



Executive Member for Environment and Transport

Meeting of:	Date:	Ward(s):
Council	27 February 2020	All

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SUBJECT: ISLINGTON RESPONSE TO THE CLIMATE EMERGENCY: Zero Carbon Strategy

1. Synopsis

- 1.1 As part of the declaration of a Climate Emergency at full Council in June 2019, there was a commitment to report-back to full council in February 2020 on the strategic actions the Council is taking to deal with the environment and climate emergency.
- 1.2 This report sets out the council's response to the Climate Emergency and specifically those actions that the council is taking and is proposing to take as part of the draft Net Zero Carbon Strategy. The draft strategy is shown at Appendix 1.
- 1.3 This report also explains the recent trends in carbon emissions in Islington (both in total and by sector), an evidence base of the sources of emissions in the borough and presents the draft strategy for the council and also the borough as a whole.

2. Recommendations

- 2.1 To note the actions we have taken since the declaration and the development of a Net Zero Carbon Strategy, based on 6 key priorities: 1. Residential, Commercial & Industrial Buildings & Infrastructure; 2. Transport (including Fleet); 3. Sustainable Energy Generation & Supply; 4. Affordable Energy & Fuel Poverty; 5. Green Economy & Planning and 6. The Natural Environment, Waste Reduction & Recycling and Carbon Offsetting
- 2.2 To note that the scale of the challenge faced by the borough is to reduce net carbon emission by 700,000 tonnes¹ (including carbon offsetting).

¹ Source: Carbon emissions for Islington in 2017 of 708,982 tonnes (Dept of Business, Enterprise & Industrial Strategy, BEIS)

- 2.3 To note that the council's operations produce approximately 4% of the Islington's total emissions and this rises to approximately 8% of emissions if gas boilers in council-owned homes are included.
- 2.4 To note that an approach for engaging and collaborating with residents, businesses, borough public sector and partner organisations, regional and national government, will be developed to support the delivery of the net zero carbon vision.
- 2.5 To note that the draft Net Zero Carbon Strategy has identified what we can commit to immediately and actions we will take; what we would like to commit to but requires further investigation; and what we need from others in order for Islington to achieve net zero carbon e.g. funding, powers and legislation.
- 2.6 To agree to taking a cross-departmental approach to implementing the strategy including the creation of zero carbon working group and to develop detailed action plans for each priority.
- 2.7 To note initial stakeholder and resident consultation in relation to the draft Net Zero Carbon Strategy has started and that a special meeting of the Environment & Regeneration Scrutiny Committee has been arranged to support that consultation process.
- 2.8 To agree that the final strategy will be presented to Executive for adoption and approval in June 2020.

3. Background

- 3.1 On 27 June 2019, Islington Council declared a Climate Emergency in a motion that was unanimously supported at a meeting of the full council. The motion committed the council to working towards making Islington net zero carbon by 2030, working with partners across the borough to deliver this goal, and making representations to regional and national government to urge them to take action, including giving councils the necessary resources and legal powers.
- 3.2 The commitment was given to report back to Full Council on 27th February 2020 about the strategic actions the council is taking to address the environment and climate emergency, including plans and milestones to achieve emissions reductions within the Council's control, and to share details of representations being made to other institutions to achieve reductions in emissions outside of the Council's direct control.
- 3.3 A further commitment was given to have an adopted Net Zero Carbon Strategy in place within 12 months of the declaration i.e. by June 2020.
- 3.4 Following the declaration, officers were tasked with developing a net zero carbon strategy for Islington whilst identifying that the Council could do to ensure operations and services would contribute to the overall vision of net zero carbon by 2030 including carbon offsetting.
- 3.5 This report sets out recent trends in carbon emissions in the borough, an evidence base for the current carbon emissions and their sources, and an update on the development of a Net Zero Carbon Strategy that will address the net zero challenge. What this has identified is that the Council's operations represent approximately 4% of Islington's total carbon emissions, although this rises to approximately 8% if gas boilers in council-owned homes are included.
- 3.6 In the meantime, the Council has continued to deliver a wide range of innovative strategies, services and initiatives to help eliminate emissions in the borough and to make Islington a fairer place for everyone. The Net Zero Carbon Strategy aims to incorporate key elements of these complementary strategies and initiatives and effectively act as the 'umbrella environmental strategy' for Islington.

3.7 **Developing Priorities**

What has emerged from the research into and the development of the strategy are six proposed priorities and statements of strategic intent:

Residential buildings, Commercial & Industrial buildings and Infrastructure

Improve the energy efficiency and reduce the level of carbon emissions of all buildings and infrastructure: We will continue our work on the insulation of properties and seek ways of converting heating systems away from gas where possible. In doing so we will work with borough partners such as schools and colleges, universities and the NHS to support them to reduce carbon emissions from their estates.

Transport

Reduce emissions in the borough from transport: We will reduce vehicular emissions by encouraging walking, cycling and public transportation. By working collaboratively, we will explore how to transform our streets, secure better, cleaner and more accessible public transport services for Islington and improve air quality for residents. We will also electrify our fleet and encourage residents and local businesses to do the same by ensuring the appropriate infrastructure is in place.

Sustainable Energy Generation and Supply

Accelerate our development of smart energy networks in the borough: We will continue to deliver publicly-owned and innovative decentralised energy projects that deliver secure, reliable and affordable energy to residents. We will also install more solar PV panels and battery storage on our own buildings, and support residents and local businesses to do the same.

Affordable Energy and Fuel Poverty

Support residents in fuel poverty and increase access to fairer energy tariffs for all: We will continue to support residents in fuel poverty through SHINE. In addition, we will continue to grow Angelic Energy, London's first municipal energy company for over 100 years, through working alongside other local authorities and housing associations that share our ethos of fair energy tariffs for all. Finally, we will also focus on helping residents into work and other means of increasing their household income.

The Green Economy & Planning

Deliver on our net zero carbon target whilst assuring the economic success and vitality of our borough by working closely with the 18,800 businesses in the borough most of them small or micro-sized, including the creation of green jobs: We will ensure that our development and planning policies require growth and new developments meet the highest emissions reductions targets possible.

The Natural Environment, Waste Reduction & Recycling and Carbon Offsetting

Integrate our ongoing activities in recycling and reducing waste, offsetting carbon emissions and managing our natural environment: To ensure that these are coherent in our efforts to achieve net zero and help mitigate the risks from severe loss of biodiversity which will impact people, the economy and the environment.

3.8 **Identifying what the Council can do and what we need of others**

The Council will need to work with partners across the borough to deliver this strategy, and make representations to regional and national government to take action, including giving local authorities the necessary resources and legal powers.

The strategy sets out an overview of the sources of carbon emissions in Islington, identify the commitments that we as a council can make today and the actions required needed to eliminate or offset these emissions in the future.

We examine the challenges and risks that we face in attempting to meet the net zero carbon target by 2030 and what we could ask of regional and national government. In recognition of the scale of the challenge, proposed commitments and actions are categorised as:

- What the council can commit to immediately and actions we will take;
- What the council sees as potential commitments, but requires further investigation before committing to;
- What the council needs from others in order for the borough achieve net zero, including funding, powers and legislation

The council will particularly need the government to make significant and on-going funding, including capital grant funding in order to deliver our ambition for Islington. Specifically, the cost of retrofitting the council's housing stock to become both energy efficient and zero carbon in terms of energy is well in excess of what the Council can afford. This also applies to private housing and social housing provided by other organisations.

The Net Zero Carbon Strategy aims to incorporate key elements of these complementary strategies and initiatives and effectively act as the 'umbrella environmental strategy' for Islington thereby ensuring a coherent approach across all our services. These include the Air Quality strategy and the Waste Reduction & Recycling Plan.

The proposed commitments and actions are detailed in the draft Net Zero Carbon Strategy in Appendix 1:

- Residential buildings, Commercial & Industrial buildings and Infrastructure (pages 28 to 33)
- Transport (pages 34 to 38)
- Sustainable Energy Generation and Supply (pages 39 to 42)
- Affordable Energy and Fuel Poverty (pages 43 to 50)
- The Green Economy & Planning (pages 51 to 57)
- The Natural Environment, Waste Reduction & Recycling and Carbon Offsetting (pages 57 to 63)

3.9 **Engaging with Residents, businesses, Borough Partners, Regional and National Government**

Although the council has a leading role in delivering zero carbon emissions in Islington, we cannot deliver on the net zero carbon target on our own. We will need to work closely with residents and local businesses and community groups to enable and encourage them to help our borough achieve net zero.

The council will also have to play a leading role as the champion of Islington's residents and businesses at the local, regional and national level in order to push for the necessary powers and funding that will enable us to achieve our target.

Islington Council has long prioritised community engagement with our residents, local businesses and voluntary organisations, borough partner organisations including health and higher education partners and schools. We recognise how much our residents value their community and in our efforts to reduce carbon emissions and increase energy efficiency and we will continue to promote grass-roots level innovation. We also recognise that there is strong public support for addressing the carbon agenda, with local pressure pushing for faster decarbonisation.

The council will work with the partners across the capital including London Councils and the Greater London Authority (including Transport for London) and London Waste & Recycling Board (LWARB) in support of London-wide efforts to tackle climate change and to support Islington's vision.

3.10 **What the Council has achieved since the declaration**

Since the declaration was made in June 2019, the Council has continued to deliver a wide range of innovative strategies, services and initiatives to help eliminate emissions in the borough, to make Islington a fairer place for everyone.

Specifically, the following achievements have happened and full details of what the Council has done and achieved is shown in the draft Strategy in Appendix 1.

Buildings

- Preparing to engage with all private landlords to ensure awareness of and compliance with the Minimum Energy Efficiency Standards, which require all privately-rented homes to achieve an EPC rating of E or higher;
- Reviewing how gas can be phased out of our new build housing development programme.

Transport

- We have consulted on an ambitious Transport Strategy for the Borough which will be presented to Executive in May for adoption;
- Delivering two new School Streets to bring the total up to 13, more than anywhere else in the country, consulting on four more and agreeing funding for a further 17, bringing the total to 30 by the end of 2020/21;
- Continuing to electrify the Council's vehicle fleet, with nine new electric vehicles in operation and 15 on order;
- Installing a further 39 public electric vehicle charging points, taking the total to 190;
- Launching an innovative smart vehicle-to-grid charging system at the Town Hall;
- Working with TfL to make bus route 43 an all-electric service.

Energy

- Approaching completion of the Bunhill 2 energy centre, which will use warm air from the London Underground to supply heat to the Bunhill heat network, the first project of its kind in the world;
- Starting the pioneering GreenSCIES project to design a low-temperature, gas-free heat network in the south of the borough by harnessing waste heat.

Natural Environment

- Ordering 420 new trees to be planted by the end of March 2020, of which 105 have been planted to date

Council Governance

- Requiring all Council decisions to consider environmental implications and the contribution they make to achieving a net zero carbon Islington by 2030

3.11 Collaboration across London

We have also been collaborating with other boroughs, 25 of which have also declared climate emergencies to date. London Councils have set up a Climate Emergency Working Group of officers that meets regularly to discuss strategy and opportunities to work together. The Transport and Environment Committee (TEC, composed of the relevant Executive Member from each borough), and London Environment Directors' Network (LEDNet) have also held meetings on the climate emergency. In November TEC and LEDNet issued a joint statement that identified six priority areas that boroughs will seek to prioritise and support delivery of, through meaningful collaboration with each other, wider partners, residents and the business community:

1. **Retrofit London:** Retrofit all domestic and non-domestic buildings to an average Energy Performance Certificate level of EPC B (2020–2030)
2. **Low-carbon development:** Secure low carbon buildings and infrastructure via borough planning (2022–2030)
3. **Halve petrol and diesel road journeys:** Halve road journeys made by petrol and diesel via combined measures that can restrict polluting journeys and incentivise sustainable and active travel options (2020–2030)
4. **Renewable power for London:** Secure 100% renewable energy for London's public sector now and in the future (2020–2030)
5. **Reduce consumption emissions:** Reduce consumption emissions by two thirds, focusing on food, clothing, electronics and aviation (2020–2030)
6. **Build the green economy:** Develop London's low carbon sector and green our broader economy (2020–2030)

3.12 In addition, we have made representations to other institutions by responding to government consultations on topics such as the Future Homes Standard, which proposes scrapping the ability of the GLA to set higher standards for new buildings in London and has proposed energy efficiency targets lower than the existing London ones.

4. Recent trends in carbon emissions in Islington

- 4.1 Data on Islington's carbon emissions is produced by the Department of Business, Energy and Industrial Strategy (BEIS) as part of a national dataset on emissions by local authority area. This dataset is updated annually, but due to the complexity of compiling the information, it is published two years in arrears – the latest data published in June 2019 goes up to 2017.² The dataset only looks at carbon dioxide and does not consider other greenhouse gases, such as methane.
- 4.2 The dataset breaks down the source of emissions into three main sectors; commercial and industrial, residential and transport. There is a further breakdown in each area, with the commercial/industrial and residential sectors split into emissions from gas, electricity use and other fuels, and the transport sector broken down into road classes, railways and other transport.
- 4.3 Prior to the declaration of a climate emergency in June 2019 and committing to an objective of becoming a net zero carbon borough by 2030, Islington Council had a target of reducing the carbon emissions of the borough by 40% between 2005 and 2020.

² [UK local authority and regional carbon dioxide emissions national statistics: 2005 to 2017](#)

4.4 According to the most recent data available from BEIS (2017), emissions had reduced by 39.8% compared to 2005, meaning that the 40% reduction has been virtually achieved, three years ahead of schedule. This is despite a 28% increase in population in the same period. As a result, per capita carbon emissions fell by 53%, reducing from 6.4 tonnes per person in 2005 to 3.0 tonnes per person in 2017. Both the total and per capita reductions are above the London and national averages.

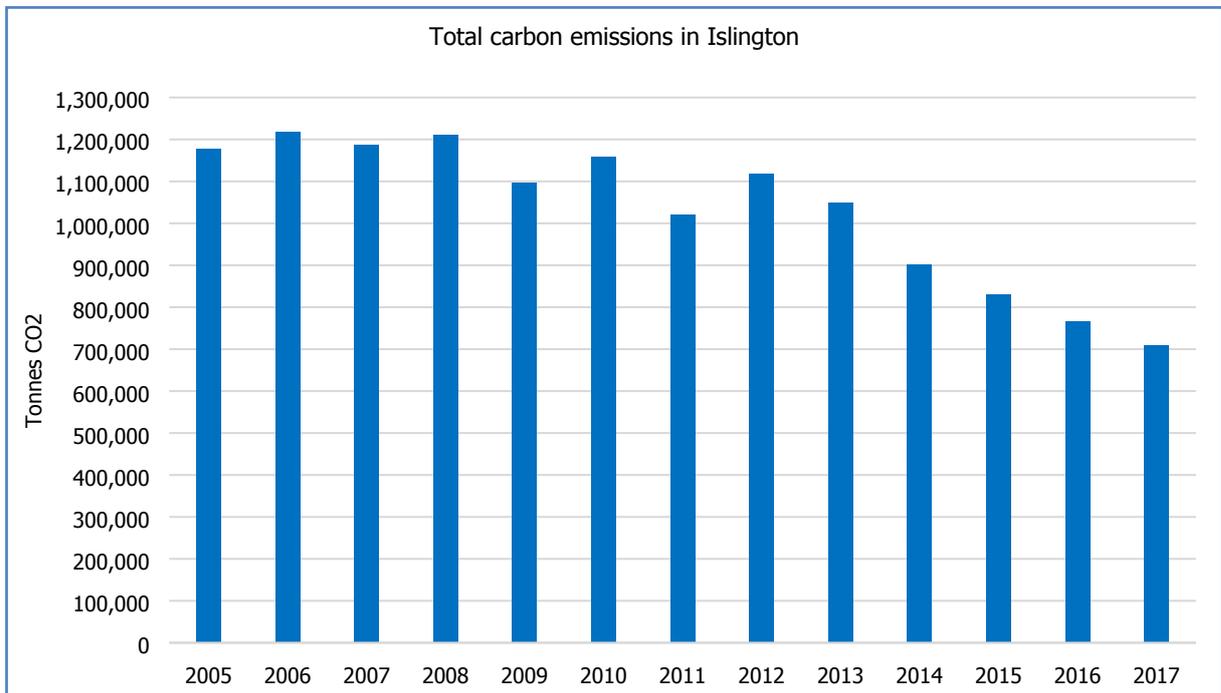


Figure 1: Total carbon emissions in Islington, 2005–2017

4.5 After a mixture of increases and decreases in the first seven years of the 2005-2017 period, emissions have consistently fallen since 2012. These fluctuations are strongly linked to the carbon intensity of the electricity grid, which has consistently reduced since 2012 following several years of fluctuations that tie in with those seen below.

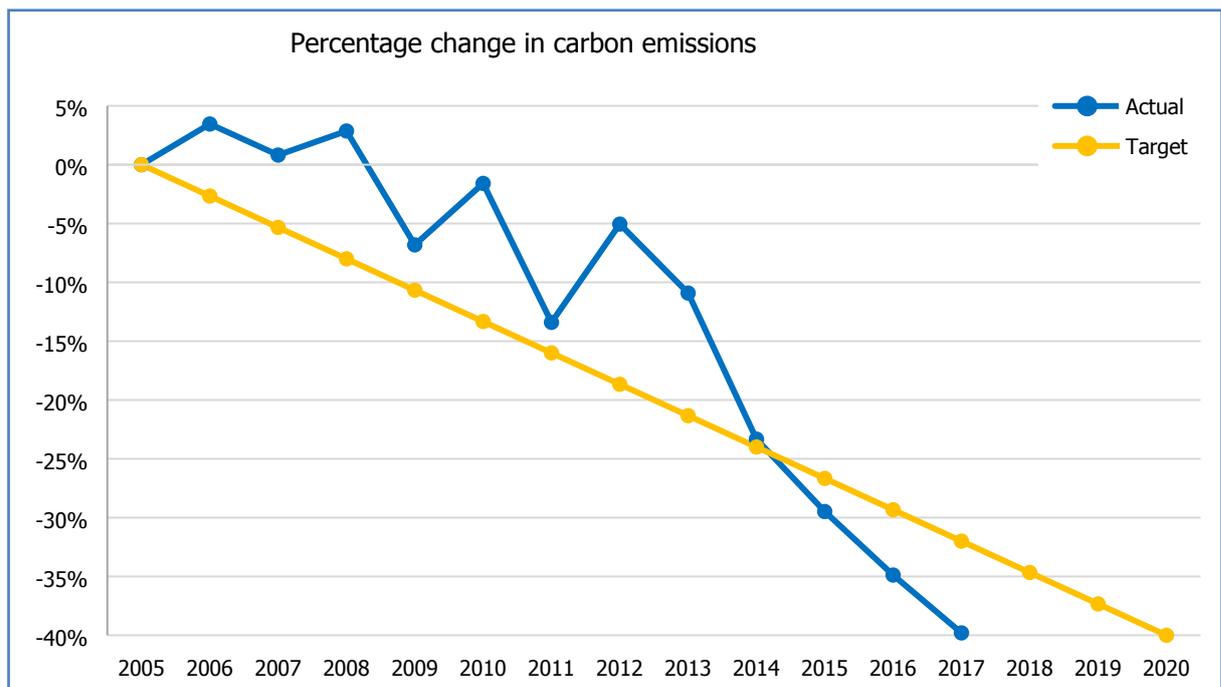


Figure 2: Percentage change in carbon emissions, 2005–2017

4.6 According to the 2017 figures, the commercial and industrial sector is the largest contributor to emissions in Islington, accounting for 48% of the total. Residential properties account for 36% and transport for 16%.

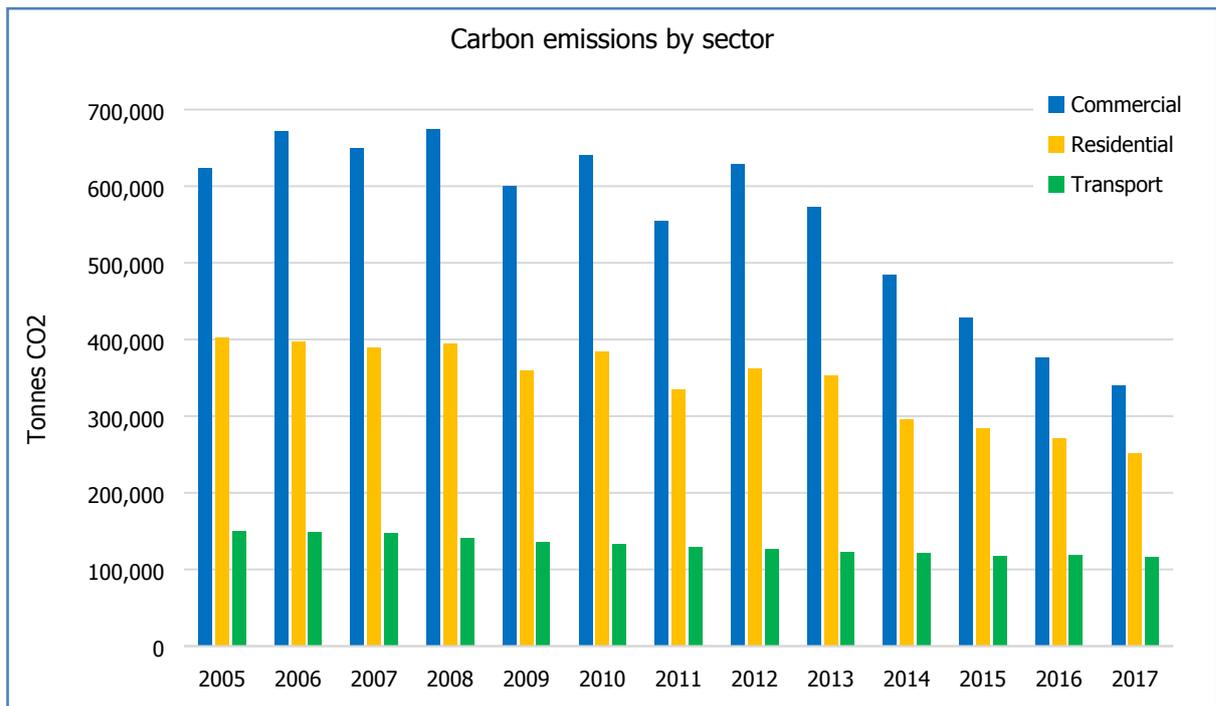


Figure 3: Carbon emissions by sector, 2005–2017

4.7 Carbon emissions reduced in all three sectors during the period 2005-2017, although at different rates; commercial and industrial emissions fell by around 46%, residential emissions by 37% and transport emissions by 23%.

4.8 Part of the reason for the differences between sectors is the rapid decarbonisation of the electricity grid, due to the increased amount of renewable energy (wind and solar) being produced in recent years. This has seen the carbon intensity of the grid reduce by 51% between 2005 and 2017, meaning that even if electricity consumption had remained static, electricity-related emissions would have fallen by 51%. Electricity accounts for a greater proportion of energy use in the commercial sector than in the residential sector, meaning that the former has seen a more significant drop in its emissions.

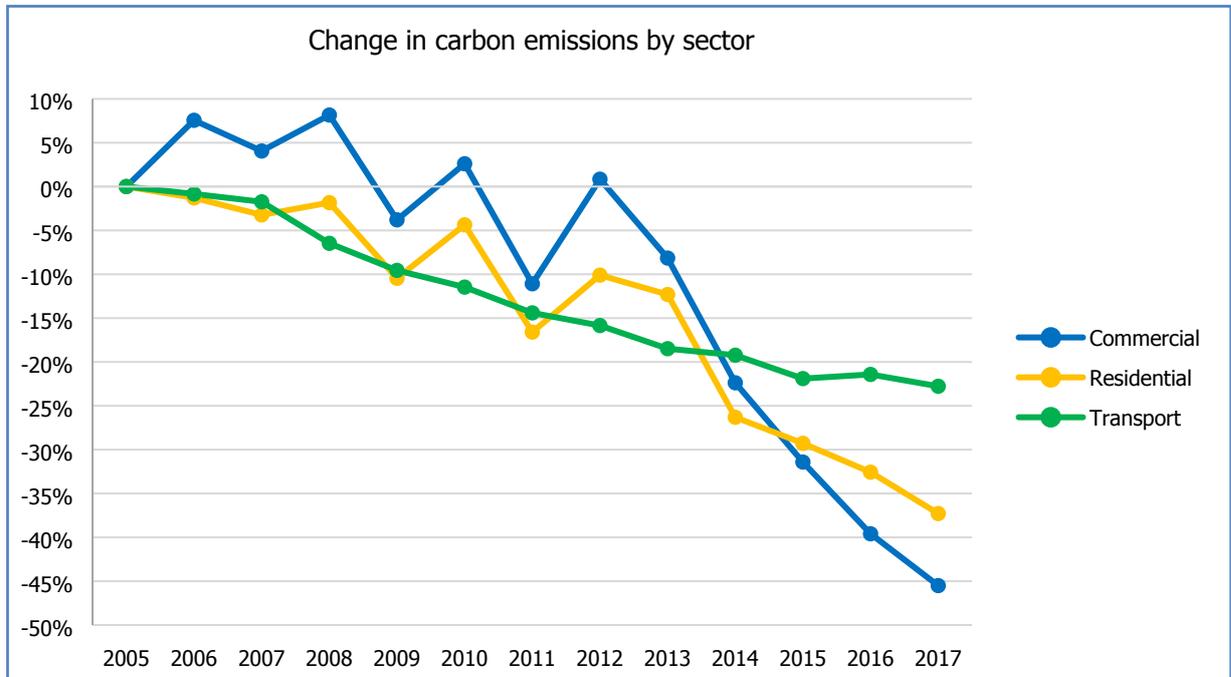


Figure 4: Change in carbon emissions by sector, 2005–2017

4.9 As shown below, electricity and gas-related emissions have decreased at different rates in the different sectors during the period in question (the figures in brackets in the axis are the proportion of carbon emissions in the sector). The 26% reduction in gas use in the residential sector is particularly notable given the 28% population increase, and is likely due to the significant number of insulation installations (the council insulated 12,500 of its own properties) and gas boiler upgrades.

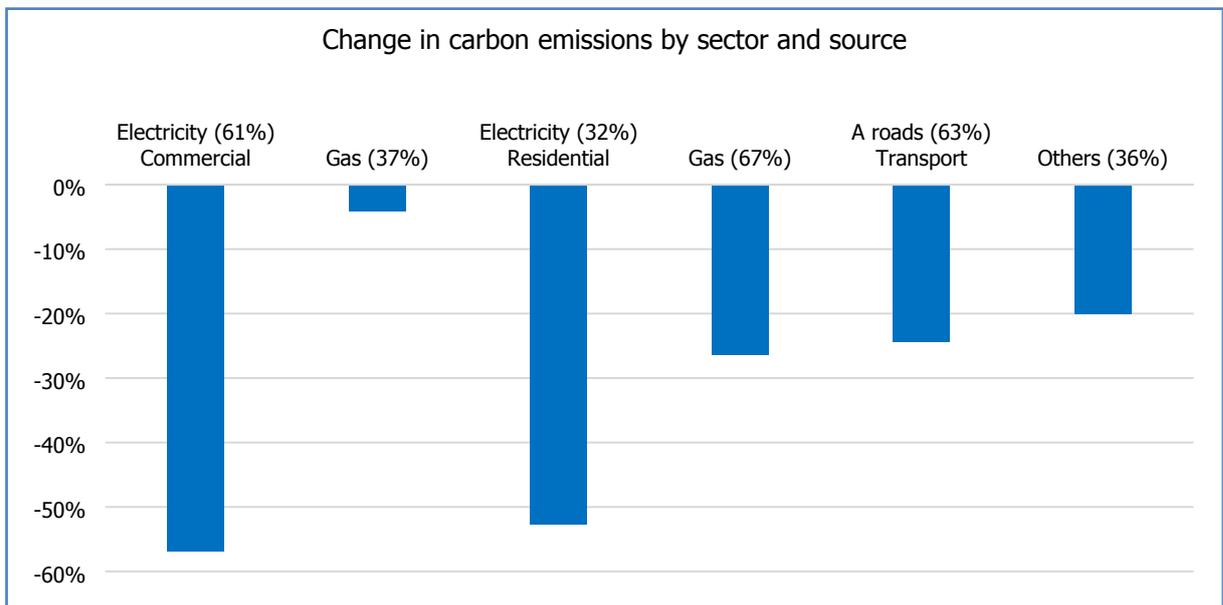


Figure 5: Change in carbon emissions by sector and source, 2005–2017

4.10 It is important to note that this data does not include consumption-related emissions, which are recorded in the area of production – their inclusion would mean double counting. However, we recognise that many of the goods consumed in Islington are imported from areas of the world that are not necessarily committed to taking the same level of action as the UK in reducing emissions. It also omits emissions related to waste (except in cases of incineration for electricity generation), shipping and aviation (due to the difficulty in assigning the national totals to districts). Similar to consumption-related emissions, these will also require consideration.

4.11 The graph below shows a theoretical emissions reduction trajectory required to reach zero emissions by 2030. Although the rate of reduction is similar to that seen in recent years, it will become progressively harder to achieve as gas boilers have to be replaced by electrical heating systems or district heating, and fossil fuel vehicles have to be removed from the road network. We are also reliant on continued grid decarbonisation to reduce electricity-related emissions.

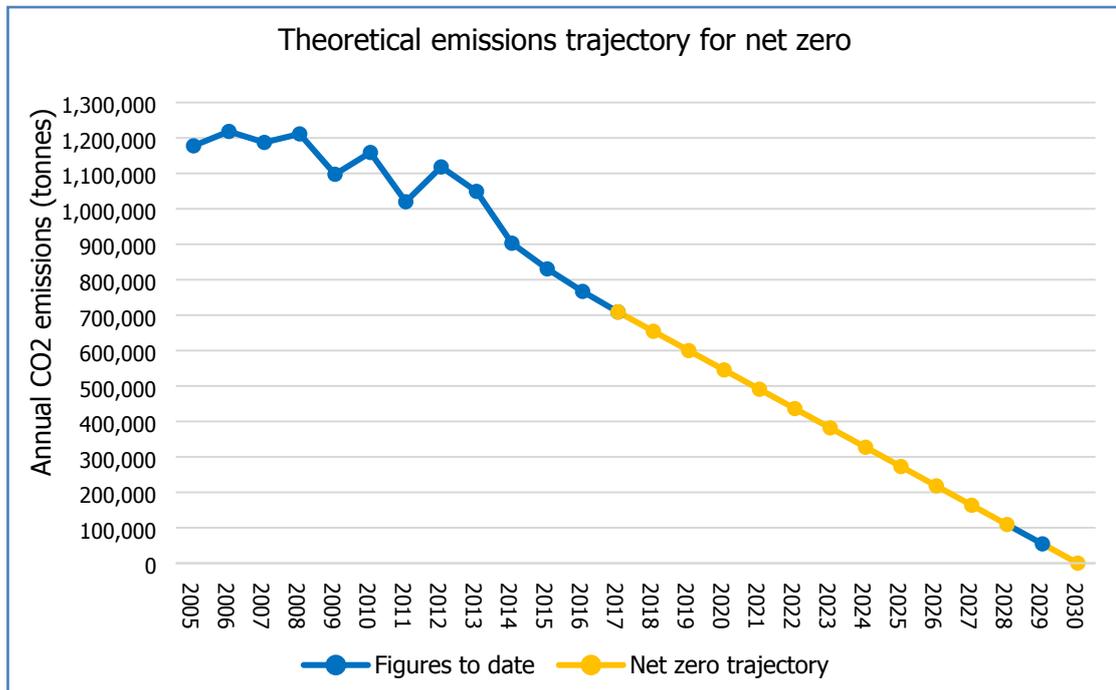


Figure 6: Actual and theoretical emissions reduction trajectory, 2005-2030

5. Evidence base

- 5.1 The data outlined in the previous section forms a major part of our evidence base for the emissions in Islington. However, we need additional data in several different areas in order identify the specific sources of emissions and understand how we can eliminate them. This section sets out the evidence base that will inform the council's Net Zero Carbon Strategy.
- 5.2 According to the 2017 dataset, annual carbon emissions from domestic properties in Islington totalled 252,335 tonnes, or 36% of the total emissions in the borough. This consisted of 170,028 tonnes from gas (67%), 80,288 tonnes from electricity (32%) and 2,019 tonnes from 'other' fuels (1%).
- 5.3 There are just under 103,000 homes in Islington of which around 25,000 are owned by Islington Council. The remaining 78,000 properties are owned by other registered social housing providers, private landlords or owner occupiers. Around 60% of Islington's housing stock was built before 1919, meaning solid-wall properties (which do not have cavities and are significantly more difficult and expensive to insulate) are very common.

Domestic emissions: Key statistics

- Based on a sample of Energy Performance Certificate data, 75% of homes in Islington are heated by gas boilers, 12% by communal heating systems (likely almost all gas-fired), 13% by electric heating, 0.2% by LPG boilers and 0.02% by wood fuel.
- The council has just over 22,000 properties with gas-based heating systems; 17,787 tenanted properties have individual gas boilers and 4,268 estate properties connected to gas-fired communal or district heating.
- Over 8,000 of our properties currently heated by individual gas boilers have uninsulated walls.
- Our communal heating systems (which supply estates or blocks) created 13,363 tonnes of CO₂ emissions in 2018/19.
- The landlord electricity supply in our housing (for estate and corridor lighting and lifts) created 4,973 tonnes of CO₂ in 2018/19.
- In September 2019 there were only 353 registered solar panel installations in the borough, meaning Islington is ranked 371st of 380 local authority areas for the number of domestic solar panel arrays.

- 5.4 According to the 2017 dataset, the commercial and industrial sector (which includes the public sector) is the largest contributor to carbon emissions in Islington, accounting for 340,194 tonnes of carbon emissions a year, 48% of the borough's total. This consists of 206,655 tonnes from electricity usage (61% of the total), 126,119 tonnes from gas usage (37%), 7,371 tonnes from other fuels (2%) and 48 tonnes from large industrial installations and agriculture (0.01%).

Commercial and industrial emissions: Key statistics

- In 2018 there were 18,780 businesses operating in the borough from 21,010 premises.
- Gas boilers are currently used to provide heating or hot water in 65 of the council's 116 non-domestic properties.
- Total carbon emissions from the council's corporate buildings in Islington – both electricity and gas – amounted to 5,037 tonnes in 2018/19.
- Emissions from the eight council-owned leisure centres in 2018/19 amounted to around 1,555 tonnes, although this was lower than usual due to Highbury Pool being closed for around half the year (2017/18 emissions were 1,629 tonnes).
- Emissions from the electricity used for council street lighting totalled around 1,240 tonnes in 2018/19
- In September 2019 there were 40 registered non-domestic solar panel installations in the borough, with Islington ranked 301st out of 380 local authority areas for the number of non-domestic arrays.

- 5.5 According to the 2017 dataset, transport in Islington accounted for 116,514 tonnes of carbon emissions annually, or 16% of the borough's total. Of this, 73,122 tonnes were from vehicles on A roads (63%), 42,327 tonnes from vehicles on minor roads (36%), 601 tonnes from diesel railways (0.5%) and 465 tonnes from other modes (0.4%), which include LPG vehicles and canal boats.

Transport emissions: Key statistics

- In 2018 there were 36,275 cars, 3,076 good vehicles and 2,899 motorcycles registered to Islington addresses. Based on our parking permit data (which covers around 70% of the total vehicles), the split of cars by fuel type is 24% diesel and 76% non-diesel, of which just under 1% are thought to be zero emissions.
- During 2018/19 a total of 1,450,882 short stay parking permits were purchased, of which 796,346 (55%) were for diesel vehicles.
- The council has around 500 vehicles, of which 448 are diesel, 18 petrol, 3 CNG, 6 hybrid and 23 electric
- These vehicles used 1.05 million litres of fuel and 6.7 tonnes of CNG (compressed natural gas) in 2018/19, leading to CO₂ emissions of 2,726 tonnes.

6. The Net Zero Carbon Strategy timetable

6.2 The planned timeline for delivery of the strategy is as follows:

9 March 2020: Draft presented at Environment & Regeneration Scrutiny Committee
17 March 2020: Draft presented to Corporate Management Board
20 March 2020: Public consultation begins
24 April 2020: Public consultation ends
18 June 2020: Final strategy presented at Executive for adoption

6.3 In addition to the public consultation in March-April, there will also be consultation with specific stakeholders, including activist and business groups. This engagement began on 19 February and is due to end on 9 March.

6.4 In the first year of the Strategy we plan to develop a Resident Engagement Plan. In the meantime, we will look at the ongoing governance arrangements for monitoring performance against the actions identified in the Strategy, including stakeholder and key partner engagement. Full details of this will be included in the final strategy.

7. Implications

7.1 Financial implications:

There are no financial implications arising directly from the report, however implementation of achieving net zero carbon over the 2020-2030 period will require significant revenue and capital investment that will require funding to be identified.

7.2 Legal Implications:

There are no legal implications arising directly from this report. Legal advice and support will be provided as the council uses its various powers to develop and implement policies and projects to deliver its Net Zero Carbon Strategy. However the initial public consultation process needs to be started prior to the 'purdah' period associated with the GLA elections in May 2020 which starts on 23rd March 2020.

7.3 Environmental Implications and contribution to achieving a net zero carbon Islington by 2030

The aim of this strategy is to reduce Islington's carbon emissions to net zero by 2030 meaning that this is the single most important strategy in terms of environmental implications.

7.4 Resident Impact Assessment:

The council must, in the exercise of its functions, have due regard to the need to eliminate discrimination, harassment and victimisation, and to advance equality of opportunity, and foster

good relations, between those who share a relevant protected characteristic and those who do not share it (section 149 Equality Act 2010). The council has a duty to have due regard to the need to remove or minimise disadvantages, take steps to meet needs, in particular steps to take account of disabled persons' disabilities, and encourage people to participate in public life. The council must have due regard to the need to tackle prejudice and promote understanding.

A Resident Impact Assessment will be carried out on the final Net Zero Carbon Strategy and will accompany it when the strategy is presented to Executive for adoption.

8. Reason for recommendations

- 8.1 To enable the draft net zero carbon strategy to progress to an initial stage of public consultation and stakeholder engagement prior

Appendices

- Appendix 1: Draft Net Zero Carbon Strategy

Final report clearance:

Signed by:



19 February 2020

Councillor Rowena Champion, Executive Member for Environment and Transport Date

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