

YOUR CARBON FOOTPRINT TOWARDS A SUSTAINABLE STRATEGY: *THINGS TO DO*

SHORT-TERM MITIGATION MEASURES: what everyone can do straight away.

- Use of **transport** that minimises carbon emissions: public transport, efficient travel planning, cycling, car sharing, bio fuelled vehicles, electric hybrid vehicles, highly economical cars etc. (Note, if you own a car, reducing your dependency on it is the first step, any new vehicle has a large carbon footprint associated with its manufacture and should only be considered when absolutely necessary).
- **Turn off electric/electronic equipment** when not in use: where possible avoid leaving televisions, computers, printers, monitors and other equipment on standby and use energy saving settings for periods of inactivity.
- **Turn off lights** in a vacated room: last one out checks, motion activated lights, key activated lights.
- Commission or carry out your own **environmental audit** and budget to implement recommendations; Set out the findings and recommendations in a plan and set challenging but achievable CO₂ reduction targets.
- Run **heating** at lower levels: compensate with warmer clothing. Provide up to date **heating controls** (a seven day programmer, thermostatic radiator valves, and room thermostat should be a minimum requirement).
- Ensure that food is sourced **locally and organically** to minimise mouthful-miles
- Replace all lighting with **energy-saving lamps** (based on fluorescent technology). Assess lighting strategy; ensure sufficient light is supplied only where it is needed and make maximum use of natural light.
- **Recycle** everything that can be recycled, especially paper. Some scrap will have a value. **Compost** all biodegradable waste. Good compost is always useful and also has a value.
- **Purchasing:** all equipment from computers, to household materials, to tools, to vehicles, should be as energy efficient in design life cycle as possible. Always assess the credentials, ethics and environmental policy of your suppliers carefully and if possible use local supply, materials and support.
- **Clothing:** try and use suppliers that use fabrics that are eco-friendly, locally source if possible, and recycle or donate to charity when finished with.
- **Savings** on fuel bills, transport, and efficient, environmentally conscious purchasing, could be put aside to pay for the medium-term measures discussed below.

MEDIUM TERM MITIGATION MEASURES: what you should be doing with your home over the next one-three years.

Budget for capital alterations to your home to reduce carbon emissions and improve on operating costs through an assessment of:

- Sun-pipes and roof lighting in dark corridors and areas in which lights are used even on the brightest days. LED lighting is also now available, providing light at extremely low power.
- Heat pumps for heating in winter, and possibly cooling in the summer, operate at efficiencies between 200-400%.
- Solar panels to heat water for hot water supply systems. Particularly beneficial where hot water use is significant or for swimming pool heating.

- Rainwater harvesting systems for supply of rainwater to WCs, washing machines and at outdoor taps.
- Improve insulation to older buildings and in the specification of new buildings (roof voids, under-floor, and in cavity walls).
- Heat recovery ventilation systems for spaces where both ventilation and heating are required.
- Passive ventilation systems for rooms or spaces reliant on artificial ventilation and that require little heating.
- Convert existing or new heating systems to run on sustainable bio-fuels, which will be carbon-neutral if local supply is used.
- Wind turbine generating electricity to use on site or export.
- Photovoltaic panels generating electricity to use on site or export.

The 'Sustainable Home' is likely to be a marketing asset in the future.

- Grow food, fuel crops, or plant trees in your garden where space is available. Anything you can do to reduce your dependence on external supply or offset carbon emissions is a positive action.
- Form community alliances (to drive larger renewable energy projects, share knowledge, technology experiences, and so on). A community will have greater buying power (community grant eligibility) and where necessary greater lobbying power.
- Offer advice and assistance to friends and neighbours
- Build sustainability-awareness into any children activities so that every child understands the environmental impact of personal behaviours and choices.
- Recording seasonality, record temperatures and other key weather parameters on your premises to build a picture over time of local climate change impact and how it is directly affecting your location and your life.

LONG TERM MEASURES: the responsible 'carbon neutral' home of the future.

All new homes to be designed to:

- Use materials that are from sustainable sources and minimise CO₂ emissions in production.
- Be carbon neutral in lifecycle impact.

All individual behaviours and activities to:

- Be energy conscious and if possible carbon neutral. Becoming sustainable is an ongoing process of evaluation and improvement.
- Use local skills and environmentally conscious suppliers, and materials from sustainable and ethical sources.
- Lead by example and encourage similar practices to friends, neighbours and colleagues.
- Minimise influence of external factors such as national energy supply (cost and reliability) through on-site energy projects.



Natural Generation are designers, technical consultants, suppliers and installers of renewable energy systems including wind, solar, and heat pump technologies. We can also assist with many other energy saving services or projects including rainwater harvesting, sun-pipe natural lighting and ventilation, heat recovery ventilation, and low energy lighting. Natural generation can also provide more detailed individual energy efficiency advice as well as packages and hybrid designs. Natural Generation are fully BRE accredited allowing customers to access government grants.

Contact us, to find out more on how Natural Generation may help you and your home change and adapt to the challenges of the future, **now**.

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