

How to green your business: Construction

Want to Go Green but not sure where to start? Here are some tips to reduce the environmental impacts of your construction business.

Energy

Office energy efficiency

- Investigate taking all, or a percentage, of your energy from renewable sources or 'green tariffs'.
- Get renewal quotes from existing and alternative suppliers annually.
- Check that insulation (walls, loft, doors, windows, boiler and pipes) and draught-proofing is adequate to prevent heat loss.
- Service boilers regularly for optimum performance and Insulate. A boiler can use up to 10% more energy if poorly maintained. Dirty heat exchangers, poor air:fuel mixing or faulty components increase running costs and the risk of breakdown.
- Replace tungsten bulbs with energy-efficient, compact fluorescent lamps and slimline tubes. They typically make immediate savings of 50% and last up to ten times longer.

Waste

Contractors and waste reduction

Contractors should be encouraged to be the champions of resource efficiency on construction sites.

- Monitor waste arisings and seek ways to improve performance.
- Keep site-based activities within the control of contractors.
- Designate waste champions to communicate waste reduction plans throughout the supply chain.
- Giving sub-contractors and suppliers clear objectives for waste reduction and reuse (preferably within contracts).

Resource efficient refurbishment

Characteristics that can facilitate the efficient use of resources and minimisation of waste include:

- The choice between refurbishment and new build. The retention of a structure rather than complete

demolition and rebuild conserves resources. Consideration of the whole life costs of refurbishment compared with those for demolition/new build will determine the best option overall. Account should be taken of energy efficiency, service life, maintenance cycles, etc.

- Stripping out old fixtures, fittings, services and internal walls usually precedes fitting out. Evaluation of component, material and structure retention is vital for resource efficiency.

Reusing resources

- Reuse of resources on site reduces both the amount of waste leaving the site and the need to bring in new materials and products.
- The demolition phase should be considered as providing a builder's yard already on-site with heavily discounted construction products. There are further benefits from the massive decrease in vehicle movements and waste disposal costs.

Water

Office water efficiency

- Fit a water displacement device in toilet cisterns to reduce the amount of water used per flush.
- Fit an automatic flush controller on urinal systems to ensure that the cistern flushes only during office hours or after use rather than continuously. These devices can reduce water use and costs by 50%.
- Fit existing urinals with deodorising pads to remove the need for water flushing, or consider installing waterless urinals if refurbishment is due. Potential savings are between £70 - £170/urinal/year.
- Fit push-button taps to save up to half the water used through conventional taps. Push-button taps cannot be left on accidentally, help prevent floods in the event of a sink becoming blocked and are more reliable than hydraulic models, especially in areas of bad limescale.
- Check your pipes for leaks, which can be expensive and can cause damage to the building. Check your meter readings regularly and carefully - if you are paying for water that you cannot account for you may have a leak.

Travel

Staff travel

- Offer staff interest-free loans for public transport season tickets. Provide staff with up-to-date information on public transport.
- Promote car sharing.
- Give training in advanced driving practice - fuel consumption can be reduced by 25%.
- Monitor the fuel performance of each vehicle and ensure they are regularly serviced and maintained by a reputable garage.

Company vehicles

- Purchase or lease fuel-efficient vehicles, taking the whole-life costs into account. Some car magazines provide comparison tables for total running costs per mile.
- If your fleet management is outsourced, ensure that you set high environmental standards within the contract and specify aspects such as fuel economy and emissions testing.

Purchasing

Design and procurement

The design of a development or structure specifies the method of construction and the materials to be used. Overly designed buildings can create excessive waste, while poor procurement practices can lead to excess and surplus materials. Design and procurement offer major opportunities to minimise waste, costs and disruption during construction projects, for example:

- Standardisation of components.
- Modern methods of construction such as off-site fabrication or off-site manufacturing.
- Manufacturer take-back schemes, i.e. only buying from suppliers that will accept returned materials such as packaging.
- Incorporating resource efficiency within a framework of sustainable design, e.g. use of BRE's Environmental Assessment Method (BREEAM).