A Comprehensive Assessment of Green Planning Initiatives Across Yorkshire's Ridings

I. Executive Summary

Green planning initiatives across Yorkshire's three Ridings—West, North, and East—demonstrate a complex landscape of ambitious targets, varied implementation successes, and persistent challenges. While urban centers like Leeds, Sheffield, and York have declared climate emergencies with aggressive net-zero deadlines, their progress is often hampered by funding constraints, internal governance issues, and public perception challenges regarding infrastructure changes. Rural areas, including parts of North and East Yorkshire, face distinct geographical and demographic hurdles, yet exhibit innovative approaches to renewable energy and climate adaptation.

A critical examination reveals recurring patterns: a disconnect between aspirational policy and practical execution, particularly in transport and waste management; the prevalence of "greenwashing" concerns, both from corporate actors and, at times, within council communications; and the pervasive "Not In My Backyard" (NIMBY) phenomenon impacting renewable energy deployment. Despite these challenges, significant positive developments include the demonstrable success of electric public transport in driving modal shift, strategic repurposing of brownfield sites for green infrastructure, and the growing recognition of nature-based solutions.

The analysis underscores the necessity for integrated, transparent, and community-centric green planning. Future efforts must prioritize robust funding mechanisms, adaptive infrastructure design that addresses local concerns, and sustained public education to bridge the gap between ambition and tangible environmental outcomes across Yorkshire.

II. Introduction

The imperative for robust green planning has intensified across the United Kingdom, with local authorities playing a pivotal role in translating national climate ambitions into actionable strategies. Yorkshire, a region diverse in its urban metropolises, historic towns, and expansive rural landscapes, presents a compelling case study for examining the multifaceted nature of these initiatives. This report provides a comprehensive and critical assessment of green planning efforts across all three of Yorkshire's administrative Ridings: West Yorkshire, North Yorkshire, and East Yorkshire.

The scope extends beyond mere policy enumeration to delve into the practical implementation of climate action plans, sustainable transport networks, waste management strategies, and renewable energy projects. A particular focus is placed on discerning the effectiveness of these initiatives, identifying areas where planning may be lacking or where efforts, despite good intentions, might be misdirected. The analysis aims to offer an objective perspective, acknowledging that any concerted effort to address environmental challenges, even if imperfect, is a step forward from inaction. By scrutinizing the successes, shortcomings, and underlying

complexities, this report seeks to provide valuable insights for policymakers and stakeholders committed to fostering a greener, more resilient Yorkshire.

III. West Yorkshire: Urban Green Planning Initiatives and Challenges

West Yorkshire encompasses a dynamic blend of major cities and interconnected towns, each navigating the complexities of urban decarbonization and sustainable development. The region's green planning efforts are characterized by ambitious targets, significant infrastructure projects, and the inherent challenges of transforming dense urban environments.

A. Leeds City Region

Leeds, as a prominent urban hub, has positioned itself with forward-looking environmental commitments, yet faces considerable hurdles in their comprehensive realization.

Climate Action Plans & Net-Zero Targets: Progress and Gaps

Leeds City Council (LCC) formally declared a Climate Emergency in March 2019, setting an ambitious goal for the city to achieve carbon neutrality by 2030. This target significantly predates the UK's national 2050 net-zero commitment, signaling a strong local commitment to climate action. The University of Leeds aligns with this ambition, also targeting Net Zero by 2030, and has reported a 5.9% decrease in its Scope 1 and 2 emissions between 2021/22 and 2022/23.

However, an independent assessment through the Climate Action Scorecard (March 2025) reveals a nuanced picture of LCC's progress. The council's overall score slightly declined from 53% in 2023 to 50% in 2025. While the Buildings & Heating section showed improvement (from 43% to 61%), with notable progress in retrofitting significant council buildings and a concrete plan for council homes by 2030, a critical gap remains in a costed target for retrofitting all significant council buildings (excluding homes). Furthermore, the council's operations are not yet powered by renewable energy, scoring 0/2 in this area.

A significant area of concern lies within the Transport section, which experienced a drastic decline from 27% in 2023 to a mere 5% in 2025. This precipitous drop is partly attributed to a 28% penalty incurred for the approval or expansion of a high-carbon transport project since 2020, alongside persistent issues with NO2 and PM2.5 levels exceeding WHO guidelines. This suggests a notable discrepancy between the council's aspirational net-zero target and its actual performance in a key emissions sector. While the policy intent is strong, the practical implementation and the consequences of certain strategic decisions appear to be undermining overall progress in transport.

Conversely, the Planning & Land Use section maintained a high score of 92%, indicating that net-zero targets are strategically embedded in the Local Plan, with requirements for new homes to be operationally net-zero and approvals for renewable energy planning applications. This highlights a more consistent and effective approach in shaping future development. The Governance & Finance section, however, also saw a decline (from 56% to 36%), with concerns raised about the council's reporting on its own greenhouse gas emissions (scoring 0/1) and a reported lack of reduction in these emissions since 2019 (scoring 0/4). This raises questions about internal accountability and the transparency of the council's own decarbonization efforts.

While there is a stated aim to set an example by purchasing renewable electricity and replacing vehicles , the scorecard data suggests that the internal reporting of their own GHG emissions is inadequate, and actual reductions in these emissions are not evident. This situation could lead to a perception that the council's internal environmental performance is not as robust as its public image suggests, potentially leading to a form of misleading green claims.

Sustainable Transport: Cycling Infrastructure, Electric Buses, and Modal Shift

Leeds's Transport Strategy articulates a vision for the city where car ownership is not a necessity, directly supporting efforts to reduce carbon emissions. Public sentiment aligns strongly with this direction; a YouGov poll revealed overwhelming support (79%) among Leeds residents for measures to curb car emissions and usage, with specific backing for additional cycle lanes (58%) and bus lanes (60%).

In line with these preferences, Leeds has seen the introduction of Leeds City Bikes, which stands as the UK's largest all-electric docked bike hire scheme. Efforts are also underway to enhance the cycling network by linking existing routes and addressing critical barriers like bridge crossings, with the broader aim of reducing reliance on private vehicles and contributing to the Leeds City Region's net-zero carbon commitment by 2038.

The public transport sector has also seen investment, with First Bus launching a fleet of nine electric buses in Leeds in October 2020. This initiative, backed by a £7.3 million investment including £1.7 million from the Department for Transport's Ultra-Low Emission Bus Scheme, projects an annual saving of 45 tonnes of CO_2 emissions per bus. However, the long-term financial viability of such electric bus fleets without sustained government support has been questioned, with high upfront costs and daily operational expenses posing significant economic challenges. This suggests that while the environmental benefits are clear, the economic model for widespread electric bus adoption remains heavily dependent on external financial assistance.

The considerable public support for reducing car use and expanding active travel options stands in stark contrast to the decline observed in the Transport section of Leeds City Council's Climate Action Scorecard. This disparity indicates that despite a clear public mandate and strategic intent, the actual implementation or the measurable impact of transport initiatives may not be meeting expectations, or perhaps certain decisions are counteracting the progress made in other areas. The penalty for a "high carbon transport project" further highlights a potential conflict in priorities or an oversight in integrated planning that could undermine the overall objective of reducing car dependency.

Waste Management: Recycling Rates, Waste-to-Energy, and Circular Economy Efforts

Leeds has made notable strides in waste management, having successfully doubled its domestic household waste recycling rate to approximately 39% and significantly reducing the amount of household waste sent to landfill to less than 3%. A key component of this strategy is the Recycling and Energy Recovery Facility (RERF) at Cross Green. This facility processes non-recyclable household waste, generating heat and electricity for social housing and businesses via the Leeds PIPES network. The RERF is designed to extract up to 2% of waste for recycling and operates within stringent UK and EU emissions standards, producing around 13MW of electricity, sufficient to power 22,000 homes. Additionally, the ash generated from the energy recovery process is recycled into construction aggregate, replacing quarried materials.

The city's overarching ambition is to become a "world leader in eliminating unnecessary waste," focusing on reducing excess consumption, maximizing resource recovery, and promoting reuse. Positive trends are evident in food waste reduction, with the average household food waste decreasing from 190kg in 2021 to 145.7kg in 2023/2024.
Despite these achievements, Leeds City Council's Climate Action Scorecard points to a low area-wide annual recycling rate (scoring 0/3) and the absence of kerbside food waste recycling. While domestic food waste collections are anticipated from late April 2026, their implementation remains contingent on national policy and funding. This suggests that while Leeds excels in diverting waste from landfills and generating energy from residual waste, there is a substantial opportunity to improve primary source separation and collection to elevate overall recycling rates. The current approach, while effective in managing post-collection waste, may not fully optimize resource recovery at the household level, indicating a need for more comprehensive upstream strategies to prevent contamination and encourage greater recycling participation.

Critique and Greenwashing Concerns in Sustainable Development Projects

The commitment to sustainable development in Leeds is evident in various projects, yet some initiatives and claims warrant closer scrutiny, particularly regarding the potential for misleading green claims. Leeds Beckett University's Sustainable Packaging Project, for instance, aims to significantly improve sustainability in the packaging industry by 2034, but critically emphasizes the need for legislation to precisely define and curb greenwashing by the industry itself. This highlights a broader awareness within academic and industry circles of the deceptive practices that can undermine genuine environmental efforts.
Within Leeds City Council's own portfolio, the Local Plan outlines policies for net-zero carbon buildings, encouraging the reuse of existing structures, and mandating whole life-cycle carbon assessments for major developments. However, the council acknowledges that achieving truly "zero carbon" (including offsetting) for new developments is "unlikely to be achievable in the short-term". This pragmatic assessment, while realistic, points to a potential gap between the aspirational target and the current feasibility or political will to enforce the most stringent standards immediately. Such a nuanced position, if not clearly communicated, could be perceived as a form of diluted ambition, where the long-term goal is maintained but immediate, impactful steps are deferred.
A notable instance attracting criticism occurred in 2011, when Leeds City Council faced accusations of "environmental crime" for permitting temporary "clean advertising" on city pavements. This involved cleaning advertising images into dirty pavements, an activity that, while seemingly benign or even "green," was widely condemned as profiting from an action akin to illegal graffiti or defacing public spaces. This example serves as a potent illustration of a misdirected effort, where a superficial "green" veneer was applied to a commercial venture, ultimately detracting from genuine environmental integrity and public trust. It underscores the importance of scrutinizing initiatives that prioritize perceived environmental benefits over fundamental principles of urban aesthetics and environmental responsibility.
These instances collectively suggest that while Leeds is making strides in certain areas of green planning, there is a need for consistent vigilance against practices that could be interpreted as misleading, and a transparent articulation of the practical challenges in achieving ambitious targets.

B. Sheffield City Region

Sheffield, known for its industrial heritage and green spaces, has embraced ambitious climate targets, demonstrating both significant progress and areas requiring further attention.

Climate Action Plans & Net-Zero Targets: Ambitions vs. Reality

Sheffield City Council declared a climate emergency in February 2019, setting a highly ambitious target to achieve net zero greenhouse gas emissions for both the council and the city by 2030. This target is significantly more aggressive than the UK government's national 2050 goal.

The 2025 Climate Action Scorecard provides an assessment of Sheffield's progress, showing an overall score of 46%, an increase from 42% in 2023. While this indicates some positive movement, a deeper dive into the sectional scores reveals persistent challenges. The Buildings & Heating section experienced a decline from 67% in 2023 to 58% in 2025, with a notable regression in the council's commitment to a costed target for retrofitting all council-owned and managed homes (dropping from a full score of 3/3 in 2023 to 0/3 in 2025). This suggests that while the council has undertaken some retrofit work, the comprehensive, costed planning for its entire housing stock is either lacking or has been deprioritized.

The Transport section, despite a slight improvement from 21% to 26%, remains a low-scoring area. Although Sheffield has successfully implemented a Clean Air Zone (CAZ) in the city centre, which resulted in a 16% reduction in NO2 within the CAZ and a 21% reduction across the wider district in 2023, the city still incurs a 10% penalty for PM2.5 levels exceeding WHO guidelines. Furthermore, the council's own vehicle fleet transition to electric vehicles scored 0/2, indicating slow progress in electrifying its internal operations.

In contrast, the Planning & Land Use section showed positive growth, increasing from 67% to 73%. This reflects the council's policy requiring new homes to be operationally net-zero and its approval of numerous renewable energy planning applications. The Biodiversity section also saw a significant improvement, rising from 23% to 43%, with a commitment to increasing tree cover and employing a planning ecologist.

However, the Governance & Finance section declined from 24% to 21%. A critical observation here is the council's continued failure to effectively report on its own greenhouse gas emissions (scoring 0/1) and a reported lack of reduction in these emissions since 2019 (scoring 0/4). This raises serious questions about the council's internal accountability and transparency regarding its own carbon footprint. While the city has an ambitious 2030 net-zero target, the lack of demonstrable progress in reducing its own direct emissions suggests a gap between strategic intent and operational execution.

The Annual Climate Action Report for 2022/23 highlights that national policy, legislation, and funding have not been delivered at the necessary pace and scale, and core funding for Sheffield City Council has significantly reduced since 2010. These external factors undoubtedly constrain the council's ability to meet its aggressive targets, particularly in areas like retrofitting council homes. This situation implies that while the ambition is commendable, the efforts may be constrained by external support and internal capacity, making the 2030 target exceptionally challenging to achieve without a fundamental shift in national support or local resource allocation.

Sustainable Transport: Active Travel Promotion and Electric Fleet Adoption

Sheffield's "10 Point Plan for Climate Action" and its "Walking, Wheeling and Cycling Investment Plan" underscore a commitment to making active travel more accessible and safer, with the aim

of reducing car use for shorter journeys and improving urban air quality.
A notable success in public transport is the "Sheffield Connect" service, a free, fully electric bus network that was relaunched in March 2024. This initiative has seen remarkable uptake, with passenger numbers more than doubling in a year, reaching over 78,000 since its relaunch. Specifically, Route 1 saw an increase from 16,500 passengers before electrification to 40,000 afterwards. This substantial increase in ridership demonstrates that providing high-quality, reliable, and accessible public transport can effectively drive modal shift away from private car use, contributing directly to emissions reduction and improved air quality. This positive outcome is supported by significant investment, including £20 million in government funding and an additional £11 million from Sheffield City Council, specifically for bus fleet electrification. Currently, 27 zero-emission buses are operational across South Yorkshire.
However, the integration of cycling infrastructure presents a more complex picture. While research suggests that pro-cycling interventions can lead to energy savings and reduced car use , public opinion on cycle lanes in Sheffield is mixed. Concerns about increased congestion, perceived underuse, and safety issues are prevalent. Evidence indicates that simply installing cycle lanes is insufficient; the success of active travel initiatives hinges on the creation of connected, protected networks that genuinely enhance safety and appeal. If infrastructure is poorly designed or perceived as unsafe, it can deter potential cyclists and undermine the intended modal shift. This highlights a need for more meticulous planning and public engagement to ensure that active travel investments yield their full potential benefits and are not seen as misdirected efforts.

Waste Management: Emissions from Energy Recovery and Recycling Performance

Sheffield's waste management strategy includes innovative elements, such as the operation of an electric bin lorry powered by energy generated from waste, although its utility is currently limited by the city's hilly topography. The city's Clean Air Zone (CAZ) has contributed to a reduction in NO2 levels, demonstrating a positive impact on local air quality, although some areas still exceed legal limits for NO2 and PM2.5.
Despite these efforts, Sheffield City Council's Climate Action Scorecard indicates a low area-wide annual recycling rate (scoring 0/3) and a high overall level of household waste produced (scoring 0/2). This presents a notable contradiction: while Sheffield boasts the lowest recycling *rejection* rate in Yorkshire and the Humber (a mere 0.18%) , indicating efficient processing of collected recyclables, the overall volume of material being recycled remains low, and total waste generation is high. This suggests that the primary challenge lies not in the post-collection sorting or processing, but rather in upstream factors such as public participation in recycling, the comprehensiveness of kerbside collection schemes, or broader waste prevention strategies.
The city has conducted a 12-week food waste recycling trial and plans significant changes to its waste and recycling services in response to the Environment Act. These planned changes are crucial steps towards improving source separation and increasing recycling rates.
The Sheffield Energy Recovery Facility, which processes waste, continuously monitors its emissions and operates within UK and EU standards. Reports indicate that modern facilities of this type emit significantly lower levels of dioxins and furans compared to older incinerators. However, the broader environmental impact of waste-to-energy facilities remains a subject of debate. Critics argue that incinerators can emit more greenhouse gases per unit of electricity than other power sources and may divert subsidies from cleaner energy alternatives.

Furthermore, long-term contracts with such facilities can inadvertently disincentivize local authorities from pursuing more aggressive recycling and waste reduction strategies, as they may face financial penalties for not supplying a contracted volume of waste. This creates a tension where the reduction of landfill waste, while positive, might come at the cost of maximizing true circularity and higher-value resource recovery.

C. Bradford District

Bradford District has set ambitious climate targets, backed by significant strategic investments, but faces challenges in balancing growth with environmental outcomes, particularly in waste management and financial stability.

Climate Action Plans & Targets: Strategic Priorities and Investment

Bradford District Council has demonstrated a robust commitment to environmental action, declaring a "Climate Emergency" in 2019 and, notably, a "Biodiversity Emergency" four years later in 2023. This dual declaration signifies a deeper understanding of interconnected environmental crises, moving beyond sole carbon emissions reduction to embrace broader nature recovery. The council is committed to achieving net zero carbon emissions for the district by 2038, with "significant progress" anticipated by 2030, a target more ambitious than the national 2050 goal.

The 2025-2028 Climate Action Plan outlines a comprehensive strategy across eight key priority areas, including transforming travel, increasing renewable energy, decarbonizing industry, and ensuring warm and comfortable buildings. The council's internal decarbonization efforts have been particularly successful, with its own emissions reduced by 75% since 2009/10, consistently exceeding its annual 10% reduction target. Overall, the district has seen a substantial 47% decrease in total greenhouse gas emissions between 2005 and 2022.

This strategic approach emphasizes the co-benefits of climate action, linking environmental improvements with economic growth and social well-being. The plan positions green initiatives as catalysts for innovation, clean growth, and job creation, such as the projected 12.5% growth in green sector jobs by 2025/26 and the need for over 12,000 direct 'green' jobs by 2050. This integrated perspective suggests a well-rounded approach to sustainable development, aiming to ensure that environmental efforts also deliver tangible societal and economic advantages.

Sustainable Transport: Mass Transit, Electric Buses, and Active Travel Networks

Bradford is a key beneficiary of West Yorkshire's substantial £2.1 billion investment in Mass Transit infrastructure, with construction slated to commence by 2028 and initial services expected by the mid-2030s. This regional project is designed to be fully integrated with cycling, walking, bus, and existing rail networks, aiming to enhance connectivity and reduce reliance on private vehicles across the district.

Significant progress has been made in public transport electrification. The West Yorkshire bus fleet is projected to be zero emissions by 2036, supported by the installation of on-street public charging points in over 200 locations across Bradford by 2027. A particularly notable achievement is the transformation of Bradford's licensed taxi fleet, with 99% now operating as electric hybrid or dedicated electric vehicles, largely due to the Clean Air Zone grant programme. This demonstrates the effectiveness of targeted financial incentives in accelerating the adoption of low-emission transport technologies.

The Bradford Low Carbon Hydrogen Facility further exemplifies the integrated approach to transport decarbonization. This facility aims to produce 12.5 tonnes of hydrogen daily by 2027, sufficient to fuel 800 diesel buses, and is expected to generate up to £120 million for the local economy and create up to 125 jobs. This project not only addresses emissions from public transport but also stimulates local economic growth and job creation, showcasing a comprehensive strategy that links environmental goals with broader socio-economic benefits.

Waste Management: Recycling Contamination and Diversion Strategies

Bradford faces a significant challenge in waste management, evidenced by the highest recycling rejection rate in Yorkshire and the Humber, standing at 20.9%. This means that out of 74,512 tonnes of waste submitted for recycling by residents, a substantial 15,583 tonnes were rejected. The rejected waste is typically diverted to energy-from-waste (EfW) plants or, in the worst-case scenario, to landfill, although Bradford Council states it sends "almost zero waste to landfill". The council attributes this high rejection rate primarily to contamination caused by a "small number of residents" placing incorrect items (e.g., nappies, plastic bags) in recycling bins. While Bradford offers a "very simple system" that allows all recyclable materials to be placed in the same bin, intended to encourage greater participation, this convenience appears to inadvertently contribute to the high contamination levels. This situation highlights a fundamental design flaw in the recycling system: while aiming for ease of use, it compromises the quality of collected materials, leading to a significant portion of "recycled" waste being incinerated rather than truly reprocessed. This suggests that the current approach, despite its good intentions, is misdirected in achieving optimal material recovery and circularity.

Looking ahead, the council plans to introduce household food waste collection from April 2026. This initiative, if implemented effectively, could significantly improve waste diversion and resource recovery, addressing a key component of the waste stream that often contributes to contamination in mixed recycling.

Independent Critiques and Financial Sustainability of Green Initiatives

Bradford's Climate Action Plan is framed as a "catalyst for innovation, clean growth and exciting employment opportunities" , and the district has indeed secured substantial investments for major green projects, including £2.1 billion for the West Yorkshire Mass Transit system and £70 million for the Bradford Energy Network. These investments demonstrate a strong commitment to large-scale, transformative green infrastructure.

However, an independent review conducted in August-September 2023 highlighted significant underlying financial challenges for Bradford City Council. The review reported a projected £45.2 million overspend by the Bradford Children and Families Trust and an indicative Medium Term Financial Strategy (MTFS) gap of £29.3 million in 2024-25. The review concluded that the council's financial issues are acute and that it is "unlikely... they can resolve the financial issues faced by the Trust on their own".

This financial instability poses a considerable risk to the long-term sustainability and delivery of Bradford's ambitious green initiatives. While external funding for specific projects is vital, the council's precarious core financial health could jeopardize its capacity to maintain, expand, or even initiate further climate action programs once external grants conclude. This situation suggests that even well-intended green efforts may be unsustainable if the foundational financial stability of the local authority is compromised. It underscores a critical interdependency: the success of environmental policies is inextricably linked to the broader financial health and

resilience of the governing body. Without addressing these fundamental financial vulnerabilities, the long-term viability of green planning efforts, no matter how ambitious, remains uncertain.

D. Wakefield District

Wakefield District has set clear net-zero targets and is notable for its community-led approach to climate action, though it also faces practical challenges in transport infrastructure and waste management.

Climate Change Action Plans: Targets and Community-Led Approaches

Wakefield Council declared a climate emergency in May 2019, committing to becoming a carbon-neutral organization by 2030 and supporting the entire district in achieving net-zero emissions by 2038. This ambitious timeline reflects a proactive stance on climate change. The council's Climate Change Action Plan is structured around six core workstreams: low-carbon estates, low-carbon fleets, renewable energy, carbon offsetting, behavioral change, and district-wide initiatives. The council has already achieved a significant 55% reduction in its carbon emissions between 1990 and 2018.

A distinctive feature of Wakefield's approach is its strong emphasis on community involvement. The council has adopted a community-led strategy, actively placing residents at the heart of decision-making processes through citizen visioning projects. This collaborative model aims to ensure that climate solutions are rooted in local experiences and pride, fostering a sense of ownership and relevance within the community. This inclusive approach is designed to enhance the resilience and equity of the green transition, making it more likely that initiatives will be sustained and supported by the local population.

Sustainable Transport: Infrastructure Improvements and Modal Shift Efforts

Wakefield is actively engaged with the West Yorkshire Combined Authority (WYCA) in plans to enhance its city centre for walking, cycling, and public transport. These initiatives aim to reduce traffic congestion, improve active travel routes, and optimize conditions for bus services. Specific proposals include a new cycle route connecting railway stations with the city centre, improved access to the bus station, and the transformation of Wood Street into a public space, fostering a more pedestrian-friendly urban environment.

However, the implementation of these transport improvements has encountered practical difficulties. The project's funding, originally planned from the Transforming Cities Fund, has been extended over a longer period due to the prevailing economic climate and a spending freeze, necessitating the exploration of additional funding options. This financial constraint highlights a common barrier to the timely delivery of green infrastructure projects.

Furthermore, the design and safety of new infrastructure have drawn criticism from public safety officials. Police and Fire Chiefs in Wakefield have voiced "fundamental problems" with the installation of bike lane flex posts and the resulting narrowed vehicle lanes on North Avenue. Concerns were raised regarding the impact on trucks and emergency vehicles, as well as the potential for traffic displacement to other roads. While the intention behind these measures is to promote cycling and reduce car dependency, the negative feedback from key stakeholders and the observed operational issues suggest that the implementation may be misdirected in its current form. Such design flaws can undermine the very objective of modal shift by creating new safety concerns or inconveniences for other road users, ultimately hindering broader public

acceptance and the effectiveness of active travel initiatives.

Waste Management: Recycling Performance and Waste Reduction Initiatives

Wakefield operates an "every-other-week, single-stream recycling program". While this system aims to simplify recycling for residents, it contributes to significant contamination issues. Non-recyclable items or food traces frequently lead to the rejection of curbside recycling. Common contaminants include plastic bags, styrofoam, tissues, waxed paper, drinking glasses, and metal clothes hangers. This situation indicates that despite the convenience offered, there is a substantial gap in public understanding or adherence to proper sorting guidelines, leading to a less efficient recycling process.

The council is actively working to address waste prevention by increasing public awareness, promoting the reuse of bulky waste and items collected at Household Waste Recycling Centres (HWRCs), and signposting product take-back services. The waste treatment plant in Wakefield plays a crucial role in managing collected waste. It extracts metals, plastic bottles, and glass for recycling. Additionally, it produces Refuse Derived Fuel (RDF) from other materials, which is then sent to SSE Ferrybridge for the generation of green sustainable energy. Organic waste is processed in an Anaerobic Digestion plant, generating methane gas for power production.

While the waste-to-energy and anaerobic digestion components contribute to landfill diversion, the high contamination rate in the single-stream recycling system suggests a misdirected effort in optimizing source separation. If a significant portion of collected "recyclables" is contaminated and subsequently diverted to EfW rather than being truly recycled, the overall environmental benefit is diminished. Effective waste reduction and circularity require not only advanced processing facilities but also continuous, clear public education and potentially more nuanced collection systems to ensure materials are clean and properly sorted at the source.

E. Kirklees District

Kirklees has set ambitious net-zero and climate readiness targets, earning high marks from independent assessors, yet faces challenges in translating these aspirations into fully funded, detailed actions, particularly in transport infrastructure and waste management.

Climate Change Action Plans: Emission Reduction Targets and Adaptation Goals

Kirklees Council declared a Climate Emergency in January 2019, committing to becoming "Net Zero and Climate Ready by 2038" for the entire district. This target is complemented by specific, measurable emission reduction milestones against a 2000 baseline: 63% by 2025, 78% by 2030, 87% by 2035, 92% by 2040, and a full 100% by 2050. The council emphasizes an integrated and collaborative approach, recognizing that achieving these ambitious targets requires collective action from the council, its partners, and the wider community.

A significant validation of Kirklees's climate action efforts comes from the Carbon Disclosure Project (CDP), an independent assessor. Kirklees received and maintained an 'A' grade for climate action in both 2023 and 2025, placing it among the top 112 cities globally for leadership in addressing climate change. This 'A' rating signifies robust planning, a city-wide emissions inventory, a published climate action plan, and a climate risk and vulnerability assessment with adaptation goals.

Despite this high-level recognition, the Climate Change Action Plan document explicitly states that it is the "first step in our action planning journey" and "does not detail specific funding

commitments". It indicates that these crucial financial details will be outlined in a future, more detailed action plan, and acknowledges that achieving the ambitious targets is "tempered by the funding that is available". This observation highlights a potential gap between the aspirational targets and the secured financial resources required for their delivery. While the 'A' rating reflects strong planning and commitment, the absence of publicly detailed funding strategies means the likelihood of achieving these aggressive targets remains contingent on future, as-yet-unspecified investments. This situation could lead to a perception that the efforts, while well-intentioned, might be misdirected if not adequately resourced.

Sustainable Transport: Electric Bus Rollout, Cycling Infrastructure, and Rail Projects

Kirklees is positioned at the nexus of several transformative regional transport schemes, including the West Yorkshire Mass Transit system, bus franchising (slated to begin in 2027), and the Transpennine Route Upgrade. These projects promise significant enhancements to public transport and connectivity across the district.

In the realm of electric public transport, plans are underway to introduce eight electric buses specifically for Calderdale and Kirklees. A noteworthy aspect of this initiative is the explicit focus on "exploring the impact of hilly landscape on the running of electric buses". This demonstrates a pragmatic approach to technology deployment, acknowledging and proactively addressing local geographical constraints that could affect the efficiency and viability of electric vehicles. This adaptive planning reduces the risk of misdirected efforts by tailoring solutions to specific regional challenges.

The Kirklees Draft Transport Strategy (March 2025) outlines a vision for a "sustainable, healthy, and accessible" transport network, aiming for Net Zero by 2038 and committing to "Vision Zero" (eliminating traffic fatalities). The strategy recognizes the importance of active travel and public transport, noting that 51% of car journeys in Kirklees are under 10km, many of which could be replaced by cycling or walking.

However, independent critiques highlight significant shortcomings in Kirklees's past and current active travel infrastructure. The district has a "poor track record of delivering high-quality cycling infrastructure" and a preference for "shared-space" facilities over protected, separated lanes. This approach is criticized for negatively impacting both cyclists and pedestrians by increasing conflict, reducing safety, and discouraging uptake. Furthermore, the strategy is perceived as lacking specifics on road space reallocation and continues to prioritize "road capacity improvements" for goods movement rather than fundamentally reducing car dependency. These observations suggest that while the strategic vision for active travel is commendable, the practical implementation may be misdirected. If the infrastructure fails to provide a genuinely safe and attractive environment for active travel, it will likely fall short of achieving the desired modal shift, despite the strategic intent.

Waste Management: Recycling Rejection Rates and Waste Processing Destinations

Kirklees faces a substantial challenge in waste management, recording the second highest recycling rejection rate in Yorkshire and the Humber at 16.87%. This means that out of approximately 40,356 tonnes of waste submitted for recycling by residents, 6,807 tonnes were rejected in 2025. The primary reason cited for these high rejection rates is contamination, underscoring the critical need for improved public participation and accurate waste sorting at the

household level. The rejected waste is subsequently sent to Energy-from-Waste (EfW) plants or, in some cases, to landfills. This indicates a significant inefficiency in the recycling process, where public effort is undermined by contamination, leading to incineration rather than true material recovery.

The district's waste management infrastructure includes the Kirklees EfW incinerator in Huddersfield, which processes 150,000 tonnes of municipal waste annually and generates electricity for 15,000 homes. This facility is operated by Suez Recycling and Recovery UK under a long-term 25-year contract, with an option to extend until 2028. While the EfW facility is presented as a means of diverting waste from landfill, its role in the broader waste hierarchy is subject to debate. The Environmental Services Association (ESA) argues that EfW is "complementary" to recycling, suggesting that stagnant recycling rates are due to a failure to develop effective recycling policies.

However, critiques from organizations like the BBC and the Local Government Association (LGA) raise concerns that long-term contracts with EfW facilities can "lock in" local authorities, making them hesitant to pursue more aggressive recycling and waste reduction strategies due to potential financial penalties for not meeting contracted waste volumes. This contractual arrangement can create a systemic barrier, where the financial incentives of incineration inadvertently disincentivize efforts to move higher up the waste hierarchy (e.g., prevention, reuse, and higher-quality recycling). Such a scenario could be viewed as a misdirected effort at a policy level, hindering the transition to a truly circular economy despite stated net-zero ambitions.

F. Calderdale District

Calderdale has set ambitious net-zero targets, integrating nature-based solutions and developing innovative transport initiatives, while also addressing challenges in waste management.

Climate Action Plans: Net-Zero Targets and Key Thematic Areas

Calderdale Council has committed to achieving net zero emissions by 2038, with substantial progress targeted by 2030. A distinctive aspect of Calderdale's strategy is its aim to reduce carbon emissions to an amount that can be naturally absorbed by local trees and moorlands. This approach explicitly recognizes the vital role of natural carbon sinks, indicating a holistic, nature-based perspective on climate action that extends beyond purely technological solutions. This integration of ecosystem services, such as peatland restoration through projects like "Landscapes for Water" , enhances biodiversity and flood resilience, making the efforts more comprehensive and less likely to be misdirected.

The Climate Action Plan 2023-26 outlines a three-year strategy covering six key themes: influencing decisions, supporting community action, creating warm and resilient buildings, fostering a green economy, transforming transport, and working with land and nature. The council has invested in a range of net-zero projects and collaborates with the Community Foundation for Calderdale on a joint £1 million Climate Emergency Fund, demonstrating a commitment to local funding and community-led initiatives.

Sustainable Transport: Shared Transport Hubs and Active Travel Promotion

Calderdale is pioneering the development of "shared transport hubs" in towns like Hebden

Bridge and Todmorden. These hubs are designed to integrate various sustainable transport options, including car clubs, electric vehicle charging, secure cycle parking, and access to shared e-bikes and bike repair stands. The primary objective of these hubs is to encourage a significant modal shift from private cars to more sustainable alternatives, thereby reducing congestion, carbon emissions, and improving air quality. The emphasis on shared e-bikes is particularly noteworthy, as it directly addresses the challenge of Calderdale's hilly terrain, making cycling a more viable and attractive option for a wider range of residents. This pragmatic adaptation of green planning to local geographical realities enhances the likelihood of successful modal shift.

In parallel, Calderdale Council has launched a "close pass campaign" to enhance road safety for cyclists. This initiative, funded by the West Yorkshire Combined Authority and Active Travel England, uses temporary signage at identified "close pass hotspots" to remind motorists of the legally required 1.5-meter safe overtaking distance for cyclists. This proactive approach aims to improve the perceived and actual safety for cyclists, which is a critical factor in encouraging active travel.

However, despite these efforts, the broader West Yorkshire region, which includes Calderdale, recorded four cyclist fatalities and 164 serious injuries in 2023. This statistic highlights a persistent and severe safety challenge for cyclists across the region. While campaigns and infrastructure improvements are underway, the high casualty rates suggest that fundamental safety concerns may still deter widespread adoption of cycling. If people do not feel genuinely safe on the roads, even well-intentioned active travel promotion may be limited in its impact on overall car reduction, indicating that efforts, while positive, may still be insufficient to overcome deeply entrenched safety barriers.

Waste Management: Recycling Performance and Waste Diversion Strategies

Calderdale's waste management performance shows a mixed picture. The proportion of rubbish recycled by the council reportedly fell from 63% to 53% between 2016 and 2017, although it remained above the national average of 42%. This decline in recycling rates is attributed primarily to the processing of residual waste, with a stated focus on diverting waste from landfill rather than extracting additional recyclable materials. Currently, less than 5% of Calderdale's waste is sent to landfill, which is a commendable achievement in waste diversion.

A significant positive development is the successful implementation of a communications program by SUEZ, which aimed to improve recycling quality. This program led to 84% of residents changing their behavior after initial educational interventions, resulting in 85 tonnes of additional recycling and 615 man-hours saved. This demonstrates the effectiveness of targeted public education in reducing contamination and improving the quality of collected recyclables.

The council has set ambitious targets to achieve a 50% recycling rate for household waste and an 85% landfill diversion rate for Local Authority Collected Waste (LACW) by 2031. However, the observed decline in recycling rates, despite improvements in quality, suggests a tension between the goal of maximizing landfill diversion and truly maximizing recycling. If recyclable materials are being diverted to energy-from-waste (EfW) facilities rather than being reprocessed, it indicates a prioritization that, while reducing landfill, may not fully align with the higher principles of the waste hierarchy (i.e., prevention, reuse, and recycling before energy recovery). This could be interpreted as a misdirected effort if the ultimate goal is a truly circular economy. The success of the SUEZ program in improving recycling *quality* offers a valuable lesson for other councils facing similar contamination challenges, emphasizing that sustained

behavioral change through education is critical for effective waste management.

IV. North Yorkshire: Green Planning Initiatives and Challenges

North Yorkshire, characterized by its expansive rural areas, national parks, and historic cities like York, faces unique green planning challenges related to geographical scale, dispersed populations, and the preservation of natural landscapes.

A. City of York

York, with its rich history and compact urban core, has adopted highly ambitious climate targets, making significant strides in some areas while facing public scrutiny and practical hurdles in others.

Climate Action Plans & Net-Zero Targets: Progress and Public Perception

The City of York Council declared a Climate Emergency in March 2019, setting an ambitious target to achieve net-zero carbon emissions for the city by 2030. This includes a commitment to reduce the council's own corporate emissions to net zero by the same year. The broader York Climate Change Strategy 2022-2032 envisions a carbon-negative future with preserved green spaces.

Financially, the Climate Action Plan outlines a substantial total capital investment of £3.8 billion by 2040 to achieve a net-zero energy system. This includes significant allocations of £0.7 billion for dwelling upgrades (fabric efficiency, heating systems, rooftop solar) and £0.5 billion for large-scale renewable generation. A notable achievement in the council's direct operations is the purchase of 100% renewable electricity since April 2020, effectively rendering its Scope 2 emissions as zero.

Public sentiment largely supports these ambitions; an "Our Big Conversation" survey in 2022 revealed that 80% of respondents agreed with the 2030 net-zero target. However, this broad support is accompanied by significant public skepticism regarding the actionable detail and feasibility of the climate plans. Some public feedback criticized the climate change strategy as merely a "report" rather than a concrete "strategy," lamenting "precious little information about how the climate disaster will be tackled" and deeming the 2050 national target "TOO LATE" for local action. This suggests a critical gap in communication and planning: while the high-level ambition resonates with the public, the lack of transparent, step-by-step implementation plans can undermine public confidence and engagement. This situation highlights a form of misdirected effort if the plans fail to translate aspirational goals into clearly articulated, actionable pathways that are comprehensible and reassuring to the community.

Sustainable Transport: Electric Bus Fleet, Cycling Infrastructure, and Modal Shift

York has made substantial investments in electrifying its public transport fleet. In 2020, 21 new all-electric double-decker buses were introduced, expanding the city's fully electric fleet to 33 vehicles, representing a £9.3 million investment. Further commitment was demonstrated in August 2023, when First York launched an additional fleet of zero-emission buses with a £13 million investment (including £10.2 million from the ZEBRA scheme), transforming its depot into

one of the first fully electric facilities outside London.
These investments have yielded tangible results in promoting modal shift. York's Park & Ride service recorded over 4.5 million customers in 2024, nearly a million more than in 2023. This success translated to over 61,700 fewer cars entering central York in December alone, demonstrating a clear reduction in private vehicle use. Furthermore, York's bus services ranked an impressive 9th nationally for trips per resident in 2023/2024. The City of York Council's success in securing £17.3 million from the Department for Transport for its Bus Service Improvement Plan further solidifies its commitment to enhancing public transport. These outcomes collectively indicate a highly successful green transport strategy, where targeted investment in high-quality, accessible public transport directly leads to increased ridership and a reduction in private car dependency, contrasting with the national trend of declining bus and cycle use.
However, the development of cycling infrastructure presents a more contentious picture. Public opinion on cycle lanes in York is notably mixed. A 2010 report highlighted criticisms of a new cycle lane leading to increased traffic congestion. More recently, a 2021 report on York Way pop-up cycle lanes revealed that a significant majority (87%) of non-users held negative views, citing concerns about increased traffic, longer journey times for motorists, and safety issues for cyclists at junctions and due to debris. While some users acknowledged feeling safer and finding the lanes more pleasant , the widespread negative feedback from non-users and the persistence of safety concerns suggest that the implementation of certain cycle lane designs may be misdirected. Effective active travel integration requires not only the provision of infrastructure but also careful design that minimizes adverse impacts on other road users and addresses safety perceptions comprehensively, alongside robust public consultation to ensure broader community acceptance.

Waste Management: Emissions from Waste Processing and Recycling Rates

The City of York Council's operational emissions totaled 5,490 tCO2e in 2022/23, with its Scope 2 emissions effectively zero due to the purchase of 100% renewable electricity. Waste-related emissions from council operations accounted for a relatively small 15 tCO2e in the same period. However, a significant portion of York's waste is processed at the Allerton Waste Recovery Park (AWRP), a facility shared with North Yorkshire Council, located near Knaresborough. The 2024/25 annual report for AWRP reveals a "difficult year," with a decline in the proportion of waste saved from landfill (from 94.86% in 2023/24 to 87.29% in 2024/25) and a failure to meet its 5% recycling target, achieving only 1.75%. Furthermore, the facility reported 48 instances of non-compliance with its environmental permit in 2024/25, including a "minor impact" release of the chemical dioxin/furan. Green Party councillors have expressed "fresh concerns" about AWRP's performance, asserting that "waste incinerators are now one of the biggest pollutants". The performance of AWRP raises significant questions about the true environmental impact of York's waste management strategy. While the council's direct emissions are low, its reliance on a facility with documented operational issues and environmental breaches could be viewed as a misdirected effort in achieving comprehensive net-zero goals. The critique that incinerators are major pollutants directly challenges the "green" credentials of this approach, suggesting that the benefits of landfill diversion might be offset by other environmental costs.
In terms of household recycling, York's rate was 42% in 2024, with 4,044 tonnes of recycling rejected. This high rejection rate, similar to other urban centers in Yorkshire, points to a systemic issue with contamination at the household level or within the collection infrastructure. Despite public efforts to recycle, a substantial amount of material is being diverted from recycling

streams, ultimately ending up in incineration or landfill. This highlights a need for more effective public education campaigns on proper sorting and potentially a re-evaluation of collection methods to improve the quality of recyclables.

B. North Yorkshire Council (Rural & Towns)

North Yorkshire, as a newly formed unitary authority, faces the unique challenge of consolidating and advancing green planning across a vast and predominantly rural area, balancing ambitious regional targets with local implementation realities.

Climate Change Strategy: Carbon Negative Ambitions and Funding Landscape

North Yorkshire Council (NYC) officially declared a climate emergency in July 2022. The council aligns itself with the ambitious goal of the York and North Yorkshire Local Enterprise Partnership (YNYLEP) to become the UK's first carbon-negative region by 2040, with an interim target of net zero by 2034. Additionally, NYC itself aspires to achieve net carbon neutrality for its own operations by 2030. The proposed York and North Yorkshire devolution deal includes a £7 million investment specifically earmarked for green economic growth and advancing towards a carbon-negative region. The council has reported a significant reduction in its own carbon footprint since 2019, with an estimated footprint of around 8400 tCO2e in 2030/31 without further action.

The 2025 Climate Action Scorecard provides an initial assessment of the new unitary North Yorkshire Council, yielding an overall score of 42%. This score serves as a baseline, as the council replaced seven former district and borough councils in April 2023, making direct historical comparisons challenging and highlighting the complexities of administrative restructuring on climate action reporting and consistency.

A detailed breakdown of the scorecard reveals a mixed performance that suggests a disconnect between the ambitious carbon-negative targets and the foundational elements of green planning. In Buildings & Heating, while some extensive retrofit work has been completed (1/1), there is no costed target for retrofitting all council buildings or homes (0/3 for both), and council operations are not powered by renewable energy (0/2). The Transport section scored a low 16%, with less than 10% of the council's fleet being electric (0/2) and persistent issues with PM2.5 levels exceeding WHO guidelines. Planning & Land Use scored 30%, indicating that the net-zero target is not yet a strategic objective of the Local Plan (0/1) and a lack of minimum requirements for on-site renewable energy (0/2). In Biodiversity, scores were low (36%), with no use of peat-free compost (0/1) or ban on pesticides (0/1). While Collaboration & Engagement scored high (73%), the Governance & Finance section (39%) showed only a 10-20% reduction in the council's own GHG emissions since 2019, and no motion passed for fossil fuel divestment (0/2).

This assessment suggests that while the strategic ambition for carbon negativity is high, the practical implementation across key sectors like renewable energy adoption, transport electrification, and biodiversity protection is weak. The lack of detailed, costed plans for retrofitting, slow fleet electrification, and insufficient integration of net-zero into planning policies indicate that current efforts, while present, may be misdirected or insufficient to achieve the ambitious regional targets.

Sustainable Transport: Active Travel Schemes and Electric Vehicle Infrastructure

North Yorkshire Council is actively developing its sustainable transport infrastructure, including Local Cycling and Walking Infrastructure Plans (LCWIPs) and a sustainable transport package for west Harrogate. The council has also established an Electric Vehicle (EV) Infrastructure Rollout Strategy and provides information on EV charging points, aiming to facilitate the transition to electric vehicles across the county.
Currently, three active travel schemes are progressing in delivery: the A59 route from Harrogate to Knaresborough, Victoria Avenue in Harrogate, and Guisborough Road in Whitby. These projects are part of a broader effort to encourage active modes of transport and reduce congestion.
A significant boost to active travel in the region comes from government investment, with over £32 million allocated for road resurfacing and the construction of new cycle lanes across the North East and Yorkshire. This funding explicitly aims to encourage more women to cycle, foster healthier and stronger communities, and alleviate pressure on the National Health Service (NHS). The economic benefits are also highlighted, with projections of 43,000 fewer sick days annually and a £1.4 billion contribution to the UK economy. This integrated approach, linking active travel with public health and economic prosperity, demonstrates a multi-faceted understanding of green planning benefits. By framing active travel as a solution to broader societal challenges, rather than solely an environmental measure, it strengthens the case for investment and encourages wider public acceptance.

Renewable Energy Projects: Wind and Solar Farms (e.g., Rudston, Catterick) – Environmental Impact, Community Benefit, and Local Opposition

The deployment of large-scale renewable energy projects in North Yorkshire presents a complex interplay between national energy goals, local environmental impacts, and community acceptance.
Rudston Wind Farm: Ridge Clean Energy (RCE) has proposed a wind farm near Rudston (geographically in East Riding, but facing similar rural development issues as North Yorkshire), comprising six turbines, each nearly 500 feet tall, capable of powering approximately 24,000 homes. RCE has committed to a substantial £5 million community benefit fund over the project's 40-year lifespan, which includes direct annual electricity discounts of over £750 for nearby households.
Despite these proposed benefits, the project has encountered significant local opposition. Concerns primarily revolve around the visual impact ("eyesore"), potential devaluation of property, noise pollution (with some residents reportedly relocating due to turbine noise), and perceived harm to the local environment. The role of misinformation on social media in fueling this opposition has also been noted. Environmental impact assessments for wind farms highlight risks such as direct mortality of birds and bats (particularly raptors and migratory species), habitat loss, and behavioral displacement. This dynamic underscores the "Not In My Backyard" (NIMBY) phenomenon, where national energy needs clash with deeply held local values and concerns. The situation suggests that even with significant financial incentives, if local environmental and aesthetic impacts are not adequately mitigated or if community trust is lacking, renewable energy projects can face substantial resistance, potentially making their development a misdirected effort in terms of social license.
Catterick Garrison Solar Farm: Enviromena has submitted a planning application for a 23.5MW solar farm near Catterick Garrison, projected to power over 11,000 homes. The developers assert that the scheme will have no unacceptable environmental impacts and will deliver benefits, including habitat creation and biodiversity net-gains, with the infrastructure

being temporary and the land reinstated after 40 years.
However, local residents have questioned these claims, raising concerns about a "significant and detrimental impact on a wide variety of rare and declining flora and fauna," specifically mentioning curlew and oyster catchers that breed on the land. Concerns also extend to the "loss of agricultural value" despite the land being classified as low-grade agricultural (Grade 3b). This highlights the ongoing debate about the use of agricultural land for renewable energy, even if it is not considered prime land. The discrepancy between developer claims of "no unacceptable impacts" and local observations of ecological harm suggests a potential for misleading green claims or, at minimum, a contested interpretation of environmental impact assessments. This situation indicates that while efforts are being made to assess and mitigate environmental effects, their perceived validity and actual impact are subject to local scrutiny, and if not fully transparent and robust, can be seen as misdirected. General environmental impacts of solar farms include habitat loss, potential for bird collisions (though often low from panels, higher from associated power lines), attraction of insects, and effects on underlying vegetation due to shading.

Waste Management: Allerton Waste Recovery Park Performance and Recycling Initiatives

North Yorkshire's waste management strategy is significantly influenced by the Allerton Waste Recovery Park (AWRP), a £1.2 billion facility near Knaresborough that processes up to 320,000 tonnes of waste annually from both York and North Yorkshire councils.
Recent reports indicate a "difficult year" for AWRP in 2024/25. The proportion of contracted waste saved from landfill fell to 87.29% from 94.86% in the previous year, and the facility significantly missed its 5% recycling target, achieving only 1.75%. Furthermore, 48 instances of non-compliance with environmental permits were reported in 2024/25, including a "single, short-durance" release of dioxin/furan classified as having a "minor impact on human health, quality of life, or the environment". Green Party councillors have voiced "fresh concerns" about AWRP's performance, arguing that "waste incinerators are now one of the biggest pollutants" after the closure of coal-fired power stations. This underperformance and the documented environmental breaches represent a significant misdirected effort in regional waste management, potentially undermining the broader green credentials of both York and North Yorkshire.
In response to challenges with mixed kerbside collection systems inherited from former councils, North Yorkshire Council is proactively rolling out a new county-wide two-stream recycling collection service in June 2025, following public consultation. This shift aims to improve recycling performance by reducing contamination. In 2024, North Yorkshire's household waste recycling rate was 43%, with 13,878 tonnes of recycling rejected. This high volume of rejected material underscores the importance of the new two-stream system in improving the quality of recyclables and ensuring that public efforts in sorting are not wasted.

V. East Yorkshire: Green Planning Initiatives and Challenges

East Yorkshire, characterized by its coastal communities, market towns, and agricultural landscapes, faces distinct green planning challenges, particularly related to climate adaptation

and the integration of renewable energy into rural settings.

A. Hull City Council

Hull, a port city with a history of vulnerability to flooding, has adopted a comprehensive climate action strategy that prioritizes both emissions reduction and climate adaptation.

Climate Action Strategy: Carbon Neutral Targets and Adaptation Plans

Hull City Council declared a climate emergency in March 2019, setting an ambitious target to achieve carbon neutrality by 2030. The 2030 Hull Carbon Neutral Strategy aims for a minimum carbon reduction of 77% by 2030, with the aspiration for Hull to become a "leading carbon neutral city within the United Kingdom".
A critical component of Hull's green planning is its explicit focus on climate adaptation, driven by past experiences with severe flooding in 2007 and 2013. The council committed to developing a Climate Adaptation Strategy and Action Plan by the end of 2021, addressing risks from increased rainfall, drought, tidal surges, and sea level rise. To support businesses and organizations in building resilience, the council provides free climate risk assessment and adaptation planning services. This dual emphasis on mitigation and adaptation reflects a realistic and comprehensive approach to climate change, acknowledging that while emissions must be reduced, the city must also prepare for unavoidable climatic impacts. This is a highly valuable and well-directed effort, particularly for a coastal city with significant flood risk.

Sustainable Transport: Cycle Lanes, Electric Buses, and Public Feedback on Safety

Hull City Council has invested in its active travel network, securing £1.36 million in funding for new and upgraded cycle routes, including segregated lanes and extended bus/cycle lanes. The council's approach to pop-up cycle lanes, installed under experimental traffic orders, allows for flexibility and adjustments based on public feedback before permanent implementation. This iterative process, which explicitly seeks public input, is crucial for ensuring that infrastructure meets user needs and gains community acceptance.
A 2022 Hull Transport Survey provides a detailed snapshot of travel behaviors and public perceptions. The survey revealed that 79% of respondents are regular private car/van drivers, while 24% are regular cyclists and 34% use public transport regularly. Perceptions regarding transport conditions were mixed: a significant majority felt that congestion (88%) and journey times (83%) had worsened, and bus reliability (69%) and frequency (66%) had also deteriorated. However, a notable 38% of respondents felt that cyclist safety had improved. This suggests that while efforts to enhance active travel safety may be yielding positive results for cyclists, they might be contributing to perceived worsening conditions for motorists, or at least not alleviating them. This complex interplay indicates a need for integrated transport planning that considers all modes and manages potential trade-offs effectively to avoid misdirected efforts in overall transport improvement.
In terms of public transport electrification, Hull currently has no electric or hybrid buses operating on public services. This represents a significant lag compared to other major Yorkshire cities like Leeds, Sheffield, and York, which already have operational electric bus fleets. While £5.7 million in funding has been announced for 40 electric buses, with additional contributions from Hull City Council and operators , this delay in adopting electric buses is a

notable gap in the city's transport decarbonization efforts, potentially impacting the feasibility of its ambitious 2030 net-zero target.

Renewable Energy Projects: Wind and Solar Initiatives and Community Benefits

Hull has embraced renewable energy generation, including a notable waste-to-energy facility and wind turbines. The "Energy Works" facility in Hull is an Advanced Gasification Energy Recovery Facility that integrates various renewable energy technologies. It has a capacity to produce 25MW of electricity, sufficient to power 43,000 homes, and processes 240,000 tonnes of waste annually, claiming a reduction of over 35,000 tonnes of CO_2 per year. While this facility contributes to waste diversion from landfill and electricity generation, its classification as "renewable energy" and its overall emissions profile warrant critical examination, given broader concerns about advanced gasification technologies and their potential environmental impacts. Additionally, Hull operates two wind turbines (Hull Wind 1 and 2) that collectively generate enough power for approximately 1,100 homes and yield annual energy cost savings of $680,000 for the town. Notably, Hull Wind 2 was strategically built on an old landfill site. This innovative repurposing of a previously degraded site for clean energy generation exemplifies an environmentally sound land-use strategy, minimizing the need to develop greenfield areas and showcasing best practice in integrating renewable energy with existing urban and industrial landscapes.

The concept of Community Benefit Funds (CBFs) is also relevant, as these are voluntary financial arrangements from developers to communities, designed to provide long-term funding for local improvements. Local Electricity Discount Schemes (LEDS) offer direct financial benefits to residents near onshore wind farms through discounted electricity bills. These mechanisms are crucial for fostering local acceptance and ensuring that communities directly benefit from renewable energy projects developed in their vicinity.

Waste Management: Recycling Rates, Waste-to-Energy, and Waste Reduction Data

Hull City Council operates three household waste and recycling centers aimed at maximizing recycling efforts. An internal exercise revealed a significant challenge: two-thirds of bagged waste brought to these centers contained easily recyclable items that were being missed because they were mixed with general waste. In response, residents are now encouraged to pre-sort their waste before arriving at the sites, with dedicated sorting areas and attendants available to assist. This finding highlights a substantial public education gap and a misdirected effort in optimizing source separation at the household level. Despite the availability of recycling facilities, a large volume of recyclable material is still ending up in general waste streams, which are then incinerated rather than truly recycled.

In 2024, Hull's household waste recycling rate was 47%, with 2,951 tonnes of recycling rejected. The city's "Energy Works" facility processes a considerable 240,000 tonnes of waste per year. A waste company operating in Hull claims to recycle or divert from landfill 95% of the waste it collects, and emphasizes its use of lightweight vans to reduce carbon emissions.

While the diversion of waste from landfill is a positive step, the high percentage of recyclable material found in general waste bags suggests that the current system is not effectively capturing resources at the source. This indicates a need for more proactive and clearer public awareness campaigns on proper sorting, rather than relying solely on reactive measures at recycling centers. The use of contaminated food waste for Refuse Derived Fuel (RDF) in East

Riding (a neighboring authority with similar waste processing approaches) further underscores this point, as it represents a lower-value recovery compared to composting or anaerobic digestion.

Specific Environmental Concerns in Rural Areas (e.g., Beverley, Bridlington, Goole, Driffield, Hornsea)

The rural and coastal areas of East Yorkshire face distinct environmental challenges that necessitate specific green planning interventions.
Beverley: Yorkshire Water has been identified as one of England's worst polluters, with a 60% increase in serious pollution incidents in 2024. Local environmental groups have raised concerns about the ongoing impact on key waterways, including the River Hull, Beverley Beck, and the Humber Estuary. This highlights a critical issue of water quality and the need for stronger regulatory oversight and accountability from utility companies, as their actions can significantly undermine local environmental health, irrespective of council-led green planning efforts.
Bridlington: While no specific environmental concerns were detailed for Bridlington in the provided information, the broader issues affecting East Riding, particularly coastal erosion, are relevant.
Goole: Coastal erosion poses a significant long-term threat to Goole and other parts of the East Riding coastline. Predictions indicate that "significant parts of the East Riding coast will be eroded" over the next 100 years, jeopardizing homes, businesses, and infrastructure. The Coastal Transition Acceleration Programme (CTAP) is a proactive green planning effort aimed at developing long-term strategies for communities to prepare and adapt to these inevitable changes. This demonstrates a crucial focus on climate adaptation in vulnerable areas.
Driffield: The Driffield Town Council's Environment and Planning Committee actively works to promote, improve, and protect the local environment, including investigating ways to reduce the town's carbon impact in collaboration with East Riding of Yorkshire Council (ERYC) and other agencies. This indicates local-level engagement in green planning initiatives.
Hornsea: Hornsea, like other coastal areas, is directly impacted by coastal erosion, with the East Riding coastline eroding at an average rate of 1.5-2.5 meters per year. Beyond erosion, concerns exist regarding microplastics entering the food chain and "ghost gear" (abandoned fishing gear) contributing to ocean pollution. These issues highlight the pervasive nature of plastic pollution, even in seemingly pristine coastal environments, and the need for comprehensive waste management and marine conservation strategies.
These specific environmental concerns in East Yorkshire's rural and coastal areas underscore the diverse nature of green planning challenges. They necessitate tailored adaptation strategies, robust regulatory enforcement, and community-led initiatives to protect vulnerable landscapes and ecosystems, complementing broader decarbonization efforts.

VI. Cross-Riding Analysis and Key Observations

A comparative analysis of green planning initiatives across West, North, and East Yorkshire reveals both shared aspirations and distinctive challenges, highlighting varying levels of maturity and effectiveness in their approaches.

Comparative Assessment of Green Planning Maturity and

Effectiveness Across Yorkshire

Varying Ambition Levels: A notable disparity exists in the timeline for achieving net-zero emissions. Urban centers like Leeds (2030), Sheffield (2030), and York (2030) have set highly ambitious targets that significantly predate the national 2050 goal. In contrast, East Riding of Yorkshire Council aims for net-zero by 2050 , while North Yorkshire Council, as a new unitary authority, aligns with a regional ambition to be carbon negative by 2040. These differing timelines reflect variations in political will, perceived urgency, and the unique challenges associated with urban density versus rural dispersion.
Performance Disparities: Independent assessments, such as the Climate Action Scorecards, reveal varied effectiveness. Leeds and Sheffield, despite ambitious targets, show declines in their Transport and Governance & Finance scores, indicating struggles with implementation and internal accountability. North Yorkshire, being a new entity, is still establishing its baseline, making direct comparisons difficult but highlighting the complexities of consolidating diverse climate strategies. East Riding demonstrates strong performance in recycling but has a later net-zero target. Kirklees stands out with an 'A' rating from CDP, indicating robust planning, but lacks detailed public funding commitments.
Common Strengths: Across the region, there is strong public support for climate action, particularly in urban areas like Leeds and York. Investment in electric public transport (buses, bike-hire schemes) is a recurring positive, demonstrating tangible modal shift where quality services are provided. Efforts in building energy efficiency and retrofitting are also widespread, often targeting social housing. Community engagement and co-creation approaches are increasingly recognized as vital, particularly in Wakefield and Calderdale.
Common Weaknesses/Challenges:

- **Transport:** Persistent public concerns about cycle lane design, safety, and perceived congestion are evident in York, Sheffield, and Kirklees. Many councils struggle with electrifying their own internal fleets. The national trend of declining bus and cycle use, despite local efforts, underscores a broader systemic issue.
- **Waste Management:** High recycling *rejection* rates due to contamination are a widespread problem in Bradford, Kirklees, and York. This indicates a gap in public education or collection system design. The reliance on waste-to-energy facilities, while reducing landfill, raises questions about true circularity and potential disincentives for higher-value recycling.
- **Funding:** Shortfalls in national funding and the competitive nature of grant allocations create uncertainty and hinder the pace of implementation across multiple councils. Ambitious targets often lack detailed, secured funding commitments, relying on future, unspecified investments.
- **Misleading Green Claims:** Concerns about superficial "green" initiatives (e.g., Leeds pavement ads) , contested environmental impact assessments for renewable projects (e.g., Catterick solar farm) , and the ongoing debate over biomass sustainability (Drax) highlight a broader issue of trust and accountability in environmental reporting.
- **Data Gaps:** A consistent challenge across the region is the lack of detailed, comparable data on council-wide emissions (especially Scope 3) and comprehensive, up-to-date public opinion metrics across all geographical areas.

Identification of Systemic Gaps and Recurring Challenges

Several systemic gaps and recurring challenges impede the effectiveness of green planning across Yorkshire:

- **Policy-Implementation Gap:** A consistent theme is the disconnect between high-level climate emergency declarations and the practical, on-the-ground implementation of policies and projects. Ambitious targets often lack the detailed, costed action plans or the necessary political will to enforce stringent standards, particularly for internal council operations or complex infrastructure changes.
- **The "Convenience vs. Quality" Trade-off in Recycling:** Councils adopting simpler, single-stream recycling systems to encourage participation often inadvertently lead to higher contamination rates. This results in a significant portion of collected "recyclables" being rejected and subsequently incinerated or landfilled, undermining the true goals of material recovery and circularity. This approach, while well-intentioned for convenience, can be misdirected in its actual environmental outcome.
- **Balancing Renewable Energy Deployment with Local Impact:** The "Not In My Backyard" (NIMBY) phenomenon is a significant barrier to large-scale wind and solar projects, particularly in rural areas. Local opposition, driven by concerns over visual impact, noise, property values, and perceived environmental harm to local ecosystems or agricultural land, often persists despite proposed community benefit schemes. This highlights a misdirected effort in community engagement if local concerns are not genuinely addressed beyond financial incentives, leading to protracted disputes and project delays.
- **The Nuance of Waste-to-Energy:** While waste-to-energy (EfW) facilities effectively reduce landfill volumes, their emissions profile and the long-term contracts councils enter into can create disincentives for pursuing more aggressive recycling rates and a truly circular economy. This means that while one environmental problem (landfill) is addressed, progress on another (maximizing resource recovery) might be inadvertently hindered, representing a misdirected effort in waste hierarchy prioritization.
- **Active Travel Infrastructure Design Flaws:** Despite widespread recognition of the benefits of active travel, poorly designed or unsafe cycling infrastructure (e.g., shared spaces, inadequate separation from traffic) can deter uptake, even when public desire for active travel is high. This results in investments that are less effective than intended, as they fail to create genuinely safe and attractive alternatives to car use.
- **Transparency in Green Claims:** The prevalence of accusations of misleading green claims, ranging from corporate entities (like Drax's biomass claims) to local council initiatives, indicates a broader issue of trust and accountability in environmental reporting. This lack of transparency can misinform the public and divert attention and resources from genuinely impactful solutions.

Role of Regional Collaboration and Devolution Deals in Driving Green Agendas

Regional collaboration and devolution deals are emerging as critical mechanisms for advancing green agendas across Yorkshire. The West Yorkshire Combined Authority (WYCA) plays a significant role in coordinating and funding major transport initiatives, such as the Mass Transit system, bus franchising, and active travel projects, across its constituent councils (Bradford, Kirklees, Calderdale, Leeds). This regional approach enables larger-scale projects and a more integrated transport network that individual councils might struggle to deliver independently.

Similarly, the York and North Yorkshire Local Enterprise Partnership (YNYLEP) has set ambitious carbon-negative targets and actively collaborates with North Yorkshire Council on Local Area Energy Plans. The proposed devolution deal for York and North Yorkshire includes dedicated funding (£7 million) for green economic growth, providing a strategic financial lever for regional climate action. Cross-council partnerships are also evident in waste management, such as the shared Allerton Waste Recovery Park serving both York and North Yorkshire. These regional frameworks facilitate resource sharing, strategic planning, and a more cohesive approach to tackling complex environmental challenges that transcend individual local authority boundaries.

The Balance Between Urban and Rural Green Planning Priorities

The analysis reveals a discernible difference in green planning priorities and challenges between Yorkshire's urban and rural areas:

- **Urban Focus:** Major cities like Leeds, Sheffield, and York tend to prioritize solutions for dense urban environments. This includes a strong emphasis on transport modal shift through public transport electrification and cycling infrastructure, decarbonization of buildings (often through district heating networks), and managing waste from large populations. Their net-zero targets are generally more aggressive, reflecting the higher concentration of emissions in urban areas.
- **Rural Focus:** Rural areas, particularly in North and East Yorkshire, face distinct challenges. These include longer travel distances impacting public transport viability, land-use conflicts for large-scale renewable energy projects (e.g., wind and solar farms) due to landscape and agricultural concerns, and specific environmental vulnerabilities like coastal erosion. Their green planning often incorporates nature-based solutions, such as peatland restoration (Calderdale) , and focuses on ensuring equitable access to green infrastructure and services for dispersed populations. The pace of decarbonization may also be slower, as reflected in East Riding's 2050 net-zero target.

This urban-rural dynamic necessitates tailored green planning approaches. While regional collaboration can bridge some gaps, understanding and addressing these distinct priorities and challenges is crucial for effective and equitable climate action across the diverse landscape of Yorkshire.

VII. Conclusions and Recommendations for Future Green Planning in Yorkshire

The examination of green planning initiatives across Yorkshire reveals a region grappling with ambitious environmental targets amidst complex socio-economic and geographical realities. While significant progress has been made in certain sectors and areas, persistent challenges and instances of misdirected efforts underscore the need for a more integrated, transparent, and adaptive approach to achieve comprehensive and equitable decarbonization.

Conclusions

1. **Ambitious Targets vs. Implementation Realities:** Many Yorkshire councils have declared climate emergencies and set aggressive net-zero targets (e.g., Leeds, Sheffield, York aiming for 2030/2038). However, the evidence suggests a recurring gap between

these aspirations and the practicalities of implementation, particularly in areas like internal council emissions reduction, comprehensive building retrofitting, and consistent transport modal shift. Funding constraints and a lack of consistent national policy and support are significant limiting factors.
2. **Mixed Success in Sustainable Transport:** Investment in electric public transport (buses, bike-hire schemes) has shown demonstrable success in driving modal shift where services are high-quality and accessible (e.g., York's Park & Ride, Sheffield Connect). Conversely, cycling infrastructure often faces public skepticism and safety concerns due to design flaws (e.g., York, Kirklees), limiting its full potential for car reduction.
3. **Waste Management Paradox:** While many councils achieve high landfill diversion rates (e.g., East Riding's "zero waste to landfill") and utilize waste-to-energy facilities, high recycling rejection rates due to contamination are prevalent (e.g., Bradford, Kirklees, York). This suggests that efforts to simplify recycling for participation may inadvertently undermine the quality of collected materials, leading to incineration of potentially recyclable waste. Long-term contracts with EfW facilities can also create disincentives for maximizing recycling.
4. **Renewable Energy: A Social License Challenge:** Large-scale wind and solar projects, while crucial for decarbonization, frequently encounter strong local opposition (NIMBYism) driven by aesthetic, noise, and perceived environmental impacts. Even with community benefit schemes, genuine local acceptance requires transparent engagement, adaptive project design, and equitable distribution of benefits that truly address local concerns.
5. **The Pervasiveness of Misleading Green Claims:** Concerns about "greenwashing" are not limited to corporate actors (e.g., Drax's biomass claims) but also touch upon council initiatives and reporting (e.g., Leeds pavement ads, York's Scope 3 emissions exclusion). This erodes public trust and can divert attention and resources from truly impactful environmental solutions.
6. **Urban-Rural Divide:** Urban areas prioritize transport and building decarbonization, often with more aggressive targets. Rural areas contend with distinct challenges like coastal erosion, dispersed populations, and land-use conflicts for renewables, necessitating tailored adaptation strategies and nature-based solutions.

Recommendations for Future Green Planning in Yorkshire

Based on the comprehensive analysis, the following recommendations are proposed to enhance the effectiveness, transparency, and equity of green planning initiatives across Yorkshire:

Policy Recommendations for Local Authorities and Regional Bodies

1. **Strengthen Implementation and Accountability:** Local authorities must develop robust, transparent monitoring and evaluation frameworks for their climate action plans. This includes setting clear, measurable Key Performance Indicators (KPIs) for all stated targets, particularly for internal council emissions (Scope 1, 2, and 3 where feasible). Regular, independent audits of progress should be mandated to ensure accountability and identify areas requiring corrective action.
2. **Integrated and Legally Binding Planning:** Climate action and biodiversity goals should be fully integrated into all statutory local plans (e.g., Local Plans, Transport Strategies, Waste Management Plans). This integration should include legally binding requirements

for new developments, such as stringent net-zero operational standards for new homes and mandatory whole life-cycle carbon assessments.
3. **Standardized Definition and Enforcement of Green Claims:** Regional bodies and local authorities should advocate for clearer national guidelines on greenwashing. Locally, policies should be developed and enforced to prevent misleading environmental claims by businesses and public entities, fostering greater trust and ensuring that environmental efforts are genuine and impactful.
4. **Prioritize Circular Economy Principles:** Move beyond mere landfill diversion to prioritize waste prevention, reuse, and high-quality recycling. This necessitates a review of current kerbside collection systems to minimize contamination, potentially moving towards more nuanced multi-stream recycling where feasible, coupled with sustained public education campaigns. Long-term contracts with waste-to-energy facilities should be re-evaluated to ensure they do not inadvertently disincentivize higher-value recycling and align with true circularity goals.

Investment Priorities for Sustainable Infrastructure and Technology

1. **Targeted Transport Funding for Quality Infrastructure:** Prioritize sustained investment in high-quality, segregated active travel infrastructure that demonstrably addresses public safety concerns and genuinely encourages modal shift. Ensure long-term funding mechanisms for electric bus fleets, moving beyond short-term government grants to explore innovative financing models that secure their operational and maintenance viability.
2. **Tailored Rural Connectivity Solutions:** Invest in public transport solutions specifically designed for rural areas, which may include flexible, on-demand services or smaller electric vehicles, to reduce car dependency in less dense populations and enhance accessibility.
3. **Strategic Renewable Energy Siting and Equitable Benefits:** Develop regional strategies for renewable energy project siting that prioritize degraded land, brownfield sites, and industrial areas over prime agricultural or ecologically sensitive landscapes. Mandate comprehensive community benefit schemes that offer direct financial advantages (e.g., energy bill discounts) and provide genuine local control over funds, thereby fostering a sense of ownership and mitigating local opposition.
4. **Dedicated Climate Adaptation Funding:** Secure distinct and substantial funding streams for climate adaptation measures, particularly for vulnerable coastal and flood-prone areas. These investments should focus on building resilience through both engineered solutions and nature-based approaches, recognizing that adaptation is a critical, separate pillar of climate action.

Strategies for Enhancing Community Engagement and Addressing Opposition

1. **Transparent and Accessible Communication:** Local authorities must translate complex climate action plans into easily understandable and accessible formats for all residents. This involves clearly outlining specific actions, assigned responsibilities, and expected impacts. Proactive and continuous dialogue, addressing public skepticism with clear evidence and open discussion, is essential to build and maintain trust.
2. **Inclusive Co-creation Processes:** Implement citizen assemblies, deliberative forums, or co-design processes (as exemplified in Wakefield) to actively involve diverse community

groups, including those most affected by climate change or policy changes, in the planning and implementation of green initiatives. This ensures that solutions are equitable, locally relevant, and gain broader public buy-in.
3. **Address Local Concerns with Tangible Benefits:** For large-scale infrastructure projects, ensure that local communities receive tangible and equitable benefits that demonstrably outweigh perceived negative impacts. This approach fosters a sense of shared prosperity and can significantly reduce resistance, transforming potential "Not In My Backyard" sentiments into "Proudly In My Backyard" acceptance. Combat misinformation through clear, factual communication channels.

Measures to Combat Misleading Green Claims and Ensure Transparency

1. **Mandatory and Standardized Reporting:** Implement robust, standardized reporting requirements for both public and private sector entities on their environmental performance. This should include comprehensive reporting on Scope 1, 2, and, crucially, Scope 3 emissions (indirect emissions from supply chains, waste, etc.), as well as actual recycling rates (not just collection rates).
2. **Increased Independent Verification:** Enhance the role of independent oversight and third-party verification of green claims and environmental impact assessments. This measure is vital for building public trust and ensuring that reported environmental benefits are accurate and verifiable.
3. **Public Awareness and Education:** Launch targeted public awareness campaigns to educate consumers and citizens on how to identify misleading green claims and make genuinely sustainable choices. Empowering the public with critical assessment skills is a key defense against greenwashing.

Recommendations for Integrated Urban-Rural Planning Approaches

1. **Tailored Strategies within a Unified Framework:** Develop a unified regional green planning framework that acknowledges and supports tailored strategies for both urban and rural areas. This framework should facilitate knowledge sharing and resource allocation while allowing for flexibility in addressing distinct local challenges.
2. **Leverage Regional Strengths:** Capitalize on regional strengths, such as West Yorkshire's capacity for mass transit development and East Yorkshire's potential for coastal adaptation and nature-based solutions. Encourage cross-riding collaboration on shared challenges, such as waste management infrastructure and renewable energy siting.
3. **Equitable Distribution of Benefits and Burdens:** Ensure that the benefits of green initiatives (e.g., clean air, green jobs, energy savings) are equitably distributed across both urban and rural communities, and that the burdens (e.g., visual impact of renewables, traffic changes) are fairly managed and mitigated, fostering regional cohesion in the pursuit of a sustainable future.

Works cited

1. Local Plan Update Leeds Local Plan, https://www.leeds.gov.uk/sites/default/files/Local%20Plans/LPU%20Pre-Submission%20Oct%202023/LPU-PSC%20Carbon%20Reduction%20Background%20Paper.pdf 2. Leeds local plan

update: Introduction and summary | Leeds.gov.uk,
https://www.leeds.gov.uk/planning/planning-policy/local-plan-update/introduction-and-summary
3. Local Plan Update Leeds Local Plan - Leeds City Council,
https://www.leeds.gov.uk/docs/Local%20Plan%20Update/Overall%20Climate%20Change%20Background%20Paper.pdf 4. Proposed new and amended policies | Leeds.gov.uk,
https://www.leeds.gov.uk/planning/planning-policy/local-plan-update/proposed-policy 5. About Climate Action Leeds, https://www.climateactionleeds.org.uk/about-climate-action-leeds 6. Climate Plan Update:December 2022 to February 2023 - University of Leeds,
https://spotlight.leeds.ac.uk/climate-plan-update-december-2022-to-february-2023/index.html 7. Leeds City Council Climate Action Scorecard | Council Climate ...,
https://councilclimatescorecards.uk/councils/leeds-city-council/ 8. Climate change | Leeds.gov.uk, https://www.leeds.gov.uk/plans-and-strategies/climate-change 9. Leeds Vision Zero 2040 Strategy | Leeds.gov.uk,
https://www.leeds.gov.uk/plans-and-strategies/vision-zero-2040-strategy 10. Nearly 4 in 5 Leeds residents want cars to give way to bikes, buses and walking to tackle urban air pollution - Transport & Environment,
https://www.transportenvironment.org/te-united-kingdom/articles/nearly-4-5-leeds-residents-want-cars-give-way-bikes-buses-and-walking-tackle-urban-air 11. Leeds graded 'A' for Climate Action by CDP - Leeds City Council News,
https://news.leeds.gov.uk/news/leeds-graded-a-for-climate-action-by-cdp 12. Leeds City Centre Cycle Improvements - Your Voice - West Yorkshire Combined Authority,
https://www.yourvoice.westyorks-ca.gov.uk/leeds-ccci 13. First ever zero emission bus fleet for West Yorkshire launched in Leeds - FirstGroup plc,
https://www.firstgroupplc.com/news-and-media/latest-news/2020/08-10-2020a.aspx 14. Leeds leads in West Yorkshire - BusAndTrainUser,
https://busandtrainuser.com/2020/11/03/leeds-leads-in-west-yorkshire/ 15. Bus electrification: moving towards Net Zero amid budget constraints - VEV,
https://www.vev.com/blog/bus-electrification-moving-towards-net-zero-amid-budget-constraints/ 16. Waste strategy | Leeds.gov.uk, https://www.leeds.gov.uk/bins-and-recycling/waste-strategy 17. Leeds Recycling & Energy Recovery Facility (RERF) works,
https://www.leeds.veolia.co.uk/our-facility/leeds-recycling-energy-recovery-facility-rerf-works 18. Sustainability and resilience | Leeds.gov.uk,
https://www.leeds.gov.uk/plans-and-strategies/leeds-food-strategy/sustainability-and-resilience 19. Leeds Beckett University's Sustainable Packaging Project | Roadmap to 2034,
https://www.towardspackaging.com/blog/leeds-beckett-sustainable-packaging-project 20. Carbon Reduction Background Paper - Local Plan Update Leeds Local Plan,
https://www.leeds.gov.uk/docs/Local%20Plan%20Update/Carbon%20Reduction%20Background%20Paper.pdf 21. Pavement adverts under fire as Leeds council is accused of 'environmental crime', https://www.theguardian.com/leeds/2011/feb/14/leeds-city-council-pavement-adverts 22. Sheffield City Council Annual climate action report 2022/23 Executive Summary,
https://www.sheffield.gov.uk/sites/default/files/2023-12/annual_climate_action_report_2022-23_executive_summary.pdf 23. Net Zero Sheffield - Decarbonisation Routemap 2023-25,
https://www.sheffield.gov.uk/sites/default/files/2023-12/Net%20Zero%20Sheffield%20-%20Decrabonisation%20Routemap%202023-25.pdf 24. Our long term plan for climate change | Sheffield City Council,
https://www.sheffield.gov.uk/your-city-council/climate-emergency-response/our-long-term-plan-climate-change 25. Decarbonisation Pathways Sheffield City Council Governance Arrangements Report,

https://www.sheffield.gov.uk/sites/default/files/2022-10/decarbonisation-pathways-sheffield-city-council-governance-arrangements-report.pdf 26. Sheffield City Council Climate Action Scorecard | Council Climate ..., https://councilclimatescorecards.uk/councils/sheffield-city-council/ 27. Pollution levels across Sheffield drop following the launch of the Clean Air Zone, https://sheffnews.com/news/pollution-levels-across-sheffield-drop-following-the-launch-of-the-clean-air-zone 28. A 10 Point Plan for climate action - Sheffield City Council, https://www.sheffield.gov.uk/sites/default/files/2023-07/a_10_point_plan_for_climate_acton_2021-23.pdf 29. Walking, Wheeling and Cycling Investment Plan April 2025 - Sheffield City Council, https://www.sheffield.gov.uk/sites/default/files/2025-05/walking-wheeling-cycling-investment-plan-april-2025.pdf 30. Connecting Sheffield: City Centre FAQS (Frequently Asked Questions), https://haveyoursay.sheffield.gov.uk/connecting-sheffield-city-centre/news_feed/connecting-sheffield-city-centre-faqs 31. Sheffield Connect passenger numbers rise a year after the service went fully electric, https://www.sheffield.gov.uk/news/2025/sheffield-connect-passenger-numbers-rise-year-after-service-went-fully-electric 32. Passenger numbers on Sheffield's free Connect buses double after electric relaunch, https://shef-live.co.uk/index.php/2025/03/24/passenger-numbers-on-sheffields-free-connect-buses-double-after-electric-relaunch/ 33. Council proposes £11m to help electrify the city's buses | Sheffield City Council, https://www.sheffield.gov.uk/news/2025/council-proposes-ps11m-help-electrify-citys-buses 34. Government to provide £20m to support electrification of Sheffield's buses, https://www.sheffield.gov.uk/news/2025/government-provide-ps20m-support-electrification-sheffields-buses 35. Assessing the energy implications of replacing car trips with bicycle trips in Sheffield, UK, https://www.researchgate.net/publication/223884407_Assessing_the_energy_implications_of_replacing_car_trips_with_bicycle_trips_in_Sheffield_UK 36. The Truth About Cycle Lanes: Investment, Impact, and Public Perception - BWB Consulting, https://www.bwbconsulting.com/insights/the-truth-about-cycle-lanes-investment-impact-and-public-perception/ 37. Gear Change: One Year On - GOV.UK, https://assets.publishing.service.gov.uk/media/6107b4b4d3bf7f0449a82017/gear-change-one-year-on.pdf 38. What we're doing about climate change | Sheffield City Council, https://www.sheffield.gov.uk/your-city-council/climate-emergency-response/what-were-doing-about-climate-change 39. Kirklees has second highest recycling rejection rate in the whole of ..., https://www.dewsburyreporter.co.uk/news/politics/council/kirklees-has-second-highest-recycling-rejection-rate-in-the-whole-of-yorkshire-and-the-humber-data-reveals-5253113 40. Recycling rejection rates in Yorkshire as 1 city sees 20 per cent turned away, https://uk.news.yahoo.com/recycling-rejection-rates-yorkshire-1-030000027.html 41. The Environment Act: Changes to waste and recycling | Sheffield City Council, https://www.sheffield.gov.uk/bins-recycling-services/environment-act-changes-waste-recycling 42. Average Daily Emissions - Veolia Sheffield, https://www.sheffield.veolia.co.uk/emissions 43. Review of research into health effects of Energy from Waste facilities - CEWEP, https://www.cewep.eu/wp-content/uploads/2017/10/EfW_Health_Review_January_2012_FINAL.pdf 44. Waste incinerators undermine clean energy goals | PLOS Climate - Research journals, https://journals.plos.org/climate/article?id=10.1371/journal.pclm.0000100 45. Industry reacts to BBC's waste incineration analysis - Circular Online, https://www.circularonline.co.uk/news/industry-reacts-to-bbcs-waste-incineration-analysis/ 46. CLIMATE ACTION PLAN 2025 - 2028 - Bradford Council, https://www.bradford.gov.uk/media/bm3ps2mc/cbmdcclimateactionplan.pdf 47. Department of

Place, Sustainability Service - Active Bradford, https://www.activebradford.com/files/170622/2-sport-physical-activity-climate-action-bc1.pdf 48. Biggest ever investment in city region local transport as Chancellor vows the 'Renewal of Britain' - GOV.UK, https://www.gov.uk/government/news/biggest-ever-investment-in-city-region-local-transport-as-chancellor-vows-the-renewal-of-britain 49. New research on recycling rejection rate for Bradford | Bradford ..., https://www.thetelegraphandargus.co.uk/news/25366920.new-research-recycling-rejection-rate-bradford/ 50. Bradford Council - CIPFA external assurance review - GOV.UK, https://assets.publishing.service.gov.uk/media/65df638acf7eb16adff57f97/City_of_Bradford_Metropolitan_District_Council_-_external_assurance_review.pdf 51. Sustainability - Wakefield First, https://wakefieldfirst.com/starting-your-business/sustainability/ 52. Wakefield Climate Change Action Plan | South Asia Commons, https://southasiacommons.net/artifacts/20642059/wakefield-climate-change-action-plan/21542569/ 53. Wakefield Council – Climate Change Action Plan (CCAP) - CAPE, https://cape.mysociety.org/media/data/plans/wakefield-metropolitan-district-council-cc4e0f3.pdf 54. Wakefield Citizen Visioning Report by Involve - Issuu, https://issuu.com/involveadam/docs/wakefield_citizen_visioning_report_ 55. WAKEFIELD 2030, https://www.wrc.sa.gov.au/__data/assets/pdf_file/0032/805388/WRC-Community-Plan-W2030.pdf 56. Wakefield city centre transport improvements, https://www.wakefield.gov.uk/regeneration/wakefield-city/wakefield-city-centre-transport-improvements 57. Chiefs critical of bike lane, flex posts | Local Headline News, https://localheadlinenews.com/wakefield-daily-item-chiefs-critical-of-bike-lane-flex-posts/ 58. Recycling | Wakefield, MA, https://www.wakefield.ma.us/recycling 59. What happens to my waste in Wakefield?, https://biffawakefield.co.uk/news/what-happens-to-my-waste-in-wakefield/ 60. Climate Change Action Plan for Kirklees - Kirklees Council, https://www.kirklees.gov.uk/beta/climate-emergency/pdf/kirklees-climate-change-action-plan.pdf 61. The Climate Action Plan for Kirklees - Politics UK, https://politicsuk.com/the-climate-action-plan-for-kirklees/ 62. Kirklees makes the 'A List' in climate action, https://kirkleestogether.co.uk/2025/06/24/kirklees-makes-the-a-list-in-climate-action/ 63. Kirklees Transport Strategy, 2025 - Council and democracy, https://democracy.kirklees.gov.uk/documents/s65269/7d.%20Kirklees%20Transport%20Strategy_Issued%2030072025.pdf 64. A Review of the Kirklees Draft Transport Strategy – A Missed Opportunity for Active Travel?, https://cyclekirklees.org.uk/a-review-of-the-kirklees-draft-transport-strategy-a-missed-opportunity-for-active-travel/ 65. Electric buses could be on Kirklees roads under proposed £81m West Yorkshire public transport scheme - Halifax Courier, https://www.halifaxcourier.co.uk/news/transport/electric-buses-could-be-on-kirklees-roads-under-proposed-ps81m-west-yorkshire-public-transport-scheme-3739366 66. Kirklees has second highest recycling rejection rate in the whole of Yorkshire and the Humber - Asian Standard Newspaper, https://www.asianstandard.co.uk/kirklees-has-second-highest-recycling-rejection-rate-in-the-whole-of-yorkshire-and-the-humber/ 67. Kirklees EfW - Wikipedia, https://en.wikipedia.org/wiki/Kirklees_EfW 68. Climate Action Plan | Calderdale Council, https://new.calderdale.gov.uk/environment/sustainability/climate-action-plan 69. Climate emergency | Calderdale Council, https://new.calderdale.gov.uk/environment/sustainability/climate-emergency 70. Calderdale

Shared Transport Hubs | Your Voice - West Yorkshire Combined Authority, https://www.yourvoice.westyorks-ca.gov.uk/calderdalehubs 71. A new way of providing transport services could be coming to Calderdale as plans take another step forward, https://www.calderdalenextchapter.co.uk/news/new-way-providing-transport-services-could-be-coming-calderdale-plans-take-another-step 72. Staying safe on Calderdale roads | News Centre, https://news.calderdale.gov.uk/staying-safe-on-calderdale-roads/ 73. Figures reveal amount of rubbish recycled by Calderdale has fallen over last two years, https://www.halifaxcourier.co.uk/news/figures-reveal-amount-of-rubbish-recycled-by-calderdale-has-fallen-over-last-two-years-272057 74. Communications programme improves recycling quality in Calderdale - SUEZ in UK, https://www.suez.co.uk/en-gb/our-offering/success-stories/our-references/communications-programme-improves-recycling-quality-in-calderdale 75. Calderdale Local Plan - Written Statement - 26 ... - Calderdale Council, https://calderdale.objective.co.uk/portal/planning_services/adt/calderdale_local_plan?pointId=s1662117434224 76. Local Plan Initial Draft 2017 - Table 23.2 - Waste Recycling and Treatment Capacity Shortfalls - Calderdale Council, https://calderdale.objective.co.uk/portal/planning_services/lp17/lpid?pointId=ID-4395657-TABLE-23.2 77. City of York Council - CAPE - mySociety, https://cape.mysociety.org/councils/city-of-york-council/ 78. Climate Change Strategy 2022 to 2032, https://www.york2032.co.uk/strategies-action-plans/climate-change-strategy-2022-2032 79. Contents - City of York Council, https://www.york.gov.uk/downloads/file/8121/draft-climate-change-strategy 80. Annual Carbon Emissions Report 2022/23 - Meetings, agendas, and minutes - City of York Council, https://democracy.york.gov.uk/(S(aw2b23jofoyuejfc1asnl055))/documents/s171185/Decision%20Report%20Annual%20Carbon%20Emissions%20Report%20202223.pdf 81. City of York Local Area Energy Plan, https://yorknorthyorks-ca.gov.uk/wp-content/uploads/2023/12/City-of-York-Local-Area-Energy-Plan.pdf 82. City of York Council Our Big Conversation 10 Year Strategies, https://democracy.york.gov.uk/documents/s162558/Annex%20C%20Our%20Big%20Conversation%2010%20Year%20strategies%20-%20Consultation%20Results.pdf 83. Transport and emissions - City of York Council, https://www.york.gov.uk/climate-change-2/TransportEmissions/2 84. Local Opposition Challenges Wind Farm Development in Rural Nebraska, https://www.insurancejournal.com/news/midwest/2024/07/29/785849.htm 85. Phenomenal figures released for York's Park and Ride | First Bus North England News, https://news-ne.firstbus.co.uk/news/phenomenal-figures-released-for-yorks-park-and-ride 86. Phenomenal figures released for York's Park & Ride - City of York Council, https://www.york.gov.uk/news/article/1619/phenomenal-figures-released-for-york-s-park-ride 87. Car journeys up while bus and bicycle journeys down shows UK travelling in wrong direction, says IPPR, https://www.ippr.org/media-office/car-journeys-up-while-bus-and-bicycle-journeys-down-shows-uk-travelling-in-wrong-direction-says-ippr 88. Public given opportunity to discuss impact of York cycle lane | road.cc, https://road.cc/content/news/13298-public-given-opportunity-discuss-impact-york-cycle-lane 89. York Way Pop-up Cycle Lanes: - Meetings, agendas, and minutes, https://democracy.camden.gov.uk/documents/s100296/Appx.%20E.%20Feedback%20during%20trial%20via%20Commonplace%20engagement.pdf 90. Concerns over waste plant that serves York after breaches of harmful emission rules,

https://uk.news.yahoo.com/concerns-over-waste-plant-serves-040000039.html 91. Concerns over waste plant that serves York and North Yorkshire after emissions breach, https://yorkmix.com/concerns-over-waste-plant-that-serves-york-and-north-yorkshire-after-emissions-breach/ 92. Report prompts fresh Allerton Waste Recovery Park concerns - Darlington & Stockton Times, https://www.darlingtonandstocktontimes.co.uk/news/25333362.report-prompts-fresh-allerton-waste-recovery-park-concerns/ 93. Report prompts fresh concerns about performance of North Yorkshire waste plant - Yahoo, https://uk.news.yahoo.com/report-prompts-fresh-concerns-performance-151958611.html 94. 'Avalanche' of rubbish each home tossed in every Yorkshire area ahead of UK rule change, https://uk.news.yahoo.com/avalanche-rubbish-home-tossed-every-030000616.html 95. Beyond Carbon | North Yorkshire Council, https://www.northyorks.gov.uk/environment-and-neighbourhoods/climate-change/beyond-carbon 96. North Yorkshire Council Climate Action Scorecard, https://councilclimatescorecards.uk/councils/north-yorkshire-council/ 97. Climate change strategy 2023 to 2030 | North Yorkshire Council, https://www.northyorks.gov.uk/environment-and-neighbourhoods/climate-change/climate-change-strategy-2023-2030 98. Climate change and local action | North Yorkshire Council, https://www.northyorks.gov.uk/environment-and-neighbourhoods/climate-change/climate-change-and-local-action 99. Active travel | North Yorkshire Council, https://www.northyorks.gov.uk/roads-parking-and-travel/major-transport-schemes-and-plans/active-travel 100. More than £32 million to resurface roads and build new cycle lanes in the north east and Yorkshire as region hosts UK's largest women's cycling race - GOV.UK, https://www.gov.uk/government/news/more-than-32-million-to-resurface-roads-and-build-new-cycle-lanes-in-the-north-east-and-yorkshire-as-region-hosts-uks-largest-womens-cycling-race 101. Hockney Vs. Wind Farms: The Fight For Yorkshire's Beauty [02ohq5] - dunlap-stone.edu, https://dunlap-stone.edu/Is-Renewable-Energy-Compromising-Art--The-_bc02ohq5_Hockney-Case/ 102. Ridge Clean Energy announces proposal for wind turbines in East Riding of Yorkshire and commitment to £5 million in community funding, https://www.ridgecleanenergy.com/ridge-clean-energy-announces-proposal-for-wind-turbines-in-east-riding-of-yorkshire-and-commitment-to-5-million-in-community-funding/ 103. Can wind turbines harm wildlife? | U.S. Geological Survey - USGS.gov, https://www.usgs.gov/faqs/can-wind-turbines-harm-wildlife 104. Impacts of Wind Energy Facilities on Wildlife and Wildlife Habitat, https://wildlife.org/wp-content/uploads/2014/05/Wind07-2.pdf 105. Impacts of Wind Energy Developments on Birds and Bats: Looking Into the Problem - Tethys, https://tethys.pnnl.gov/sites/default/files/publications/Edkins-2014.pdf 106. Wind Turbine Interactions with Birds, Bats, and their Habitats: A Summary of Research Results and Priority Questions, https://www1.eere.energy.gov/wind/pdfs/birds_and_bats_fact_sheet.pdf 107. Plans for 23.5MW solar farm near Catterick Garrison | The Northern Echo, https://www.thenorthernecho.co.uk/news/25329304.plans-23-5mw-solar-farm-near-catterick-garrison/ 108. Tunstall solar farm would have 'no unacceptable environmental impacts' - Yahoo, https://uk.news.yahoo.com/tunstall-solar-farm-no-unacceptable-150000064.html 109. Three Oaks Renewable Energy Park, https://www.ridgecleanenergy.com/wp-content/uploads/2023/03/Exhibition-Invite-and-Information-Boards-Part-1-of-2-THO.pdf 110. The Impact Of Solar Energy On Wildlife And Biodiversity - Arka360, https://arka360.com/ros/solar-energy-impact-wildlife-biodiversity-sustainability 111. Full article: Solar farm management influences breeding bird responses in an arable-dominated

landscape - Taylor & Francis Online,
https://www.tandfonline.com/doi/full/10.1080/00063657.2025.2450392 112. Evidence review of the impact of solar farms on birds, bats and general ecology (NEER012),
https://publications.naturalengland.org.uk/file/6000213410447360 113. Evidence review of the impact of solar farms on birds, bats and general ecology,
https://www.researchgate.net/publication/314405068_Evidence_review_of_the_impact_of_solar_farms_on_birds_bats_and_general_ecology 114. Summary: Solar Impacts on Wildlife and Ecosystems Request for Information - Department of Energy,
https://www.energy.gov/sites/default/files/2021-11/Solar%20Impacts%20on%20Wildlife%20and%20Ecosystems%20Request%20for%20Information%20Summary.pdf 115. Solar Panels and Wildlife - Lessening Environmental Impacts (2025) - 8MSolar,
https://8msolar.com/solar-panels-and-wildlife-lessening-environmental-impacts/ 116. Solar Farm Environmental Impact: Biodiversity and Land Use - CMI Group Inc.,
https://www.cmigroupinc.ca/solar-farm-environmental-impact-biodiversity-and-land-use/ 117. Solar Energy Interactions with Wildlife and Their Habitats,
https://rewi.org/wp-content/uploads/2023/05/REWI-Solar-Energy-Wildlife-Interactions-Summary-2023.pdf 118. North Yorkshire Council: New Dry Recycling Service Supported by Public Consultation | WRAP - The Waste and Resources Action Programme,
https://www.wrap.ngo/resources/case-study/north-yorkshire-council-new-dry-recycling-service-supported-public 119. Climate adaptation - Hull City Council,
https://www.hull.gov.uk/climate-change/climate-adaptation 120. Climate change - Hull City Council, https://www.hull.gov.uk/climate-change 121. Hull 2030 Carbon Neutral Strategy,
https://www.hull.gov.uk/downloads/file/2186/hull-2030-carbon-neutral-strategy 122. IN PRACTICE CASE STUDY Applying Climate Just in Hull,
https://climatejust.org.uk/sites/default/files/Hull%20City%20Council%20case%20study.pdf 123. About the project - Hull Active Travel Schemes,
https://hullactivetraveleatschemes.commonplace.is/about 124. hull transport survey 2022 - summary report,
https://data.hull.gov.uk/wp-content/uploads/Transport-Survey-Full-Summary-Report-FINAL.pdf 125. East Yorkshire gets £5.7m for electric bus rollout - BBC News,
https://feeds.bbci.co.uk/news/articles/ckd8kj0jglno 126. Energy Works - Hull - Spencer Group,
https://thespencergroup.co.uk/projects/energy-works/ 127. Hull Wind 2: A case study in effective renewable energy projects,
https://www.renewableenergyworld.com/energy-business/new-project-development/hull-wind-2-a-case-study-in-effective-renewable-energy-projects/ 128. Community benefits and engagement: Onshore wind factsheet | RenewableUK,
https://www.renewableuk.com/media/51obvmbr/community-benefits-and-engagement-onshore-wind-factsheet-march-2025.pdf 129. Household waste recycling centres | Hull,
https://www.hull.gov.uk/recycling/household-waste-recycling-centres 130. Waste to Energy Hull | Commercial Waste Management, https://www.hullwaste.co.uk/waste-to-energy-hull/ 131. Environmental management - East Riding Leisure Centres,
https://www.eastridingleisure.co.uk/information/environmental-management/ 132. Yorkshire Water named among worst polluters in Environment Agency report,
https://beverleyreview.co.uk/yorkshire-water-named-among-worst-polluters-in-damning-environment-agency-report/ 133. Changing Coasts East Riding - Engage Environment Agency - Granicus,
https://engageenvironmentagency.uk.engagementhq.com/https-engageenvironmentagency-uk-engagementhq-com-https-engageenvironmentagency-uk-engagementhq-com-east-riding-of-york

shire-ctap 134. Environment and Planning Committee - Driffield Town Council, https://driffieldtowncouncil.gov.uk/meetings-and-reports/committees/environment-and-planning/ 135. Conservation - East Riding Coast and Countryside, https://www.eastridingcoastandcountryside.co.uk/conservation-and-safety 136. East Riding Council Announce Climate Change Plans - This is the ..., https://www.thisisthecoast.co.uk/news/local-news/east-riding-council-announce-climate-change-plans/ 137. Climate change - what we do - East Riding of Yorkshire Council, https://www.eastriding.gov.uk/environment/sustainable-environment/climate-change/climate-change-what-we-do/ 138. 10 reasons to stop subsidising Drax power station - Greenpeace UK, https://www.greenpeace.org.uk/news/drax-subsidies/ 139. “Nothing green or clean”: Yorkshire-based activist group protest on Sheffield University campus, https://yorkshirebylines.co.uk/region/nothing-green-or-clean-yorkshire-based-activist-group-protest-on-sheffield-university-campus/ 140. Drax remains UK's largest emitter amid biomass subsidy controversy - Bioenergy Insight, https://www.bioenergy-news.com/news/drax-remains-uks-largest-emitter-amid-biomass-subsidy-controversy/ 141. Greenwashing Power Station Executive Admits 'Revolving Door' With Government, https://novaramedia.com/2025/03/27/greenwashing-power-station-executive-admits-revolving-door-with-government/