33 actions local authorities can take on climate change

Despite cutbacks there is still a lot local authorities can do on climate change
Summary

Local authorities have an important role in delivering carbon emission reductions, particularly in transport but also in other areas such as buildings.

Because action on climate change brings many co-benefits it is also important in addressing other areas of public concern, such as public health.

Most local authorities are doing far too little on climate change and some are even making decisions that will increase emissions (e.g. investing in airport expansion, promoting new road schemes).

Austerity cuts have severely reduced local authorities’ ability to act. This is particularly true for actions that require on-going spending (revenue spend).

Cuts in staff numbers has also severely constrained capacity and reduced expertise.

Borrowing for capital spend on infrastructure is easier.

But there are no cost/low cost actions they can take on climate change, including in partnership with others.

They can also raise money for action, including for revenue costs (e.g. Nottingham’s Workplace Parking Levy, Haringey’s zero carbon homes offset, Newham’s licensing of private renting).

Local authorities don’t have a statutory duty to reduce emissions in line with the Climate Change Act but they do need to produce plans that have a big bearing on emissions (e.g. transport, local plans, minerals plans, procurement). Campaigning to influence these is very important.
What local authorities can and can’t do varies depending on the type of local authority.

There are two-tier local authorities (e.g. county councils, district councils), unitary authorities, metropolitan authorities, and combined local authorities. Some combined local authorities may have a Mayor who has a strategic overview and powers.

Responsibilities and powers also vary depending on which country the local authority is in.

Regardless of the type of local authority, all would be able to do much more if the government were to give them the responsibilities, powers and finance needed.

Powers to raise money is a crucial part of this, not all the money needs to come from central coffers.

What needs to happen in this area will be covered by a future briefing.

Friends of the Earth intends to campaign to get government to give local authorities more finances and powers.

Local campaigning is absolutely critical to securing local authority action but it needs to be informed by what particular local authorities can reasonably do within their particular constraints. Local campaigning also has to be informed by the different types, geography and demographics of local authorities.

This document is an overview of what local authorities can do right now on climate change, including three over-arching strategic actions. It also identifies 33 individual actions local authorities can take.

This briefing will be supplemented by a number of case studies that will provide more detail.

After a decade of austerity cuts and deregulation councils might not be able to do as much as they once could on climate change, but they can and should still do what they can.
The Climate Change Act – which Friends of the Earth led the campaign for – has created a powerful framework for reducing the UK’s carbon emissions.

A series of five-year carbon budgets leads the UK towards a reduction in UK emissions of 80 per cent by 2050 compared to 1990 levels. This longer-term target that is expected to be strengthened within the next 18 months and carbon budgets are also expected to be tightened.

However the Climate Change Act did not include a statutory duty for local authorities to develop plans and deliver cuts in line with its carbon budgets. Nor did it set local authorities their own carbon budgets.

This has not helped local councils understand what is expected from them nor helped them implement their own independent carbon reduction programmes as a contribution towards the achievement of national emissions reductions.

Putting this right will require campaigning by both national Friends of the Earth and by local campaigning groups.

Local authority funding is also very tight after many years of cuts to budgets and continues to tighten with no end in sight.

This has significantly impacted on local authorities spending power but also very significantly on their staff capacity.

Their ability to do much in areas other than statutory requirements is very limited, and in many cases they are also struggling to even deliver the minimum in these areas (e.g. social care). Taking action on climate change is not a statutory requirement.

Alongside this financial reality is the deregulation that has also occurred, which also limits local authorities’ powers to act, or increases the risk to them should they do so (e.g. appeals to the government, challenges in the courts).

Weakening of housing standards, permitted development, and a reduced ability to approve on-shore wind farms are examples of this deregulation.
That said, local authorities are not powerless. They do make decisions that influence greenhouse gases, for example, in housing and land-use planning at District council; and transport, waste and minerals at Unitary, Metropolitan and County Council level.

In theory local authorities are also able to bid to a plethora of funds for project funding, although in practice due to staff shortages many may struggle to even bid for these. And they can raise some funds themselves (e.g. through car parking fees, bonds or, to a limited extent, raising council tax). But unlike in many parts of the continent their powers to raise funds are very limited.

While local authorities alone don’t have the resources and powers to drive a comprehensive strategic effort to reduce greenhouse gas emissions as quickly as needed, they can make a difference and express their desire to do more.

Motions on climate change are important politically, even when they can’t be cast-iron commitments to deliver very significant reductions.

Different local authorities will have different carbon emission profiles. In around 50% of local authority areas transport is the largest source of total emissions, whereas the domestic sector is the largest in 23%, and commerce & industry in 28%.

In dense urban areas, like central London boroughs, homes are going to be responsible for the majority of emissions whereas transport may be the largest source in smaller cities or more suburban or rural areas.

The ability of local authorities to reduce these emissions will in many cases be limited (e.g. they are not able to influence industrial emissions).

For all local authorities government led action on decarbonisation of the electricity grid plus policies and resources to drive the uptake of electric vehicles (EVs), housing insulation and heat pumps will have a very significant impact on the total carbon footprint within their area.
But these government led measures alone are not enough to drive the depth of emissions reductions needed. Local authorities still have a very important role.

For example, recent research for Friends of the Earth has shown that even with a very rapid transition to EVs vehicles there is still a need to reduce traffic by 20 per cent or more in order to further reduce greenhouse gas emissions\(^2\). Traffic reduction needs to be led by local authorities.

**Local authority action**

The Committee on Climate Change, in their 2012 report on local authority action\(^3\) said that:

“There is currently a significant risk that local authorities will not develop and implement sufficiently ambitious low-carbon plans ... given the highly constrained fiscal situation. In order to mitigate this, and the associated risk for meeting national carbon budgets, the Government should seriously consider providing additional funding ... and/or introducing a statutory duty for local authorities to develop and implement low-carbon plans."

The government failed to respond to the recommendation and the reality is that the vast majority, if not all local authorities, are not implementing “sufficiently ambitious low-carbon plans”.

There is however a growing number of authorities passing motions declaring a ‘climate emergency\(^4\)’ and expressing a willingness to take action.

It is important that any action they take is beyond simply improving their own estate (e.g. the buildings they own) and instead encompasses all the areas where they have powers and responsibilities.

The Committee on Climate Change recommended that local authorities concentrate efforts in areas where they can have significant influence, namely “in buildings, surface transport, and waste”\(^3\).
Three over-arching strategic actions

Make a political commitment to reduce greenhouse gas emissions

Any political commitment should at least be in line with the Climate Change Act carbon budgets, including when these are tightened to bring them in-line with the International Paris Agreement.

Local authorities should also identify a councillor at Cabinet level as a Climate Champion to ensure that this commitment is embedded across all local authority actions and plans. This person should also produce a publically available annual report on progress made.

Action to reduce emissions should be instigated immediately, even if the local authority decides to develop a climate action plan. Too often the process of developing strategies and plans can be used as a way of delaying action.

This briefing and associated case studies illustrate areas where ‘no regrets’ action can be rapidly pursued right now.

Real political will can be transformative, as can be seen in the rapid progress being made in cities around the world (e.g. Stockholm’s radical plan to be fossil-fuel free by 2040).

In the absence of a statutory duty on local authorities to take action, political will locally and regionally to drive reductions in carbon emissions is absolutely critical.

Develop carbon reduction pathways, climate compliant strategies and plans

The 33 individual actions that local authorities can take to reduce the carbon emissions in their area listed below are a starting point for taking action right now. But the development of a carbon reduction pathway and associated strategy, and embedding these into all other strategies and plans, is also necessary.

Getting a local authority or collections of local authorities to develop a carbon reduction ought to be straight-forward given the existence of the Climate Change Act, scientific warning and public concern. But the reality is that it will often take local and regional
campaigning.

For example:

- Campaigning by Manchester Friends of the Earth in the process leading up to the election of Greater Manchester Mayor Andy Burnham led him to quickly reshape and build his entire program around a commitment to Net Zero emissions by 2038.

- The officers and authorities developing the new strategy for Transport for the North, covering a population of 15 million, initially refused to incorporate a carbon reduction target or pathway, but campaigning by transport activists, including Calderdale Friends of the Earth, succeeded in imposing on it a pathway line with the Climate Change Act carbon budgets, and a commitment to if necessary reduce programmes like roadbuilding that might be incompatible with it.

A number of local authorities have developed a climate strategy. For example, Bristol, Leeds, Manchester, and London.

It does take resources to develop a proper strategy but support to do so exists, for example, the consultancy Anthesis has developed a freely available tool for cities to use in doing so.

The CandoCities website by the University of Leeds identifies the potential economic benefits of action on climate change for all local authorities across the UK.

Some of the strategies produced to date have identified the economic costs and benefits of different pathways.

For example the Leeds and Bristol Mini-Stern Reports. The Leeds Mini-Stern Report identified different strategies (cost-effective, cost-neutral, and technical potential) plus actions with the biggest climate impact and actions with the biggest economic gain. It covered actions by the councils and others.

Recent research by Imperial College has also identified the numerous co-benefits from action on climate change and how these correlate with issues the public are most concerned about. The public health benefits from action on climate change are particularly significant.
Many local authorities will also develop **Local Transport Plans**. These set out their transport policies and proposals. Currently these plans do not need to be in-line with the Climate Change Act and do not need to have a carbon audit to identify the climate change impact.

But transport planning is also changing with the formation of Sub-National Transport Bodies. Transport for the North is the first Sub-National Transport Body that has statutory status. Sub-National Transport Bodies in three other regions are set to become statutory bodies - Midlands Connect, England’s Economic Heartland (EEH) and Transport for the South East (TFSE)\(^\text{12}\).

As mentioned above, campaigning by Calderdale Friends of the Earth and others succeeded in ensuring that Transport for the North’s Strategic Plan is in line with the Climate Change Act carbon budgets. It is likely that local authorities in the north are now legally required to follow suit in their Transport Plans, although this is yet to be tested.

Mayors in the combined local authority areas that have secured a devolution deal from the government will also have an important strategic role on setting the direction for transport. The powers, finance and responsibilities of mayors however significantly differs according to the outcome of negotiations with the government\(^\text{13}\).

Local authorities are also active in business-led non-statutory and unelected Local Enterprise Partnerships (LEPs).

These LEPs are responsible for the majority of transport spending, and two-thirds of their spending is on road projects\(^\text{14}\).

LEPs are very influential, including with the government. They have also been asked by the government to develop a local energy strategy\(^\text{15}\). (see more on LEPS further below).

Most local authorities also have to develop **Local Plans**. District authorities produce local plans for housing and other development while County authorities produce local plans for minerals (including fossil fuel energy extraction) and waste.
Local plans are very significant indeed. They influence land-use and development within areas, including housing, transport and energy.

The ability of local authorities to fully control developments has however diminished over several governments as planning has been deregulated (e.g. permitted development for conversion of office buildings to residential use), centralised, or targets imposed on local authorities (e.g. housing).

Local plans need to be compliant with the National Planning Policy Framework (NPFF).

The NPPF in England is weak in a number of areas (for example on urban sprawl) but it does require local plans to “help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience.... and support renewable and low carbon energy and associated infrastructure”\textsuperscript{16}.

Friends of the Earth has been active in reminding a number of local authorities of this responsibility, achieving climate change policy amendments to a number of plans across England.

In Wales the National Development Framework and Planning Policy Wales is the framework - for the latter Friends of the Earth Cymru and others achieved significant gains in the latest edition published in December, while the former is currently being reviewed.

There are other statutory and non-statutory strategies and plans local authorities will develop alone or with others (other local authorities, other ‘partners’) but from a climate perspective the ones above (local plans, transport plans, LEP strategies, and carbon plans) are the most critical.

**Raise funds for action**

While austerity continues in practice (even if not in name) local authorities will need to be imaginative in securing money for delivering low carbon projects. Particularly for money that can fund on-going costs, such as employing staff (revenue costs).
Unlike many places on the continent local authorities in the UK have very few powers to raise money.

Research by Transport for Quality of Life identified that there are at 16 different ways local authorities on the continent raise money for public transport, including payroll taxes, local sales taxes, property taxes, visitor taxes and others. The following are some of the ways UK local authorities can raise funds for action on climate change:

**Workplace parking levy** - Nottingham City Council has used powers to charge a levy for workplace parking. This both encourages a greater use of public transport and provides funds for the council which they ring-fence for public transport. It has delivered £44 million over 5 years, after an initial £4 million set-up cost. Local authorities can also introduce a congestion charge and use the fund to address congestion.

**Inspecting the private rented sector** - Newham Council requires every home that is privately rented to pay for a licence. It achieved this power “after a consultation with Newham residents, and a lengthy struggle with Central Government”.

It uses the funds to check on the quality of the homes, which can include whether these homes meet minimum energy efficiency standards. There are reportedly 55 local authorities using or wanting to use licencing, but they are facing opposition from landlords.

With a growing proportion of people renting this is an important approach for improving the efficiency of the housing stock.

**Raising cash for energy efficiency** - Haringey Council uses the requirement in London for zero carbon homes to allow builders to offset the final few per cent of making a home zero carbon through providing the council with money for low carbon action elsewhere (at a carbon prices of around £60 per tonne for 30 years). This will soon be extended to commercial properties.

This is a type of offsetting. Outside of London new homes are not required to be zero carbon and therefore this mechanism is not readily available but Milton Keynes uses
Section 106 agreements to require housing developers to provide them with £200 per tonne of first year emissions from each house. They use this for energy efficiency measures elsewhere\(^{19}\).

**Borrowing** - Bonds are moving back up the options for councils with the formation of the UK Municipal Bonds Agency which is owned by local councils and the Local Government Agency and based on the experience of other European countries\(^{20}\).

Bonds are not entirely new. For example in 2017 Birmingham City Council issued bonds for funding new housing.

They are cheaper than the Public Works Loan Board that currently provides the majority of lending to councils for infrastructure.

**Bid for money** - Local authorities can also convene others to seek funds.

For example bringing together energy companies and housing providers to pool resources and seek funds for street by street, area by area, insulation & eco-heating provision.

Or working with other public sector organisations, such as the NHS, Universities, etc. to provide attractive investment propositions for investors looking for stable long-term returns, for instance in renewable energy, district heating or large-scale fleet conversion.

There are also various government grants and potentially EU funds (or the UK’s Shared Prosperity Fund post Brexit), although the council needs the resources and skills to bid for them.

However, as the Government’s Green Finance Taskforce Report noted “Many Local Authorities remain unaware of the range of finance available to support low carbon energy programmes”\(^{21}\).

The Centre for Cities together with the Joseph Rowntree Foundation has identified additional ways in which local authorities can raise money\(^{22}\).
33 individual actions that local authorities can take

Below we identify 33 individual actions that local authorities can take to reduce carbon emissions; although not all local authorities will have the powers or responsibilities to do all of these.

It is very important that these aren't seen as alternatives to the 3 strategic actions listed above - political will, plans in line with a carbon reduction pathway, and raising necessary funds – because without these strategic actions there is a danger that progress on one or a few of the individual actions below is simple tokenistic or window dressing.

The ideas below are culled from a review of a number of strategies that local authorities have produced, as well as from other sources such as the international C40 Cities Network and through input into this briefing during peer review. It is not intended to be an exhaustive list.

Transport

Low or no cost actions

Stop promoting measures that increase greenhouse gases - for example, increasing road capacity. There is many years of evidence that shows that new road capacity simply encourages more traffic and therefore increased greenhouse gas emissions.

Local authorities should also stop allowing for increased expansion of aviation within local plans or investing in airports and airport expansion.

Introduce work-place parking charges and/or ultra-low emission zones and/or a congestion charging area - the funds from these should be recycled to pay for active travel and public transport. London pioneered congestion charging and is now exploring road charging by the mile. Nottingham City Council pioneered a work-place charging levy.
Require all taxis to be EVs through licensing - London is aiming for all taxis to be zero carbon by 2033.

Introduce differential change for parking permits – high carbon emission vehicles should be charged more. If residential parking exists charging more for second and third cars at the same address could also encourage greater use of public transport, cycling and walking.

Support the development of car-sharing – for example through extensive parking for car clubs.

Ensure rapid transition of own fleet electric vehicles – the Energy Savings Trust can work with the council to undertake a ‘grey fleet’ review and support this transition. The grey fleet is vehicles that are required to be used by council staff but not owned by the council.

Integrate the need to reduce car use into the local plan – this requires a range of measures, including: ensuring dense housing development with quality walking & cycling; restricted car parking provision; the provision of transport & delivery hubs to enable the use of cargo bikes and similar for deliveries; and support for climate adaptation measures such as green space and green architecture (e.g. roofs, walls, etc.).

More expensive actions

Invest in active travel infrastructure and quality public transport - London is aiming for 80% of journeys to be by foot, bike or public transport by 2041, up from 60% currently.

Greater Manchester has committed to a ten-year plan to build 120km of segregated cycle routes on main roads, and over 1,400 new or upgraded cycle and pedestrian crossings.

Transport for Quality of Life has produced detailed briefings on how public transport and active travel needs to be developed and supported.

Require the use of electric buses - on bus subsidised routes require the use of electric or hydrogen buses (but only if the hydrogen has been made using electrolysis
powered by renewable energy\textsuperscript{26}.

In England local authorities can use the Buses Act to work in partnership with bus companies to move towards low carbon buses for all routes, although the powers to achieve this differ from area to area.

Combined authorities with a mayor are likely to have the greatest powers through franchising.

**Put in place EV charging** - at council owned locations and facilitate rapid rollout of private-charging facilities

**Buildings**

**Low or no cost actions**

**Enforce minimum energy efficiency standards in private rented sector** - Newham Council in London has pioneered the use of licencing to identify rented homes and ensure full cost recovery of proper regulation and enforcement of housing standards.

**Use powers to require higher standards than current national standards for new build** - ideally all new homes and commercial properties should be zero carbon or even better built to Passivhaus standard. Local authorities are unable to mandate this standard.

However, thanks to the Green Building Council and Core Cities, the government has clarified that “local authorities are not restricted in their ability to require energy efficiency standards above Building Regulations”\textsuperscript{27}.

Ipswich and Cambridge councils have included a requirement for all new homes to meet a standard equivalent to the Code for Sustainable Homes level 4. This delivers a 19% improvement on the current national standards\textsuperscript{28}.

In London the Mayor’s powers are greater and the standard for new homes is zero carbon.
Help energy companies target fuel poor or vulnerable households with energy efficiency measures - the Government has produced guidance to allow local authorities to identify the fuel poor or vulnerable houses to energy companies. The energy companies then insulate these as part of their legal ECO obligations.²⁹

More expensive actions

Retrofit council-owned properties - deep retrofit of all council-owned social housing, schools and other council properties to Energy Performance Certificate c or higher. This should include fitting eco-heating and developing heat networks where appropriate.

Local authorities own around 7% of housing in England.

Enforce building standards - enforce planning/building conditions to ensure all new builds are meeting the targets they were granted permission for.

Waste

Low or no cost actions

Adopt circular economy waste policies - for example in local plans, minerals plans and waste management plans and contracts, as well as promoting community sharing, reuse and recycling

More expensive actions

Zero waste to landfill or incineration - in waste disposal contracts ensure biodegradable waste, such as food waste and paper/cardboard, is recycled, composted or used to generate biogas (see below). Note local authority waste contracts tend to be very long, so in many places the ability to influence these may be very low.

Energy

Low or no cost actions

Identify areas suitable for renewable energy in the local plan - the NPPF states that new onshore wind cannot be approved outside an area “identified as suitable for
wind energy” unless it is a community-led scheme.

Friends of the Earth research suggests only around a quarter of new local plans are identifying such areas. The potential for future onshore wind deployment in England will be heavily diminished unless this is rectified.

**Require renewable energy such as solar thermal, PV or heat pumps** – this needs to be done in local authority developments, but also private sector developments.

**Switch street lighting to well-designed and well directed LED lights** – well-designed and well directed LEDs can prevent urban sky-glare whereas dimming at certain times both saves energy and is less harmful for nature.

Investment in LED street lighting is expected to pay back with eight years\(^3^0\). Solihull plans to have replaced all its 24,000 street lights by 2024 cutting its total energy costs in half to just £612,000 and reducing its own greenhouse gas emissions by 43 per cent\(^3^1\).

**Reduce energy use in own estate and add renewable energy** - the Re-fit Framework supported by the Government and the Local Government Association and used by some local authorities, such as City of Cardiff Council, uses an Energy Performance Contracting approach to deliver guaranteed energy efficiency improvements and energy production for their own estate.

**Divest from fossil fuels and invest in renewable energy projects** - many local authorities have now chosen to divest their investments from fossil fuels.

Campaigners in Waltham Forest, Southwark, Haringey, Hackney, South Yorkshire and Merseyside have all persuaded their councils to move money out of the coal, oil and gas companies whose actions are fuelling climate change\(^3^2\).

**Commit to opposing fracking and other fossil fuel extraction** - both on council owned lands but also more widely. Greater Manchester combined authorities have committed to oppose any fracking and have embedded this opposition in their draft plan\(^3^3\).
More expensive actions

**Produce biogas** - in the waste contract require the production of biogas from non-recyclable biodegradable waste. Biogas is an important contribution to decarbonising the gas grid. Heating of homes and commerce using gas is one of the largest source of greenhouse gases in the UK.

**Develop district heating** - map out and develop district heating, as long as it’s from low carbon sources. Enfield Council has formed a company that aims to provide lower carbon heat and hot water to around 15,000 residents with an explicit aim to reduce greenhouse gas emissions.

**Explore forming a non-profit green energy company** - Bristol City Council has formed an Energy Company (Bristol Energy) which aims to be in profit in 2021 with those profits invested in the city for energy efficiency.

In a fiercely competitive energy market it remains to be seen is this approach will succeed or not.

Nottingham City Council also has an energy company which only sells green energy. Norwich is launching a ‘white label’ energy company. White label companies partner with an existing supplier to provide energy, in effect acting as an intermediary but benefiting from being a bulk purchaser.

These example have primarily been set-up to help resident reduce fuel bills, particularly those in fuel poverty. It is as yet uncertain if these have reduced greenhouse gases.

**Procurement**

**No or low cost actions**

**Buy green energy** - Local authorities are major energy purchases. According to the LGA local authorities spend more than three-quarters of a billion pounds on energy alone.

Sheffield City Council has recently committed to only buying green electricity which it says will not cost much more than its existing source. However it is important that such a shift increases the amount of renewable energy produced, for example through a
Power Purchase Agreement (PPA).

A PPA is a long-term purchasing contract with a developer which gives the developer the necessary confidence to build the renewable power plant. Power Purchase Agreements could also be used to support the development of community-owned energy schemes.

**Aim to win on sustainability** - Nottingham City Council were named as ‘highly commended’ in the category for sustainable procurement in 2018. Sheffield City Council were also short-listed.

There is undoubtedly significant scope for local authorities across the UK to improve procurement processes to deliver on environmental and social goals.

**More expensive actions**

**Require deliveries to be by electric vehicles** - use procurement powers to require council deliveries to use EVs, including where appropriate electric cargo bikes.

**Trees and Green spaces**

**Use council land to drawdown carbon (e.g. tree planting)** - not all local authority land is registered but will be by 2025, but some local authorities will have sizable levels of land ownership (e.g. Hampshire has over 2000 hectares of land).

This land could be managed to offset carbon (e.g. through tree planting, soil carbon management, etc.). Managing green spaces alongside roads and in urban settings can also contribute.

This will make a positive difference in carbon emissions.

Green infrastructure in towns and cities will also aid climate adaptation. Many local authorities now produce green infrastructure strategies.

**Influence**

**Ensure the Sub-national Transport Body strategy is in-line with carbon budgets** - These and other groupings of local authorities are important for setting an agreed strategic direction and it is important that the strategies they write are in-line with the
carbon budgets set by the Committee on Climate Change.

Transport is a particularly important area, but local authorities also come together in other areas, for example in purchasing of energy.

**Influence LEPS** - Local authorities have a very important role in cajoling or convening others. This particularly includes through non-statutory Local Economic Partnerships in England (38 in total).

These are business-led partnerships that include local authorities. They are focussed on economic growth and they access government grants in a range of areas, including for housing, transport and energy.

They do not need to address climate change but some do. For example the Leeds LEP commissioned a report from the Carbon Trust on how to support decarbonisation across the economy.

Local authorities need to actively influence the development of LEP strategies and proposals to ensure they embed carbon reduction.

**Provide advice** – local authorities are well placed to provide advice to individuals and businesses.

Manchester City Council has supported a charity called ‘Carbon Literacy Project’. This charity aims to help individuals, businesses and others in Manchester and elsewhere better understand climate change and what can be done to tackle it. The charity is also helping educate Councillors and council officers around the country.

Local authorities can also help homes and businesses link-up with energy companies for grants, for example the Warm Up Bristol programme and the Better Homes Yorkshire programme.

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2. Transport for Quality of Life, 2019, More than electric cars, Friends of the Earth https://policy.friendsoftheearth.uk/publications/more-electric-cars. The rebound effect is important here as well. In Norway the distance travelled by car has increased because electric cars are cheaper mile for mile than petrol, even though the capital cost of the car is higher.
4. Declare a Climate Emergency website, https://climateemergency.uk/
6. GMCA, 2018, Greater Manchester’s springboard to a green city region


14. Transport for Quality of Life, forthcoming paper on governance for Friends of the Earth

15. BEIS, BEIS local energy team website, https://hub.communityenergyengland.org/resources/BEIS-Local-Energy-Team/


23. For example see Campaign for Better Transport, 2017, Major Road Building is failing to deliver, https://bettertransport.org.uk/blog/roads/major-road-building-failing-deliver


25. The Transport for Quality of Life briefings are available on Friends of the Earth’s Policy & Insight website https://policy.friendsoftheearth.uk/
26. Aberdeen has 10 buses operated by hydrogen as part of a pilot demonstration. The hydrogen is made using electrolysis (renewable electricity and water). Hydrogen made from natural gas will be significantly more polluting than hydrogen from renewable electricity.


32. Friends of the Earth, 2018, What is divestment? And is your council funding climate change? [https://friendsoftheearth.uk/climate-change/divestment](https://friendsoftheearth.uk/climate-change/divestment)


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