

APRIL 2025 – MARCH 2026



PROGRESS TOWARDS NET ZERO 2035:

ANNUAL CARBON EMISSIONS AND PROGRAMME UPDATE.

SERVING PEOPLE, IMPROVING LIVES

1. Background

Newark & Sherwood District Council (NSDC) declared a Climate Emergency at the Full Council meeting on 16th July 2019, initially aligning with the UK Government's 2050 net zero target.

In 2020, the Council worked with the Carbon Trust to develop a Climate Emergency Action Plan and agreed the 2035 carbon neutrality target, along with a pipeline of interventions.

The agreed scope excludes council housing from the formal target, though it remains within the Council's wider programme of action.

Updates to the Council's asset base include the addition of new sites (ASI Car Park, Newark Hospital Car Park and St Mary Church Gardens) along with the removal of Southwell Leisure Centre.

Since the development of the original Climate Emergency Action Plan, the Council has progressed its approach to delivery through the establishment of a coordinated Carbon Programme.

This provides a structured framework for managing and monitoring climate-related activity across the organisation, bringing together projects, data, and reporting into a single programme of work aligned to the Council's Net Zero 2035 target.

2. Emissions Update and Analysis - 2025/26

NSDC's corporate emissions for agreed in scope activities for 2025/26 are **2,542.7 tCO₂e** representing a **12.4% reduction** compared with 2024/25.

The Council's emissions have reduced year-on-year over the past three years, demonstrating a clear downward trajectory.

This reflects a combination of the impact of carbon reduction activity and operational factors, providing a clear indication of the Council's trajectory towards its Net Zero 2035 target.

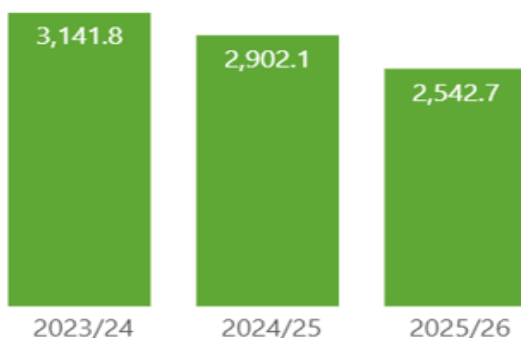


Figure 1: Emissions by financial year tCO₂e

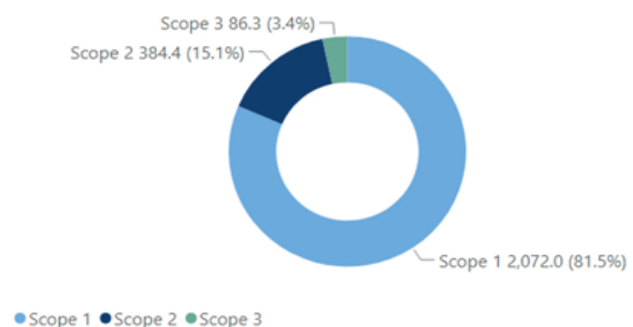


Figure 2: 2025/2026 Emissions by scope

Based on the Council's latest emissions position for 2025/26, a projected trajectory to achieve Net Zero by 2035 has been established.

This trajectory will be reviewed and updated annually to reflect the Council's latest emissions data, progress, and emerging opportunities for carbon reduction.

As emissions continue to decrease over time, the required annual reduction pathway will be adjusted accordingly.

The trajectory provides a clear benchmark for the scale and pace of emissions reductions required and will help inform future priorities and investment decisions.

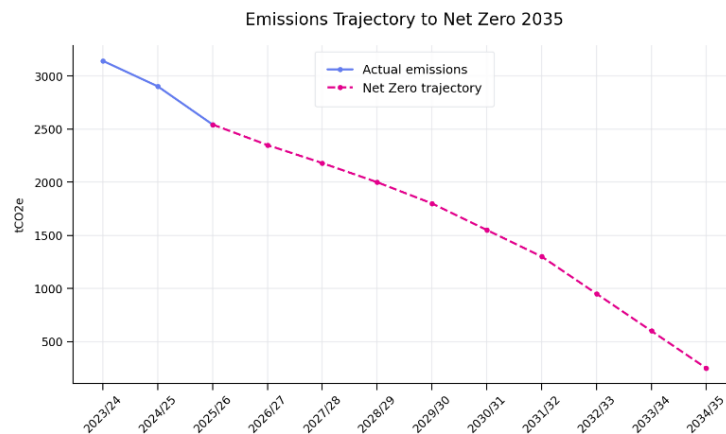


Figure 3: Net zero trajectory

Emissions Breakdown

Emissions are categorised into three scopes: Scope 1 (direct emissions from owned sources), Scope 2 (indirect emissions from purchased energy), and Scope 3 (all other indirect value chain emissions).

The Council's emissions profile continues to be dominated by Scope 1 emissions, which account for approximately 80% of total emissions.

These are primarily associated with fuel use across fleet and operational activities, along with gas consumption for heating buildings.

Scope 2 emissions (electricity use) make up a smaller but still significant proportion, while Scope 3 emissions remain relatively limited within the current reporting boundary.

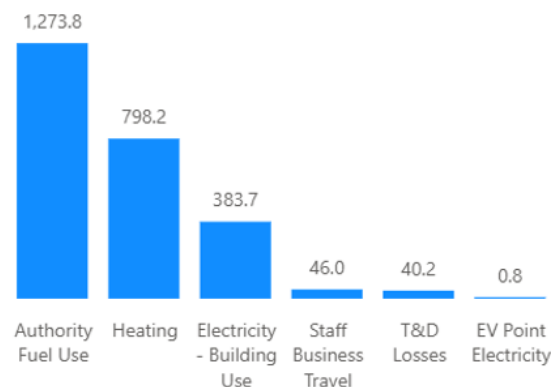


Figure 4: 2025/2026 Emissions by category tCO₂e

Analysis of emissions by source shows that the Council's carbon footprint is largely driven by 3 key areas:

- Diesel fuel use remains the single largest contributor
- Gas consumption for heating is the second most significant source
- Electricity use represents a smaller but notable proportion

Diesel consumption

Diesel consumption across the Council's fleet increased from 488,514 litres in 2024/25 to 495,492 litres in 2025/26, an increase of approximately 1.4%, reflecting sustained demand from frontline services. Diesel remains the Council's largest individual source of emissions.

During 2025/26, Environmental Services serviced approximately 3.7 million bins across the district. Demand for waste and recycling services also continued to grow, with garden waste subscriptions increasing from 21,678 in 2024/25 to 22,253 in 2025/26, and kerbside glass collections rising from 2,108 tonnes in 2024/25 to 2,302 tonnes in 2025/26.

These figures provide additional context for the scale of frontline operational activity supported by the Council's fleet. While refuse and cleansing vehicles account for less than half of fleet assets, they remain the most fuel-intensive operations and continue to be the largest contributor to fleet emissions.

Waste Management uses Routeware route optimisation software to support the design and review of waste collection rounds, helping to identify the most efficient and cost-effective routes for service delivery. The software analyses factors such as property locations, road networks, vehicle capacities, traffic conditions and collection frequencies, recognising that the shortest route is not always the most effective operationally. While reducing vehicle mileage, fuel consumption and associated carbon emissions can be a co-benefit of route optimisation, its primary purpose is to improve service efficiency and reliability. As the district continues to grow and new housing developments are brought into service, the software also helps the Council adapt collection rounds and make the best use of staff and vehicle resources. Further work is planned to explore how the Council can make greater use of the software's functionality, which may identify additional operational efficiencies and environmental benefits.

Lower Carbon alternative to diesel - EV

The use of gas oil has now ceased across the fleet, while EV charging increased from 12,774 kWh in 2024/25 to 13,994 kWh in 2025/26. This reflects increasing use of electric vehicles and equipment within Council operations. However, diesel remains the dominant source of fleet emissions, highlighting the importance of further fleet decarbonisation and investment in lower-carbon alternatives where feasible.

However, achieving more significant emissions reductions will require further expansion of EV adoption, supported by investment in charging infrastructure and the development of viable low-carbon solutions for larger operational vehicles.



Figure 5: EV usage kWh – fleet

This reinforces the importance of fleet decarbonisation, alongside opportunities to improve operational efficiency through route optimisation. Reducing unnecessary mileage and duplicated journeys can deliver meaningful emissions savings without increasing service demand.

Lower Carbon alternative to diesel - HVO

The Council will continue to explore the use of alternative fuels, including Hydrotreated Vegetable Oil (HVO), to support the transition to a lower-carbon fleet, particularly where full electrification is not yet viable. Members have previously approved the use of HVO to reduce emissions from the operational fleet. While implementation has been paused due to ongoing fuel price volatility and the higher cost of HVO compared with conventional diesel, HVO remains a significant opportunity to achieve substantial emissions reductions. The relative cost of HVO compared with diesel continues to fluctuate in response to market conditions, and the financial implications of implementation are therefore being kept under review.

Introducing HVO across the fleet would create a step-change in emissions reduction, improving the Council's trajectory and accelerating progress towards the Net Zero 2035 target. As illustrated in Figure 6, the use of HVO has the potential to bring forward emissions reductions and place the Council on a lower overall emissions pathway while longer-term fleet decarbonisation options continue to be developed.

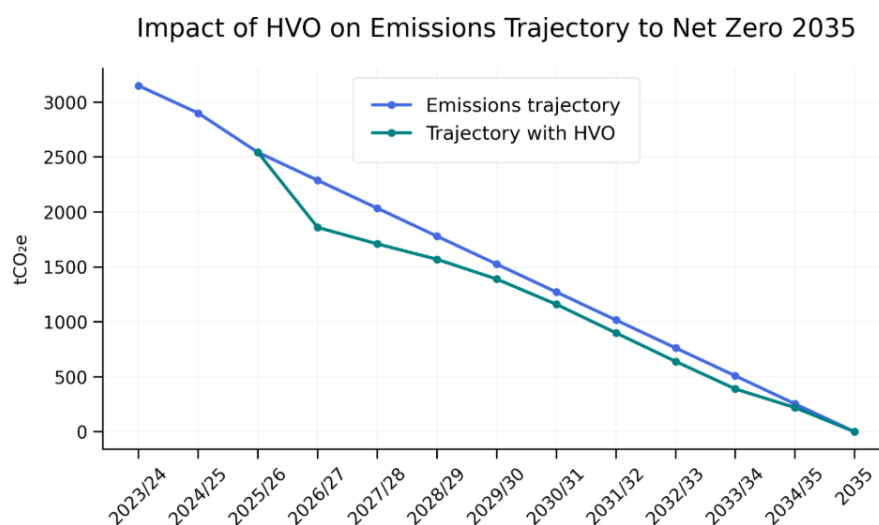


Figure 6: Net zero trajectory with HVO

Gas

Gas consumption has reduced year-on-year, reflecting both operational changes and ongoing work to improve building efficiency. However, it remains a significant contributor to emissions.

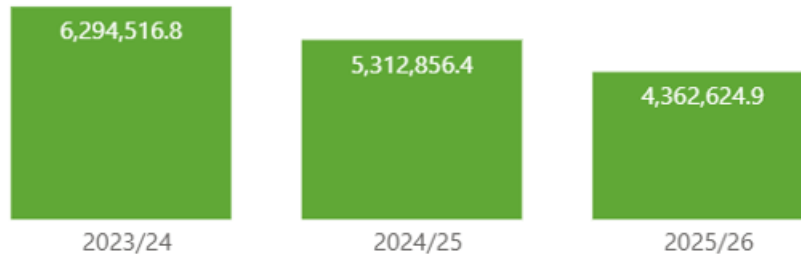


Figure 7: Gas consumption kWh by financial year

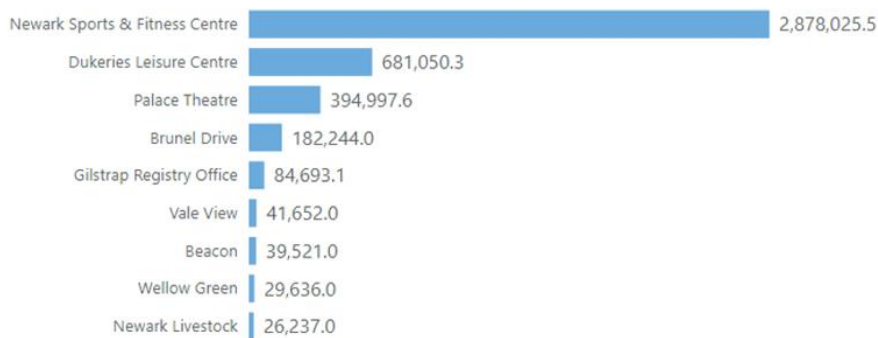


Figure 8: Gas consumption kWh by site

Gas consumption remains concentrated within a small number of operationally intensive sites, with Newark Sports & Fitness Centre accounting for the largest share due to its larger scale and more energy-intensive operation, including two swimming pools and extensive leisure facilities.

The overall reduction compared to the previous year reflects improved efficiency and changes to the Council's asset base, including the removal of Southwell Leisure Centre from reporting.

Despite this, the distribution of demand remains largely unchanged, with emissions continuing to be driven by a small number of high-use buildings. Newark Sports & Fitness Centre is also the Council's largest generator of on-site solar electricity, demonstrating that the sites with the highest operational energy demand also present the greatest opportunities for renewable energy generation.

Electricity

Consumption has reduced year-on-year, falling from 2,875,248 kWh in 2023/24 to 2,167,576 kWh in 2025/26, equating to a reduction of approximately 700,000 kWh (25%); however, it remains a significant emissions source.

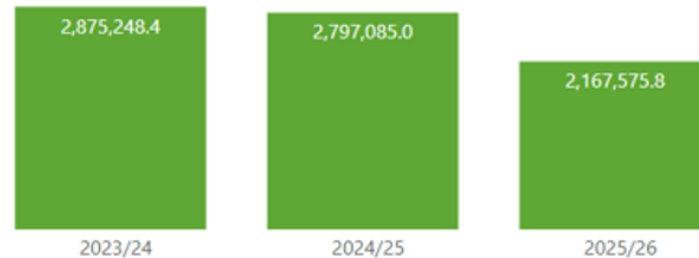


Figure 9: Electric consumption KWh by financial year

Demand continues to be concentrated across a small number of high-use operational sites, particularly leisure facilities such as Newark Sports & Fitness Centre, reflecting their energy-intensive use and extended operating hours. This reduction indicates improved performance across the estate, although underlying demand at key sites remains high.

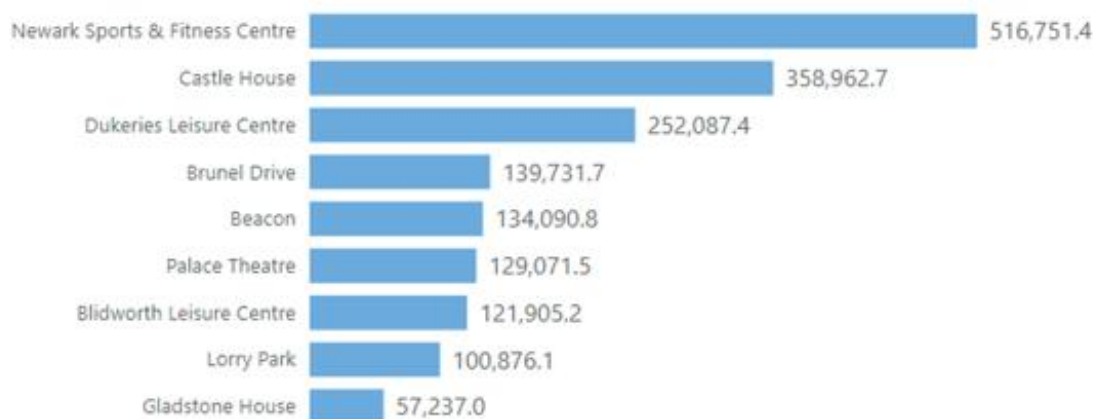


Figure 10: Electric consumption KWh by site

From April 2026, the Council transitioned to a renewable electricity tariff backed by Renewable Energy Guarantees of Origin (REGOs), aligning purchased electricity with certified renewable generation.

While this change falls outside the current reporting period, it is expected to eliminate the Council's reported Scope 2 electricity emissions under market-based carbon accounting methodologies from 2026/27 onwards. This reflects a change in electricity procurement rather than a reduction in electricity consumption.

The Council will continue to monitor electricity consumption to support energy efficiency, cost reduction and effective management of the estate.

Figure 11 illustrates the potential impact on the Council's reported emissions trajectory, reducing the baseline from which future reductions will be measured. If the renewable electricity tariff had been in place during 2025/26, the Council's reported emissions would have reduced by 384.4 tCO₂e, from 2,542.7 tCO₂e to 2,158.3 tCO₂e.

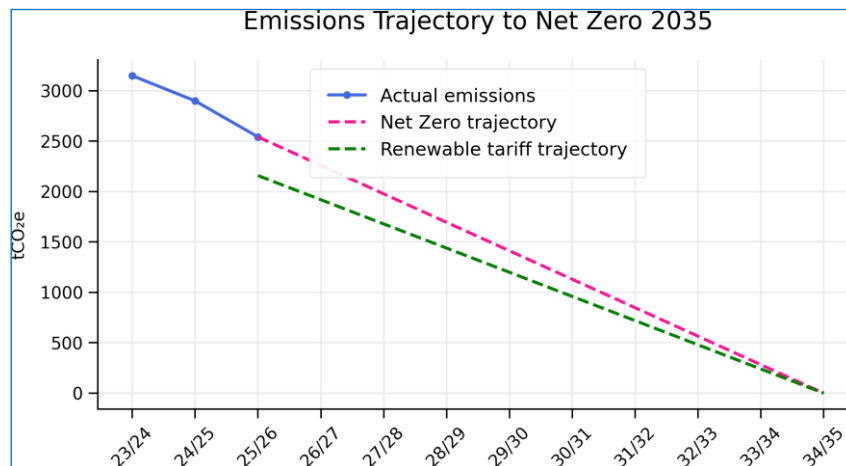


Figure 11: Net Zero trajectory assuming renewable electricity tariff (market-based reporting)

This reduction reflects the procurement of certified renewable electricity rather than a reduction in electricity consumption and should therefore be considered alongside ongoing efforts to improve energy efficiency across the estate.

Solar

Solar generation used on site has increased significantly year-on-year, rising from 84,921 kWh in 2024/25 to 360,002 kWh in 2025/26.

This reflects the rapid expansion of solar PV across the Council's estate, with major contributions from sites including Newark Sports and Fitness Centre and Alexander Lodge.

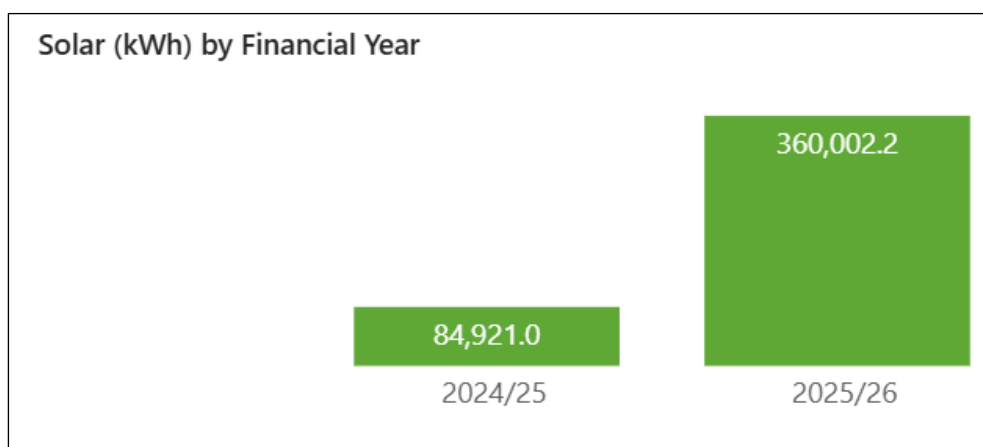


Figure 12: Solar generation used on site kWh by financial year

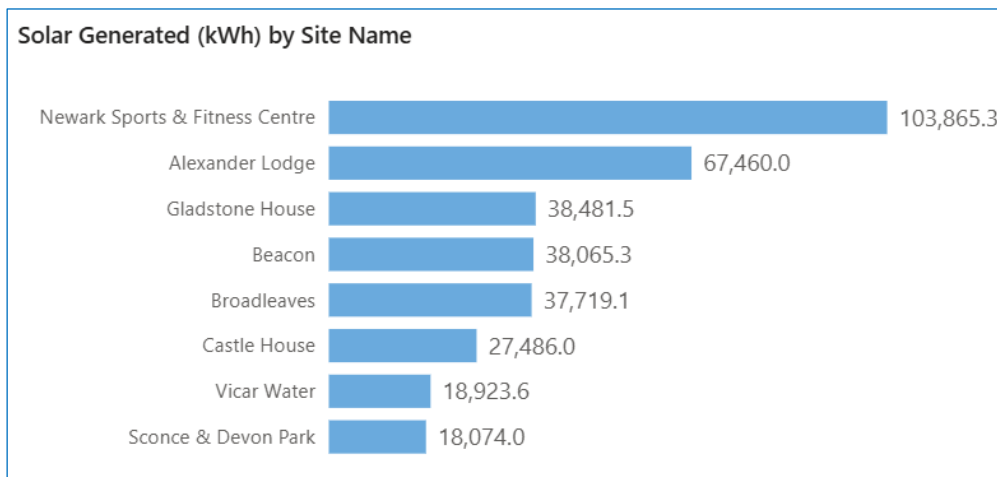


Figure 13: Solar generation used on site by site

This increase in on-site renewable energy is reducing reliance on grid electricity and supporting sustained emissions reduction.

The fourfold growth in the use of electricity from solar generation demonstrates the increasing impact of on-site renewable energy across the Council's operational estate and is broadly equivalent to the annual electricity use of several hundred typical homes.

3. Progress Since Last Report

The Council's carbon reduction programme is now managed through a structured Carbon Programme, aligning strategy, delivery and reporting within a clear framework for monitoring progress towards the Net Zero 2035 target. Activity spans corporate buildings, housing, transport, biodiversity, waste and engagement, reflecting a coordinated, council-wide approach to carbon reduction. This approach is supported by robust governance arrangements and a recent internal audit, which provided Substantial Assurance in Appendix 2.

Progress has continued across a range of projects, including solar PV, housing decarbonisation and tree planting programmes, alongside initiatives that encourage lower-carbon behaviours.

Climate-related activity is increasingly embedded within existing operational and capital programmes, with services leading delivery as part of business-as-usual activity rather than through standalone projects.

Further progress has also been delivered across Street Scene and grounds maintenance activities, including the introduction of electric equipment, reduced chemical use, more sustainable planting practices and increased reuse of green waste. These changes demonstrate how sustainability and carbon reduction are increasingly being embedded within day-to-day service delivery and operational decision-making.

4. Wider Carbon Reduction Activity and Embedded Delivery

In parallel, wider Council activity continues to contribute towards climate targets through both targeted measures and the co-benefits of broader activity.

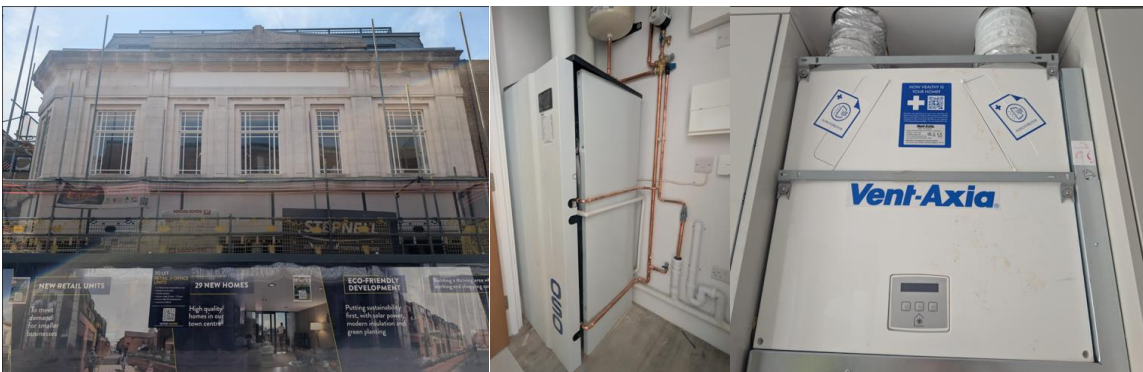
Housing Retrofit

This includes delivery of housing retrofit programmes, supporting the upgrade of council homes towards EPC Band C through a fabric-first approach. During 2025/26, the Council secured £5.5 million of funding over two years to support housing energy efficiency improvements and retrofit projects, prioritising homes with the lowest EPC ratings

Stodman Street Regeneration

Developments such as Stodman Street demonstrate how low carbon design can be integrated within town centre regeneration, combining the reuse of an existing building with modern, energy-efficient construction. The scheme will deliver 29 residential units alongside new retail space, incorporating sustainability measures including solar PV, enhanced insulation and a commitment to recycle up to 90% of materials removed from site.

In addition, the development includes 28 air source heat pumps providing heating and cooling to residential units, mechanical ventilation systems to support energy efficiency and indoor air quality, and infrastructure for electric vehicle charging. Fabric-first improvements are being delivered through enhanced insulation and innovative glazing solutions, allowing the original heritage façade to be retained while improving thermal performance. The development also reflects the use of local supply chains during delivery, supporting wider sustainability benefits.



Figures 14: Stodman Street regeneration

While still under construction, the scheme provides a strong example of how low carbon technologies and retrofit approaches can be integrated within complex regeneration projects, supporting reduced operational emissions alongside wider sustainability and place-based outcomes.

Alexander Lodge

Alexander Lodge has been developed to provide high-quality, low carbon temporary accommodation. While carbon reduction was not the primary driver, the scheme demonstrates how delivering improved accommodation standards can also deliver significant environmental and operational benefits.

The 20-unit development replaces outdated facilities with a modern, energy-efficient scheme incorporating enhanced building fabric, shared energy infrastructure and on-site renewable generation.

A roof-mounted solar photovoltaic system, supported by battery storage, generated over 67,000 kWh of electricity during 2025/26, exceeding initial design expectations and reducing reliance on grid energy. This is estimated to deliver carbon savings of approximately 15 tCO₂e per year.



Figures 15: Alexander Lodge

The scheme also includes a shared plant room approach, reducing boiler requirements and associated maintenance, alongside an inclusive utilities model which enables predictable energy costs for residents. Since opening in 2024, the development has supported over 160 households, providing safe, warm and affordable accommodation.

As the first full year of operation, 2025/26 provides an early indication of the scheme's performance, demonstrating how low carbon design can be effectively integrated into service delivery, with co-benefits for cost, resilience and resident wellbeing.

This project has also been submitted for external recognition through a sustainability award scheme, reflecting the quality and impact of delivery.

Tree Planting and Biodiversity

During 2025/26, approximately 110,000 trees were planted across Newark and Sherwood through a combination of Council, partner and externally funded schemes. Of these, around 34,000 trees were directly supported through NSDC-funded planting initiatives at sites including Thorney Abbey and Little Carlton. Together, these projects will deliver a range of long-term environmental benefits, including enhanced biodiversity, increased carbon sequestration, improved soil stability, natural flood management and greater climate resilience across the district.



Figure 16: Tree planting at Holme End Barn

Building on this work, a project has also been developed to increase urban tree canopy cover within Hawtonville in response to national data published in 2024.

Delivered in partnership with the Woodland Trust, Greenwood Community Forest, Reach Learning Disability and the local community, the first phase of the project will see 18 trees planted at key locations across the estate.

Waste and Recycling

Improvements to waste and recycling services, including the implementation of the changes outlined in the governments 'Simpler Recycling' policy from April 2026.

This increases the range of materials that can be recycled from the kerbside and follows the introduction of a kerbside glass collection in April 2024. This is supporting carbon reduction by increasing recycling rates and reducing waste to landfill or energy recovery.

5. Training and behaviour change

Initiatives such as Green Rewards have supported wider community engagement within Newark and Sherwood, with over 700 households participating and delivering more than 66,000 low-carbon actions, contributing to an estimated 157 tonnes of CO₂e savings since launch to March 2026.

Residents are using

Green Rewards to share biodiversity sightings, such as a European hornet recorded at Rufford Abbey Park, helping to build awareness of local wildlife.

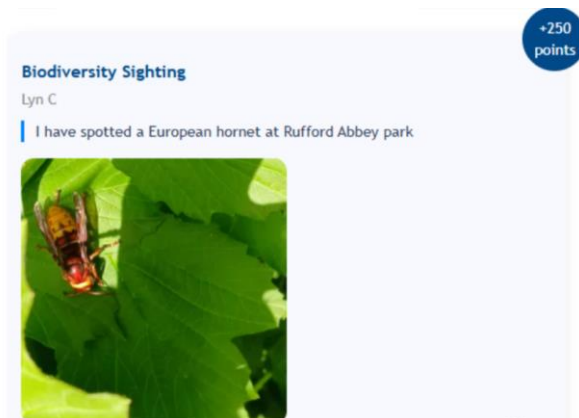


Figure 17: Extract from Green Rewards dashboard

In addition, a new internal climate e-learning module has been developed in house and launched to support staff awareness and encourage lower carbon behaviours across the organisation.

Uptake continues to grow, helping to embed lower carbon considerations into day-to-day decision-making both at work and at home.

These initiatives support the wider embedding of climate considerations across the organisation and community, reinforcing behavioural change alongside physical delivery.

6. Next Steps and Planned Activity

NSDC will continue to coordinate carbon reduction activity across services, building on progress made to date and supporting delivery of the Council's Net Zero 2035 target.

With an updated emissions baseline and improved understanding of key emission sources, the next phase of the programme will focus on accelerating activity in areas with the greatest potential to support emissions reduction. This includes the operational fleet, where further work will explore opportunities to maximise the functionality of route optimisation software, improve service efficiency and increase the use of alternative fuels such as Hydrotreated Vegetable Oil (HVO). These activities may also deliver additional fuel and carbon savings while supporting the effective delivery of frontline services. Continued investment in solar and battery storage, housing retrofit, biodiversity, transport and wider decarbonisation initiatives will also continue. Strategic work with EMCCA and other partners through the Local Area Energy Plan (LAEP) will continue to inform future investment decisions, strengthen the evidence base for action and support long-term decarbonisation across the district.

Independent assurance confirms a credible pathway towards the 2035 target, supported by established governance arrangements, improved data and a more coordinated approach to delivery.

The focus now is on maintaining momentum and accelerating action in the areas capable of delivering the greatest emissions reductions

Comparative Net Zero Trajectories

Two significant opportunities have been identified to accelerate progress towards the Council's Net Zero 2035 target: the transition to a renewable electricity tariff from April 2026 and the potential introduction of HVO. While the accounting methodologies, the operational fleet remains the Council's largest source of emissions and therefore presents renewable tariff is expected to eliminate reported Scope 2 electricity emissions under market-based carbon the greatest opportunity for carbon reduction.

Figure 18 illustrates the potential impact of introducing a renewable electricity tariff and Hydrotreated Vegetable Oil (HVO), both individually and in combination. While the renewable electricity tariff would significantly reduce reported Scope 2 emissions, HVO has the potential to deliver the greatest overall reduction due to the significant contribution of fleet diesel consumption to the Council's emissions profile. Together, these measures could deliver a substantial step-change in emissions reduction and significantly accelerate progress towards the Net Zero 2035 target.

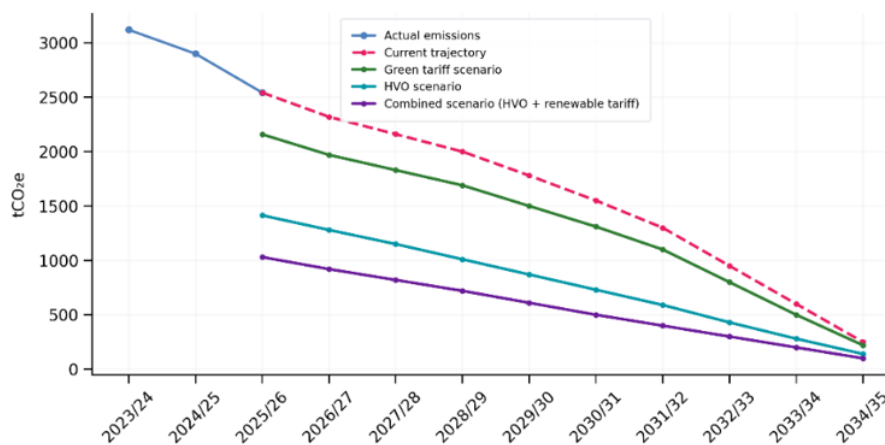


Figure 18: Comparative Net Zero trajectories

6. Conclusion

Overall, the Council's 2025/26 emissions position demonstrates continued progress towards the Net Zero 2035 target, supported by stronger governance, improved data and a more coordinated approach to delivery.

Significant progress has been made across renewable energy, housing retrofit, biodiversity and wider operational activity, with climate action increasingly embedded within service delivery.

While further reductions will require sustained effort, the Council is well placed to accelerate progress and continue supporting wider net zero ambitions through collaboration with EMCCA and partner authorities.