

What we buy

A. Introduction

❖ What is this topic about?

This topic focuses on the things we buy. This includes everything we buy – for example, cars, mobile phones, clothing, electronic items, kitchen appliances, furniture, and insurance. It also includes leisure activities like going to the cinema or the pub, or watching films. The only thing it doesn't include is food, because this is being looked at as a separate topic.

The things we buy are linked to climate change because they use a lot of energy. This is true:

- **While they are being made:** for example, we use energy to extract raw materials like metal from the ground. We also use it to run the factories or workshops in which products are made.
- **Through services we use when we buy them:** for example, we may buy products on the internet. The internet uses energy for things like powering the servers (big computers) that store our data. It also takes energy to produce the content we find on the internet, like the films we often see on websites. We may also buy other services, like insurance to go with our products. Insurance creates emissions because of the energy used to run insurance companies' offices, for example.
- **Because of how they reach us:** Making packaging for products and transporting them to us (e.g. in lorries) uses energy too.
- **Some products also need energy to run:** For example, mobile phones, kitchen appliances and cars need energy to work (whereas things like sofas don't).

This creates greenhouse gas emissions that cause climate change when the energy products used come from fossil fuels like oil, coal and gas.

In total, the above four bullet points create over two-thirds of the UK's carbon emissions⁷.

Finally, we throw away products when we've finished with them. This has implications for climate change too. The UK has traditionally sent most of its waste to landfill sites. As this waste rots, it generates potent greenhouse gases. This can also pose health risks and be expensive.

❖ What does this mean for how we get to net zero greenhouse gas emissions?

We are always going to need to make and buy things. However to get to net zero greenhouse gas emissions, we may need to reduce the amount we make and buy. We will need to make and buy things in ways that use less energy.

This could have wider benefits. Buying things can improve our wellbeing (e.g. our happiness) up to a point. But once we've bought the things we need to keep us healthy and comfortable, buying stuff tends not to make us any happier.³ Making products can

also be linked to things like child labour, health risks from pollution, and the loss of nature and natural habitats. It also uses up resources like metals that will one day run out.

Buying and making less also carries risks. If we buy fewer products, some businesses might struggle and jobs in sectors like manufacturing could be lost. It is also possible that making things in ways that use less energy would be more expensive, in some cases. This could make these products and services more expensive for us to buy. There could be opportunities to manage these risks. For example, some businesses that currently sell new products could start to repair or rent them out instead. Any changes to how businesses make their money would have implications for jobs and skills. If the low-carbon transition is to be a fair one, it would need to consider how people in manufacturing jobs can be retrained for new low-carbon job opportunities.⁵

Assembly members at Climate Assembly UK will look at these issues and make recommendations about how best the UK should get to net zero.

2. The topic in more detail

❖ Where do emissions from ‘what we buy’ come from?

The way we make goods like cars and kitchen appliances has become more efficient over time. This means that we now often use less energy or materials to make any one item. However at the same time the amount of things we buy has increased. The amount of services (e.g. online entertainment, eating out) we use has increased too. This means that overall emissions from what we buy are going up.

The amount of goods and services we buy has gone up partly because we now earn more. We have more money to spend. However it is also affected by advertising. We want more things, even if sometimes we don't need them.

It is also important to note that it takes more energy to make some products than it does to make others. Steel and cement are particularly energy-intensive and are widely used to make cars and buildings.¹

Finally, a lot of the emissions linked to the goods and services we buy are produced in other countries. For example, a lot of the electronic products we buy, such as televisions and computers, are made abroad.¹ This means that the factories that make these products release their greenhouse gas emissions overseas. This still causes climate change as the greenhouse gases end up in the atmosphere, whichever country they come from. However the UK's target of net zero greenhouse gas emissions by 2050 doesn't include these overseas emissions. Whether assembly members want to consider these overseas emissions or not is up to them.

❖ The ‘waste hierarchy’

The waste hierarchy is a way of understanding what we can do to tackle climate change in relation to ‘what we buy’. It sets out four strategies, which can all be used together to different degrees. The first is the most effective at reducing emissions, while the last is the least effective. However, the first two have the most potential to cause disruption to businesses and jobs.

1. Reduce: The most effective way of reducing emissions from the things we buy is to

reduce the amount we buy in the first place. This might mean, for example, buying things that last longer, and/or not buying things that are unnecessary.

2. **Reuse and share:** The next most effective way is to reuse things. For example, we can use bags for life, or reusable coffee cups, or buy second-hand items. We can also share things. For example, we could rent things like baby equipment that we only need for a short period of time, rather than buying our own.
3. **Recycle:** Recycling is important for materials we can't reuse as they are - for example, for disposable coffee cups that we only use once.
4. **Recover:** Finally, as a last resort we can recover energy from waste as an alternative to sending waste to landfill sites.

Below we include some more information about each of these strategies.

1. Reduce

This means reducing the amount of 'stuff' we buy. When the amount that we buy a particular product falls, producers make less of it. This ranges from buying things like vegetables without packaging, to only buying essentials instead of luxuries. It also includes using things for longer instead of regularly replacing or upgrading them. We can reduce emissions by keeping things like cars, industrial equipment, and clothes for longer.¹

What we buy is closely linked to the wider economy, as many people have jobs in areas associated with making and selling things. When we buy these things, people and businesses can make money. Some people argue that buying fewer products means some businesses might struggle. They also argue that jobs in certain sectors, like manufacturing, could be lost.

Other people question the extent to which we need to keep buying more stuff, arguing that we can live well with less. There is some evidence that living more simply can improve our happiness³. People tend to find more fulfilment from social, sporting, and creative activities (which are usually low-carbon)¹ than they do from buying or owning things.

Many people value and measure success by the things they own, such as the type of car or size of house they have. If people were to reduce what they buy, this may also mean changing what they value and how they see things.

There are also ways that businesses can reduce emissions from the things they make and sell. These include:

- **Reducing the amount of materials and energy used to make products.** For example, producing buildings, cars, equipment and large goods that are smaller or use fewer materials results in fewer emissions. In some cases we are moving towards this; white goods like fridges now use less material than they used to. However some things are moving the other way. For example, there has been a recent trend towards people buying larger and less fuel-efficient cars.⁸
- **Using better materials that take fewer emissions to produce.** For example, buildings made from wood instead of cement or metal are much lower carbon;

- **Designing products that last longer, and providing extended warranties.** Some people argue for what is known as 'extended producer responsibility'. This would make businesses responsible for the repair and disposal of products they make. The idea is that this would encourage them to make long-lasting products and use materials that can be recycled.

2. Reuse and share things

Reusing and sharing things can also reduce emissions as it results in fewer things being made. It can happen in a number of ways.

At its simplest, people may reuse things. For example, many people now use bags for life, or reusable coffee cups, or buy second-hand items. Businesses may do things differently too by 'remanufacturing' goods – turning old things into new things. This could create business opportunities around collecting, processing and supplying these items.¹ New organisations such as 'libraries of things' allow people to borrow tools or other equipment. 'Repair cafés' can help with fixing and maintaining items.

In addition, many people rent things instead of buying them. This might happen for things we don't use very often, like tools. This might also be suitable for things we only use for a short period of time, like toys and equipment for babies. These kinds of approaches would mean businesses making money from providing services like rentals, rather than from making lots of a particular product. Some companies are already making these changes. For example, Rolls Royce provides airplane engines on a 'power by the hour'⁹ basis.

3. Recycle

We will still produce some waste whatever changes we make. We can reduce emissions from this waste by recycling it, composting it, or recovering energy from it. This does not reduce emissions as much as reducing the amount we buy in the first place, or reusing and sharing things.

Currently we only recycle around half of our waste (45% is recycled in England and Scotland, 60% in Wales). Most of the rest goes to landfill sites or is burnt to make heat and electricity. Household waste is only 12% of all UK waste. The rest comes from business and construction. Recycling reduces emissions and uses less water and raw materials, compared to making things with virgin (new) materials. Recycling 'green' waste (e.g. food and garden rubbish) also reduces emissions, as sending this waste to landfill would otherwise release methane (a powerful greenhouse gas). Recycling also saves money for local authorities, as the government has made it more expensive to send waste to landfill sites than to recycle it. Sometimes money is earned from selling the recycled materials.

Recycling particular materials can lead to larger emissions reductions. For example, increasing the rates of steel recycling is very effective as this is such an energy-intensive product.¹ As we shift towards using more electricity we will need more batteries to store that electricity. Batteries use rare materials, like lithium, which are difficult and expensive to recycle. We will need to find new ways of recycling these materials.

4. Recover

Finally, for waste we can't reuse or recycle, we can 'recover' energy from it. This can be done through different methods, including burning or composting. Electricity or heat generated from waste can then be used in homes and businesses.

❖ **How can these changes be achieved?**

Policies to achieve net zero in 'what we buy' include ideas targeted at both businesses and households. They include new regulations (e.g. laws), economic measures (e.g. taxes), and new ways of providing information (e.g. labels).^{1,6}

(a) Ideas for **new regulations** include:

- **Restrictions or bans on advertising.** The idea is that the less advertising we see, the less we would buy. Advertising restrictions could be imposed on particular high impact products, such as fast fashion or SUVs.
- **Extending producer responsibility for products.** This is the idea that the 'polluter pays'. Producers (those who make products) would bear all of the costs of dealing with their products throughout their lifetime or when a product becomes waste.
- **Resource efficiency standards** would mean products can only be sold if they meet strict criteria that ensure products are long-lasting, repairable, reusable, and so on.
- **Carbon or material allowances** for households and businesses would limit how much people and organisations are able to consume. This could involve annual carbon budgets allocated to individuals, as currently happens at an international level for some businesses. Some schemes have been proposed whereby people can spend, trade or owe carbon credits, in a similar way that we do money. This policy (in contrast to taxation) would have more impact on people who buy a lot, who tend to be wealthier.

(b) Ideas for **economic measures** include:

- **Carbon taxes, subsidies, or shifts in VAT** so that products which create more greenhouse gas emissions cost more (and/or low-carbon products cost less). These types of measures could also be used to ensure that it is tax-free to rent something, but not to buy it.
- **Waste reduction measures such as 'pay as you throw' or 'save as you recycle'.** This involves householders paying for the amount of waste they have in 'black bins', but not for their recycling. This is similar to what's used for businesses and some garden waste.
- **Grants** could be made available to improve recycling (e.g. for batteries and steel) and develop new materials (e.g. alternatives to cement).
- **A Just Transition Fund** would redirect current support for fossil fuels to help people affected by changes in the jobs available in their areas.⁵

(c) Ideas around **providing information** include:

- **Labelling products** to show the emissions they create. This would allow consumers to choose the least polluting goods if they want to.

3. What will assembly members consider?

Assembly members will consider two main questions:

- Where to focus efforts to reduce emissions from ‘what we buy’. Or, in other words, how much emphasis should be placed on the different levels of the waste hierarchy?
- What policy measures should be used to make sure change happens?

Their answers to these questions will be a key part of Climate Assembly UK’s recommendations.

¹ Allwood, J., Azevedo, J., Clare, A., Cleaver, C., et al. (2019). Absolute Zero. <https://doi.org/10.17863/CAM.46075>

² Allwood, J.M. and Cullen, J.M. (2012) Sustainable Materials: with both eyes open, UIT Cambridge, England, pp 384.

³ Kasser, T. (2017). Living both well and sustainably. *Philosophical Transactions of the Royal Society A*: 375(2095).

⁴ Hertwich E G 2019 The Carbon Footprint of Material Production Rises to 23% of Global GHG Emissions; New Haven

⁵ New Economics Foundation (2019). *Trust in Transition: Climate breakdown and high-carbon workers*. https://neweconomics.org/uploads/files/NEF_trust-in-transition.pdf

⁶ Green Alliance (2018). Less in, More out. https://www.green-alliance.org.uk/resources/Less_in_more_out.pdf

⁷ Berners-Lee, M. (2010) How bad are bananas? The carbon footprint of everything. Profile Books Ltd.

⁸ <https://www.iea.org/commentaries/growing-preference-for-suvs-challenges-emissions-reductions-in-passenger-car-market>

⁹ <https://www.rolls-royce.com/media/press-releases-archive/yr-2012/121030-the-hour.aspx>