

Route to Zero (R20) Taskforce and Service Area Reviews

Sustainability and Transport Overview and Scrutiny Committee
18 December 2019



Route to Zero (R20) Taskforce

Jonathan Tew, Assistant Chief Executive, Partnerships, Insight and Prevention



Route to Zero (R20) Taskforce

- On 11 June 2019 the Council declared a climate emergency and set the ambition for the city to be carbon neutral by 2030, or as soon as possible after as a 'just transition' permits
- A cross-party and multi-agency Route to Zero (R20) Taskforce was set up in September, with the first meeting taking place in October
- Members include WMCA, higher education, health, climate campaigners, youth strikers, faith communities, business, and others
- Members will work together to provide a voice for the city and help to shape an action plan for how Birmingham can achieve the 2030 ambition

Service area reviews

Ian MacLeod, Acting Director, Inclusive Growth



Service area reviews

- Operational work streams have been established for:
 - Housing
 - Waste
 - Energy
 - Green and blue infrastructure
 - Developing the green economy
 - Transport
- We will also be looking at planning and development within this work
- Service area reviews will be undertaken in tandem with the work of the Taskforce to facilitate policy development and explore options and opportunities to help achieve the net zero carbon ambition

Housing

Jane Trethewey, Assistant Director, Housing Development



Categories of housing

- Newbuild
 - Council homes
 - Housing Association homes
 - Sale homes
- Existing affordable homes
 - Council towers and blocks
 - Council houses and street properties
 - Housing Association homes
- Existing private sector homes
 - PRS homes
 - Owner occupied homes



Council homes



- **Current policy and projects**

- Build high performing new homes for sale, council and private rent
- 58,000 homes with GCH, seeking to move to D/E average EPC rating
- Newtown blocks - electric panel heaters installed
- High rise trialling EWI, new windows, better ventilation, enclosed balconies
- Remainder of stock to have A-rated GCH boilers installed
- Cavity wall insulation programme - £2m of carbon savings in 10 years

- **Future plans**

- Working Group to add zero carbon features to newbuild specification
- Future newbuild homes to be designed for non-gas heating
- Passivhaus newbuild pilot to test this approach
- Fuel poverty reduction kept as a key criterion of success
- Higher density homes in locations with good public transport
- Passivhaus retrofit on the Portsmouth envelope scheme model

Privately owned housing

- **New build homes**

- All newbuild stock meets Building Regulations - minimum Band C EPC
- Planning policy climate friendly requirements, e.g. bicycle parking, tree retention and planting, renewable energy generation, access to public transport, cycle and walking routes, etc.
- No other current obligations in local or national policy or regulation to drive newbuild to zero carbon

- **Existing private homes**

- No current local or national policies or regulations requiring energy performance improvement
- Affordable Warmth scheme - Boiler Grants for qualifying householders to replace old, faulty and inefficient boilers with energy efficient A-rated boilers
- HHSRS identifies hazards in private rented homes, of which Excess Cold is a category, where there is no proper heating and poor insulation
- No funding for PRS landlords to upgrade their stock

Barriers

- Lack of national regulation to require newbuild to be low carbon, or existing non-compliant homes to be upgraded
- Cost of low carbon newbuild and retrofit
- Lack of national funding to invest in carbon reduction
- Public acceptance of the need for low carbon living
- Balance of financial pressures for low carbon against other priorities, such as fire safety or new homes
- Best practice in low carbon measures not well-understood
- Low carbon technology still developing and market immature

Next steps

- Develop the work programme for R20 housing in Birmingham
- Review existing low carbon technologies and schemes
- Upgrade new Council housing specification to reduce carbon on future schemes, including a pilot Passivhaus development
- Procure specialist advice to identify practical and immediate solutions for low carbon homes, both newbuild and retrofit
- Plan a 'Route to Zero Carbon Housing' conference for developers, sharing our revised newbuild standards and other best practice
- Design a city-wide resident communication and influencing campaign to support owner occupiers, landlords and tenants to reduce carbon use
- Investigate funding opportunities to support these activities
- Lobby government for funding and regulation in support of R20

Waste

Ian MacLeod, Acting Director, Inclusive Growth



Draft Waste Strategy 2017 – 2040

Birmingham City Council will seek to:

1. Reduce the amount of waste that is created, reusing and recycling what we can and recovering energy from any remaining waste.
2. Recycle 70% of all our household and municipal waste (e.g. from litter bins and street sweepings) by 2040
3. Reduce the amount of waste generated per person by 10% (compared to a 2014/15 baseline of 345kg per person) by 2025.
4. Eliminate waste sent to landfill by 2040.
5. Manage our waste in a more sustainable way to make a positive contribution to climate change and help reduce carbon emissions. (This will include identifying different ways to collect waste that provide better outcomes in respect of carbon reduction).
6. Develop ways of prioritising the collection of recycling as the composition and type of waste we collect changes over time.
7. Improve our services, reduce costs and use the most appropriate technologies, now and in the future, to manage our waste.
8. Increase the range of materials we (and our partner organisations) collect separately from other waste, for example food waste and/or textiles to achieve our recycling target and to eliminate waste sent to landfill.

Planning policies on waste

- The BDP policy **TP13 ‘Sustainable management of the city’s waste’** seek to minimise the amount of waste created, treat waste as a resource and encourage recycling, reuse and composting.
- **Waste Capacity Study 2014** undertaken shows total waste arisings and future capacity requirements. Currently 2.9 million tonnes per annum. Planned growth will result in increase to 3.4 -3.7 million tonnes.
- Waste Capacity Study to be updated in 2020.
- The 2014 study identified a shortfall in the number of material recycling facilities in the city.

TP 14 ‘New and existing waste facilities’ will be supported where they meet criteria in **‘TP15 Location of waste management facilities’**. The Council will:

- Encourage development of Material Recycling Facilities
- Encourage management of food waste through existing and emerging waste management technologies
- Reduce amount of commercial and industrial waste sent to landfill
- Support expansion of Tysley Energy Recovery Facility
- Protect existing facilities that contribute to waste management capacity
- Support recycling proposals for aggregate materials

Sustainable Planning Policies

Ian MacLeod, Acting Director, Inclusive Growth



Existing policy - Birmingham Development Plan

The BDP contains planning policies to promote a sustainable, inclusive and connected city.

- Reducing the city's carbon footprint (TP1)
- Adapting to climate change (TP2)
- Sustainable construction (TP3)
- Low and zero carbon energy generation (TP4)
- Promoting a low carbon economy (TP5)
- Management of flood risk and water resources (TP6)
- Maintaining and enhancing the green infrastructure network (TP7)
- Sustainable transport policies (TP38-45)

Emerging policy - Development Management DPD

- Policy DM1 Air Quality seeks to ensure that any proposal considers air quality and is accompanied by an appropriate scheme of mitigation where negative impacts are identified.
- Policy DM4 Landscape and Trees seeks to ensure that landscaping is an integral part of the design of development and the green infrastructure network of the city is maintained and enhanced. Also provides policy on the tree, woodland and hedgerow protection.
- Policy DM14 Parking and servicing seeks to ensure that parking and servicing should contribute to the delivery of an efficient, comprehensive and sustainable transport system. Development should promote sustainable travel, reduce congestion, and make efficient use of land.

Examples of developments

Peddimore

- Aiming for BREEAM Standard Excellent
- Embodied Carbon assessment reduced by 10% through using recycled steel, locally sourced materials and specifying materials with lower carbon intensities.
- Smart grid systems incorporate solar PV and battery storage to provide on-site energy generation and reduced carbon emissions.
- 35% reduction in carbon emissions above the requirements of Building Regulations

Commonwealth Games Village

- 150% increase of on-site trees, ecological improvements
- over 40% green/brown roofs across the sites buildings
- High standards of energy efficiency

Energy

Sylvia Broadley, Energy Manager, Inclusive Growth



Current policies that support energy decarbonisation agenda

- **Regional Energy Strategy** for the West Midlands – produced by Energy Capital - delivery of Energy Innovation Zones (EIZs) to integrate proven low-carbon technologies across energy systems; develop the business models and market arrangements needed to support new approaches to clean energy; and overcome the regulatory and other barriers necessary for them to flourish
- **Birmingham Connected (2014)** – the city's 20 year transport strategy – with sustainability as one of the 5 core objectives: reduce the impacts of air and noise pollution, greenhouse gas emissions and energy consumption
- **Planning Policy** – The council's current adopted planning policy to 2031 (BDP) outlines a number of sustainability and energy approaches that support the development of heat networks and sustainable buildings and communities

Background commissioned work that supports the energy decarbonising agenda

- Sustainable Energy Action Plan 2005-2020 & Birmingham's Green Commission Carbon Roadmap (2013)
- Objective 3 of the Financial Inclusion Strategy
- Solar PV study 2016/17
- Heat network feasibility studies
- Birmingham Blue Print (2015)
- 2018 Scatter model for 60% CO₂ reduction (based on the previous target of 60% reduction by 2027)
- Birmingham Energy Baseline Mapping study (March 2019)

Current developments

- **Outline Energy Strategy** – Decarbonising heat, Transport energy & power infrastructure.
- **BEIS** – Birmingham Heat Decarbonisation Delivery Plan.
- **Birmingham District Energy Company** - currently provides 60,000MWh of heat, 47,000MWh of electricity and 8,000MWh of chilled water per annum, with a 12km network infrastructure.
- **Ultra-low and Zero Emission Energy Refuelling Infrastructure Network**

Barriers/constraints for where we want to get to

- Radical increase in the deployment of low carbon heating (e.g. heat pumps, hybrids and district heating) at scale is needed to meet the 2030 ambition. Currently there isn't the level of stock available to meet this by 2030.
- Similar issue for zero emission vehicles and limited market availability - but also, car demand (at scale behaviour change requirement) requires shift to active and public transport, where car use will need to shift to high turnover shared fleets - potential constraint is that it depends on whether the focus is on Birmingham registered vehicles or all vehicles coming into Birmingham.
- Electric network capacity is a limiting factor.

Next steps for how we can move towards net zero carbon

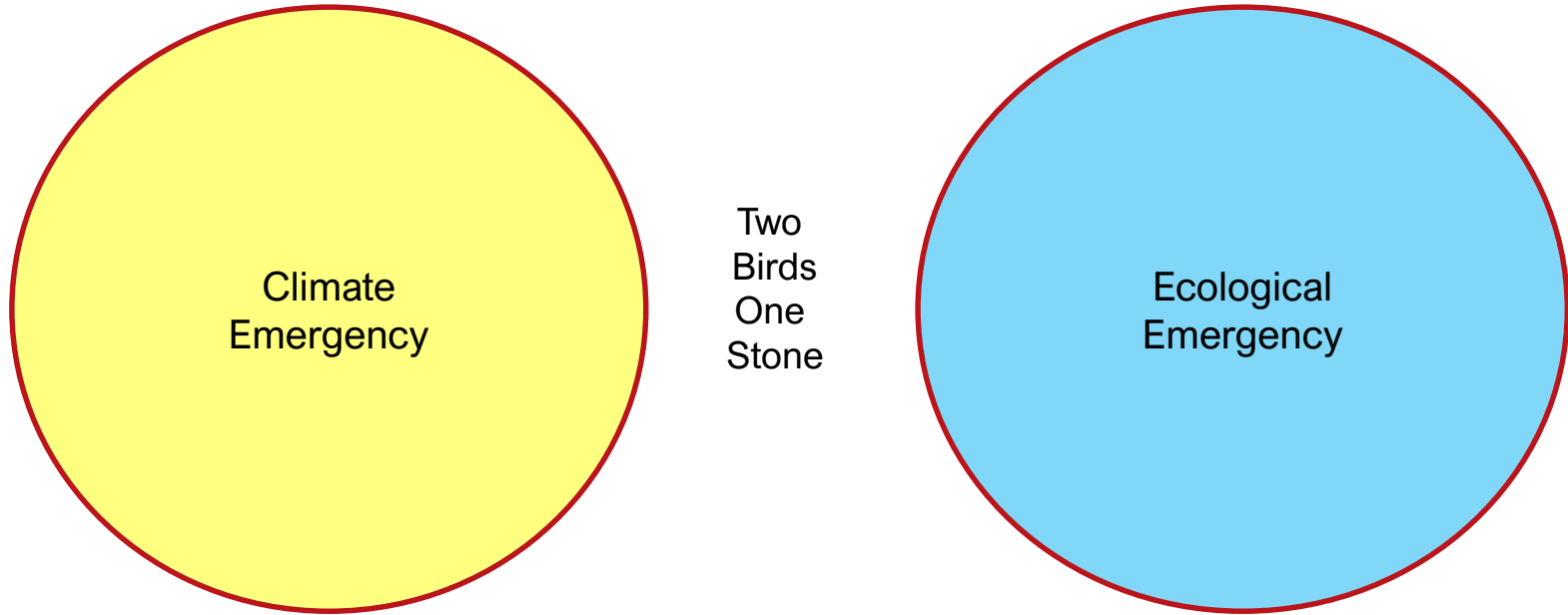
- Completion of 'outline energy strategy' - identifying 'energy' that is in scope for the Council to gain net zero impact from and get agreement on what is possible within the timescale, and align with Climate Emergency task force action plan.
- BEIS heat decarbonisation delivery plan - seek alignment with R20 Taskforce action plan.

Green and Blue Infrastructure

Simon Needle, Principal Ecologist & Arboriculturist, Inclusive Growth



Seeing the bigger picture



integration of natural solutions

- The Conservation of Habitats and Species Regulations (2017) *(refer to pre-Brexit)
- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations (2019 no.579) *(refer to post-Brexit)
- The Wildlife and Countryside Act (1981) (as amended)
- The Countryside and Rights of Way Act (2000)
- The Natural Environment and Rural Communities Act (2006), S40 and S41
- The Protection of Badgers Act (1992)
- Part VIII Town and Country Planning Act 1990
- Town and Country Planning (Tree Preservation) (England) Regulations 2012
- Planning and Listed Buildings Act 1990

Current legislation, policies & best practice

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- Relevant area-based SPDs

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- Circular 06/2005 Biodiversity and geological conservation: statutory obligations and their impact within the planning system Paragraphs 98-99
- UK Biodiversity Action Plan and UK post 2010 Biodiversity Framework
- Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services
- The Wildlife Trust for Birmingham and the Black Country: Birmingham and Black Country Nature Improvement Area Ecological Strategy 2017-2022
- Nature Conservation Strategy for Birmingham (1997)
- BS42020 - Biodiversity: code of practice for planning and development (2013)
- BS 5837: 2012 Trees in relation to design, demolition and construction – Recommendations
- BS 8545: 2014 Trees: from nursery to independence in the landscape – Recommendations

Current Projects and work functions



Making a positive difference everyday to people's lives

Constraints to delivery

- Lack of early engagement with internal/ planning GI professionals – needs a strategic lead
- Financial resource – Staffing, appropriate IT hardware and software, funding for projects and ongoing green and blue infrastructure management (not maintenance).
- Lack of skills within the wider land management (maintenance) industry. Not just basic skills but planning to upskill and be competent to manage the infrastructure needed to meet climate change – green roofs/ green walls/ Bio-swales/ SuDS etc. Often dismissed as being too difficult.

Next steps

- Nature Recovery Networks – Natural capital mapping
- Review land allocation, some sites allocated for development strategically located within areas that should be prioritised for natural solutions
- Ensure Net gain for biodiversity and canopy coverage is delivered through planning function
- Biochar - use of woody waste via pyrolytic conversion produces heat (could be used locally as part of district heat network) and biochar.
- More robust policies on implementation of integrated multifunction GI as part of a holistic climate change action plan.
- Training and Skills for the future

Developing the Green Economy

Ian MacLeod, Acting Director, Inclusive Growth



Previous activity

The Business Development and Innovation Team has actively been involved in the development and growth of the green economy through a range of programmes:

- **£75m Green Bridge Supply Chain Programme** (2012-2018) designed to support SME supply chain businesses seeking to invest and create local jobs.
- Funding of £20k to £1m linked to businesses demonstrating green benefits including:
 - Reduction in carbon footprint
 - Savings in energy usage
 - Improvements to waste management
 - Introduction of new technology
 - Improved systems and processes
 - Development of new markets
 - Development of new green products
- The programme supported 1,000 businesses and created 4,500 new jobs.

Current activity

- **Business Growth Programme (2019-2023):**
 - SME's involved in the green economy continue to be supported through our successor programme, Business Growth Programme
 - This programme supports SME's seeking to grow, invest and create jobs across GBSLEP and the Marches LEP areas
 - No specific focus on the green economy

Future activity

- Undertake a detailed baseline study - market overview, challenges, gaps in provision and opportunities
- A new redesigned Green Bridge Supply Chain Programme focussed on low carbon reduction, energy efficiency, development of new green markets and green new product development
- Deliver the CAZ Heady Duty Vehicle Fund supporting SME's to purchase/lease new compliant vehicles /retrofit non-compliant vehicles to achieve Euro 6 compliance and improve air quality
- Develop a clear business offer related to Tyseley Energy Park to attract SME's and capital investment into the area
- Develop Birmingham based Battery satellite centre supporting UK Battery Industrialisation Centre (UKBIC). The centre will focus on next generation of battery systems across battery chemistry, electrodes, cell design, module and pack level.
- Constraints: financial resource and staffing pressures are currently a major barrier

Transport

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Current policy and projects

Projects:

- Sprint
- Cross-city bus routes
- Extension of the tram network
- Opening of new urban railway stations
- Improvements in cycling infrastructure and public realm

Policy:

Emerging Birmingham Transport Plan: sustainable and inclusive economic growth through 4 big moves

- Space reallocation away from private cars
- Transformation of Birmingham City Centre
- Prioritising active travel in local neighbourhoods
- Using parking measures as a demand management tool

What are we planning on doing within existing resources?

- Strong commitment to deliver the BTP
- Development work to dissuade people from driving to the city already in place (bus priority, restricting private car permeability, improved walking and cycling access with increased pedestrianisation, parking demand management and experimental traffic management measures)
- Complementary policies such as the Parking Supplementary Planning Document
- We actively provide input into TfWM's Movement for Growth Strategy refresh the Midlands Connect strategy refresh stressing the need to focus on and tackle the climate emergency.

Barriers and constraints

- An unprecedented challenge that requires unprecedented changes
- Radical changes in the status quo needed
- Modal shift away from the private car is a key action
- Need to provide viable alternatives to the private car
- Strong, coordinated political commitment needed
- Changes needed in funding structures – mode specific funding limits opportunities to deliver efficient and holistic solutions

Next steps

- BTP sets the basis for upcoming actions such as the CAZ and the Workplace Parking Levy
- Previously 'radical' policies now considered essential – more opportunities for bold moves
- Investigate ways to limit the need to travel

R20 next steps

- Proposed change to Full Council timing due to pre-election period and completion of the baseline study and engagement – progress update in February and full update in June 20
- Proposed service area review update to Scrutiny in March 20
- Consultancy support from January to March 20
- Preparation for the action plan between December 19 and April 20
- Phase 1 communications and engagement between December 19 and Feb/March 20

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