

One Planet Action Plan for Bruton: appendices

[The Ten One Planet Principles](#)

Developed by [Bioregional](#), these principles are widely used as a framework to develop plans for living happily within the Earth's resources.

[Notes and sources](#)

Links to the evidence supporting the various statements made in the plan.

[Summary of July 2024 workshop](#)

[2022 work re zero carbon energy](#)

In 2022 members of the Climate and Ecological Emergency Working Group modelled the changes that would need to be made for Bruton's buildings to have net zero emissions by 2030.

[Impact tool for Bruton](#)

Impact is a digital visualisation tool developed by the Centre for Sustainable Energy to show the carbon footprints for ward, parish and local authority areas.

The ten One Planet Principles

<https://www.bioregional.com/one-planet-living>

	Health and happiness Encouraging active, social, meaningful lives to promote good health and wellbeing.
	Equity and local economy Creating safe, equitable places to live and work which support local prosperity and international fair trade.
	Culture and community Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living.
	Travel and transport Reducing the need to travel, encouraging walking, cycling and low carbon transport.
	Land and nature Protecting and restoring land for the benefit of people and wildlife.
	Local and sustainable food Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein.
	Sustainable water Using water efficiently, protecting local water resources and reducing flooding and drought.
	Materials and products Using materials from sustainable sources and promoting products which help people reduce consumption.
	Zero waste Reducing consumption, re-using and recycling to achieve zero waste and zero pollution.
	Zero carbon energy Making buildings and manufacturing energy efficient and supplying all energy with renewables.

Notes and sources

Our approach

Science has long been clear about most of the steps that need to be taken to reduce carbon emissions and protect our natural environment, and to adapt to a changing climate.

There is an overwhelming wealth of information available online.

The UK government's response to the climate emergency is informed by the work of the [Climate Change Committee](#), an independent statutory body established under the Climate Change Act 2008 to advise the UK and devolved governments on emissions targets, and ensure that advice and progress reports are evidence-based, independently assessed and long-term.

A far more accessible list of possible actions has been drawn up by the Centre for Sustainable Energy as part of their [Impact Tool](#) initiative. These actions are particularly oriented towards reducing the carbon footprint of an area.

[Bioregional](#) have developed a suite of guidance documents for local authorities and communities particularly addressing the One Planet Principles.

The Centre for Alternative Technology's [Zero Carbon Britain](#) report gives an excellent description of how existing and proven technology can be used to create a zero carbon Britain.

Land and nature

The evidence...nationally is that protecting and restoring land for nature has widespread support.

Climate Outreach is a charity focusing exclusively on public engagement with climate change. Their research shows that protecting the environment and nature is a 'unifying priority across the segments of Britain'. [The 'segments' are Climate Outreach's political classifications of the UK population].

<https://climateoutreach.org/britain-talks-climate/practice/reviewing-britains-seven-segments/>

Within the town there is a tension between those who like to see neat and tidy 'park-land' public spaces and those who favour allowing nature to take its course.

In the 2016 Town Plan Survey, residents were asked 'What ideas do you have for improvements to the town's green spaces'. According to the summary report, 'a slight majority preferring flowers and well-kept grass, whilst others wanted a wilder more natural look'.

Sustainable water

Greater frequency and intensity of storms is expected, with extreme rainfall.

According to the Met Office:

Climate projections indicate that on average, winters will continue to become wetter and summers drier, though natural variability will mean we will continue to see individual years that don't follow this trend.

However, rain that does fall in summer will likely be more intense than what we currently experience. For example, rainfall from an event that typically occurs once every 2 years in summer is expected to increase by around 25%. This will impact on the frequency and severity of surface water flooding, particularly in urban areas.

<https://www.metoffice.gov.uk/research/climate/understanding-climate/uk-and-global-extreme-events-heavy-rainfall-and-floods>

Local and sustainable food

Food and diet are responsible for about 22% of our carbon footprint.

This figure is taken from the [Impact Tool Community Carbon calculator for Bruton](#). 15% of the total consumption footprint, (ie 1.7T CO₂e per household) is consumption of meat and fish, the remaining 7% is other food and drink.

Supermarkets dominate the UK food supply.

According to [Statista](#), the ten largest supermarket chains (including online shopping) took 96.7% of the UK grocery market in November 2024.

The UK is not self-sufficient in food production.

According to the [NFU](#), in 2023 the UK was 62% self-sufficient in food.

Travel and transport

Transport is responsible for around 33% of each Bruton household's carbon emissions.

This figure is taken from the [Impact Tool Community Carbon calculator for Bruton](#). 18% of the total (ie 2T CO₂e per household) is from private car use, 10% from flights and the remainder from public transport.

In the UK the average private car spends 96% of its life parked somewhere.

This figure is taken from research carried out by the [RAC Foundation published in July 2021](#). 73% of the time the car is parked at home, 23% elsewhere. The report also notes that there has been no change since 2012.

In the UK... there is now one car for every two people.

At the end of December 2022, there were 33.2M cars licensed in the UK. The UK population estimate for mid-2021 was 67M, so almost exactly one car for every two people (note that this is people, so includes children and other non-drivers). There were another 6.5M other motorized vehicles.

Cars: <https://www.gov.uk/government/statistics/vehicle-licensing-statistics-2022/vehicle-licensing-statistics-2022#licensed-vehicles-overview>

Population:

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2021>

Materials and products

Clothing consumption in the UK is rising

...with the fashion industry ranked fourth in terms of negative environmental impact.

The fashion industry is ranked fourth in terms of its negative environmental impact - just below housing, transport, and food, according to WRAP, Mapping clothing impacts in Europe: the environmental cost (2017), p.18

https://traid.org.uk/wp-content/uploads/2018/09/impacts_of_clothing_factsheet_23percent.pdf

In the UK, construction, demolition and excavation account for 60% of material use and waste generation

<https://ukgbc.org/our-work/resource-use/>

Zero waste

In Somerset, in 2022-23, we recycled 56.4% of domestic waste (UK Average in 2021: 44.6%). 41.1% goes to energy from waste and 2.5% is landfilled.

<https://www.somerset.gov.uk/news/somerset-recycling-week-launches-with-highest-ever-recycling-rate/>

9% of Somerset waste is food waste which is anaerobically-digested to make green energy and soil improver for local farms.

Derived from 2022-23 Somerset waste tracker.

2023-24 Tracker can be found at <https://www.somerset.gov.uk/bins-recycling-and-waste/recycling-tracker/>

Zero carbon energy

The detailed modelling referred to in this section is included as a separate appendix.

Housing remains one of the biggest sources of greenhouse gas emissions.

In 2022, emissions from residential buildings accounted for a fifth of greenhouse gas emissions in the UK. <https://commonslibrary.parliament.uk/research-briefings/cbp-8830/>

The local housing stock performs poorly when energy performance is considered, with 58% having an EPC rating of D or poorer.

Only 5% of Somerset's energy is supplied by local renewable sources.

Both these statistics are taken from the (excellent) [2024 Somerset Energy Plan](#) by Regen, commissioned by Somerset Council.

One Planet Actions for Bruton workshop 6 July 2024: Outcomes and actions

Principle	Challenges (from workshop)	Bruton in 2030 (workshop)	Actions (workshop) showing votes (if more than two)	Actions (CEEWG previously identified)
<p>Zero carbon energy</p> <p>Making buildings and manufacturing energy efficient and supplying all energy with renewables</p>	<p>The way we heat our homes</p> <p>Poor insulation, leaky homes</p> <p>Business energy use</p>	<p>1 in 4 measuring their CO₂ footprint</p> <p>Businesses and properties know and understand their footprint</p> <p>No street lights at night</p>	<p>Use our rivers and streams for hydro (3)</p> <p>Policy no new homes heated by fossil fuels (4)</p> <p>Solar farm(s) in Bruton</p> <p><i>Individual carbon footprint calculation 'measure and reduce': one in four doing it and schools and businesses (2)</i></p> <p>Streetlights switched off at night (13)</p>	<p>Participate in and support county-wide initiatives to roll out heat pumps, district heating and better insulation, PV and storage</p> <p>Identify and champion local early-adopters, setting up talks, home visits etc</p> <p>Encourage businesses to share good practice with each other</p> <p>Research others' community energy initiatives to establish the most appropriate model for Bruton</p> <p>Develop plans for larger scale zero-carbon generation</p> <p>Amend BTC planning policy</p> <p>Ensure that sufficient trees are planted to offset residual CO₂ emissions</p> <p>BTC to continue not to invest in any body that invests in fossil fuels</p>

Principle	Challenges (from workshop)	Bruton in 2030 (workshop)	Actions (workshop) showing votes (if more than two)	Actions (CEEWG previously identified)
<p>Zero waste</p> <p>Reducing consumption, reusing and recycling to achieve zero waste and zero pollution</p>	<p>Single-use plastic packaging</p> <p>Personal choices prioritise convenience</p> <p>Promote local purchase</p>	<p>No black landfill bags needed</p> <p>Staples of weekly shop no longer plastic-wrapped</p> <p>'Local' 'local' 'local'</p>	<p>Bruton fabric bags</p> <p>Encourage re-use re-fill eg beer bottles, yoghurts</p> <p>Local suppliers (eg Bruton Dairy, Dowdings use refillable containers)</p> <p>Investigate green waste from schools and restaurants locally</p> <p>Schools: education of children</p>	<p>From 2022 draft plan:</p> <p>Pledge to reduce non-recyclable waste to zero [Note: Black bin waste is incinerated, contributing to carbon emissions & climate change]</p> <p>Support initiatives to reduce waste generated and recycle more</p> <p>Encourage people to participate in kerbside food waste collection and other recycling</p> <p>Encourage people to remember their 'things to bring': bag for life, reusable water bottle, coffee cup, cutlery</p> <p>Mending workshops & circles: clothes, bicycles, woodwork, etc...</p> <p>Provide opportunities for businesses to share issues and collaborate on waste management (currently each business in Bruton has to organise waste collection itself)</p>
<p>Materials and products</p> <p>Using materials from sustainable sources and promoting products which help people reduce consumption</p>	<p>Re-using electrical waste</p> <p>How do we stop buying stuff?</p> <p>School uniforms</p> <p>Sustainable building products</p>	<p>Thriving repair/recycle/re-use shops/sector throughout Bruton</p> <p>'Bruton goes hemp' sustainable builds</p> <p>Thriving co-operative relationship with our local farmers</p>	<p>Repair café (ask Wincanton or CC to change their Saturday)</p> <p>Tools to rent/share – Bruton swap and lend FB group</p> <p>Tents, rucksacks, camping gear to borrow</p> <p>School uniform recycle /re-use</p>	<p>Per 2022 draft plan:</p> <p>Support activities to repair, reuse, upcycle products, including skill-sharing</p> <p>Support activities to share resources and refill products</p> <p>Provide information about what can be repaired by whom and where</p> <p>Directory of local sustainable products and eco tradespeople, e.g. SSDC Great Green Directory</p> <p>Apply sustainability criteria to procurement & events</p>

Principle	Challenges (from workshop)	Bruton in 2030 (workshop)	Actions (workshop) showing votes (if more than two)	Actions (CEEWG previously identified)
<p>Travel and transport</p> <p>Reducing the need to travel, encouraging walking, cycling and low carbon transport</p>	<p>Lack of alternatives to cars/world designed for cars</p> <p>Irregularity and unpredictability of public transport</p> <p>Not safe for walking and cycling</p> <p>Culture of flying if you can afford it</p>	<p>Cars a shared resource rather than an individual possession (number of cars per head dropping)</p> <p>Affordable hourly bus service 7.00 to 21.00 every day to Wincanton, Shepton, Frome</p>	<p>Wider promotion of car-sharing (5)</p> <ul style="list-style-type: none"> • Sharing WhatsApp group / HiyaCar • Links to CC station • Hitch-hiking! <p>Incentives to use public transport</p> <p>‘measure and reduce’</p> <p>Affordable hourly bus services to Frome, Castle Cary and Wincanton (3)</p>	<p>Continue safer walking work</p> <p>Support and lobby for adequate public transport</p> <p>Challenge all car-centric development</p> <p>Survey on-street EV charging locations and solutions used elsewhere</p> <p>Share experiences of those who have already done it locally</p> <p>Lobby for more public charging</p> <p>Pilot and disseminate use of car-sharing clubs</p>
<p>Local & sustainable food</p> <p>Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein</p>	<p>Education around local natural resources</p>	<p>Independent shops selling affordable & useful stuff</p> <p>More people growing their own food</p>	<p><i>Local apple pressing day. Explore (2)</i></p> <p>Central place for selling local extra veg (Redlynch St Peter’s)</p> <p>Regular food market on a Saturday in Community Hall (10)</p> <p>Jar / container recycling</p> <p>Teaching / supporting people to grow their own, preserve and cook (4)</p> <p>Redlynch produce sold in Cole’s Yard, Wincanton. Bruton?</p> <p>Allotment over-production – making local produce more available</p> <p>Persuade local shops to take more local produce</p> <p>Community meals with local food</p>	<p>From 2022 draft plan:</p> <p>Understand the greenhouse gas emissions and sequestration from farming in and around Bruton (Parish farm carbon footprint?)</p> <p>Knowledge exchange between farmers about carbon sequestration & measurement</p> <p>Ensure provision of allotments for all who need them or enable garden sharing</p> <p>Create a group to look after productive greenspaces, e.g. fruit patches by Riverside Walk and Community Orchard at Durslade vegetable plots</p> <p>Share info about what is locally-grown and seasonal and available in Bruton</p> <p>Participate in Somerset Food Trail which seeks to promote delicious locally-produced, sustainably-grown, nature-friendly food</p> <p>Create a food plan for Bruton</p>

Principle	Challenges (from workshop)	Bruton in 2030 (workshop)	Actions (workshop) showing votes (if more than two)	Actions (CEEWG previously identified)
<p>Sustainable water</p> <p>Using water efficiently, protecting local water resources and reducing flooding and drought</p>	<p>Coombe Brook 'dead' (cement pollution?)</p> <p>Run-off</p>	<p>'Bruton Water'</p>	<p>Drain/gully clearance</p> <p>Free water butts with help to install</p> <p>'Slow the flow': swales and permaculture</p> <p>Information board about the river on Church bridge</p> <p>Solar powered water fountain</p> <p>No slurry farming [Reduce / eliminate slurry run-off into water courses]</p> <p>Compulsory water storage and grey water harvesting (planning) (3)</p> <p>Compost loo at Abbey Ponds</p>	<p>As per Ewan's draft (which I have lost in the BTC email server move, thought it's not</p> <p>Per 2022 draft plan:</p> <p>Monitor planning applications to take account of likely extra water demand and drainage issues</p> <p>Recommend refusal of all planning applications that might increase flooding risks</p> <p>Encourage new developments to include rainwater harvesting, greywater recycling and low water-use appliances</p> <p>Support Yellow Fish Campaign by BrueCREW to reduce pollution in the Brue</p> <p>Encourage Bruton businesses to sign up to the Refill app so people can refill water bottles while out and about</p>

<p>Land & nature</p> <p>Protecting and restoring land for the benefit of people and wildlife</p>	<p>Encourage local farmers, landowners to be conservation aware</p> <p>Make people change driveways and front gardens to be permeable</p>	<p>More swift boxes</p> <p>No monoculture</p> <p>More pollinators</p>	<p>Swift boxes installed on every house (7)</p> <p>Bats</p> <p>“Bishton pace” Stepping stones</p> <p>Planting for pollinators</p> <p>Adopt ‘patches’ of river or land for wildlife corridors (5)</p> <p>Less glyphosate and no slurry farming</p> <p>Micro-parks</p> <p>Forest garden at County Fields</p> <p>Develop on Brownfield sites, not fields (2)</p> <p>Another Haddon Wood / Wilf’s Wood (5)</p> <p>Rebrand scrub habitat (7)</p>	<p>Seek local ownership and/or control of property where this will be of benefit</p> <p>From 2022 draft plan:</p> <p>Maintain and reintroduce wildlife corridors in line with Somerset Nature Recovery Network (due to be consulted on in February 2025)</p> <p>Restore, enhance and create habitats in line with Somerset Wildlife Trust advice for the area</p> <p>Plant more trees, wooded areas, orchards, wildlife flower areas, patches for pollinators, to support wildlife</p> <p>Encourage wildlife gardening</p> <p>Encourage landowners, managers and farmers to adopt nature-friendly approaches</p> <p>Remove invasive species, e.g. Himalayan Balsam along the Brue</p> <p>Pesticide-free town status and continue ban on use of glyphosate and similar pesticides on council owned or managed land</p> <p>Encourage allotment holders and gardeners to follow organic growing principles</p> <p>Promote peat-free gardening and horticulture and continue ban on use of peat-based products on council-owned or managed land</p> <p>Support No Mow May and review mowing regimes to reduce use of fossil fuels and / or switch to electric tools charged with renewable electricity</p> <p>Encourage people to take part in citizen science wildlife counts and Somerset Wildlife Trust’s Team Wilder</p> <p>Protect existing accessible open spaces against development</p>
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Principle	Challenges (from workshop)	Bruton in 2030 (workshop)	Actions (workshop) showing votes (if more than two)	Actions (CEEWG previously identified)
				<p>Ensure any new development contributes to biodiversity</p> <p>Consider creating a Natural Capital inventory for Bruton</p> <p>Support regular litter-picking and activities to improve our natural environment</p> <p>Support acquisitions of land that enable BTC deliver One Planet Living objectives, e.g. habitat creation, affordable housing, community facilities, recreational space, renewable energy</p>
<p>Culture & community</p> <p>Nurturing local identity and heritage, empowering communities and promoting a culture of sustainability</p>	<p>Communication to get more people involved in Culture & community</p>	<p>Everyone will feel welcomed to the town and able to engage in its cultural & community life</p>	<p>Welcome pack – is it still happening?</p> <p>Get people involved in what's already going on (3)</p> <p>Communication through a wide range of methods</p> <p>Deal with issues & lack of provision for certain groups</p> <p>Identify those groups, especially disenfranchised (Support initiatives to tackle loneliness and isolation)</p> <p>Safe space for girls & young women</p>	<p>BTC to take a collective approach (eg by arranging public meetings) when addressing any major issue</p> <p>Support volunteering initiatives and local community organisations</p> <p>Make altruism easy (Good Company)</p> <p>Model community engagement by just doing it (eg Hoedown)</p> <p>Regular inclusive events to bring people together, e.g. annual fete, Packhorse Fair, Big Lunch, Lent Lunches, Freecycle events, etc...</p> <p>Find ways to support people to look after themselves and others through turbulent times</p> <p>Skill sharing for the future</p>

Principle	Challenges (from workshop)	Bruton in 2030 (workshop)	Actions (workshop) showing votes (if more than two)	Actions (CEEWG previously identified)
<p>Equity & local economy</p> <p>Creating safe, equitable places to live and work which support local prosperity and international fair trade</p>	<p>Affordable housing & transport</p> <p>Solar PV / heat pumps / rainwater harvesting / insulation</p> <p>Equitable rent for people who can't afford to buy</p> <p>Difficulties of finding / keeping employment (rent)</p>	<p>Local control over materials used</p> <p>Building on brownfield sites</p> <p>Community housing project</p> <p>EU!</p>	<p>Lobbying County Council for sustainable development</p> <p>Scrutinise the environmental credentials of developers (4)</p> <p>Changing the conservation rules on Grade 2 listed properties</p> <p>More truly affordable housing (4)</p> <p>Pressure on Somerset Council to control Airbnbs (9)</p>	<p>Lobby others to create as much space for people as possible</p> <p>Improve accessibility for people with mobility or sight issues or dementia, and for people who are digitally excluded</p> <p>Promote local independent businesses so that greater proportion of money stays circulating within Bruton's economy (the Local Multiplier effect)</p> <p>Support international Fair Trade through purchasing</p> <p>Support Totally Locally campaign to encourage people to support their High Streets</p>
<p>Health & happiness</p> <p>Encouraging active, social, meaningful lives to promote good health and wellbeing</p>	<p>Communicating to the disenfranchised</p> <p>Creating locations in Bruton for outreach</p>	<p>More access to exercise</p> <p>Spaces that facilitate improved mental health</p> <ul style="list-style-type: none"> - Men - Children - Disenfranchised 	<p><i>Overcome obstacles to Men's Shed (2)</i></p> <p>Develop some of the wide range of sports facilities. No accessible gym – Kings??</p> <p>Town Council to facilitate negotiations with the schools to overcome obstacles (identify these) to community use</p> <p>Links very much to transport</p> <p>Develop better outreach in Bruton for use by non-statutory agencies and services not based in other town – family support</p>	<p>Work with local community network to develop local means of promoting health and well-being</p> <p>From 2022 draft plan:</p> <p>Collate & share information about exercise in Bruton</p> <p>Promote initiatives to improve mental and physical health, including services and groups which tackle loneliness</p> <p>Measures to tackle air pollution (anti-idling engines on High Street and outside schools), light pollution and noise pollution</p>

Actions reported back from groups & prioritisation

- 13 Streetlights switched off at night (*Zero carbon energy*)
- 10 Local food market on Saturdays at BCH – selling surplus homegrown veg (*Local & Sustainable Food*)
- 9 Somerset Council to control second homes and AirBnBs (*Equity & local economy*)
- 7 Swift boxes on all new-build and old (*Land & nature*)
- 7 Rebrand ‘scrub’ habitat – education about value of scrub (*Land & nature*)
- 5 Another Hadden Wood / Wilf’s Wood (*Land & nature*)
- 5 Adopt patches of land adjacent to town – wildlife corridors (*Land & nature*)
- 5 Wide promotion of car-sharing – WhatsApp / hiring HiyaCar (*Travel & Transport*)
- 4 New homes not using fossil fuels (*Zero carbon energy*)
- 4 More truly affordable housing (*Equity & local economy*)
- 4 Teaching how to grow & cook & preserve (*Local & Sustainable Food*)
- 4 Scrutinise environmental credentials of developers (use One Planet Principles) (*Equity & local economy*)
- 3 Use our river for hydro (*Zero carbon energy*)
- 3 Get people involved in what’s already going on (*Culture & Community*)
- 3 Grey water harvesting in every house (*Sustainable water*)
- 3 Hourly buses to Frome, Castle Cary & Wincanton (*Travel & transport*)
- 2 Overcome obstacles to Men’s shed (*Health and happiness*)
- 2 Develop on brownfield sites, not fields (*Land & nature*)
- 2 One in four people measuring carbon footprint & schools & businesses (*Zero carbon energy*)
- 2 Local apple-pressing day – Oliver Dowding does this (*Local & sustainable food*)
- 1 Community meals with local food (*Local & Sustainable Food*)
- 1 Overcome obstacles to community use of school facilities (BTC) (*Health and happiness*)
- 1 Outreach for other agencies in Bruton – facility, transport (*Health and happiness*)
- 1 Permeable driveways (*Sustainable water*)
- 1 Identify disenfranchised groups and find ways to reach them (*Culture & Community*)
- 1 Solar farm for Bruton - community-owned? (*Zero carbon energy*)
- 1 Repair café for Bruton – or better links to & promotion of existing Repair Cafes in Wincanton & Castle Cary (*Materials & products*)
- 1 Bruton to go hemp by 2030 (*Materials & products*)
- 1 Ban slurry on fields (*Sustainable water*)
- 1 All of our shops offer their own fabric bags (*Zero waste*)

- 1 Find out about food waste from hospitality & schools (*Zero waste*)0 Safe spaces for girls and young women (*Culture & community*)
- 0 Promotion of tool-sharing – Facebook / WhatsApp (*Materials & products*)
- 0 Recycling / reuse of school uniforms (*Materials & products*)
- 0 More people growing own food & related actions (*Local & sustainable food*)
- 0 ‘Crops not shops’ in Bruton (*Local & sustainable food*)
- 0 Swales everywhere (*Sustainable water*)
- 0 Incentives for arriving by public transport (*Travel & transport*)
- 0 Local producers to supply in re-useable containers (*Zero waste*)

2022 work re zero carbon energy

In 2022 members of the the Climate and Ecological Working Group constructed a model to calculate the residual CO₂ emissions from domestic and business premises in 2030, using available data and making assumptions about the number of properties with improved insulation, heat pumps and solar PV. The summary findings for a scenario where 50% of domestic properties had these measures implemented and 50% of business/industrial properties converted to non-fossil fuel heating are given below.

The spreadsheet on which this is based can be viewed and downloaded here.

Zero CO₂e emissions by 2030 summary

Assumptions / Inputs

Things within our sphere of influence

Domestic	Units	Notes/source of data
Percentage domestic properties retrofitted	50%	
Percentage of fossil boilers replaced with heat pumps	50%	
Percentage properties with PV	50%	
Business / industrial		
Percentage industrial properties retrofitted	0%	
PV installations area in square metres	1000 m ²	
Percentage fossil heating replaced with heat pumps	50%	

Assumptions / figures not within our influence

Number of households in Bruton	1200	Parish, census 2011, approximate
Average impact of domestic retrofit on required heating energy	25%	
Average impact of industrial retrofit on required heating energy	25%	
Average COP of heat pumps	3	This is the generally assumed standard. Calculations will assume all of impact of retrofit is on heating
Average PV installation	42 kWp	
kk value for Bruton	882 kWh pa per kWp	From IDDEA quotation. This is the estimated annual output for a given panel rating in Bruton.
Peak PV generation per square metre of panel	0215 kWp	Derived from domestic figures
Projected renewable proportion of grid electricity 2030	80%	
Carbon intensity of non renewable electricity 2030	018385 kg per kWh	kg per kWh: assumes all generated by natural gas (JD note: not sure about this - what about heat losses at power station)
Carbon intensity of fossil fuels 2030	018385 kg per kWh	kg per kWh: assumes all generated by natural gas
PV generation per hectare of land, solar farm	500 kWp per Ha	https://www.nfuonline.com/solarpv_nfubriefing4/
Carbon absorption per hectare of planted tree per year	145 tonnes CO ₂ e per Ha	Gregg et al, Carbon Storage and Sequestration by Habitat, Natural England, 2021, p12
Constant - thousand	1000	

Outputs

2020 consumption (MWh) and impact

Domestic fossil fuel	15020 MWh	Calculated from Impact Tool emissions data and carbon intensity
Domestic electricity	5575 MWh	
Industrial fossil fuel	2992 MWh	Natural gas, LPG, oil, coal (biomass excluded as net emissions are negligible)
Industrial electricity	1498 MWh	
Total (buildings and processes) energy demand	25085 MWh	

Total CO₂e emissions, tonnes

5530 tonnes CO₂e Gas, other fuels. May include some biomass

2030 projected consumption (MWh) and impact

Domestic fossil fuel	6571 MWh	Demand reduced by retrofit and conversion to heat pump
Domestic electricity from grid	5543 MWh	Demand increased by heat pumps, reduced by domestic PV
Industrial fossil fuel	1496 MWh	Demand reduced by heat pumps
Industrial electricity from grid	1807 MWh	Demand increased by heat pumps, reduced by PV
Total (buildings and processes) energy demand	15418 MWh	

CO ₂ e emissions, tonnes, from local fossil fuel consumption	1483 tonnes CO ₂ e
CO ₂ e emissions, tonnes, from non-renewable grid electricity	270 tonnes CO ₂ e
Total CO₂e emissions, tonnes	1753 tonnes CO₂e

Assumes generated by natural gas

Reduction between 2020 and 2030

68%

Required compensatory activity

Size of solar farm to compensate for non-renewable grid	33 hectares
Size of solar farm to generate all electricity used	167 hectares
Area of tree planting to absorb CO ₂ from local fossil fuels	102 hectares

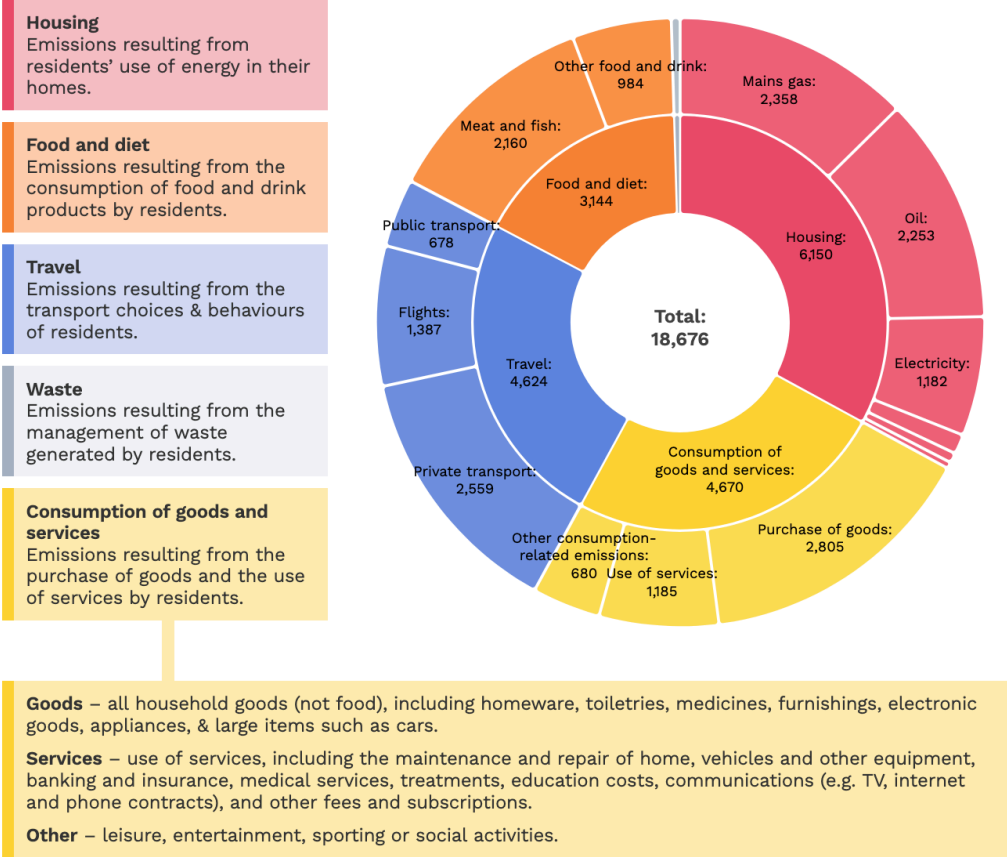
Mixed broad-leaf woodland

Impact Tool for Bruton

Viewed at <https://impact-tool.org.uk/> for the civil parish of Bruton on 26 March 2025.

Your whole footprint

This figure shows the annual carbon emissions (measured in tonnes CO₂e²) emitted as a result of the different activities that residents within your parish’s boundary engage in – from heating to eating.



	Total emissions (t CO ₂ e)	Per-household emissions (t CO ₂ e)	%
Total emissions	18,676	11	100
Housing	6,150	3.6	33
Consumption of goods and services	4,670	3.6	25
Travel	4,624	2.4	25
Food and diet	3,144	1.2	17
Waste	87	0.1	< 1