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Sustainability Guide for Customers



If you are considering any works to your property, either in relation to sustainability, or generally, please speak to your Network Rail contact, as landlord's consent is likely to be required.

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Intro

This guide provides you with an opportunity to minimise the environmental impact of the fit out and operation of Network Rail buildings and to contribute towards sustainable development. It also provides an opportunity to save money, create an excellent building to work in and enhance your reputation through superior environmental performance.

The guide has been prepared with the aim of providing our customers with information to enable your property to be used more efficiently, both financially and environmentally. The guide covers environmental issues that can be considered when fitting out and operating a building.

2 Waste

Minimising waste

Recycling at work is a great way to increase your business sustainability and help to reduce climate change. Once you start to recycle at work, you'll experience the wide range of benefits that come with making your company a more sustainable and environmentally responsible organisation.

Create a Waste Management Policy based on the '3 R's' Reduce, Reuse and Recycle followed by the least favoured option disposal. This would help set out

procedures that your business can reasonably implement to ensure it meets all of its environmental obligations.

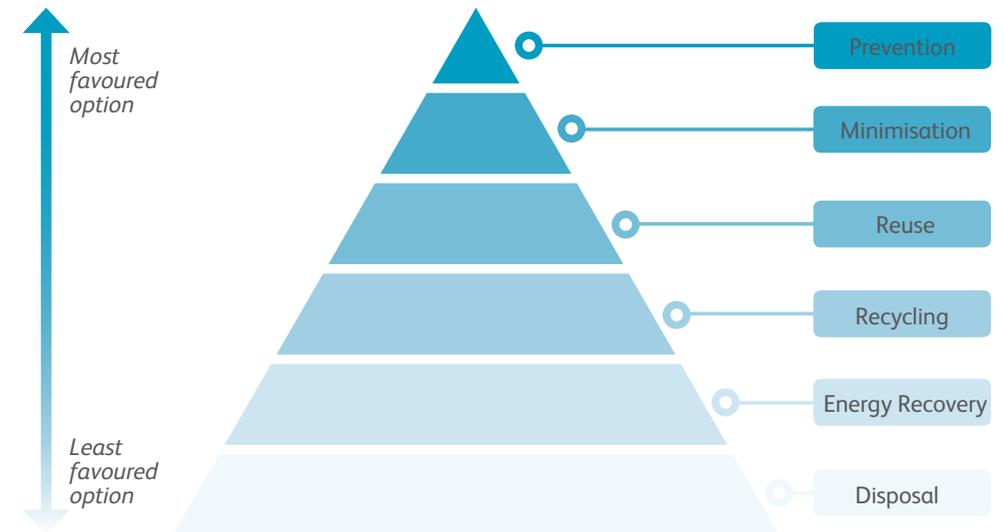


Wastes which your business may produce that can be recycled include:

- paper - including confidential and shredded
- cardboard and packaging

- electrical equipment and batteries
- timber
- metals
- hardcore
- plasterboard
- oils
- textiles
- printer cartridges
- plastic bottles
- food and drinks cans
- as well as many others.

Below is a good visual image of the priority order of sustainability



Reduce Reuse Recycle



Here are some of the benefits of recycling in the workplace:

Enhances company image -

Engaging in more sustainable business practices and publicising those practices can do wonders for your company's image and can attract both employees and customers.

Recycling is easy to do - Recycling at work is straightforward and easy to do. It's easy to separate out materials to recycle from your other waste, if you get a good system in place it's easy to implement and maintain.

Recycling increases customer loyalty - Customers prefer to do business with companies that behave in an environmentally-friendly way.

Recycling saves space and can reduce clutter

- Recycling often reduces clutter and improves the working environment. Less clutter also means increased safety around your workplace.

Recycling is great for the environment

- Recycling at work helps you reduce the environmental impact of your business. Recycling your waste materials means they can be used again in new products and applications, instead of simply going to landfill where they generate harmful greenhouse gas emissions.

Increases employee morale

- Employee satisfaction is the best reason to undertake a recycling scheme. Employees find pride in working for a company that embodies environmental values and focuses attention on its environmental impact and responsibilities.

Recycling is cost effective

- Recycling is a cost effective method of dealing with your waste, simply because it is often cheaper when compared with general waste management and disposal.

3 Energy

Energy saving tips and financial benefits

In order to reduce the use of finite natural resources, even the simplest measures to improve energy efficiency in buildings can represent a substantial saving on energy use and bills. Some improvements can cost virtually nothing and can take a matter of minutes to install. Other improvements relate to changes in habits.

- Keep doors and windows closed when heating or air conditioning systems are on and only use one system at a time.
- Making sure your premises are well insulated is a cost effective method of saving energy, with short payback times, although arch structures are not usually insulated. It is recommended that you discuss any options regarding arch structures with your Property Manager first.
- Do not overheat or over-cool your space as this increases your running costs and causes extra emissions of CO₂ into the external atmosphere, contributing to global warming.
- Set thermostats to the required temperature then leave them alone. Do not use them as ON/OFF switches.
- Only switch the lights ON when necessary as they result in significant emissions of CO₂ into the external atmosphere, contributing to global warming.
- Shut windows at night for security purposes and to prevent heat loss that could make your space cold when you come in the next day.
- Switch off equipment; a single computer and monitor left on 24 hours a day can cost over £50 a year, according to the Carbon Trust. Switching it off out of hours and enabling standby features can reduce this to £15 a year. You can also fit timers to make sure printers, copiers and water chillers are turned off overnight, at weekends and public holidays.

The next step is to **set targets** for future energy consumption. The graphs and charts can then be updated to display actual performance against targeted performance. Attention can then be focussed on identifying inefficiencies in the building systems and tracking the improvements made.

There are various documents and guides available if you would like to know more about this subject, try www.cibse.org (Chartered Institute of Building Services Engineers) to start with.

Metering, energy targets and benchmarks for the building

Monitoring and recording the energy consumption of a building is key to ensuring continued energy efficiency over the lifespan of the building.

The first step in this process is to establish the baseline energy consumption of the building by analysing **monthly meter readings**. This will give you an accurate picture of how much energy your business is using and where the biggest savings could be made. Best practice is to display this information in graph or chart format in a frequently used space.



3 Energy

Energy efficient internal and external lighting



Where possible the use of natural daylight should be maximised to reduce the dependency on artificial lighting. Preference should be given to dedicated energy efficient internal and external light fittings. All internal compact fluorescent light fittings should be fitted with high frequency ballasts to reduce the health problems related to the flicker of fluorescent lighting.

Motion detecting sensors can be retro-fitted to turn the light fittings on when a room is occupied and switch the lighting off after a pre-set time period when a room has been vacated. In addition, photocells can automatically switch lighting off depending on the available levels of natural light. These measures will prevent unnecessary

electricity usage for lighting when rooms are unoccupied or internal daylight levels are sufficient not to require artificial lighting. External light fittings should be controlled via a time switch with daylight override.

Efficient lighting design and management can reduce your lighting energy bill by 40–80%. Efficient lighting also reduces the heat load on the base building air conditioning, resulting in further indirect cost savings.

Operating heating systems and controls efficiently

Temperature controls help heating systems to provide just the right temperatures to maintain thermal comfort without wasting energy and money.



Do not overheat the space. Turning down your heating by just 1°C could reduce your annual heating costs by up to 8%. In the same way, you could adjust your air-conditioning system by one degree in the summer.

Make sure that any thermostats operate accurately by positioning them away from draughts and direct sunlight.

Check your time controls and set your heating and hot water 'ON' only at times when the building is occupied.

Water for catering and washing should be heated to 60°C to 65°C to protect against legionella unless you use another method of protection. If your water temperature is higher than this, you may be wasting energy. Beware of scalding yourself.

Saving energy



Operating ventilation / cooling systems and controls efficiently

Making the most of natural ventilation is a simple and cost-effective way of achieving big savings.

Avoid blocking ventilation grilles with furniture and other objects as this will result in a lack of heating/ventilation. Clean air vents are important for optimum operation and safe combustion of boiler fuel products.

Do not heat and cool simultaneously. Air conditioning and heating system are commonly controlled by thermostats. However, people may leave doors or windows open for fresh air or other reasons, therefore causing the systems

to operate almost continuously in an attempt to maintain a constant temperature. This creates high electricity, repair and maintenance costs.

Purchasing energy efficient equipment

Procurement of energy-efficient equipment ensures optimum performance and energy savings in operation.

Energy efficient small power and plug in equipment can be sourced from many sources including:

1. Energy Technology Product List

Provides businesses with enhanced tax relief for investments in equipment

that meets published energy-saving criteria.

www.etl.decc.gov.uk/etl

2. Energy Savings Trust

Government backed programme helping businesses and individuals protect the environment through superior energy efficiency.

www.energysavingtrust.org.uk

3. Green Tick Solutions Catalogue

'GreenTick' standard on the Buying Solutions Catalogue.

A GreenTick next to a product indicates that it meets the 'minimum' standard for sustainability.

www.buyingsolutions.gov.uk

4 Water

Saving tips & financial benefits

It is estimated that by adopting a systematic approach a business could cut its water consumption by up to 30%. Financial savings can be made by implementing simple and inexpensive ways of minimising water use which will reduce water bills. Water saving tips include:

- Regularly inspecting the water supply for system leaks
- Maintaining taps and water fixtures like urinals, cisterns, dripping taps, worn washers and faulty seals
- Reduce water consumption by installing low flow water fittings
- Monitoring the water meter – if there's a night time flow, when no-one is around, there could be a leak or a tap or valve left on

- Making sure pipes are protected against cold weather as a leak can increase after a burst due to frost

Low water consuming fittings

In commercial situations, major cost savings can be gained through the installation of:

Dual flush WCs

Dual flush WCs will save up to 50% of water per flush when compared to standard single flush WCs. Dual flush cisterns are commonly available in 6 & 4 litre and 4 & 2.6 litre options.

The flush volume of existing single flush WCs can be reduced by installing water hippos or a save-a-flush cistern displacement device, which will save between one and three litres per flush.

Urinal controls or waterless urinals

Many urinals do not have controls and flush continuously but there are opportunities available to control flush and reduce water consumption. A timer can match the hours of use or detect the presence of people via a motion detecting sensor or door switch. Some controls allow the urinal cistern to fill slowly unless no activity has been detected for a preset period. Other designs allow the cistern to fill quickly, causing it to flush when people are detected. An electronic delay prevents further flushing for a preset period.

Waterless urinals work without using any water other than for routine cleaning. Some systems are supplied as a complete unit, while others can be retrofitted to standard bowls and troughs. Waterless urinals offer significant water savings.

Aerated / flow reduced

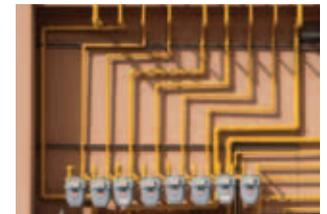
Aerated taps: air is bubbled in with the water, reducing the amount of water used but allowing a soft bubbly flow without any reduction in water pressure. Aerated taps reduce water flow by up to 50% without reducing the pressure and are available from most large manufacturers.

Flow reduced taps: This forces the water through smaller holes in the showerhead or tap, producing a fine, firmer spray. Flow limiters can be either incorporated within the tap or fitted on to the pipework supplying the tap.

Metering, water targets and benchmarks for the building

A water meter should be fitted to the mains supply to enable water consumption to be recorded, monitored and reviewed to ensure that the building is operating efficiently and economically. Having a meter will make you more aware about how much water you use and you may be able to save money on your bill if you use less water.

The first step in this process is to establish the baseline water consumption of the building by analysing monthly meter readings. Best practice is to display this information in graph or chart format in a widely accessible space. The next step is to set targets for future water consumption. The graphs and charts can then be updated to display actual performance against targeted performance. Attention can then be focussed on identifying inefficiencies in the building systems and tracking the improvements made.



Saving water

5 Transport strategy

To minimise your business' and your staff's carbon footprint and to reduce your impact on the environment, you could consider the following options:



Use of public transport

Encourage the use of public transport wherever practically possible. Provide staff with either direct internet access via web links to relevant local and national public transport websites for example:

www.thetrainline.com

www.tfl.gov.uk

www.nationalrail.co.uk

Use of bicycles

If space allows, you could encourage the use of bicycles with the provision of secure cycle stands and changing/shower facilities. You may also consider registering with the Government's bike buying scheme.

This scheme offers a tax incentive to the employee as the cost of the bike is deducted at source, thus the loan is not subject to tax.

For further details please review the following websites:

www.direct.gov.uk/en/TravelAndTransport/Cycling/DG_190101

www.dft.gov.uk/publications/cycle-to-work-scheme-guidance

6 Sustainability: working practices and procurement

Sustainable working practices

Implementing sustainable practices in your workplace doesn't have to be complicated. Sustainable practices can also improve your brand value and reputation. Consumer habits have changed in recent years and customers now prefer to buy from environmentally friendly and ethical companies. Ring fenced public spending on sustainable goods and services also encourages local job creation, sustainable innovation and economic development.

Examples of sustainable working practices:

- Implementing a corporate or local Environmental Policy or even a full Environmental Management System to ISO14001:2004.
- Implementing a local waste management policy
- Implementing a local sustainable procurement policy
- Switching to alternative energy sources (where feasible)
- Setting targets for energy and water use

- Reducing transport emissions
- Employee development and engagement strategies
- Exploring social enterprise frameworks

It is advisable to create an Environmental Manager with specified roles and responsibilities to ensure that your employees are properly trained in environmental issues to ensure compliance with the current legislation.

Some useful websites are summarised at the end of this guide.





Useful Links



Sustainable procurement

Sustainable procurement is about taking into account the social, economic and environmental impact that purchasing, supplying or manufacturing has on the environment, people and communities. Going beyond compliance and implementing good environmental, social and sustainable practices can cut costs, reduce risk, improve working practices and make your business more competitive.

Buyers may choose sustainable suppliers as part of their own commitment to sustainable development and many Government and Public Sector buyers and tier 1 suppliers will only award contracts to businesses that take environmental responsibility seriously and operate through sustainable working practices.

These include considering the impacts of:

- Design, including sourcing, materials (natural over man-made) life expectancy etc.
- Non-renewable material use, such as plastics and fuels
- Manufacture and production methods such as local and low energy manufacturing
- Service delivery
- Maintenance, easy to access and maintain and long life products with minimal requirements
- Recycling before final disposal

To conclude, sustainable procurement is about:

- Getting lasting value for money
- Avoiding or reducing environmental damage
- Delivering social and economic benefits locally

7 links and references

Breem
www.breem.org

Carbon Trust
www.carbontrust.com/home

Central Point of Expertise on Timber
www.cpet.org.uk

Chartered Institute of Building Services
www.CIBSE.org

Department of Energy and Climate Change
www.decc.gov.uk

Energy Saving Trust
www.energysavingtrust.org.uk

Green Building Council
www.ukgbc.org

Waterwise
www.waterwise.org.uk

WRAP
www.wrap.org.uk