



# RESOURCE EFFICIENCY Best practice checklist

You can use this checklist if you are planning to apply to the Scottish Landfill Communities Fund for funding. Working your way through this checklist can help identify resource efficient solutions that you can incorporate into your project.

Being resource efficient not only helps protect the environment and the planet's resources, it can also save you money.

Work your way through the questions below. Any resource efficient solutions you identify will be highlighted in your personalised report at the end of the checklist.

About you		
What is the name of your project?		
What is the main aim of your project?		
Have you already taken a Resou	urce Efficiency Pledge?	
	Yes No	
If yes, what have you pledged to do?		

### 1. Energy Efficiency and Generation

### **Energy Efficient Buildings**

Ensure your design, construction or retrofit project results in an energy efficient building. This can significantly reduce your energy bills.

#### Think about:

- specifying energy-efficient lighting and other fittings,
- Loft insulation or insulation boards below a flat roof
- Cavity wall insulation or external cladding
- Double or triple glazing
- Insulation below floorboards
- Draft proofing

Designing buildings with resource efficiency in mind can bring many benefits. For example, modular construction techniques can reduce total construction costs 30–60% according to the Ellen MacArthur Foundation. Consider including locally-source and more sustainable material choices, for example locally sourced timber.

### Low Carbon Heating

#### Options include:

- Electric heating generate your own electricity or purchase 100% renewable
- Solar gain heating from sunlight through south facing windows
- Solar thermal panels for water heating.

## Generating your own power

Instead of buying all your energy from suppliers, you may be able to install renewables technology (also called micro generation and low-carbon technology) to generate your own power:

- Small scale hydro
- Solar photovoltaics
- Ground or air source heat pumps run on electricity but return about 3 times the energy they consume
- Wind turbines
- Biomass boilers if you have a local supply of wood or other fuel.

Can you include any of these in yo	our project?	Yes	No
If yes, what are you going to do?			
*Enter N/A if this doesn't apply to your project			

# Get help

Carbon Trust: <u>Buildings energy</u> efficiency

Resource Efficient Scotland: Simple steps to start saving energy

Carbon Trust: <u>Buildings energy</u> efficiency

#### **GOV.UK:**

- Energy efficient products
- Energy Technology List for ECA

NetRegs: Energy efficiency

Zero Waste Scotland: <u>Circular</u> <u>economy in the Construction</u> sector

### 2. Water use

### Measure your water use

Check meter readings regularly and record the data. Use this to identify patterns of water use. This also helps you to identify leaks or taps that have been left on.

# Install water saving devices

There are a number of devices that will reduce your water consumption. Low flow taps, cistern hippos, hoses with nozzle guns and appliances that use less water. Tax relief may be available on certain technologies through the Enhanced Capital Allowance (ECA).

### Utilise Greywater / Rainwater

Systems are available to collect, store (and where necessary treat) reusable water from buildings.

Utilising greywater or rainwater can reduce the amount of potable water used and in turn reduce the amount of energy needed to supply your water needs. Reusing water also reduces the volume of wastewater needed to be conveyed and treated.

Greywater / rainwater may be suitable for flushing toilets, doing laundry and watering plants.

# Get help

#### Resource Efficient Scotland:

- Green Champions Training
- Guide to saving water, measuring and reporting data and implementing a formal water minimisation programme

Waterwise: Water saving facts for home and business

Consumer Council: Water usage calculator

GOV.UK:

Water Technology Product List for ECA

Can you include any of these in your project? Y	es	No
If yes, what are you going to do? *Enter N/A if this doesn't apply to your project		

### 3. Waste

### Reduce generating waste

Check your bins and identify the types of waste you produce. Think of ways of preventing the waste in the first place. For example replace disposable cups with reusable ones, limit printing etc.

## Segregate and reuse or recycle

Segregate your waste so it can be recycled. Check with your waste collection service how best to manage this. Choose an authorised waste collection service that will find reuse and recycling options for a wide variety of materials.

Organisations in Scotland are required to do this by law – See NetRegs: <u>Duty of Care</u>.

### Hazardous / special waste

Try and avoid using products and materials that have hazardous properties as they will become hazardous/special waste at the end of their life. Where not possible e.g. printer cartridges, some light bulbs, used oil, then segregate and have it taken for treatment/recycling at an authorised facility.

# Design products with reuse/ recycling in mind

If you make products, think about what happens to them at the end of their life. Can they be refurbished? Can the parts be reused? Are they made of recyclable materials? Avoid making products that will end up in landfill.

### Get help

#### Resource Efficient Scotland:

- Improving Waste
   Management: A how-to
   guide for business groups
- Reduce waste
- Waste Prevention Implementation Fund

#### NetRegs:

- <u>Duty of Care your waste</u> <u>responsibilities</u>
- <u>Hazardous/special waste</u>

#### SEPA:

- <u>Separating waste for</u> recycling
- Recycling (including Food Waste)
- Zero waste guidance

Love Food Hate Waste: <u>Save</u> more pack

#### Zero Waste Scotland:

- <u>Circular Economy Business</u>
   <u>Support Service</u>
- The Circular Economy Investment Fund
- <u>Design out waste in</u> <u>construction</u>

Can you include any of these in yo	our project?	Yes	No
If yes, what are you going to do?			
*Enter N/A if this doesn't apply to your project			

### 4. Biodiversity

### Plan your grounds for wildlife

If you have grounds to maintain, check your local biodiversity plan to see if you can support it. This could mean creating suitable habitat for locally important species. The Scottish Wildlife Trust can offer support and advice.

You can help to enhance biodiversity in your local area really easily. Consider planting native species and flowers for pollinators or keep some areas "wild" to encourage wildlife to move in.

# Get help

Scottish Wildlife Trust

Biodiversity Scotland: <u>Local</u> <u>Action Plans</u>

NetRegs: Nature conservation

# Buildings and property

If carrying out building works, or repairing or renovating property you must minimise your impacts on habitats and the local environment. Never disturb nesting birds or bat roosts in buildings. Measures to protect bats must be taken if work is planned on buildings with roosts. Contact Scottish Natural Heritage for a licence to proceed.

Can you include any of these in yo	our project?	Yes	No
If yes, what are you going to do?			
*Enter N/A if this doesn't apply to your project			

### 5. Materials

### Recycled / Reclaimed Materials

Re-using materials avoids the environmental impacts of new manufacture and is a basic principle of efficient resource use.

Choosing materials with recycled content or with low energy requirements. Many materials and components are now available that have recycled content. Try to go for recycled products made from renewable resources. These include; concrete that uses fly ash aggregate (PFA), carpets made from recycled plastic bottles, insulation made from recycled paper and paints that contain post-consumer returns.

## **Packaging**

If you order goods try to find suppliers who minimise packaging. You might be able to reuse packaging, if not then check they use recyclable materials.

If you package goods yourself, then use the minimum necessary and make sure it is re-usable or recyclable.

## Get help

#### Resource Efficient Scotland:

- Search for surplus materials in your area <u>Construction</u> <u>Material Exchange</u>
- Construction Sustainable procurement guide
- <u>Preventing Waste in Construction</u>

BRE: "Green Guide" to the environmental impacts of building materials

#### NetRegs:

- Packaging
- Waste Electronic and Electrical Equipment

# Renting or Leasing

Renting or leasing means that you can use a product without owning it. This can allow you access to better quality, more durable and environmentally better-performing products and equipment, lower or no maintenance costs (in comparison to owning the product), and no cost for end of life disposal.

Examples of products that are common to lease are furniture, computers, vehicles, printers and lighting (e.g. <a href="Egg lighting">Egg lighting</a>).

# Efficient building design and construction

Designing buildings with resource efficiency in mind can bring many benefits. For example, modular construction techniques can reduce total construction costs 30–60% according to the Ellen MacArthur Foundation. Consider including locally-source and more sustainable material choices, for example locally sourced timber. (see section 1)

Can you include any of these in you	our project?	Yes	No
If yes, what are you going to do?			
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### 6. Transport

### Car Parks

It is a requirement for large car parks, and good practice for small car parks, to have the drainage from the parking area drained through sustainable drainage systems. This traps pollutants and allows many to be broken down by natural processes.

### Low emission vehicles

Try to use vehicles with the lowest possible emissions. This can mean using hybrids, engines that are designed to be very fuel efficient, LPG, or electric vehicles. You can get advice from the Energy Saving Trust on a range of transport issues.

### Get help

#### NetRegs:

- Car Parking
- Reducing vehicle emissions
- <u>Travel plans and green</u> transport

Energy Saving Trust Scotland: <a href="https://example.com/Transport">Transport</a>

**Traveline Scotland** 

Translink: Getting Around

### Travel Plans: For staff and visitors

Find out how your staff or members travel to your site. Can you make it easier for them to adopt active travel, such as cycling? Providing secure cycle racks and showers can make a difference.

Provide information about public transport options for travel to and from your site and make this available to staff, members and the general public.

Can you include any of these in yo	our project?	Yes	No
If yes, what are you going to do?			
*Enter N/A if this doesn't apply to your project			



Continues/



# RESOURCE EFFICIENCY Personalised Report

Project Name:	
We have identified the following a project:	aspects that we intend to incorporate into the design of our
My Resource Effic	ciency Pledge
1. Energy Generat	ion & Efficiency
2. Water use	
2. Water 400	

4. Waste	
5. Biodiversity	
6. Materials	
7. Transport	

Save Report