

A Practical Guide for Small Businesses in the West Midlands



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How to use this guide

This guide has been produced for small and medium businesses (SMEs) in the West Midlands. It will help you to understand how you could be affected by weather, including extreme events, and how you can improve your chances of a quick recovery. The guide also sets out business opportunities from responding to a changing climate, and provides useful tools and contact information.

To get the most out of this guide:

- Read the introductory sections on why climate change is relevant now, what the key impacts can be and what is in it for your business.
- Read the section on how to prepare for extreme weather events. This is split into topics such as insurance, your premises and your people. For each topic, the guide asks a series of questions to help you think about how you might be affected and identifies a series of simple and low cost actions you could take.
- Do you need more advice? Refer to the tools and contacts section.

The information in this guide has been focused on actions that are relatively easy for small businesses to achieve, tackling issues that are within your control or influence. You might not be able to stop flooding or an extreme storm event affecting your business, but you can take a few simple steps to reduce the impact these might have on your business so that you can remain operating. The list of suggested actions is not exhaustive and ticking all the boxes does not guarantee you are resilient. You must consider your specific circumstances.

There may also be opportunities that organisations can take advantage of, including identifying new markets or products through to saving money from effective resource efficiency. Further suggestions on how to identify these are presented towards the end of the guide on page 15.



What are the effects of a changing climate likely to be?

More frequent and severe flooding

The majority of flooding is caused by heavy rainfall which can lead to rivers bursting their banks or drainage systems being unable to cope with the volume of water. With a changing climate, increased winter rain is projected throughout the West Midlands, with greater rates of rainfall increasing the risk of flooding. It is also likely that there will be increased heavy rainfall in the summer months.

In the West Midlands it is anticipated that winter rainfall will increase by about 5% by the 2020s (based on UKCIP09 socio-economic ranges).

Do you know if your business (or key employees' homes) are in a flood risk area? If so, would your business survive a serious flood? How would electric and computer systems, stock and machinery be affected? How long would it take to recover?

Hotter summers

In 2003 and 2006 we had extreme summer temperatures in the West Midlands. The heatwave in 2003 killed about 2,000 people in the UK. The frequency of hotter summers is expected to become more common. Increasing temperatures have also softened road surfaces and disrupted travel connections.

In the West Midlands it is anticipated that the summer mean temperature will increase by about 1.5°C by the 2020s (based on UKCIP09 socio-economic ranges).

In urban areas hotter summers may be a particular issue, due to the urban heat island effect - where buildings and other developments which retain heat, can add several degrees to the temperature in built up areas. For your business, this could affect working conditions for staff and cause equipment to overheat. Increased temperatures could also affect agriculture, changing the growing season and the types of crops that can be grown. It may also change the nature of pests and diseases.

Drier summers

Reduced summer rainfall is expected and, combined with increased temperatures, could result in more droughts in the West Midlands. Water shortages in the summer could become more frequent. If stand pipes were introduced in your area, how would this affect your business?

In the West Midlands it is anticipated that the summer rainfall will decrease by about 7% by the 2020s (based on UKCIP09 socio-economic ranges).

Subsidence may become more common and could affect insurance costs.

Changes to frequency and severity of storms and extreme winds

Storm events can cause severe short term impacts including disruption to services. The tornado that hit Birmingham in 2005 lasted for just four minutes, but wreaked havoc across the Small Heath, Hall Green, Sparkbrook and Kings Heath areas of the city. It destroyed part of a supermarket, uprooted trees and damaged more than a hundred homes.

In January 2007, storms and high winds caused power cuts and road closures across the UK. How reliant are your customers on timely delivery of products or you on delivery of materials from suppliers?

The frequency and severity of storms may change. However, there is no clear picture yet as to what these changes may be.

Are the weather and climate relevant to my business?

A review of weather across the West Midlands over the last ten years shows that we have already experienced extreme weather events. Some of these events have had devastating impacts on people's ability to go about their daily activities. Whilst many of the events to date have been flood related we may see more of these events and a wider variety impacts as our climate changes.

- Businesses directly impacted by the 2007 floods took an average of 26 weeks to return to normal operating capacity. Some small businesses can take up to two years to recover from a flood - and some do not survive.
- Based on a 2006 survey, 90% of SMEs are under-insured against flooding, and 70% of those in high risk areas were "not concerned".
- Rail commuters in Birmingham endured extensive delays on 17 July 2006 as the extreme heat caused railway lines to buckle. Many services from New Street Station in Birmingham had to be cancelled and some passengers had to wait more than two hours.
- The flooding in July 2007 was caused by a month's rainfall in 1-2 hours and caused interruptions to electricity and water supplies, and significant disruption to road and rail networks. 350,000 homes had no mains drinking water.
- A farm in Herefordshire indicated that if they had not invested and adapted to hotter summers and warmer damper winters, they would be out of business due to crop failure.
- A National Farmers Union (NFU) member lost 80 sheep to flooding on land that was traditionally unaffected by flooding.
- After the flooding in June and July 2007, insurers received 165,000 claims in the UK, estimated to total £3bn in insured damages. But the economic and social costs were far higher, as not all costs to businesses can be insured.

Preparing for a changing climate makes good business sense. Experience in the West Midlands has shown that extreme weather could have some serious consequences for your business operations: not just for your premises and staff, but also by disrupting your suppliers, distribution or customers.



So, what's in it for my business?

Like any other issue facing your business, it is important to understand how extreme weather and climate change impacts could affect you. Planning ahead rather than responding reactively will help you to:

- save your business money in the long term;
- give your business the best chance to continue to operate and meet customer orders, in spite of the weather; and
- identify possible business opportunities e.g. new products or services, reduced costs etc.

What can I do to prepare?

Understanding how your business will be affected by weather and climate change impacts is a crucial first step, but what should you do next? The following pages cover some common issues, questions to ask yourself and where to go for more information.

A number of these issues are common to all SMEs, regardless of your business sector. However, agriculture, horticulture and other rural businesses may face different challenges to urban businesses and therefore we have provided a separate section on page 14.

We have focused on actions that are relatively easy for a small business to achieve, tackling issues that are within your control or influence. Whilst some of the actions will have an initial cost they should save you money in the long term. The example below shows how a company adapted to the threat of increasing temperature on crop production.

Case Study: Pixley Berries, Herefordshire (Source: Farming Futures)

Overview: Pixley's part of Herefordshire has been particularly affected by climate change. To grow healthy berries, the plant must remain dormant through the frosty weeks; if the plant awakens too early, the buds die off. This not only affects the current crop but the following year's as well. As winters and springs become gradually warmer, this could seriously affect future crops.

Following a devastating, and unexplained, crop failure in 1998, the farm explored how climate change affected their blackcurrant crop. They visited farms abroad, to identify different varieties that could cope with hotter summers and warmer damper winters.

"If we hadn't invested and adapted, we'd be out of business due to crop failure."

How they adapted: Pixley re-mechanised the farm to protect the soil and plant roots from warmer, wetter winters. Six-wheeled, low pressure vehicles have been introduced, along with low volume, controlled droplet application and targeted spraying. Winter water storage has been doubled to allow for hotter, drier summers and trickle irrigation has been introduced in place of frost protection. Weather stations are used to monitor both winters and the growing seasons.

Benefits: Being better able to determine harvesting start and end dates has optimised quality and yield. They are now looking into growing fruit varieties that will be more tolerant to climate change.

"It also serves as a risk reduction exercise, the combination of heat and rain can be devastating for soft fruit. We lost 100 tonnes in 2005. With better harvest planning this may have been avoidable."

Insurance

Ask yourself?

- When** did you last check that you have the insurance you need?
- Are you covered for** floods and storm events?
- Do you have** business continuity cover **if your business is interrupted?**
- Does your insurance policy** replace new for old **or have** limits for repairs?

Take action:

- Check your insurance cover **at least annually**. Confirm that you have a policy that covers the full value of your business and keep documents safe from weather impacts (and store copies off-site).
- Check that buildings and content insurance covers flooding and storms.
- Check if you have **business continuity insurance** that will cover you whilst you cannot do business.
- Catalogue your assets (could include photographs or video).
- Make sure that the **period of time that you are insured for** is adequate. In the case of a major flood, for example, there can be long delays while property dries out and affected customers return to do business with you.

Further information:

- Check with your own insurance broker for more information, or contact The Association of British Insurers (ABI) at <http://www.abi.org.uk> or 02077600 3333, or the Federation of Small Businesses (FSB) on 01253 336 000.
- The link below provides information on the types of insurance SMEs may need, including property, employees and financial risk (*Insurance for Small Businesses: A Guide To Protecting Your Business*): <http://www.abi.org.uk/Information/Business/40507.pdf>
- There are other **types of insurance** you can consider such as: **engineering insurance** to repair/re-instate machinery and computers; **goods-in-transit insurance** to cover goods whilst they are being moved; **frozen food insurance** which covers you if there is a failure of the public electricity supply; **others** such as glass insurance, cancelled event insurance etc.

Don't forget to take into account the length of time an insurance payment could take and potential cash flow problems. A loss adjuster may need to visit.

NOTE: If your property is not fully insured for the right sum, but only 50%, say, then you will only be paid 50% of your claim. Some companies waive this condition for buildings, so it is important to check!

Premises

Ask yourself?

- Do you know if you are in an area at risk from flooding or flash flooding? Remember that climate change means that risks will change.
- If you are currently located in a flood zone, do you have appropriate **flood defences** (for example, sandbags, plywood or metal barriers)?
- If you are moving premises, have you checked whether the location is within a **flood zone**?
- Are you about to sign a **long term lease agreement** which would make it difficult to relocate? If you are, have you checked if you can afford the **relevant insurances**, including business continuity insurance?
- Do you have the equipment to **clean up** after an extreme weather event? Are you able to purchase this now?
- If your premises are damaged by extreme weather, have you considered re-instating it to a **higher standard of resilience** to prevent the same damage happening again?
- Have you considered whether you could operate from **alternative premises** if you had to?
- Are there mutual weather warning systems that you could share with neighbouring businesses? Can you share alternative suppliers, accommodation, etc?
- How well do your buildings and building services cope with high temperatures?
- Could increased chances of subsidence affect your business?

Prolonged clean-up operations arising from stormwater contaminated with sewage is a particular problem for restaurants, takeaways, veterinary surgeries etc.

Take action:

- Before you sign a lease, make sure you are comfortable with the lease conditions. If you are in a flood risk area, consider the length of the lease agreement and potential implications.
- When upgrading your premises, for whatever reason, consider ways to make your property more resilient to severe weather. You could, for example, consider relocating to a lower risk area (higher ground, not on a flood plain, etc).

Other practical measures you can take include:

- Move electrical sockets to above the flood level and separate electrical circuits.
- Lay ceramic tiles on the floor and use rugs instead of fitted carpets.
- Use lime plaster instead of gypsum.
- Fit stainless steel or plastic kitchens instead of chipboard.
- Position main parts of a heating or ventilation system upstairs, above the ground floor.
- Replace wooden window frames and doors with synthetic ones.
- Fix floodboards to window and door frames.
- If you are in a high flood risk area, fit back-flow devices to drains and sewers.

Take action *(continued)*:

- You can check the Environment Agency's website to identify if you are in an area at risk of flooding from rivers. Enter your postcode at the following web address:
<http://www.environment-agency.gov.uk/homeandleisure/floods/31650.aspx>
- You can also sign up to the Environment Agency's free 24 hour Floodline Warnings Direct Service. Warnings can be sent by phone, text, email, fax or page. The more warning you have, the more time you have to prepare and protect your business. Tel: 0845 988 1188 (Floodline). Email: enquiries@environment-agency.gov.uk. Web: <http://www.environment-agency.gov.uk>
- Plastic covers can stop flood water coming through air bricks. Equipment such as pumps, driers and dehumidifiers will aid the clean up after a flood. If you have these prior to a flood it will save you time. Consider sharing the cost of equipment (e.g. a water pump) with your neighbours.
- Sandbags and pre-prepared plywood or metal barriers can reduce flooding around doors. Using a blanket or silicone sealant around the barrier can also help. If sandbags are in short supply you can buy your own sand and bags or use pillowcases/plastic bags. However, note that a flood may contaminate these items with sewage so they should not be reused. Alternatively, demountable flood defences are also available.
- Check buildings maintenance, gutters, drains and culverts.

Further information:

- The following Environment Agency publications also provides further advice on how to prepare for a flood: <http://publications.environment-agency.gov.uk/pdf/FLHO1007BNET-e-e.pdf> and "Would Your Business Stay Afloat": <http://publications.environment-agency.gov.uk/pdf/GENE0408BNYL-e-e.pdf>
- The Met Office provides weather forecasts – Tel: 01392 885680. <http://www.metoffice.gov.uk>
- Ask your plumber for advice. A list of local plumbers in the West Midlands can be found here: <http://www.yell.com/s/plumbers+merchants-west+midlands.html>
- More information is available on the repair and restoration of buildings following extreme weather at CIRIA's (Construction Industry Research and Information Association) website: <http://www.ciria.org/flooding>

Do not assume that because the Environment Agency does not identify your area to be at risk of flood that you are not. You may still be at risk from flash flooding, surface water or groundwater flooding.

***“Well, I'm pretty much the same as everybody else really.
We lost vehicles, stock, we lost our office stuff and everything else, and
emotionally it was really hard to come to terms with losing 35 years of business.”***

(Source: Climate Change and the Effects on Small Businesses in the UK, AXA, 2006)

People

Ask yourself?

- Are your **staff vulnerable** to extreme temperatures (heat and cold), have you considered risks such as fainting, injury and reductions in efficiency?
- Do your staff have any **medical conditions** (such as high or low blood pressure, heart disease, epilepsy or diabetes) which might be made worst by **extreme temperatures** (hot or cold)?
- Have you considered other people that could be at risk, such as nursing or expectant mothers, outside workers, manual workers who are physically active, kitchen staff or staff operating equipment or machinery?
- Are there any areas where **slips and falls** could occur during extreme cold or rainfall?

Take action:

- Identify individuals with medical conditions and increase awareness of the impact of extreme temperatures amongst staff.
- Ensure that you have identified your legal obligations and understand your liabilities with respect to working conditions in the workplace. See link to Health & Safety Executive (HSE) below, including thermal comfort and outdoor working.

In very high temperatures:

- If the task allows, encourage workers to wear suitable summertime and comfortable clothing to work to minimise discomfort.
- Install thermometers and identify cool areas.
- Insulate high temperature pipes and plant.
- Ensure there is good ventilation and encourage regular breaks (provide water and ice).
- Move workstations away from direct heat and fitting external shutters can help reduce glare.
- If you do not have suitable air conditioning equipment and it is too expensive to install, consider other ventilation and working-from-home options.

In very low temperatures:

- Ensure that you have grit/salt supplies and that adequate gritting of access routes is undertaken in snowy and icy conditions.
- For outside workers, increase breaks to avoid hypothermia and consider other measures such as cold weather clothing.
- Encourage staff to wear appropriate footwear to prevent slipping on ice.

Further information:

- The NHS provides advice on how the risks of heatwaves and how to prepare: <http://www.nhs.uk/Livewell/Summerhealth/Pages/Heatwave.aspx>
- The HSE provides information on work place temperature requirements: <http://www.hse.gov.uk/temperature/index.htm>
- See UKCIP brochure (Climate Change, Heatwaves and Preparing Your Business): <http://www.ukcip.org.uk/images/stories/smes/Heatwaves.pdf>

Utilities

Ask yourself?

- If your **pipes** freeze, are they vulnerable to bursting?
- What would you do if your business was cut off from the **mains power supply**?
- Do you know how to turn off the **gas, electricity and water** supplies to your business?
- Does your business depend on **water**? If there was a drought and a resulting hosepipe ban or other restrictions, would you be able to continue to do business? **Water companies have a legal duty to supply households, but not businesses.**
- How will your business be disrupted if your phones don't work?

Take action:

- Talk to your plumber on ways to avoid burst pipes or reduce the damage.
- Consider alternative power supplies such as solar or standby/back-up generators. There are grants available for energy-saving/energy efficiency projects which will save you money on energy bills in the long run and also make your business more resilient to power cuts.
- Talk to your suppliers to find out how to turn off the water, gas and electricity to your business. By turning them off before a flood or storm, you may reduce the amount of damage.
- Consider alternative water supplies, such as installing water tanks to store rainwater. This can also save you money and help reduce your carbon footprint.

Further information:

- Gas** suppliers in the West Midlands:
<http://www.yell.com/ucs/UcsSearchAction.do?keywords=gas+suppliers&company>
- Electricity** suppliers in the West Midlands:
<http://www.yell.com/s/electricity+suppliers-west+midlands.html>
- Water** suppliers in the West Midlands:
<http://www.yell.com/s/water+suppliers-west+midlands.html>
- Business Link** – offers free, independent advice and brokerage through its improving Your Resource Efficiency Programme, and provides information on available support and grants for energy efficiency projects. Tel: 0845 113 1234.
- Keele University** – Project Green (up to September 2010) - assistance from Graduates for up to three months to work on an environmental project - **free** to business. Tel: Lucy Challenor 01782 73 587.

“Outdated and overloaded sewage and drainage systems will not be able to cope with sudden intense rain falls, adding to flooding costs in urban areas.”

(Source: Climate Change and the Effects on Small Businesses in the UK, AXA, 2006)

Information technology and security of data

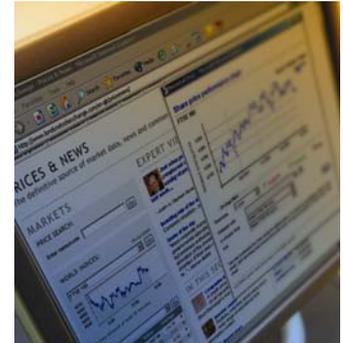
Ask yourself?

- Flooding, storms or power surges could damage computers and electronic files could be lost. Do you have a **back-up** and is it saved in a **safe, separate location**?
- If your computer were unavailable, what processes would be affected (e.g. orders, payroll, contacts etc) and would your business still function?
- What alternative arrangements do you have to access vital data?
- If your staff are unable to get to work, either because homes or working premises are affected by snow, floods or storm damage, can you continue to do business? Can they work from home, with access to IT?
- Is your server room vulnerable to extreme temperatures? Do you rely on air conditioning to keep cool, which can be vulnerable to power cuts?

Can you cope with lost orders and enquiries?

Take action:

- Regularly back-up your computer files to disc or other saving device and store this in a safe place, separate from your computer's hard drive, ideally in a separate location.
- Check if your employees have **broadband** and other equipment at home to enable them to work from home if necessary.
- Consider getting a server with **remote access** so that key staff can access your computer files from any computer.
- Review the location of your key IT equipment to identify if it is at risk from increased temperatures and/or flooding.



Further information:

- Seek advice from your hardware and software provider on how to back-up your files, and how to access your computer systems if they are damaged at your premises and how to access your computer files remotely.

If office temperatures reach 32° Celsius, productivity decreases by 29%.

(Source: Centre for Economics and Business Research 2003)

Suppliers, logistics and delivery

Ask yourself?

- What happens if your suppliers cannot get to you because of weather-related disruptions?
- What would happen if you could not get your products or services to your customers because of weather-related disruptions to road, rail or air services?
- Perhaps your customers could not get to you?
- Do you lease equipment or plant which could be damaged at a customer's property? Would production come to a halt?
- What happens if your staff cannot get to work?



Take action:

- Consider alternative suppliers and/or increasing storage capacity to increase the ability to operate without deliveries.
- Consider **sharing suppliers** with similar businesses in your area.
- Think about how you get your **products to your customers** or how your customers get to you. Consider how the routes could be disrupted by extreme weather.
- Make sure the drivers of vehicles transporting your products are **experienced** and are aware of the risks of driving in extreme weather (i.e. through floodwaters, on icy roads or during high winds).
- If your staff drive for business, make sure they are aware of **procedures for driving** in severe weather.
- Alternatively, consider using teleconferences for meetings when you cannot deliver your service in person.

Further information:

- Seek advice from your suppliers and other similar businesses to identify alternative options.

“I have been affected by the severe weather conditions. The building where my practice is has trouble with water supply and then my clients can’t get to my practice. This means I had to cancel my appointments for the rest of the week. My business was badly affected by the economic situation last year, and now the snow adds to it.” January 2010

Products, processes, stock and raw materials

Ask yourself?

- Have you thought about where you store your **products, stock and raw materials**?
- Do you know how to contact your employees out of hours to get assistance in moving or protecting stock?
- Do you have any processes or products that are temperature or climate sensitive?

Take action:

- Raise your stock **off the floor** to reduce its vulnerability to a flood. Do not store stock in the basement if possible.
- Think about expensive stock such as plant and vehicles and whether they can be **relocated rapidly**.
- Know where your **drains** are and keep them unblocked.
- Empty **oil traps** regularly to minimise pollution in the event of floods.

Further information:

- Business Link** - offers free, independent advice and brokerage through its Improving Your Resource Efficiency Programme and provides information on available support and grants for energy efficiency projects. Tel: 0845 113 1234.

Case Study: Kitley House Hotel (Source: Farming Futures)

Overview: The natural environment is an important feature of Kitley where it is situated in an Area of Outstanding Beauty. The managers have implemented environmental measures to help care for the hotel's surroundings and reduce its carbon footprint. They have now taken this further, to consider how the hotel will increasingly be affected by climate change. It was recognised that longer warmer summers could extend the peak tourist season. However, some transport links may deteriorate.

How they adapted:

- Invested time into the management of the estate - i.e. raised access pathways besides water, trained staff.
- Purchase locally to tackle the concern over affects of travel and reduce disruption from extreme weather events.
- Landscaping has been changed to create habitats to attract wildlife in the grounds.
- Integrated water efficiency to help reduce the demand for water.

Benefits:

- £4,000 a year has been saved after fitting water pressure reducing valves and changing lighting.

The agricultural and horticultural rural business

Ask yourself?

In addition to the potential impacts that are common to all businesses, the agricultural and horticultural sector faces a different set of issues. These are directly affected by climate, and extreme weather events can have a significant impact. Ask yourself how your business may be affected both negatively and positively by the following potential changes in the West Midlands:

- Increased rain and increase flood risks.
- Reduction in quality and quantity of grass caused by lower rainfall and higher temperatures during summer (which may require feed for livestock to be supplemented).
- Reduced water availability (may affect yields of fruit, vegetables and cereals and irrigation availability).
- Higher temperatures and increased carbon dioxide in the atmosphere (some crops may flourish).
- Changing climate conditions (could make it possible to grow alternative crops, including crops for energy).
- Increase in storm events could provide opportunities for increased water storage for use during water shortages.
- Higher summer temperatures and reduced cloud cover (could increase the risk of heatstroke and sunburn for livestock in open pasture).
- Higher average winter temperatures (could reduce problems for livestock in freezing weather).
- Higher winter temperatures and fewer days of freezing weather (affects vernalisation of winter cereals and formation of flower buds on some fruit trees).
- Higher temperatures (could increase the risk of pests and diseases in arable and horticultural crops).
- Higher temperatures and reduced cloud cover (could increase the demand for outdoor leisure and tourism, which could create opportunities for diversification).

Take action:

- Think about current trends and potential climate changes and seek further advice – **see below**.

Further information:

- Farming Futures, a communications collaboration project between the NFU, CLA, AHRF, AIC, Forum for the Future and Defra, produces a series of fact sheets containing sector-specific advice on climate change. These fact sheets explain the likely impacts, opportunities and challenges of climate change on each farming sector and suggest ways to adapt and combat climate change. The fact sheets can be accessed at: <http://www.farmingfutures.org.uk/resources/factsheets>
- Refer to the Environment Agency's guidance documents for horticultural and agricultural business. http://www.ukia.org/eabooklets/EA_Climate%20Change%20Impacts%20Horticulture_Final.pdf and <http://www.environment-agency.gov.uk/business/sectors/32757.aspx>
- Going for Growth - Rural Development Program England (RDPE) Funding - Business Link offers free, independent advice and brokerage through its Improving Your Resource Efficiency Programme and provides information on available support and grants for improvement projects. Tel: 0845 113 1234.

Emergency contacts and important documents

Ask yourself?

- Do you have a list of contacts that you can reach in an emergency? Do your employees have access to this list?
- Have you got a copy of your important documents saved in a separate location, for example insurance policies, accounts documents, product specifications, client details etc?
- Do you archive paper records off site?

Take action:

- Make sure you have **out-of-hours details** of your staff so they can be contacted in an emergency.
- Keep your important documents in a safe place. This will help to make an insurance claim move more quickly.

Further information:

- A template list of emergency numbers is provided on page 10 of the Environment Agency document, *Preparing for a flood - Practical advice on what to do to protect you and your property.*
<http://publications.environment-agency.gov.uk/pdf/FLHO1007BNET-e-e.pdf>

Projections of climate change suggest that ‘dry year’ water demand for crops currently irrigated in the Vale of Evesham may increase by around 13-20% by the 2020s. This will inevitably impact on the water demand-supply balance.

(Source: Climate change impacts on water for irrigated horticulture in the Vale of Evesham, Cranfield University and Environment Agency, February 2007)



Cut carbon and reduce costs

Every company, no matter what its size, can save money on its energy bills now by following some simple steps. Cutting energy use and saving carbon now will help to reduce further climate change in the future.

You don't have to invest lots of money or make big changes to your business to save on your energy bills. The right combination of small changes, many costing nothing, can reduce your energy bill by £1,000s.

Business Link West Midlands provides information on climate change and cutting carbon emissions and includes further information on advice and funding (see link in the further information section).

Also, seek advice from The Carbon Trust (see contact details on page 17). Here are some simple, no cost, energy saving tips for small businesses:

Issue	What can you do to save money and cut carbon at no cost?
Heating	Don't turn up the heating unless you really need to. Try to keep your thermostat at 19°C as your heating costs could increase by 8% each time you turn the temperature up by just one degree.
Heating	Set controls. Programme your heating system controllers to allow for varying building occupancy throughout the week.
Lighting	Switch lights off in empty rooms. You could cut your lighting costs by as much as 15% just by making sure you turn off lights in areas that aren't being used.
Ventilation	As simple as it sounds, making the most of natural ventilation through correct use of doors, windows and vents is a cost-effective way of achieving big savings on your ventilation.
Office equipment	Switch computers off. A single computer and monitor left on 24 hours a day could cost over £50 a year. Switching it off out of hours and enabling standby features could reduce this to £15 a year.
Refrigeration	Ensure your system is set at the right temperature. Even if it's 1°C lower than needed, your costs could rise by 2-4%.
Motors and drives	Switch off motors and other power equipment when they aren't being used.
Boilers	Service boilers every year - a regularly serviced boiler can save up to 10% on heating costs.
Compressed air	Find and fix leaks - a 3mm hole in your compressed air system could cost more than £700 per year in wasted energy.
Good maintenance	Equipment which is poorly maintained will not operate efficiently and will need more energy.
Knowledge	Make sure everyone knows that saving energy will help the company. Ask your colleagues for their ideas on how you could all save energy.

The Carbon Trust provides 0% interest business loans of £3,000 - £100,000 to help organisations finance and invest in energy saving projects. They also provide a 'Business Incubator' service, comprising up to £70,000 worth of consulting services to eligible applicants (including individuals and small businesses).

Case Study: The Lowry Hotel, Manchester (Source: Carbon Trust)

The Lowry Hotel reduced its CO₂ output by 354 tonnes a year, saving £37,498 at today's prices. It has also increased its appeal to businesses by improving its reputation as a sustainable conference venue.

The first project was to monitor energy consumption and turn off lighting and air conditioning in areas not in use. Secondly, the hotel began to change the light bulbs to energy efficient alternatives. Boilers were fitted with a control to make them more energy efficient. Improvements were also made to the air conditioning system.

The hotel has had an impact on its appeal to businesses by its increased green image.

Opportunities for Small Businesses

The following table provides some examples of opportunities that small and medium businesses could consider, arising from a changing climate:

Markets	Finance	Logistics	Premises	People	Process
New products or modifications to existing products to respond to a changing market	Good risk management will appeal to financiers and insurers and other stakeholders, leading to reduced insurance premiums	Competitive advantage for companies with redundancy or flexibility built into delivery systems and supply chains or those undertaking business continuity planning	Maintenance of thermal comfort in winter months is less of a challenge	Greater comfort and lower fuel bills in winter	Agriculture: Longer growing season and new species and varieties of plants can be grown
Advantages for early movers in response to changed markets and lifestyles	Potential risks reduced and liabilities diminished through pro-active risk assessment and implementation	Supplying local markets creates an opportunity for marketing approach based on regional distinctiveness or reduced product miles	Opportunities for high thermal mass building solutions, which can reduce air-conditioning requirements	Reputational opportunities of responding effectively as a good employer increases recruitment and retention of high quality staff	Manufacturing: Developing expertise in managing industrial processes and technologies in response to climate change
Increased passing trade in some sectors during long hot summers	Clients and customers attracted to businesses that can show they are resilient to climate change		Opportunities for those in built environment industries to develop expertise and reputation in climate-related building services	Opportunity to improve work/life balance by responding to climate change risks with flexible working hours and increased home working	Finance: New insurance products and services that spread the risk of climate change and incorporate underwriting that takes account of climate change
Increased demand for some products and services			Opportunity to exploit external spaces to accommodate outdoor living	Opportunities for recruitment, housing and service provision in areas away from urban centres, which could become more attractive	Construction: Fewer delays on site through frosts
More extreme events means opportunities (i.e. maintenance services, repair, al-fresco eating facilities)				Generally more outdoor activity creates opportunities in some industries	

(Source: UKCIP, A Changing Climate for Business: business planning for the impacts of climate change, revised edition January 2009.)

Useful tools and further information

Who	How can they help?	Contact details
Advantage West Midlands (AWM)	AWM assists businesses minimise potential impacts or exploit opportunities associated with projected climate changes	http://advantagemw.co.uk Tel: 0121 380 3500
Association of British Insurers (ABI)	ABI provide advice on insurance issues and have a range of insurance publications for SMEs	http://www.abi.org.uk Tel: 020 7600 3333
British Chambers of Commerce (BCC)	Your Chamber of Commerce can provide advice, support and guidance on climate change adaptation issues. Find your local Chamber of Commerce on the web site provided	http://www.britishchambers.org.uk/find-your-local-chambers/west-midlands Tel: 020 7654 5800
British Insurance Brokers' Association (BIBA)	Contact your own insurance broker for advice, alternatively contact BIBA who can help you find a member broker	http://www.biba.org.uk Tel: 0901 814 0015
Business Link West Midlands	Business Link provides free impartial, expert support and advice to businesses. Business Link also provides information on available grants, including those to improve your resource efficiency (Tel 0845 113 1234) and http://www.businesslink.gov.uk/bdotg/action/layer?site=131&r.s=sl&r.lc=en&topicId=1080440643 Business Link provide a guide to help you identify potential risks, make preparations and test how your business is likely to cope in a disaster. The guide can be found at this web address: http://www.businesslink.gov.uk/bdotg/action/layer?topicId=1074458463	http://www.businesslink.gov.uk http://www.businesslink.gov.uk/bdotg/action/layer?topicId=1081658406 Tel: 0845 600 9006 (helpline)
Cabinet Office	A toolkit to assist you develop a business continuity plan is provided at this web address	http://www.direct.gov.uk/prod_consum_dg/groups/dg_digitalassets/@dg/@en/documents/digitalasset/dg_176447.pdf
Construction Industry Research and Information Association (CIRIA)	CIRIA provide information on the repair and restoration of buildings following floods	http://www.ciria.com/flooding/
Confederation of British Industry (CBI)	The CBI helps create and sustain conditions in which business in the UK can compete and prosper. CBI provides advice on how to reduce your carbon footprint, case studies and information on climate change events	http://climatechange.cbi.org.uk/ Tel: 0207 379 7400
Department for Environment Food and Rural Affairs (DEFRA)	DEFRA is the lead central Government department on climate change adaptation and provides key information about flooding	http://www.defra.gov.uk Tel: 08459 335577
Environment Agency (EA)	The EA is the lead Government agency in England and Wales on flooding and broader environmental management. Adaptation reporting power guidance checklist can be found here: http://www.environment-agency.gov.uk/static/documents/Research/Reporting_Power_guidance_checklist.pdf	http://www.environment-agency.gov.uk Tel: 08708 506 506
Farming Futures	Farming Futures is supported, amongst others, by DEFRA the National Farmers Union (NFU). It provides a series of fact sheets and case studies on its web site, prepared for each farming sector.	http://www.farmingfutures.org.uk Tel: 07825 204434
Federation of Small Businesses (FSB)	The FSB is the UK's largest campaigning pressure group promoting and protecting the interests of the self-employed and owners of small firms. Formed in 1974, it now has 215,000 members across 33 regions and 230 branches.	http://www.fsb.org.uk Tel: 01253 336 000

Useful tools and further information *(continued)*

Who	How can they help?	Contact details
Government Office for the West Midlands	The Government Office for the West Midlands delivers Government programmes and initiatives in the region to meet local needs	http://www.gos.gov.uk Tel: 0121 352 5050
Keele University	Keele University is running Project Green up until September 2010, where Graduates are provided to a business free of charge for a period of up to three months to work on an environmental project	Lucy Challenor Tel: 01782 73587
Kitemark	Tested and approved flood protection products	http://www.kitemark.com Tel: 08450 75600
National Farmers Union (NFU)	The NFU has various articles and reports on how climate change will affect agriculture and provides information by sector	http://www.nfonline.com Tel: 024 76858500
National Flood Forum Blue Pages	Directory of builders, suppliers and other service providers who install or provide information on flood protection and resilience products	http://www.floodforum.org.uk Tel: 01299 403055
Sustainability West Midlands	A not-for profit company that works with its members who are leading individuals and organisations in the business, public, and voluntary sectors	http://www.sustainabilitywestmidlands.org.uk/ Tel: 0121 202 3265
Members of Climate UK, including: Climate South East South West Climate Change Impacts Partnership (SWCCIP)	Climate South East provides advice and case studies on climate change that are also relevant to SMEs in the West Midlands. The SWCCIP provides a range of adaptation tools, case studies, reports and guides that are recommended and/or produced by the SWCCIP, that are also relevant to SMEs in the West Midlands.	http://www.climatesoutheast.org.uk/index.php/climate/links Tel: 01483 501360 http://www.oursouthwest.com/climate/tools.htm#ag Tel: 01392 442 125
The Met Office	The UK's national weather service, with forecasts available from its website. Forecasts are for anything from the next few hours to the coming season	http://www.metoffice.gov.uk Tel: 01392 885680
The National Flood Forum	A charity providing support and advice to communities and individuals that have been flooded or are at risk of flooding	http://www.floodforum.org.uk Tel: 01299 403055
The Carbon Trust	Provides specialist support to business and the public sector to help cut carbon emissions, save energy and commercialise low carbon technologies http://www.carbontrust.co.uk/cut-carbon-reduce-costs/pages/default.aspx	http://www.carbontrust.co.uk Tel: 0800 085 2005
UK Climate Impacts Programme (UKCIP) Tools provided include: BACLIAT: (Business Areas Climate Impacts Assessment Tool) CLARA: (Climate Adaptation Resource for Advisors)	UKCIP helps organisations assess how they might be affected by climate change, so they can prepare for its impacts. UKCIP was set up by the Government in 1997 and is primarily funded by DEFRA. Tools that UKCIP have prepared include BACLIAT and CLARA for businesses and business advisors respectively. BACLIAT is a good starting point for exploring the implications of climate change for your particular business or sector. It comprises a simple checklist for assessing the potential impacts of climate change. CLARA is aimed primarily at helping business advisors to support SMEs in understanding and preparing for the impacts of climate change.	http://www.ukcip.org.uk Tel: 01865 285717 BACLIAT: http://www.ukcip.org.uk/index.php?id=82&option=com_content&task=view CLARA: http://www.ukcip.org.uk/index.php?option=com_content&task=view&id=534&Itemid=502