

Barnet

Friends of the Earth has analysed how different local authority areas across England and Wales are taking action to cut greenhouse gases. We've also compared local authority areas with other similar local authority areas.¹

Summary assessment

The Barnet area's performance on climate change is average compared to other similar local authority areas. All local authorities, even the best performing, need to do much more if climate catastrophe is to be averted. Barnet particularly needs to do much better on increasing the use of public transport, cycling, and walking, improving home insulation, and increasing renewable energy.

In Barnet **49%** of emissions come from housing, **29%** from transport, and **21%** are industrial and commercial emissions.²

There are different estimates of how fast the UK should reduce greenhouse gas emissions if it's to do its fair share in combatting climate change, ranging from around 7% to over 25% per year.³ Researchers at the Tyndall Centre in Manchester University say that Barnet should reduce emissions by at least **13%** per year.⁴

What can local authorities do?

All local authorities, even the best performing, need to do much more if climate catastrophe is to be averted. The government needs to provide them with the powers and resources to do so, and it needs to do much more itself. All local authorities should adopt an ambitious local climate action plan, and they should join with Friends of the Earth and others in urging more government action. Each local authority should declare a climate emergency as a sign of political intent.

The people most vulnerable to climate change are often those on lower incomes, despite having done the least to cause it because of their lower levels of consumption. For example, people with lower incomes are less able to replace and repair damage from flooding or insure against it. This inequality is called climate injustice.

Researchers have identified over 10,000 neighbourhoods across the UK where people are particularly vulnerable to flooding due to their location and factors such as income.⁵ Barnet has **62** of these neighbourhoods with high social flood risk for surface flooding, taking account a range of vulnerability factors. The local authority needs to target these areas for support in order to help people living there prepare for extreme weather and respond and recover when it occurs.

Housing

Only **41%** of homes are well insulated in Barnet.⁶ This represents a shocking waste of energy, high greenhouse gas emissions and unnecessarily high energy bills. **10%** of households in the area are in fuel poverty, which means they can't afford to heat their homes properly.⁷ Poor insulation contributes to this problem.

Upgrading the insulation of **8,590** homes per year within the Barnet area will ensure all homes are properly insulated by 2030, lifting as many people as possible out of fuel poverty.

We also need to switch from gas central heating, which is a major source of greenhouse gases, to eco-heating (such as heat pumps), which doesn't burn fossil fuels. The government provides grants for installing eco-heating. There are only **30**

government funded eco-heating systems in the Barnet area, yet the UK needs to fit around 1 million per year. A fair share for Barnet would be fitting **5,354** eco-heating systems every year.⁸

Transport

Transport is the biggest source of greenhouse gases in the UK, and emissions continue to grow. Research suggests that to deliver the greenhouse gas reductions needed will require car use to be reduced by between 20% and 60%, depending on factors such as the speed of the switch to electric vehicles.⁹ This means that the UK should more than double the proportion of journeys by public transport, cycling and walking.¹⁰

In Barnet only **48%** of people commute by public transport, **2%** cycle, and **6%** walk. In the best performing similar local authority area, the proportions are **68%**, **4%** and **17%** respectively.¹¹

Much more is possible. Research shows that **21%** of commuter journeys in Barnet could be by bike (assuming good cycling infrastructure, such as segregated cycleways and the uptake of E-bikes¹²), better walking routes can encourage more journeys on foot and improve health, and 6 in 10 drivers would shift to public transport if its quality improved.¹³

Friends of the Earth suggests Barnet has a target of **80%** of people commuting by public transport, cycling, and walking by 2030.¹⁴

When cars are needed, they should be electric and shared as much as possible. Only **6%** of commuters share their car when commuting in the Barnet area.¹⁵ According to social enterprise Liftshare, best in class employers have 40% of their staff sharing journeys to work.

According to research published in April, the Barnet area has **36** electric vehicle charging points (EV chargers).¹⁶ The Committee on Climate Change, which advises the government, says there should be 1 EV charger for every thousand cars by 2030. This suggests that in Barnet there should be at least **142** EV chargers.¹⁷ But we need a much faster transition to electric cars, which means many more EV chargers than this.

Energy

The proportion of our electricity produced by renewable energy has increased massively over the last ten years to around a third, and the cost of solar panels and wind farms has plummeted. But we need to produce up to 8 times more renewable electricity if the UK is to wean itself off climate-wrecking oil and gas, including for our transport and heating. Much of the additional renewable energy will come from offshore wind, but there's also a need to significantly increase onshore wind and solar power.

Currently the Barnet area has **3MW** of renewable power.¹⁸ If the Barnet area matched the best of similar local authority areas it would have **57MW**.¹⁹ This is a minimum target to be achieved rapidly, and all local authorities should look to exceed it.

To give an indication of what this means in practice, the average onshore wind turbine in Europe is 2.7MW and a 25-acre solar farm will produce about 5MW of electricity. On average 1MW of renewable power produces enough energy for around 125 homes.²⁰

Trees

Trees play an important role in sucking the main greenhouse gas carbon dioxide from the atmosphere and storing it as carbon. They also provide a home for nature, clean up air pollution and reduce flood risk.

According to the Government's National Forest Inventory (NFI) **10%** of the Barnet area is woodland. The highest proportion in similar areas is **13%**. But the NFI does not include trees outside woodland such as small woods, groups of trees and lone trees. According to aerial survey company Bluesky International Ltd total tree cover in the area is **20 - 30%**.²¹

All areas should aim to double tree cover as soon as possible.

Those areas with very little tree cover (less than 10%) should make an additional commitment to increase tree cover to 20%.

For those few areas with already high levels of tree cover (30% or more) it may not be feasible to double tree cover. However, even in these areas some more tree planting will be possible.²²

Waste

Making the stuff we buy, using it, and throwing it away all contribute to climate change. Buying less stuff is an important step in cutting greenhouse gases.

For the stuff we do buy, we should reuse, recycle or compost it. Barnet reuses, recycles and composts **37%** of its household waste.²³ This compares to the best figure of **49%** in similar local authorities, while Wales has set its local authorities a target of 70% by 2025. English local authorities should aspire to the same figure, and all local authorities must aim even higher on a path to achieve zero waste (e.g. aiming for zero waste by 2030).

Divestment

Local authorities across the UK invest billions of pounds in fossil fuel companies, the very companies that have caused the climate emergency.

Working out which local authority has what investments is not straightforward, because local authorities often pool funds. An analysis of UK local authority pension funds suggests that on average local authorities invest many millions of pounds in fossil fuels. Along with many others, Friends of the Earth is calling on local authorities to stop investing in fossil fuels.²⁴

Summary of targets for the **Barnet** area

- **Cease supporting or promoting new high carbon infrastructure, such as roads or airports**
- **Annual emissions reductions – 13%**
- **Homes to insulate per year – 8,590**
- **Number of eco-heating systems, such as heat pumps, to fit each year – 5,354**
- **Proportion of commuters walking, cycling or using public transport by 2030 – 80%**
- **Increase lift-sharing – major employers should aim to have 40% of their staff who travel to work by car doing so by lift-sharing**
- **Electric vehicle charging stations by 2030 – at least 142 stations**
- **Renewable energy – at least 57MW**
- **Trees – Aim to double tree cover**
- **Household waste reuse, recycling and composting by 2025 – 70% (on path to reach zero waste as soon as possible)**
- **Divestment – zero investment in fossil fuel companies as soon as possible.**

References

1. To ensure these comparisons are fair, they're based on the Office of National Statistics' grouping of similar local authorities. Local authority grouping can be seen on the "Clusters by local authority" tab of this [ONS data sheet](https://www.ons.gov.uk/file?uri=/methodology/geography/geographicalproducts/areaclassifications/2011areaclassifications/datasets/clustermembershipv2.xls).
< <https://www.ons.gov.uk/file?uri=/methodology/geography/geographicalproducts/areaclassifications/datasets/clustermembershipv2.xls> > The ONS has a pen-portrait < <https://www.ons.gov.uk/methodology/geography/geographicalproducts/areaclassifications/2011areaclassifications/penportraitsandradialplots> > of the groups.
2. The government publishes data on [local authority emissions](https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2017) < <https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2017> > . It excludes motorways, aviation, and large industrial processes, because the local authority has no influence on these.
3. The lower estimates assume much higher potentials for future action to remove greenhouse gases from the atmosphere and also tend to exclude consideration of historical emissions (for example, see [Equal Cumulative Per Capita](http://paris-equity-check.org/multi-equity-map.html) < <http://paris-equity-check.org/multi-equity-map.html> >), whereas higher estimates assume very limited drawdown and take some account historical emissions and also sometimes embedded carbon in imports (e.g, [here](https://timjackson.org.uk/zero-carbon-sooner/) < <https://timjackson.org.uk/zero-carbon-sooner/> >).
4. Researchers at Tyndall Manchester have developed an online tool to help local areas set their own climate change targets, aligned with the UN Paris Climate Agreement based on the latest science. The emission reduction rates are based on the grandfathering principle (recent emissions data from 2011 to 2016) which captures most of the socio-techno-economic factors of the area considered. Reduction rates should be considered as the minimum effort for the area's fair contribution towards meeting the Paris objectives. Hence more ambitious targets are compatible with Paris Agreement. The targets apply to CO2 emissions from the energy system (power, heat, cooling, surface transport and industry) only. Emissions from aviation, shipping, cement process emissions, and land use, land use change and forestry are excluded. A full dataset on climate change targets for local authorities, combined authorities, city regions and county regions is available

at the website. < <https://carbonbudget.manchester.ac.uk/reports/> > If a local authority fails to meet its annual reduction target the reduction rate for future years increases.

5. They have identified 12,705 neighbourhoods in England Wales where there is very high, acute or extreme social flood risk to surface flooding and 437 to coastal or river flooding. These neighbourhoods are identified by assessing potential flood exposure with 12 factors representing social vulnerability, such as income, health, age and housing tenure and using geographical areas identified by the Office of National Statistics (LSOA areas) with average population size of 1600 people. Friends of the Earth does not have access to data on which geographical areas these are. Further information is available at Sayers, P.B., Horritt, M., Penning Rowsell, E., and Fieth, J. (2017) Present and future flood vulnerability, risk and disadvantage: A UK scale assessment. A report for the Joseph Rowntree Foundation published by Sayers and Partners LLP and the Climate Just website (www.climatejust.org.uk < <http://www.climatejust.org.uk/> >).

6. Well insulated means having an Energy Performance Certificate (EPC) rating of A, B or C. The data for all properties is published regularly < <https://www.gov.uk/government/statistical-data-sets/live-tables-on-energy-performance-of-buildings-certificates> > by the government. Our estimates are based on the proportion of properties with A, B, or C ratings and the proportion with lower. The number of EPCs is now so large in every local authority area that robust estimates are possible.

7. The government publishes data on fuel poverty in England. < <https://www.gov.uk/government/statistics/sub-regional-fuel-poverty-data-2018> > For Wales, figures were provided to Friends of the Earth by National Energy Action. Note that the definition of fuel poverty is different in England and Wales.

8. The data on numbers of domestic eco-heating systems installed (supported by government grants) by local authorities is from the government, see tab 2.4, [here](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/803680/RHI_monthly_official_stats_tables_april_19_final.xlsx). < https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/803680/RHI_monthly_official_stats_tables_april_19_final.xlsx > For 12 local authorities – Halton, Blackpool, Plymouth, Isles of Scilly, Cannock Chase, Tamworth, Newham, Redbridge, Tower Hamlets, Waltham Forest, Blaenau Gwent, and Torfaen – Ofgem doesn't give the exact figure, but provides data to enable an average number to be calculated. We have used this in this small number

of cases. The Committee on Climate Change has said the UK needs to fit 10 million heat pumps by 2035. Because climate change is a result of cumulative greenhouse gases, the earlier action is taken the less warming there is. We are therefore calling for an average of 1 million a year to be fitted each year over the next 10 years. Only 22,000 were fitted in 2017.

9. Sloman and Hopkinson, *More than electric cars*, < <https://policy.friendsoftheearth.uk/insight/more-electric-cars> > Friends of the Earth (2019).

10. Doubling public transport, cycling and walking would reduce car journeys by approximately 40%.

11. Data is calculated from the Office of National Statistics 2011 Census, the most comprehensive data available. It's possible that figures for public transport use for commuting may have fallen, due to savage cuts in bus services. According to recent government data bus usage has fallen in the vast majority of local authorities in England since 2011. Their figure suggest that only in 3 local authorities has bus usage increased by more than 5% (Bristol, Brighton and Hove, and Reading). In Wales bus usage has also declined.

12. Figures come from *Propensity to Cycle*, < <https://www.pct.bike/> > a tool funded by the government and others, which takes into account issues such as geography to identify possible cycling rates for various scenarios. We use the E-bike scenario which assumes a similar infrastructure to Dutch levels and the use of E-bikes.

13. RAC, *6-in-10 drivers would switch to public transport* < <https://www.rac.co.uk/drive/news/motoring-news/6-in-10-drivers-would-switch-to-public-transport/> > (2018).

14. Targets are set by ONS category (see footnote 1) with the data as follows: Country living, 40% (current best 21%); English and Welsh countryside 40% (22%); Remoter country living, 40% (27%), Thriving rural, 50% (36%), Town living, 50% (26%), Services, manufacturing and mining legacy, 50% (29%), Rural-urban fringe, 60% (58%), Suburban traits, 60% (44%), Manufacturing traits, 60% (21%), Larger towns and cities, 80% (55%), University towns and cities, 80% (55%), Ethnically diverse metropolitan living, 80% (74%), London cosmopolitan, 90% (82%). Together these increases would approximately double public transport use, cycling and walking. The areas with the lowest targets have lower population densities.

15. Data provided by Social Enterprise [Liftshare](https://liftshare.com/uk), < <https://liftshare.com/uk> > based on an analysis of ONS 2011 Census Data.

16. An analysis by Open Charge Map < <https://www.bbc.co.uk/news/uk-47696839> > for the BBC.

17. Based on the proportion of licenced cars in the area.

18. Based on the [latest government figures](#).

< https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/743822/Renewable_electricity_by_Local_Authority__2014-2017.xlsx > Our calculations data exclude biomass burning and incineration, because the former has high carbon emissions and the latter involves burning fossil fuel derivatives (plastics). We also exclude offshore wind and other marine renewable energy, because its inclusion would make comparison between local authorities invalid as many do not have coastlines.

19. The data is calculated as MW of renewable energy per square kilometre. This allows a fair comparison between local authorities identified in ONS groups as similar in terms of economy, demographics and geography, but which are very different sizes.

20. Based on [government figures](#)

< https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/826624/DUKES_2019_dataset.xls > on renewable energy capacity and production for 2018, excluding marine renewables, biomass, and energy from waste (table 6.4) and Ofgem typical values for total [household energy consumption](#) < <https://www.ofgem.gov.uk/gas/retail-market/monitoring-data-and-statistics/typical-domestic-consumption-values> > (using medium consumption values). We have used household energy consumption rather than just electricity because home heating also needs to be electric in the future.

21. Currently the best estimates of total tree cover across all local authorities in England and Wales is produced by Bluesky International Limited. Forestry Research, part of the Forestry Commission, will be producing more accurate data and maps within the next few years. Bluesky provided the data we are sharing free of charge. Bluesky created National Tree Map™ using a combination of vertical aerial survey data, height data and colour infrared imagery to map all trees above 3m in height across England and Wales. Local authorities use this tree canopy

overview as a base for mapping tree preservation orders, to prioritise leaf-clearing schedules, and to identify areas to target for tree-planting as well as other uses. For more detail visit Bluesky at www.bluesky-world.com < <https://www.bluesky-world.com/> >

22. The government body Forest Research says that urban areas should have 20% tree cover. < <https://www.forestresearch.gov.uk/tools-and-resources/tree-canopy-cover-leaflet/> >

23. Government data from WasteDataFlow < <https://www.wastedataflow.org/> > is used for English local authorities, and from StatsWales < https://statswales.gov.wales/Catalogue/Environment-and-Countryside/Waste-Management/Local-Authority-Municipal-Waste?_ga=2.8735536.466877265.1566485268-90885788.1562851545 > for Welsh local authorities.

24. Calculated from data from GoFossilFree.
< <https://gofossilfree.org/uk/fuellingthefire/> >

Data compiled by Chris Gordon-Smith and Mike Childs, Friends of the Earth Policy & Insight Unit.