NFLA Policy Briefing No.187

Date: 7th May 2019

Subject: 'Climate Emergency' Declarations and the practicalities in Local Authority Action to go 'Carbon Neutral'

i. Overview of Policy Briefing

In the past few years, the NFLA has developed an annual report looking at the impacts of climate change and the imperative on local government to look at innovative mitigation solutions that promote low carbon renewable energy, energy efficiency and energy storage. This is a core part of our primary role in advocating alternative energy solutions that move away from fossil fuels or new nuclear.

For the 2019 annual report, the NFLA Policy Advisor Pete Roche has considered the recent moves – following the Intergovernmental Panel on Climate Change (IPCC) report on the urgency of climate change mitigation – by a number of Councils to pass resolutions declaring either a 'climate emergency' or pledges to become a 'zero carbon' town or city over the next two decades. NFLA welcomes a kind donation to produce this Policy Briefing from Linda Walker, Executive Director of the Chernobyl Children's Project, as part of the prize fee from being one of the recipients of the 2018 Nuclear Free Futures Prize.

The aim of this Policy Briefing is to provide Councils with practical ways to develop strategies that support climate change mitigation and low carbon renewable energy. This is at a time when local government is going through one of the most financially challenging periods in its entire history.

This Policy Briefing is structured in two parts. The first considers in some detail some of the practical solutions that Councils from across the UK and Ireland are developing to inspire and fund low carbon strategies and policies. The second part gives a thorough analysis of some specific examples of best practice across local government. It provides some tangible evidence of the hard work that is going on, along with targeted finance, to develop specific energy generation, energy efficiency and energy storage projects. NFLA welcomes such schemes as part of the answer in the huge effort to mitigate carbon emissions over the next 2 decades.

1. Introduction

By the end of April 2019 at least 92 local authorities in the UK and Ireland had declared a 'climate emergency'. (1) Many of the climate emergency resolutions call for the carbon neutral target to be brought forward from 2050 to 2030 in recognition of the fact that the IPCC has said there were only 12 years left to avert the most extreme consequences of climate breakdown.

Exactly how this will be achieved is not entirely clear. (2) Several of the local authorities have only recently unveiled environment strategies intended to make their local areas carbon neutral by 2050. (3) There will be huge difficulties facing local government in meeting climate targets, whether for 2030 or 2050. Funding retrofitting of hundreds of thousands of homes and offices will be required, for example, including the installation of low-carbon heating systems, such as heat pumps. And investment will be needed to move private and public transport away from diesel and petrol towards electric. (4)

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An analysis for the Mayor of London estimated that existing UK policies would only reduce London's emissions by 35% (compared with 1990 levels) by 2050. To get to zero carbon, the modelling showed an extra 30% needed to be achieved through the decarbonisation of energy grids and other actions at a UK level. The remaining 35% reduction could be met through increased action at a city level. At the other end of the local government scale Aberdeenshire councillors have been advised that the estimated cost of making the council's buildings carbon neutral would be over £90million which, given current financial challenges, "is not affordable". (5)

With UK Government support for energy efficiency and small-scale renewables reducing or stopping entirely, local authorities will face a challenging national policy background in meeting any zero carbon targets set as a result of climate emergency resolutions – whether for 2030 or 2050.

Despite the difficulties climate emergency resolutions are a clear declaration of the seriousness of the issue and the determination of local authorities do everything in their power to achieve reductions in carbon emissions. The number of declarations being made should be used to generate some clear policy asks of government regarding delegation of powers; creation of incentives, funding and so on that can start to unlock local action. Despite the lack of funding, local authorities across the UK are carrying out innovative projects and actions, which can inspire other organisations and authorities to take action without having to reinvent the wheel.

2. Edinburgh's Sustainability Audit

Edinburgh's Climate Emergency resolution specifically referred to a sustainability audit commissioned by the Council which identified a lack of coherence between various different sustainability projects going on across the council. The report, by the Edinburgh Centre for Carbon Innovation, said the Council faces a choice between incremental improvements or an ambitious agenda that capitalises on the opportunity for enhancing social, economic and environmental wellbeing in the city.

The audit recommended that the Council develops a clear over-arching vision and strategy for sustainable development, with iconic goals for the city and clear staging points in 2030 and 2040 towards the 2050 City Vision. Political and corporate leadership is paramount, a refreshed skillset and mechanisms to access external sources of finance to develop projects needed to deliver the ambitions. The council needs to improve its capacity to develop, deliver and scale investable projects which deliver multiple social, economic and environmental benefits to the city.

Throughout the audit a recurring theme was that there is much evidence of success in delivering individual projects - such as smart lighting, estate management, enhanced recycling, etc. but only limited evidence of a more coordinated and coherent strategy for delivery. There is limited Council-wide recognition of the social or economic benefits (health, jobs, well-being of citizens) or the financial income generation opportunity for the Council or the wider city of delivering cross-cutting sustainability outcomes. There is good evidence of partnership working. Edinburgh hosts some of the country's most innovative social and commercial enterprises in energy and housing (e.g. Changeworks, Flextricity, Edinburgh Solar Coop); some of the leading Universities; vibrant business incubators and strong community groups. Yet the city is not at the leading edge of the energy transformation taking place in other cities. The City should build radical new innovation partnerships with local social enterprises, businesses, entrepreneurs, agencies, Universities and civic groups. (6) Such conclusions also clearly apply to many other local authorities.

3. Setting Carbon Budgets

Manchester is fortunate to be the home of the Tyndall Centre for Climate Research at University of Manchester. The Council commissioned the Centre to recommend science-based targets. Its report recommended the establishment of a carbon budget for Manchester that would see the city becoming "zero carbon" by 2038. (7)

4. Finding the Finance

Bristol - the first council to declare a climate emergency - published its City Leap Prospectus in May 2018. This aimed to "to up the pace of delivery to help us meet our 2050 target." The Prospectus is designed to attract, facilitate and deliver up to £1bn of low carbon and smart energy infrastructure investment in Bristol's energy system over the next ten years. This would include £300m for heat

networks; £125m for smart energy systems; £300m for domestic energy efficiency; £100m for commercial energy efficiency; £40m for renewable energy and £10m for monitoring, dissemination and evaluation. Other potential projects which haven't been costed include various transport measures and research on hydrogen and marine energy. The call for Expressions of Interest ended on 31st August 2018. The Council says it has been overwhelmed by the brilliant response from over 180 organisations of all types and it is looking forward to more detailed discussions about partnership opportunities. (8) The council's cabinet has now agreed to go-ahead with the initiative to source private sector partners to help fund future green energy projects in the city. The prospectus referenced a number of specific focus areas, including much wider adoption of renewables and other energy technologies, including battery storage and Vehicle to Grid (V2G) electric vehicle (EV) chargers, with an estimated investment potential of up to £125 million by 2027. (9)

5. Developing a Regional Strategy for Action

The West of England Combined Authority contracted the Centre for Sustainable Energy (CSE), a national charity based in Bristol, to compile the evidence base to identify priorities for action over the short, medium and long-term. CSE carried out stakeholder events, workshops and interviews as part of their energy study. The energy system changes identified in the evidence base which will apply to most local authority areas are:

- A complete shift to very low and zero carbon electricity, mostly renewable, much of it decentralised;
- Smarter and more flexible management of demand, including storage, to enable higher penetration of renewables;
- Huge reductions in energy demand in buildings and the equipment and processes within them;
- Decarbonisation of heat;
- A dramatic rise in use of electric vehicles and other steps to cut the carbon emissions of road transport;
- Ensuring new build developments achieve their full low carbon potential and contribute effectively to a smarter energy system. (10)

The Leeds City Region plan specifically mentions reductions in the energy used for street lighting, and delivering a district heat network, as well as embracing the opportunities provided by the H21 (Hydrogen) Leeds City Region scheme, and increasing the amount of renewable energy and electricity generation on council buildings. (11)

6. Local Authorities as renewable energy generators

Brighton and Hove City Council appointed Brighton Energy Coop as an approved contractor to roll out free solar on the city's schools. Schools can now host solar panels at no cost, and save significant amounts on their electricity bills each year. (12)

Cornwall County Council was the first local authority in the country to develop its own solar farm. The Council now produces 8MW of solar PV and has inspired other local authorities and communities. Today, more than 5,000 Cornish residents actively support or want to invest in community energy. Cornwall Council established a £2.5 million loan fund to support local communities to set up their own renewable energy projects. So far more than 1MW has been installed using the fund. (13)

Cambridgeshire County Council (CCC) has unveiled two landmark solar-plus-storage projects on landfill sites near Peterborough which aim to be the first of their kind in the UK. Both sites are to be used for demand-side response services and to offer balancing capacity to the national grid. Crucially, revenue generated from the services is to be used to help fund the county council's frontline services, with previously-stated revenue generation estimates placing the sites' combined contribution at almost £46 million over 25 years. (14) The County Council is also expecting to secure funding to build a 1MW solar carport at one of its park and ride sites. (15)

7. District Heating

Devon County Council has set up a joint venture with public sector partners in Exeter, to deliver District Heating in the City Centre and potentially in South West Exeter. Partners are Exeter City Council, University of Exeter, RD&E hospital and Teignbridge District Council. The council is also

working with North Devon Council on the assessment of district heating potential in Barnstaple. Both projects are part funded by central government's Heat Networks Delivery Unit. (16)

Leicester City Council's District Heating Scheme already connects with 2,800 dwellings and 38 operational buildings. (17)

8. Rural Action

The Forest of Dean Council wants to champion rural decarbonisation. The district has huge carbon sequestration potential with 27,000 acres of public forest estate (21% of the total district area), and abundant clean renewable resources (solar, wind and tidal lagoons) to become 100% self-reliant on zero-carbon energy. (18)

In Belfast residents are planning to plant a million trees over the next 15 years. (19)

9. Leading with a Vision

Nottingham City Council has an ambition is to become the first carbon neutral city in the UK. It has built over 40 renewable energy projects with a capacity of 12MW. It has been carrying out dramatic green makeovers of some council houses using the Dutch "Energiesprong" system which has cut tenants' energy bills in half. Now another 150 social housing homes in Nottingham will receive new wall cladding, windows and solar panels after the local authority won £5m from the EU's European Regional Development Fund. The Council is going to trial new electric vehicle (EV) infrastructure, including battery storage and bi-directional chargers, as part of an EU-funded vehicle-to-grid (V2G) project. The Council plans to embrace a revolutionary concept of using stationary vehicles as energy stores to resupply the power grid. On average, domestic cars sit idle for 95% of the time, and this project allows them not only to be charged, but also to feed electricity stored within their batteries back to the grid or nearby buildings.

The Council has introduced a Workplace Parking Levy which generates funds to invest in public transport. It is developing and expanding the City's tram network, improved cycling facilities, and invested in cycle corridors. (20)

Authorities need to start by setting carbon budgets, developing an over-arching vision and strategy for sustainable development with clear targets for future reductions in carbon emissions. The strategy needs to be coherent and agreed with partner organisations across the area. In Manchester, for instance, partners include churches, the NHS, Manchester City Football Club, Housing Providers, two Universities and Electricity Northwest.

Bristol's City Leap Prospectus points the way to finding the finance required. As more and more investors ditch their investments in fossil fuels, more funding should become available. The Association of British Insurers, for example, is hoping to unlock billions of pounds of investment for clean energy projects. (21) Nottingham's workplace parking levy scheme deserves serious consideration, as do renewable energy projects which can actually generate funds for the local authority. Increasingly grid balancing projects will be coming to the fore, such as Nottingham's plan to sell grid balancing services from its electric vehicle fleet using vehicle-to-grid technology.

Projects for carbon reduction should include:

- Renewable energy schemes owned by the council and its partners and support for community energy projects;
- Smart and flexible management of demand, including storage, to enable higher penetration of renewables;
- Energy efficiency projects which reduce energy demand in council buildings, residential properties and small business premises and equipment;
- Decarbonisation of heat including the promotion of district heating;
- A dramatic rise in use of electric vehicles and other steps to cut the carbon emissions of road transport, such as the promotion of buses and mass transit, as well as walking and cycling;
- Making use of planning power to ensure that new build developments achieve their full low carbon potential and contribute effectively to a smarter energy system.
- Planting trees to sequester carbon emissions.

10. Outline conclusions

This report has given a short background of the types of strategy that are needed in order to create realistic and realisable low carbon strategies that will help mitigate climate change and reduce carbon emissions in the rapid time required. Annex Two provides some detailed and more specific local examples of best practice in this area.

All Councils need to link the lofty aims of their climate change emergency resolutions with a broad and funded strategic plan of radical and rapid action. They also need more direct financial support from central government, particularly in the areas of energy efficiency programmes, smart energy and energy storage schemes. In Ireland, Councils need additional powers devolved from central government to give them the freedom to incentivise more rapid low carbon programmes. Local government across the island of Ireland should be given a much greater role in this critical activity than it currently has.

This report (read in its totality) seeks to assist providing some of the framework and the need for additional innovative ideas that can point Councils in the right direction. However, there is no single or simple answer. Councils should adapt their responses to what can be most effective to their own local arrangements. NFLA remains optimistic that the challenge put down to Government in the UK by the Committee on Climate Change for zero carbon solutions can be met, but only by extensive and concerted action across the board. The recent widespread demonstrations and actions by the 'Extinction Rebellion' group has concentrated minds and general public opinion of the necessity for such rapid and radical action. What is now needed is a step change from all levels of government to deliver one of the most challenging policy transformations since the Second World War.

NFLA will continue to promote best practice and put forward innovative solutions wherever possible, and encourages Councils to join with it to allow for further more detailed research and action in this policy area.

11. Outline report references

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(7) Manchester City Council Press Release 12th March 2019 https://secure.manchester.gov.uk/news/article/8138/manchesters_zero_carbon_plan_to_fight_climate_change_moves_forward

(8) Bristol City Leap Prospectus, Bristol City Council May 2018 https://www.energyservicebristol.co.uk/prospectus/

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(10) West of England Energy Strategy Update 21st March 2019 https://www.westofengland-ca.gov.uk/wp-content/uploads/2018/03/Item-8-West-of-England-Energy-Strategy-v5.pdf

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(15) Leading Lights, Solar Trade Association, 2018 https://www.solar-trade.org.uk/wp-content/uploads/2018/04/local-authority-solar-guide-WEB.pdf
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(20) Edie 23rd Jan 2019 https://www.edie.net/news/6/Nottingham-unveils-bid-to-become-the-UK-s-firstcarbon-neutral-city/
(21) Solar Power Portal 11th March 2019 https://www.solarpowerportal.co.uk/news/britains_insurers_could_unlock_billions_of_pounds_of_investments_for_clean

Annex One: Selected list of Top-Tier UK Authorities which have passed 'Climate Emergency Declarations' (as of the end of April 2019)

Climate Emergency Declarations
https://climateemergencydeclaration.org/climate-emergency-declarations-cover-15-million-citizens /

- Ards and North Down: 156,672
- Bath and Northeast Somerset Council: 188,700
- Bradford District Council: 534,300
- Brighton and Hove City Council: 273,369
- Bristol City Council: 535.907
- Calderdale Borough Council, Halifax: 208,402
- Cambridge City Council: 123,867
- Carmarthenshire County Council, Wales: 185,600
- Cheltenham Borough Council: 117,100
- Cornwall Council: 563,600
- Devon County Council: 1,185,500
- Durham County Council: 862,600
- Ealing London Borough Council: 342,736
- Edinburgh City Council, Scotland: 513,210
- Forest of Dean District Council: 86,000
- Greater London Authority: 8.174,000
- Gwynedd County Council: 123,600
- Haringey London Borough Council: 271,224
- Herefordshire County Council: 191,000
- Hull City Council: 319,883
- Kirklees Council: 423,000
- Lambeth London Borough Council: 324,431
- Lancaster City Council: 142,500
- Leeds City Council 751,500
- Leicester City Council: 329,839
- Machynlleth Town Council, Wales: 2,235
- Milton Keynes Council: 229,941
- Newcastle City Council: 295,800
- Newham London Borough Council: 348,000
- Newport City Council: 151,500
- North Norfolk District Council: 104,067
- North Somerset District Council: 212,800
- Norwich City Council: 141,300
- Oxford City Council: 161,300

- Oxfordshire County Council: 682,400
- Plymouth City Council: 234,982
- Portsmouth City Council: 205,100
- Powys County Council: 132,500
- Preston City Council: 141,300
- Reading Borough Council: 163,100
- Redcar and Cleveland Borough Council: 136,005
- Scarborough Borough Council: 108,400
- Sheffield City Council: 577,800
- Somerset County Council: 555,200
- Somerset West and Taunton Council: 149,800
- South Gloucestershire Council: 279,000
- Southwark London Borough Council: 314,232
- Stroud District Council: 116.627
- Totnes Town Council: 8.076
- Tower Hamlets London Borough Council: 308,000
- Trafford Council: 233,288
- Vale of White Horse District Council: 126,663
- West Sussex County Council: 852,353
- Wicklow County Council: 142,425
- Wiltshire County Council: 435,000
- York City Council: 208,200

Annex Two: A snapshot of some of the recent best practice work being done in Councils to mitigate climate chance and reduce carbon (in alphabetical order) -

a) Bath and Northeast Somerset Council
Bath and Northeast Somerset Council declared a climate emergency on 14th March. The joint motion put forward was promoted by a Conservative and a Liberal Democrat councillor. The Council also agreed to join the UK100 group. The UK100 Agreement pledge includes the ambition to enable all the UK's cities, towns, villages and rural areas to exceed the Paris Climate targets through achieving 100% 'clean energy' before 2050, but B&NES aims to achieve the pledge by 2030.

The resolution said the Council is well-placed to champion both rural and urban decarbonisation through renewable energy, energy efficiency, smart energy development, zero carbon homes, local & sustainable food, sustainable travel, and carbon sequestration. The Council is already working on a number of these issues including for example, work to ensure the new Local Plan ensures zero carbon development.

The West of England Energy Strategy Framework has been agreed as a starting point for developing ambitious plans to support action on climate change. The resolution instructs the Cabinet to work with the West of England Combined Authority (WECA) and our West of England partners to produce an ambitious delivery plan for the West of England Energy Strategy to use as a key tool for seeking government funding to help us deliver our 2030 target.

The resolution also requests a report to Council in 6 months' time on the progress with an annual report on progress to full Council thereafter. (1)

The West of England Energy Strategy framework, funded by the Government, provides a framework for secure, reliable, clean and affordable energy, supporting the region to become a beacon for innovation with energy infrastructure that enables clean growth – but without looking at large infrastructure such as nuclear and tidal power. The West of England Combined Authority contracted the Centre for Sustainable Energy (CSE), a national charity based in Bristol, to compile the evidence base to identify priorities for action over the short, medium and long-term. CSE carried out stakeholder events, workshops and interviews as part of their energy study.

The energy system changes identified in the evidence base are:

- A complete shift to very low and zero carbon electricity, mostly renewable, much of it decentralised;
- Smarter and more flexible management of demand, including storage, to enable higher penetration of renewables;
- Huge reductions in energy demand in buildings and the equipment and processes within them;
- Decarbonisation of heat;
- A dramatic rise in use of electric vehicles and other steps to cut the carbon emissions of road transport;
- Ensuring new build developments achieve their full low carbon potential and contribute effectively to a smarter energy system. (2)

b) Bradford City Council (within the Leeds City Region)
Clearly some local authorities will worry about passing resolutions which commit the authority to become carbon neutral by 2030 – less than twelve years away.

Bradford Council, for instance, agreed an amended motion which removed 2030 as a target date from the original motion. Instead the Council welcomed the Leeds City Region Local Enterprise Partnership (the LEP) decision to adopt a new energy strategy and delivery plan which adopts the ambitions of the Paris agreement.

To achieve the significant results that are required to fulfil this ambition, the council is focussing on delivering five key priorities which, as well as tackling climate change, also create jobs and help people reduce their fuel bills:

- Delivering a reduction in the energy used for street lighting, saving emissions and also saving the council money in energy bills;
- Delivering a District Heat network to save on heating costs of the council estate and of partner organisations in the civic quarter;
- Embracing the opportunities provided by the H21 Leeds City Region scheme;
- Increasing the proportion of EV hybrid vehicles in use in the council fleet and supporting the roll out of EV charging points across the district to help promote uptake of electric vehicle use;
- Increasing the amount of renewable energy and electricity generation on council estate. (3)

Leeds City Region's ambition is to be among world's first zero carbon energy regions. (4) The vision for the Energy Strategy is:

"…*set out in the Strategic Economic Plan is to create a resilient, zero carbon economy underpinned by high quality green infrastructure and within the next ten years target investment and innovation to make the City Region a leading edge centre for zero carbon energy*." (5)

Priorities are:
- Resource efficient business and industry (including delivering advice, financial support, new improvement programmes, support for innovation and new clean tech clusters)
- New energy generation (including test beds for innovation, driving investment, use of the City Region's Energy Accelerator and Energy Hub)
- Energy efficiency and empowering consumers (large-scale energy efficiency improvement schemes, new funding models, higher housing standards)
- Smart grid systems integration (unlock the transition to a smarter, more integrated energy economy, deployment of smart grid technologies, facilitate innovation through technology incubation)
- Efficient and integrated transport (including clean, integrated systems, development of clean transport technologies and networks of ultra-low emission vehicles)

Leeds City Region is planning a summit in spring 2019 to explore setting a regional emission reduction target and how to meet it. A Detailed delivery plan with potential regional carbon targets will be adopted by the end of 2019.

c) Brighton and Hove City Council
At its meeting on 13th December 2018 Brighton and Hove City Council declared its recognition of climate and biodiversity emergencies. Councillors unanimously agreed to review the ways that it can deal with global climate change and the threat of mass extinctions and to consider a target date of 2030 for whole city carbon neutrality and to request that funding be made available by the Government to implement swift appropriate actions in response. (6)

In 2013 Brighton & Hove City Council published a report it had commissioned from AECOM on renewable and sustainable energy for the city for the period to 2030 following calls from the Committee on Climate Change (CCC) for Local Authorities to draw up low-carbon plans, focussing on the drivers over which they have control. The main opportunities identified by the CCC relating to buildings, which are: energy efficiency in residential buildings (identified as the largest opportunity); non-residential buildings; supporting power sector decarbonisation (through granting planning approval for projects such as wind turbines, and providing electric vehicle charging points); reducing emissions from local authorities' own estates; and supporting the development of district energy networks. (7)

Brighton Energy Coop is a Brighton and Hove City Council – approved contractor to roll out free solar on the city's schools. Schools can now host solar panels at no cost, and save significant amounts on their electricity bills each year. A similar arrangement between BEC and Portslade Aldridge Community Academy (PACA), saved the Academy £5800 in 2017. In the past seven years BEC has raised more than £1,800,000 from the local community, and built 15 large solar installations. (8)

d) Bristol City Council: the first Climate Emergency declaration in the UK.
On 13 November 2018, Bristol City Council became the first UK council to declare a climate emergency for the city. The motion was passed unanimously. Consequently, the city council set an ambitious goal of making Bristol carbon neutral by 2030.

Like London, Bristol had already committed to making the City carbon neutral by 2050. Following the Climate Emergency declaration this date was brought forward to 2030. The Mayor and the City Council will have to report to Full Council within six months (i.e. by May 2019) on what actions the Mayor/Council will take to address this emergency.

Bristol's City Leap Prospectus, published in May 2018, aimed to "*to up the pace of delivery to help us meet our 2050 target*." The document is a call out to those organisations, investors and innovators that have the vision, energy and the heart to join us in becoming the architects of Bristol's sustainable future.

Bristol has successfully delivered around £50m of low carbon energy investment between 2012 and 2016 and set up one of the only municipally-owned energy companies in the UK in 2015, Bristol Energy, which now has over 120,000 customers. Bristol also has many engaged residents and community energy initiatives, including Bristol Energy Network and Bristol Energy Co-operative (BEC). (9). BEC has raised almost £11m in four share offers and now has an annual electricity output of 9,105 MWh (Megawatt Hours). That's enough to power 2,220 average homes. This is 214 MWh from solar rooftops and the rest from two solar farms.

Bristol City Council owns 5MW of wind generation at Avonmouth, about 4MW of solar PV on council-owned buildings and land and about 3MW of biomass boiler generating capacity. Around 1,000 social houses in Bristol are already connected to a heat network; around 10,000 social and private houses have received an energy efficiency upgrade; energy efficient LED street lights have been installed across the entire City Council portfolio.

The City Leap Prospectus aims to attract, facilitate and deliver up to £1bn of low carbon and smart energy infrastructure investment in Bristol's energy system over the next ten years. Whilst the council may wish to, and reserves the right to, invest in some or all of these projects, it is likely that the large majority of the investment will be made by its partners. This would include £300m for heat networks; £125m for smart energy systems; £300m for domestic energy efficiency; £100m for commercial energy efficiency; £40m for renewable energy and £10m for monitoring, dissemination and evaluation. Other potential projects which haven't been costed include various transport measures and research on hydrogen and marine energy. The call for Expressions of Interest ended on 31st August 2018. The

Council says it has been overwhelmed by the brilliant response from organisations of all types and it is looking forward to more detailed discussions about partnership opportunities. (10)

e) Calderdale Borough Council

Calderdale Council has declared a 'climate emergency' in a bold move to step up its action to help tackle climate change. Although the Council and Calderdale are on track to reduce carbon dioxide emissions by 40% by 2020 and 80% by 2050, further action is needed to help keep global temperature rises below 1.5^{O}C.The motion asked Cabinet to set up a Calderdale Climate Change Committee; to set a new target and action plan for Calderdale to be carbon neutral; and to work with other councils and the West Yorkshire Combined Authority on carbon reduction projects. It also called on the Government to provide the resources and powers needed in Calderdale to contribute to reducing carbon nationally. (11)

f) Cambridge City Council

On 21st February 2019 Cambridge City Council declared a 'climate emergency' and called on government, industry and regulators to implement the necessary changes to enable Cambridge and the rest of the UK to reach net zero carbon by 2030. The council called on the Government to make available the funding and policies needed to tackle the climate emergency, including:

- Investment in the necessary infrastructure at the national level for clean, efficient renewable energy to end CO2 emissions from the generation of heat and electricity;
- Funding for energy efficiency measures for homes;
- Investment in energy efficient public transport across the country;
- Taking action to make electric vehicles more affordable and accessible to people and businesses.

The Council also reaffirmed its commitment to reducing carbon emissions from its buildings and services through developing and investing in carbon reduction projects, as outlined in its Carbon Management Plan 2016-21. (12) This plan set a target of reducing carbon emissions from the Council's estate and operations by 15% from 2014/15 levels by the end of 2020/21, with an aspiration to reduce emissions by 20% over this period. The carbon reduction projects identified in the plan could reduce carbon emissions by only around 6% compared to 2014/15 levels, so further carbon reduction projects need to be identified and implemented before 2020/21 even just to fulfil the 15% target.

Meanwhile, Cambridgeshire County Council (CCC) has unveiled two landmark solar-plus-storage projects on landfill sites near Peterborough which aim to be the first of their kind in the UK. Both sites are to be used for demand-side response services and to offer balancing capacity to the national grid. Crucially, revenue generated from the services is to be used to help fund the county council's frontline services, with previously-stated revenue generation estimates placing the sites' combined contribution at almost £46 million over 25 years. (13) The County Council is also expecting to secure funding to build a 1MW solar carport at one of its park and ride sites. (14)

g) Carmarthenshire County Council

On 20th February Carmarthenshire County Council declared a climate emergency and committed to becoming a net zero carbon local authority by 2030, and to develop a clear plan within the next year. It will call on Welsh and UK Governments to provide support and resources to enable effective carbon reductions, and work with partners to develop opportunities to deliver carbon savings. (15)

Carmarthenshire was the first council in Wales to introduce electric pool car vehicles around seven years ago, and has recently secured funding for plug-in chargers following an increase in electric vehicle sales. The council has a policy of integrating low and zero carbon technologies into major building works projects such as schools, where PV installations and Passivhaus standards are already in use. Its fleet of refuse or rubbish lorries is the most emission-friendly fleet in Wales; street lighting has been converted to LED units; and there has been significant investment in Safe Routes in the Community and Safe Routes to Schools to encourage more sustainable travel.

h) Cornwall County Council

Cornwall Council has declared a "climate emergency" and will step up efforts to tackle climate change in the county and urge the Government to do more. The Council's ambition is to become carbon neutral by 2030. It will prepare a report to help the Authority to be on the front line in combating climate change.

The declaration is a positive step forward in building on the work done by the Council, ranging from supporting renewable energy to reducing waste, improving public transport to reduce traffic congestion, flood mitigation, rolling out energy saving LED street lighting and more. The plans will build on these achievements and work with other Councils with similar ambitions. (16)

Cornwall became the first local authority in the country to develop its own solar farm. The Council now produces 8MW of solar PV and has inspired other local authorities and communities. Today, more than 5,000 Cornish residents actively support or want to invest in community energy. Cornwall Council established a £2.5 million loan fund to support local communities to set up their own renewable energy projects. So far more than 1MW has been installed using the fund – generating enough power for more than 420 Cornish homes and providing a source of funding for a range of community initiatives. Cornwall also created the UK's first local planning framework for community energy projects and provide nationally recognised community energy advice for Neighbourhood Plans.

Government funding was secured to create the most comprehensive electric vehicle charging network in rural Europe, with charging points installed at 26 locations across Cornwall.

The council has worked with the Government and other partners to develop a new marine energy Enterprise Zone to help attract millions of pounds of investment from the marine sector into Cornwall. (17)

Now the Council wants to develop an energy storage system intended to overcome grid constraints by making better use of a solar farm connected to a nearby airport. Adding storage to the solar park could offer a number of key benefits such as helping to make best use of the renewable electricity generated, further reducing the need to import electricity on site, and help Cornwall Airport Newquay reduce its carbon emissions. And the solar park could be extended through the use of energy storage to increase generation capacity. Only 33% of the airport's electricity needs are currently met via the private wire from the solar farm. Owing to the region's high levels of installed renewables, connections of new generation projects are often turned down. (18)

i) Devon County Council

Devon County Council declared a 'climate emergency' but rejected calls to set a target of becoming carbon neutral by 2030. A Conservative amendment to the motion was agreed - that the council does declare a climate emergency and that it adopts a key recommendation of the IPCC – for Devon to become carbon neutral by 2050 at the latest. It was also agreed the Environmental Performance Board would review and recommend what further approaches could be taken.

The council says it already reduced emissions by 36 per cent since 2012-13 and has a target of 50 per cent by 2030. The council has converted 25,000 streetlights to LED lighting, is using electric vehicles, has funding to install solar panels at County Hall, wants to install a solar farm on redundant landfill sites, has removed 100,000 single use plastics items annually from food outlets and has invested £14m in renewable energy. But Conservative Councillor, Roger Croad, cabinet member for the environment said he couldn't pledge "to make the county of Devon carbon neutral by 2030, or anytime. Devon is made up of a myriad of organisations of businesses and every sector of society and the economy will have to help achieve stretching carbon targets – no one organisation is responsible." (19)

Devon County Council in partnership with Bristol City Council and Plymouth City Council has secured a €1.9 million (£1.7 million) grant from the European Investment Bank and the European Commission to fund the deployment of new renewable energy, energy efficiency, sustainable transport and heat networks project in the region. The Council said that the funding would help the county kick start a range of clean energy projects, and it is expected that it will trigger at least £16 million of investment into low carbon initiatives in Devon alone. (20)

Working with public sector partners in Exeter, Devon County Council has set up a joint venture Dextco to deliver District Heating in the City Centre and potentially in South West Exeter. Partners are Exeter City Council, University of Exeter, RD&E hospital and Teignbridge District Council. The council is also working with North Devon Council on the assessment of district heating potential in Barnstaple. Both projects are part funded by central government's Heat Networks Delivery Unit. In addition to this it is working with Teignbridge District Council on potential district heating schemes in Newton Abbot. (21)

j) Durham County Council
Durham County Council has passed a motion declaring a 'Climate Emergency' and committing the Council to a 60% reduction in carbon emissions by 2030, and to explore becoming carbon neutral by 2050. Leader of the Conservative group on the council, Councillor Richard Bell, said the "real gap in the motion" was information on how it was going to be achieved. Councillor John Clare (Labour) said working to make County Durham 'carbon neutral' would be influenced by wider factors around infrastructure, transport and farming. He added that the Durham County Council was already developing a low-carbon strategy to tackle the issue but stressed an "achievable date" was 2050. (22)

k) Edinburgh City Council
Edinburgh councillors passed a resolution which called upon the Corporate Policy and Strategy Committee, to report on a Climate Emergency 2030 target for Edinburgh.

The resolution noted the conclusions of a Sustainability Audit carried out by of Professor Andy Kerr of the Edinburgh Centre for Carbon Innovation (ECCI) that: '*The City of Edinburgh Council has an unprecedented opportunity to set Edinburgh on a course that will deliver rapid improvements in social and economic wellbeing for its citizens, as well as meeting stretching climate and environmental targets. This would put Edinburgh at the forefront of global cities*'. (23)

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The sustainability audit identified multiple strategies and statutory duties within the Council, but limited coherence in delivering the cross-cutting social, economic and environmental benefits that arise from meeting sustainability outcomes. The report was clear that the Council faces a choice about whether it wants incremental improvements in outcomes, which build on existing resources, good practice and more joined up internal efforts across service areas, or whether it wants to drive an ambitious agenda that capitalises on the opportunity for enhancing social, economic and environmental wellbeing in the city.

The latter option requires, as a minimum, iconic targets, third party investment and radical new partnerships with external partners to support delivery. To deliver this more ambitious sustainability agenda, the recommendations are that the Council needs to (a) recognise and embed the social, economic, environmental opportunity that exists from setting and delivering challenging sustainability goals, and (b) address five broad areas:

- Develop a clear over-arching vision and strategy for sustainable development, with iconic goals for the city and clear staging points in 2030 and 2040 towards the 2050 City Vision.
- Political and corporate leadership is paramount, recognising the opportunities that can be realised for the city and Council. New and more effective governance and strategic coordination of sustainability is required in the Council, with senior management held to account for delivery.
- Properly resourced strategic coordination of sustainability is required, along with a need to refresh skillsets and mechanisms by which the city accesses external finance and develops projects needed to deliver City ambitions.
- Third party finance will be required to unlock opportunities. There is a need to refresh delivery mechanisms (such as the Edinburgh ESCo.). Whilst there are excellent in-house skills and experience in legal, financial and technical areas, the council needs to improve its capacity to develop, deliver and scale investable projects which deliver multiple social, economic and environmental benefits to the city
- Building radical new innovation partnerships with local social enterprises, businesses, entrepreneurs, agencies, Universities and civic groups is crucial to help shared learning and development of potential solutions to embedded challenges in the city.

Throughout the audit a recurring theme is that there is much evidence of success at delivering individual projects - such as smart lighting, estate management, enhanced recycling, etc. but only limited evidence of a more coordinated and coherent strategy for delivery. There is limited Council-wide recognition of

the social or economic benefits (health, jobs, well-being of citizens) or the financial income generation opportunity for the Council or the wider city of delivering cross-cutting sustainability outcomes. There is good evidence of partnership working. Edinburgh hosts some of the country's most innovative social and commercial enterprises in energy and housing (e.g. Changeworks, Flextricity, Edinburgh Solar Coop); some of the leading Universities; vibrant business incubators and strong community groups. Yet the city is not at the leading edge of the energy transformation taking place in other cities.

l) Forest of Dean District Council

Forest of Dean District Council declared a 'Climate Emergency' in December 2018 and agreed to aim to make the district carbon neutral by 2030. Again the resolution calls on Westminster to provide the powers, resources and help with funding to successfully meet the 2030 target. The Council says it will work with partners across the district, county and region to help deliver this new goal through all relevant strategies, plans and shared resources and produce a fully costed action plan to meet the carbon neutral target to be presented to Full Council in July 2019.

Interestingly the resolution notes that the Forest of Dean is well-placed to champion rural decarbonisation. The district has huge carbon sequestration potential with 27,000 acres of public forest estate (21% of the total district area), and abundant clean renewable resources (solar, wind and tidal lagoons) to become 100% self-reliant on zero-carbon energy. (25)

m) Kirklees Council

Kirklees Council voted on 16 January 2019 to declare a climate emergency after the largest four parties in the chamber had indicated they would support the motion. The resolution agreed to a full Environmental Audit of Kirklees Council to measure its carbon footprint, identify hotspots and work toward being carbon neutral in line with the latest targets set and agreed by the United Nations Intergovernmental Panel on Climate Change. (26)

Labour councillor Richard Murgatroyd, who proposed the motion, said: "*The motion is all about setting up a mechanism by which the council can develop new policies that can make a difference*."

Kirklees Council had the first ever universally free insulation scheme which insulated over 50,000 homes with cavity wall and loft insulation.

n) Lancaster City Council

Lancaster councillors voted unanimously to declare a climate emergency and work towards creating a zero carbon district by 2030. Last summer, the Labour group which runs Lancaster City Council won support for proposals which committed the authority to achieving 100 per cent clean energy across its activities by 2050. (27)

The resolution supported the setting up of a Climate Change Advisory Board immediately, involving Councillors, residents, businesses, experts from the two Universities and other relevant parties. Over the following 6 months, the Board will revisit and update the 2010 Lancaster City Council Climate Change Strategy and help the Council develop a new carbon budget taking into account both production and consumption emissions and set a target date of 2030, to make the Council's activities net-zero carbon and to support and work with all other relevant agencies towards making the Lancaster District zero carbon within the same timescale. The 2010 Strategy agreed to cut emissions by 80% by 2050 with an interim target of 34% by 2020. (28)

o) Leicester City Council

Leicester agreed to declare a climate emergency in January 2019. The Council said it was part of UK 100 – a group of councils looking to use only renewable energy, and will now look to become a 'zero emission' in 'the quickest time possible' but between 2025 and 2030. (29) The state of emergency will be addressed by developing a new programme of action to reduce greenhouse gas emissions and prepare for a changing climate in the next Sustainability Action Plan for the city. A review and update of the council's climate change targets will be commissioned in light of the Climate Emergency.

Leicester City Council already has targets in place for reducing both the carbon emissions of the council and of the whole city which were very ambitious when they were set in 1994 and still go beyond those currently required by the UK Government. Leicester City Council is targeting a 50% reduction in carbon

dioxide equivalent (CO_2e) emissions from its own estate and operations by 2025, compared to a 2008/09 baseline, and the Council is on track to meet this target. There is also a target of reducing CO_2e emissions for the city of Leicester by 50% by 2025, from a 1990 baseline. City-wide emissions for 2016 (the most recent year available) have already reduced by 44%, putting the city on course to exceed the target. (30)

Leicester has signed up to the UK100 group of cities and towns in pledging a transition to clean energy sources by 2050. Leicester's District Heating Scheme now connects with 2,800 dwellings and 38 operational buildings. Electricity demand from street lighting has reduced by 56% since 2008/09 – mainly through our White Lights LED project. Thousands of homes are now more energy efficient and hundreds of businesses and organisations have taken steps to reduce their carbon footprint. Leicester's Sustainability Plan says its focus is on the key themes where the city council has direct influence including supporting small and medium enterprises to improve their energy efficiency and engaging with companies about the opportunities around electric vehicles; launching its own energy company: Fosse Energy to offer affordable energy to our residents, with all electricity being renewable; continuing to look at further carbon reduction opportunities in our corporate buildings, vehicle feet and public lighting; continuing to apply planning policies to ensure that new development takes full advantage of the opportunities for low carbon design and energy systems. (31)

p) Greater London Authority

In December 2018, the London Assembly passed a motion saying that its carbon neutral target should be brought forward to 2030 and called on Mayor Sadiq Khan to draw up "a specific emergency plan": The Mayor acknowledged the scale and nature of the ecological crisis laid bare by a succession of scientific reports, including one from the UN that said there were only 12 years left to avert the most extreme consequences of climate breakdown. (31)

London relies on sources outside of the City for 94% of its energy, so a zero carbon target would be intrinsically linked to the decarbonisation of the UK's electricity and gas grids. Half of UK electricity was from nuclear or renewables in 2017, and there is a national pathway to double the amount of electricity from these sources by the early 2030s. But there is no equivalent pathway for gas and no clear government strategy for decarbonising heat. Government must decide which low carbon heat pathway the UK will take by the mid-2020s at the latest.

In the meantime, there are important short-term actions London can take, providing it has adequate funding, including rapidly scaling up energy efficiency improvements and rolling out heat networks and heat pumps.

London has set carbon budgets for three periods over the next 15 years, which are more ambitious than the national government's targets and set London on the way to be a zero carbon city by 2050. But meeting the next three budgets will require strong action to improve energy efficiency and greater use of public transport and cycling. This needs to be followed by a big increase in the electrification of heat and transport illustrating how London's path towards zero carbon relies on continued government action.

All the pathways to zero carbon in 2050 rely on a high level of energy efficiency building retrofits by 2030. Only 35% of homes currently achieve adequate energy efficiency performance (EPC C or above) and many will still be in use by 2050. At least 70% of London's buildings need to reach EPC C by 2030. However, national government support for energy efficiency was cut drastically in 2012 and building retrofits have fallen since then. Londoners have also struggled to access the national programmes that do exist.

Installation of Solid Wall Insulation reached a peak of around 40,000 houses per year around 2012. It needs to reach a peak of around 160,000 per year by the mid-2020s to meet the 2050 target. The report estimates that the cost of installing the necessary measures would be around £10bn by 2050.

Meeting the additional load from heat pumps and electric vehicle charging doesn't have to mean building large scale electricity generation capacity. In most scenarios, improvements in energy efficiency and demand side flexibility will be enough to manage the additional peak load.

By 2041, around 80% of all trips in London should be made by sustainable modes of transport including cycling, walking and public transport. By 2050, all of London's motorised road transport will need to be battery electric or fuel cell electric vehicles.

The Mayor will ensure new buildings are zero carbon through setting strong policy through the London Plan. He will lead by example to make all GLA buildings more energy efficient, use more renewables and transition vehicle fleets to zero emissions. He will also use collective energy procurement to encourage new renewable projects inside and outside London.

A key way to support decarbonisation of both electricity and gas grids in London is by increasing the proportion of renewable and local decentralised energy. Local energy generation and communal heating networks currently supply the equivalent of 6% of London's energy, with approximately a quarter of this from renewable generation including solar and wind power. The Mayor is calling on London Boroughs to roll out solar PV and storage installations on their building stock and land, and to use heat mapping and energy masterplans to identify heat network opportunities. Use support from the government's Heat Network Delivery Unit and GLA Decentralised Energy Enabling Project to speed up the build out of heat networks.

But the Mayor says: "*London can never be fully self-sufficient in energy, even if energy demand is reduced and more renewable energy is generated within the city boundaries, because of limited space*." (33) (34)

q) Manchester City Council / GMCA

In November 2018 the City Council considered a report that provided an update on the recent work undertaken by the Tyndall Centre for Climate Research at University of Manchester. The Centre had recommended the establishment of a carbon budget for the city that would see the city becoming "zero carbon" by 2038, rather the existing 2050 target. The Centre's definition of "zero carbon" related to the carbon dioxide emission from the city's energy system: the gas, electricity and liquid fuels used to power and heat homes and businesses and to transport people around the city. Emissions from flights from Manchester Airport were not included in the definition of zero carbon as the Centre allocated aviation emissions to a UK-wide aviation carbon budget and not to specific local authority areas. The Council agreed to adopt the Tyndall Centre's proposed targets and definition of zero carbon on behalf of the city.

The report explained that the in responding to the Tyndall Centre's work, the Manchester Climate Change Board had developed an outline proposal setting out how all partners and residents in the city might play their full part in achieving this ambition. (35) To become a "zero carbon" city by 2038, it had been assumed that all sectors would need to reduce carbon emissions by at least 95% from current levels, with the residual 5% being reduced over the period 2038 to 2100.

The report examined the Council's role in providing leadership on climate change in the city, as well as the Council's own contribution to the "zero carbon" targets through the reduction of energy consumption in buildings, street lighting, fleet operations and other services.

In March 2019 the Council agreed to work with partners to ensure that Manchester accelerates its efforts to encourage all residents, businesses and other stakeholders to take action on climate change. It formally endorsed the draft Manchester Zero Carbon Framework for 2020-38 as the city's approach to playing its full part on climate change. (36 & 37)

The Zero Carbon framework was produced by Manchester Climate Change Board and Agency and is underpinned by the commitments of the Board members, whose organisations are responsible for 20% of Manchester's CO_2 emissions. These include churches, the NHS, Manchester City Football Club, Housing Providers, two Universities and Electricity Northwest. The priority is now to establish the final Framework and Action Plan for 2020-22, and to ensure the city is ready for implementation from April 2020, at the latest. In parallel with urgent action to reduce the city's CO2 emissions during 2019.

The remaining 80% of emissions are broken down between transport, domestic and non-domestic activates across the city. A huge part of the challenge will be for all residents, businesses and organisations in the city to be engaged in this agenda and for them to be encouraged and supported to

play their full part in reducing emissions. This will require significant changes to current governance arrangements and investment/resources for delivery.

r) Nottingham City Council

Nottingham resolved in January 2019 to lead the way nationally and play its part in the global effort against climate change by becoming a carbon neutral city by 2028. (38)

Nottingham's ambition is to become the first carbon neutral city in the UK. The city has already met its Energy Strategy target early – a 26% reduction of carbon dioxide emissions by 2020 – and reduced emissions by 39% since 2005. Nottingham is also on track to meet its 2020 target of 20% of energy generation from low carbon sources, due to a combination of a reduction in the City's energy demand and its renewable energy projects programme. The council has led the way to a more sustainable and green city by:

- Signing the Nottingham Declaration on Climate Change in 2000 with a follow up in 2011;
- Investing in one of the UK's largest electric bus fleets as well as biogas and retrofitted buses;
- Developing and expanding the tram network, running on electricity from renewable sources;
- Improving cycling facilities, including bike hubs and a cycle hire scheme and investing in cycle corridors;
- Introducing the Workplace Parking Levy – tackling congestion and containing traffic growth, while generating funds to invest in public transport;
- Installing solar panels on 4500 domestic properties across the city;
- Working on innovative projects including our solar vehicle to grid project;
- Retrofitting 400 homes with energy efficient measures through the REMOURBAN and Green HousiNG Project (Energiesprong);

However, the council is ambitious to do more within the next 12 years, in light of the Intergovernmental Panel on Climate Change's 2018 Special Report on Global Warming, which warned of the dire consequences of a 1.5 degree rise in global temperatures. (39)

Nottingham has over 40 renewable energy projects with a capacity of 12MW compared with the 1.38MW installed on Edinburgh schools by Solar Co-op. The local authority has retrofitted 400 council properties with energy efficiency technologies and subsidised the installation of solar panels at 4,500 domestic properties. Solar systems on its own buildings generated more than 1 million kilowatt hours of electricity in 2018. (40) Experimental dramatic green makeovers of some council houses using the Dutch "Energiesprong" system has cut tenants' energy bills in half. Now another 150 social housing homes in Nottingham will receive new wall cladding, windows and solar panels after the local authority won £5m from the EU's European Regional Development Fund. Costs are relatively high, at £85,000 per property initially but are expected to fall to £62,000 by the end of the programme. (41)

Nottingham City Council is now going to trial new electric vehicle (EV) infrastructure, including battery storage and bi-directional chargers, as part of an EU-funded vehicle-to-grid (V2G) project. Nottingham is one of four European cities that have been selected as pilot sites for CleanMobilEnergy – a project backed by € 4.29m of EU funding which will utilise various clean energy systems and V2G technologies to support regional EV rollouts. The Council has purchased 40 new EVs to trial a V2G concept. The project combines three main elements: solar panels, a large battery to store energy until required, and a fleet of EVs for additional storage and operational purposes. The Council has also said that it plans to use the system to bid into ancillary services and trial selling flexible power. The Council plans to embrace a revolutionary concept of using stationary vehicles as energy stores to resupply the power grid. On average, domestic cars sit idle for 95% of the time, and this project allows them not only to be charged, but also to feed electricity stored within their batteries back to the grid or nearby buildings. (42)

s) Oxford City Council

Oxford City Council declared a Climate Emergency in January 2019. The motion was unanimously backed, alongside a motion opposing the Oxford to Cambridge Expressway proposals. The motion said that as well as declaring the emergency, the council would 'continue to call on Westminster to provide the necessary powers and resources to make local action on climate change easier'; 'encourage' the council to establish a Citizens Assembly to make recommendations (on climate); and 'continue to work with partners across the city and region to deliver widespread carbon reductions.'

The resolution noted that Council is only responsible for 1% of the city's CO_2 emissions but it is working in partnership to achieve ambitious city-wide targets to reduce emissions by 40% by 2020. Although the City Council is managing to deliver absolute carbon reductions it is not delivering the necessary absolute carbon reductions fast enough to meet either the UK's 2050 80% reduction target or the 1.5 degree Celsius target.

The Council has installed enough solar PV across its estate to generate the equivalent of 10% of its annual electricity from onsite generation, reducing CO2 emissions by 380tonnes/year and reducing bills by over £100,000/year). It currently purchases accredited green electricity for practically all sites and has a policy to buy green if the price is not more than 2% above the price of standard electricity. This Council uses a £1m revolving loan fund to reduced energy costs by over £400k/year.

The Council coordinates the Low Carbon Oxford network – a local collaborative of over 40 organisations that are responsible for the majority of Oxford's CO_2 emissions and which have committed to reduce their emissions by 3% each year. The Council is participating in OxFutures II Growing Oxfordshire's Low Carbon Economy, a multi-stakeholder partnership to grow Oxfordshire's low carbon economy through assisting SMEs to reduce energy consumption and implement energy efficiency projects. (43)

t) Sheffield City Council
Sheffield had already published a Green City Strategy, which set an aim of ensuring Sheffield is a zero-carbon city by 2050. In February it pledged to bring forward that target to 2030 and resolved to ask the Chief Executive to produce a report to Council within six months on the actions the Council needs to take to meet this revised target. (44)

u) Stroud District Council
Stroud District Council has strengthened its stance on climate change to ensure the district is carbon neutral in just 11 years' time. The Council agreed to declare a 'climate emergency' and aim for a carbon neutral target by 2030. The motion urged the council to be a key player in helping the community as a whole bring down carbon emissions.

The Strategy and Resources Committee will be asked to consider setting aside initial funds for the scoping and delivery of the "Stroud Carbon Neutral 2030 Commitment." That committee will also be asked to approve a plan of action with clear targets and transparent reporting, to develop District-wide contributions to complement national contributions in line with the Paris Agreement to limit global warming to 1.5C. The Council will also work with partner bodies across the county to ensure that the climate emergency is adequately reflected in the development and implementation of all county wide strategies. (45)

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(41) Guardian 7th Jan 2019 https://www.theguardian.com/society/2019/jan/07/dutch-eco-homes-ideaarrives-in-uk-and-cuts-energy-bills-in-half-nottingham-energiesprong My Nottingham News 7th Jan 2019 http://www.mynottinghamnews.co.uk/nottingham-is-gearing-up-for-the-uks-biggest-rollout-of-ultra-lowenergy-homes-in-2019
(42) Edie 27th February 2019 https://www.edie.net/news/8/Nottingham-gears-up-for-EV-rollout-with-EU-backed-vehicle-to-grid-trial/
(43) Oxford City Council 28th Jan 2019 http://mycouncil.oxford.gov.uk/mgAi.aspx?ID=21399
(44) Sheffield City Council 6th February 2019 http://democracy.sheffield.gov.uk/ieListDocuments.aspx?CId=154&MId=7007
(45) Stroud District Council 14th December 2018 https://www.stroud.gov.uk/news-archive/stroud-district-council-strengthens-commitment-to-tackle-climate-change

Annexe Three: NFLA Policy Briefing on climate change and decentralised energy best practice

The examples above are part of extensive research undertaken annually by the NFLA. They follow on from previous reports which list these and a large number of other Councils and their work in this important policy area. Listed below are the links to such research into issues around climate change and the positive role local government can bring in promoting energy generation, energy efficiency and energy storage, as well as delivering renewable heating and renewable transport. In addition, there are also links to relevant NFLA submissions to the UK, Irish and devolved Governments on renewable low carbon energy policy. These reports emphasise how NFLA seeks to influence the low carbon policy agenda of the UK and Republic of Ireland Governments and the Devolved Governments in Scotland, Wales and Northern Ireland.

NFLA Policy Briefing 182 – Keeping up with Energy: Best practice advice from the APSE Energy Conference – http://www.nuclearpolicy.info/wp/wp-content/uploads/2018/11/A294_NB182_Keeping_up_with_energy.pdf

NFLA Policy Briefing 179 – The views of the NFLA in setting up a Scottish Public Owned Energy Company - http://www.nuclearpolicy.info/wp/wp-content/uploads/2018/08/A292_NB179_Scottish_energy_company.pdf

NFLA Policy Briefing 175 – Decentralised energy and the climate change imperative: an update on progress across local government in the UK and Ireland - http://www.nuclearpolicy.info/wp/wp-content/uploads/2018/05/A288_NB175_Decentralised_energy.pdf

NFLA Policy Briefing 170 – NFLA submission to the Helm Cost of Energy Review - http://www.nuclearpolicy.info/wp/wp-content/uploads/2018/01/A283_NB170_Helm_cost_of_energy_review.pdf

NFLA Policy Briefing 169 – NFLA submission to the UK Government's Clean Growth Strategy - http://www.nuclearpolicy.info/wp/wp-content/uploads/2017/12/A282_NB169_UK_Clean_Growth_Plan.pdf

NFLA Policy Briefing 166 – How should renewable electricity be supported in Ireland? http://www.nuclearpolicy.info/wp/wp-content/uploads/2017/11/A279_NB166_Irish_renewables_mix-.pdf

NFLA Policy Briefing 160 – Decentralised energy update: continuing progress across local government - http://www.nuclearpolicy.info/wp/wp-content/uploads/2017/05/A273_NB160_Decentralised_energy_update.pdf

NFLA Policy Briefing 152 – Local Authorities and Energy Policy: Building a Fairer Low Carbon Energy System - http://www.nuclearpolicy.info/wp/wp-content/uploads/2016/11/A265-_NB152_-Decentralised-energy-best-practice.pdf

NFLA Policy Briefing 151 – Irish energy policy: are both Governments moving towards a renewable energy future by 2030 and beyond?
http://www.nuclearpolicy.info/wp/wp-content/uploads/2016/11/A264-_NB151_-Irish-energy-policy.pdf