

**Guildhall Gainsborough
Lincolnshire DN21 2NA
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AGENDA

This meeting will be webcast live and the video archive published on our website

Corporate Policy and Resources Committee

Thursday, 18th July, 2024 at 6.30 pm

Council Chamber - The Guildhall, Marshall's Yard, Gainsborough, DN21 2NA

Members:

- Councillor Trevor Young (Chairman)
- Councillor Mrs Lesley Rollings (Vice-Chairman)
- Councillor Paul Swift (Vice-Chairman)
- Councillor Owen Bierley
- Councillor Matthew Boles
- Councillor Frazer Brown
- Councillor Stephen Bunney
- Councillor Ian Fleetwood
- Councillor Paul Key
- Councillor Roger Patterson
- Councillor Tom Smith
- Councillor Mrs Mandy Snee

1. Apologies for Absence

2. Public Participation Period

Up to 15 minutes are allowed for public participation. Participants are restricted to 3 minutes each.

3. Minutes of Previous Meeting

(PAGES 3 - 9)

To confirm and sign as a correct record the Minutes of the Meeting of the Corporate Policy and Resources Committee held on Thursday, 27 June 2024.

4. Declarations of Interest

Members may make declarations of Interest at this point or may make them at any point in the meeting.

5. **Matters Arising Schedule** (PAGE 10)
Setting out current position of previously agreed actions as at 10 July 2024
6. **Public Reports for Approval:**
- i) Unacceptable Customer Action Policy and Guidance (PAGES 11 - 37)
 - ii) Street Naming and Numbering Policy (PAGES 38 - 75)
 - iii) Fleet Vehicle Decarbonisation Strategy (PAGES 76 - 185)
 - iv) Food Waste Collections (PAGES 186 - 200)
 - v) Budget and Treasury Monitoring Qtr. 1 2024/2025 (PAGES 201 - 241)
 - vi) Committee Work Plan (PAGES 242 - 244)
7. **Exclusion of Public and Press**
- To resolve that under Section 100 (A)(4) of the Local Government Act 1972, the public and press be excluded from the meeting for the following items of business on the grounds that they involve the likely disclosure of exempt information as defined in paragraphs 3 and 4 of Part 1 of Schedule 12A of the Act.
8. **Exempt Report(s) For Approval:**
- i) Drivers pay supplement (PAGES 245 - 252)
 - ii) Trinity Arts Boundary Wall Remedial Options Report (PAGES 253 - 287)

Ian Knowles
Head of Paid Service
The Guildhall
Gainsborough

Wednesday, 10 July 2024

Corporate Policy and Resources Committee – 27 June 2024
Subject to Call-in. Call-in will expire at 5pm on 10 July 2024

WEST LINDSEY DISTRICT COUNCIL

MINUTES of the Meeting of the Corporate Policy and Resources Committee held in the Council Chamber - The Guildhall, Marshall's Yard, Gainsborough, DN21 2NA on 27 June 2024 commencing at 6.30 pm.

Present: Councillor Trevor Young (Chairman)
Councillor Paul Swift (Vice-Chairman)

Councillor Owen Bierley
Councillor Matthew Boles
Councillor Frazer Brown
Councillor Stephen Bunney
Councillor Ian Fleetwood
Councillor Paul Key
Councillor Roger Patterson
Councillor Mrs Mandy Snee
Councillor Adam Duguid
Councillor Karen Carless

In Attendance:
Ian Knowles Chief Executive
Emma Foy Director of Corporate Services and Section 151
Peter Davy Financial Services Manager (Deputy Section 151 Officer)
Alison McCulloch Revenues Manager
Darren Mellors Performance & Programme Manager
Claire Bailey Change, Projects and Performance Officer
Maisie McInnes Democratic and Civic Officer

Apologies: Councillor Mrs Lesley Rollings
Councillor Tom Smith

Membership: Councillor Karen Carless was appointed substitute for
Councillor Lesley Rollings
Councillor Adam Duguid was appointed substitute for
Councillor Tom Smith

12 PUBLIC PARTICIPATION PERIOD

There was no public participation.

13 MINUTES OF PREVIOUS MEETING

RESOLVED that the Minutes of the Meeting of the Corporate Policy and Resources Committee held on 23 May 2024 be confirmed and signed as a correct record.

14 DECLARATIONS OF INTEREST

Councillor Mandy Snee declared a non-pecuniary interest in the Budget and Treasury Monitoring Final Outturn 2023/2024 report due to her employment with Acis Housing.

15 MATTERS ARISING SCHEDULE

With no comments or questions, the Matters Arising Schedule, setting out the position of previously agreed actions as at 10 June 2024, was **NOTED**.

16 WLDC PRODUCTIVITY PLAN 2024

The Chief Executive presented the West Lindsey District Council Productivity Plan 2024 and explained the report was a new requirement for local government authorities from the Department for Levelling Up, Housing and Communities (DLHUC) in exchange for financial support amounting to 4.7% of core spending. There was no template or formal criteria for the report, other than 35 questions as guidance and four themes relating to transformation, use of technology, plans to reduce wasteful spend and the barriers preventing progress. West Lindsey had produced answers in a narrative response to these in the report and referenced the Council's policy documents such as the Corporate Strategy, Executive Business Plan, Medium-Term Financial Plan and Budget and Treasury Monitoring. Officers had identified several barriers to service delivery and productivity which included the Internal Drainage Board (IDB) and lack of multi-year financial settlements. In terms of use of technology and transformation, it was acknowledged that there had been a review of service areas and major IT systems had been implemented, an Enterprise Resource Platform (ERP) and Customer Relationship Management system (CRM).

Members were requested to approve the report to be submitted by the 19 July 2024 deadline to DLHUC for review in accordance with government guidance. The Chief Executive explained that there was a potential risk in a Best Value inspection to local authorities who did not comply with submitting a Productivity Plan by the deadline.

Members commended the concise and detailed report which demonstrated the capability of the Council and the Council's current position.

The Chief Executive voiced his thanks to Ellen King for producing the comprehensive report.

Having been proposed, seconded and voted upon, it was

RESOLVED that

- a) the requirement of all Councils to submit a Productivity Plan to the

Department for Levelling Up, Housing and Communities (DLUHC) by 19 July 2024 be noted; and

- b) noting that the Productivity Plan had been produced in accordance with the guidance issued by the Department, the Productivity Plan included within the report be approved to be submitted to DLUHC for review.

17 APPOINTMENT OF DIRECTOR TO WEST LINDSEY DISTRICT COUNCIL TRADING COMPANIES

Members gave consideration to a report presented by the Section 151 Officer seek approval to appoint the Director of Planning, Regeneration and Communities as an additional company director of West Lindsey District Council Trading Ltd, Surestaff Lincs Limited and West Lindsey District Council Staffing Services Ltd. At present there was only one director in place for these companies, with the Financial Services Manager (Deputy S151) in post as the Company Secretary. The appointment was proposed to increase additional resilience and provide additional resourcing where reports and financial returns were needed urgently.

Members strongly felt that this was the best course of action to have a reserve in place.

Having been proposed, seconded and voted upon, it was unanimously

RESOLVED that the appointment of the Director of Planning, Regeneration and Communities as an additional company director of WLDC Trading LTD, Surestaff Lincs Limited and WLDC Staffing Services LTD be approved.

18 BUDGET AND TREASURY MONITORING FINAL OUTTURN 2023/2024

The Committee received the Budget and Treasury Monitoring Final Outturn 2023/24 report from the Business Support Team Leader. Members heard that in terms of revenue budget, there was a net contribution of £115,000 put into reserves and Members were requested to approve £15,000 to be carried forward to support Council events, including the Lincolnshire Show, and approve a transfer of £100,000 to the budget stability reserve. In comparison to previous year's net underspend, £784,000 was reported in 2021/22 and £564,000 in 2022/23.

The 2023/24 outturn demonstrated an increase in contribution to reserves of £36,000 from the last quarter, but there were significant movements in this calculation which included:

- An increase in net interest receivable of £300,000
- Windfall grant income received in the final quarter of £174,000
- The balance of a corporate contingency budget was £85,000,

However, these gains had been offset by the reversal of a debtor accrual to correct the balance sheet which had reduced the contribution to reserves by £262,000, and from Planning Application income as a number of large applications had moved into 2024/25 which had reduced income received in year by £267,000.

In terms of the capital budget for 2023/24, there was a final outturn of £5.303m against a revised budget of £11.609m which had resulted in a variance of £6.306m. The majority of the variance was to be moved into 2023/24, a total of £6.319m and details of amendments to the 2023/24 capital programme were contained in the report at section three. There were also proposed amendments to the 2024/25 capital programme in section three in relation to Grange Farm Section 106 funding and the successful grant application for solar panels at West Lindsey Leisure Centre.

Members praised the excellent report by the Business Support Team Leader and asked questions surrounding safeguarding in housing and resources to deliver projects. It was responded that people living in temporary accommodation were being properly supported and safeguarded by the Council, and the report detailed the cost of this to protect residents. There was sufficient resourcing in place to deliver the capital programme, however there was a delay to some of the projects and these were being carried forward to 2024/25.

Members requested details on Levelling Up funding and asked if there were any monies underspent on projects that could be brought back to a future meeting. The Section 151 Officer agreed to bring back an update report to Members at their September meeting.

Having been moved and seconded it was

RESOLVED that

Revenue

- a) the out-turn position of a £0.928m gross contribution to reserves against the revised budget for 2023/2024, which included £0.813m of approved revenue carry forwards into 2024/2025, be accepted. **The remaining balance being a net underspend and contribution to reserves of £0.115m;** and
- b) the balance of £0.115m be approved to be transferred as follows:
 - £0.015m carried forward into 2024/2025 for Council Events
 - £0.1m to the Budget Stability Reserve; and
- c) the use of Earmarked Reserves of £0.218m, as detailed in Section 2.4.1 of the report, be approved; and
- d) the use of Earmarked Reserves approved by the Chief Finance Officer using Delegated powers (2023/2024 Section 2.4.2 2024/2025 Section 2.5) be accepted; and
- e) the contributions to Earmarked Reserves approved by the Chief Finance Officer using Delegated powers (Section 2.4.3) be accepted; and
- f) the amendments to the fees and charges schedules for 2024/2025 (2.3.2) be approved.

Capital

- g) The final Capital Outturn position of £5.303m (Section 3) be accepted; and
- h) the amendments to the Capital Schemes 2023/2024 as detailed in 3.2.1 to 3.2.4, and the amendments to the 2024/2025 Capital Schemes as detailed in 3.2.5 and 3.2.6 including the amendment of grant funded solar panels at West Lindsey Leisure Centre, be approved.

Treasury

- i) The report, the treasury activity, and the prudential indicators (Section 4) be accepted.

19 ANNUAL TREASURY MANAGEMENT REPORT 2023/24

Members heard from the Financial Services Manager (Deputy 151 Officer) that the Council had complied with legislative and regulatory requirements for treasury management as set out in the CIPFA code of practice, and there were no breaches of the prudential indicators to report. Inflation and interest rates had been historically high over the period, and the Council had managed to overachieve on the budget. External borrowing had not increased as much as anticipated, and as a result there was an underspend on external debt of £202,000. As detailed in section four of the report, borrowing was refinanced in the short term given the economic climate. The Capital Financing Requirement (CFR) had reduced in 2024/24 as the Council set aside minimum revenue provision in the year. The final section of the report detailed the investment strategy and the national and international financial context.

Members considered the report and asked questions surrounding income from non-treasury investments and the letting of commercial property. The Deputy 151 Officer responded that the non-treasury income was contained in the report and detailed the property portfolio at 7.12% or £1.59m and he confirmed that all commercial assets currently had tenants.

Having been moved and seconded it was

RESOLVED that the Annual Treasury Management Report and actual Prudential Indicators 2023/24 be **recommended** to Full Council for approval.

20 PROGRESS AND DELIVERY QUARTER FOUR REPORT AND SUMMARY OF YEAR END PERFORMANCE 2023/24

The Chairman introduced the report and gave context to Members that the report had been approved by the Prosperous Communities Committee on 4 June 2024.

The Committee heard from the Performance and Programme Manager that the report summarised the progress and delivery data across the Council for quarter four of 2023/2024. The measures and targets for 2024/25 were approved by the Committee in January 2024. There was an overall summary of performance on page 121 of the report which detailed that 83% of all measures were reported as exceeding or at the agreed tolerance. There was a

slight reduction from 85% reported in the previous quarter. Performance Improvement Plans were contained in the report and reported to the Prosperous Communities Committee, as well as the Corporate Policy and Resources Committee, and an additional report had been brought to the Management Team meeting to approve measures. The recycling rate had been added back into the report and demonstrated seasonal fluctuations with the collection of garden waste.

In terms of markets, the antiques market had been introduced in quarter four and had since withdrawn from the Saturday markets. It was anticipated that the position in the next quarter would reflect this change. The table on page 151 provided a breakdown of the number of stalls and trading performance, and targets had been set for 2024/25 with seasonal markets in place. A request for benchmarking information relating to land charges in markets had been submitted to local authorities. More information would be brought to the Committee in the quarter two report for 2024/2025.

The Council tax collection rate measure was also highlighted on page 127 and there was a significant pressure on the budget with the collection of council tax. The report detailed actions in this area, such as signposting residents to money advice services, citizens advice and step change, and offering instalment plans to support residents over a longer financial period. The single person discount had been reviewed and additional revenue had been generated in this area.

Members raised concerns regarding the recycling rates and reporting of leisure centre dissatisfaction rates, and felt complaints were not being recorded in this area and suggested that this be reviewed. The Director of Corporate Services explained a report would be going to the Prosperous Communities Committee and agreed to take forward the issue regarding complaints. The Performance and Programme Manager explained a piece of work was being produced on recycling and would be reported back to Members.

Members asked for assurance regarding staff absence and asked if there were any gaps in resourcing. The Chief Executive assured Members that this was being managed and there were no significant vacancies.

The Chairman thanked officers for the thorough report and amount of work that went into producing the detailed report.

Members praised the 83% performance rate and felt officers were working extremely hard to deliver quality services across the district.

Having been moved and seconded it was

RESOLVED that

- a) the performance of the Council's services through agreed performance measures had been assessed, and areas where improvements should be made, having regard to the remedial measures set out in the report, had been indicated; and
- b) the Progress and Delivery Performance Improvement Plan for Quarter Four (January-March) 2023/24 be approved; and

c) the Progress and Delivery Year End 2023/24 Report be approved.

21 COMMITTEE WORK PLAN

With no comments or questions, the Committee Work Plan was **DULY NOTED**.

The meeting concluded at 7.23 pm.

Chairman

Corporate Policy & Resources Committee Matters Arising Schedule

Purpose: To consider progress on the matters arising from previous Corporate Policy & Resources Committee meetings.

Recommendation: That Members note progress on the matters arising and request corrective action if necessary.

Status	Title	Action Required	Comments	Due Date	Allocated To
Black	Options report - TAC Northern Boundary Wall Repairs	options report to be added to forward plan to be presented at CP&R	<p>CP&R 23/05/24: RESOLVED that a report detailing all options available regarding work to repair the Trinity Arts Centre northern boundary wall be presented to the next available meeting of the Corporate Policy and Resources Committee.</p> <p>Item on the agenda for 18 July 2024 meeting</p>	31/07/24	Luke Matthews
Green	Update on Levelling Up Fund Spending	Item to be added to the Forward Plan for September meeting of CP&R (see comments)	CP&R 27.06.24: Members requested details on Levelling Up funding and asked if there were any monies underspent on projects that could be brought back to a future meeting. The Section 151 Officer agreed to bring back an update report to Members at their September meeting.	31/07/24	Emma Foy



**Corporate Policy and
Resources**

Thursday 18th July 2024

Unacceptable Customer Action Policy and Guidance

Report by:

Adrian Selby. Director of Operational and
Commercial Services
Lisa Langdon. Assistant Director – People and
Democratic Services

Contact Officer:

Lyn Marlow
Customer Strategy and Services Manager

lyn.marlow@west-lindsey.gov.uk

Purpose / Summary:

The purpose of this report is to update our
current Difficult, Dangerous and Complex (2019)
with the Managing Unacceptable Customer
Actions Policy reflecting the need for updated
processes, changes to how we work and full
consideration of the human rights and Equality
Act 2010.

RECOMMENDATION:

- a) That Members approve the Managing Unacceptable Customer Actions Policy and appendices within this report to formally adopt and provide the right guidance to employees and customers regarding this matter.
- b) That any future minor housekeeping amendments be delegated to the Director of Commercial and Operational Services in consultation with the Chairmen of the Joint Staff Consultative and Corporate Policy and Resources Committees.

IMPLICATIONS

Legal:

(N.B.) Where there are legal implications the report MUST be seen by the MO

Financial: FIN/46/25/CPR/SL

Those working in frontline roles will require resilience training bi-annually.

Staff have already undertaken resilience training in 2023 therefore budget for this training is already built into the MTFP.

It is anticipated that this training will be provided by an external resource.

Previously this training cost £7.1k for 60 staff for 2 days training which equates to £120 per person.

(N.B.) All committee reports MUST have a Fin Ref

Staffing: Training on the new policy and guidance will be required, this can be provided internally by HR or the determination team.

Resilience training will be required bi-annually as identified above.

(N.B.) Where there are staffing implications the report MUST have a HR Ref

Equality and Diversity including Human Rights:

The amended policy now reflects the need to consider the impact of this policy on different groups, considering their rights under the Equality Act 2010 and customers human rights. The Equality Impact Assessment, which supported previous versions of this policy, has been updated.

Data Protection Implications: There are no Data Protection implications, and the Data Protection officer was consulted on this amended policy during its creation. The Data Protection Impact Assessment, which supported previous versions of this policy, has been updated.

Climate Related Risks and Opportunities: None

Section 17 Crime and Disorder Considerations: None

Health Implications: Mental Health, Well-Being coping strategies, reasoning mechanisms, supporting colleagues and proactive assertiveness form part of the resilience training, we commission.

Title and Location of any Background Papers used in the preparation of this report:

[Councillors' guide to handling harassment, abuse and intimidation | Local Government Association](#)

Risk Assessment:

There is no specific risk assessment for this policy but all services that deal with customers during their duties have individual service risk assessments based on how those services are delivered.

These are created in conjunction with the Councils Health and Safety Officer and reviewed annually or earlier if how the service is delivered changes due to legislation, policy decisions or following a workplace incident/accident.

Call in and Urgency:

Is the decision one which Rule 14.7 of the Scrutiny Procedure Rules apply?

i.e. is the report exempt from being called in due to urgency (in consultation with C&I chairman)

Yes

☐

No

☐

Key Decision:

A matter which affects two or more wards, or has significant financial implications

Yes

☒

No

☐

1.0 Executive Summary

- 1.1 The Managing Unacceptable Customer Actions Policy replaces the previously named Complex, Difficult and Dangerous Customer Policy. This policy was last updated in 2019, and to enable the development of this replacement policy we have extensively consulted with our front-line teams and the Joint Staff Consultative Committee.
- 1.2 Unfortunately, it is a fact of life that from time to time we deal with customers who have a variety of challenges in their lives, and this can make those customers difficult to deal with when they are accessing services.
- 1.3 These challenges that come from customers take many forms such as:
 - Long, complex, or regular emails, letters, telephone calls or visits to reception
 - Challenging social media posts.
- 1.4 These challenges can and do involve intimidating language, threats to officers, other customers, and threats made by customers about self-harm or worse.
- 1.5 In November 2023, the Institute of Customer Services (ICS) reported that service organisations are still reporting incidents of violent attacks through to virtual abuse, with 60% of staff reporting such abuse, even though 12 months ago the law changed and attacks on service sector staff, physical or verbal, became classed as aggravated assault.
- 1.6 On the 3rd June 2024, the Local Government Chronical reported that a study by the Association for Public Service Excellence (APSE) revealed that four out of five councils had experienced intimidation and harassment towards members, officers or other staff from the public.
- 1.7 Unacceptable actions from our customers are very real and happen on a regular basis and can be in person, over the phone or virtually via email or social media.
 - 1.8 The majority of our customers go about their business with the Council in a professional and respectful manner, but for those who display unacceptable actions – dealing with these situations can be time consuming and lead to discourse and delays in delivering services to most of our customers.
- 1.9 It is a regrettable fact of life that we need to have a policy to guide staff on how we deal with unacceptable customer actions when providing services to our customers.
- 1.10 This policy applies to all staff on WLDC contracts.
- 1.11 I therefore ask that Members approve this policy, replacing the previous one, which considers amended guidance from the Local Government Ombudsman and observing Equalities, Diversity and Inclusion and Human Rights.

2. Introduction

- 2.1 It is important that staff can work effectively and without intimidation or fear when delivering services to our customers, sometimes in challenging circumstances.
- 2.2 As highlighted in the executive summary these challenges come in many forms and can make delivering services to those customers lengthy, stressful for staff and customers and difficult to manage going forward if the staff/customer relationship has broken down.
- 2.3 A further factor that must be considered is that dealing with customers who display unacceptable actions can be time consuming and result in other customers not getting the quality of service they should receive.
- 2.4 It is important to acknowledge that it is only a small number of cases where customers will interact in a way that is not reasonable. However, these actions can prevent WLDC from providing services to that individual whilst having the potential of a significant impact on staff wellbeing. These unacceptable actions can occur at any time the customer is in receipt of a service or after the service has concluded.
- 2.5 The decision to restrict access to services, including the ability to raise a complaint, is not taken lightly and we will always be mindful of our need to consider our duties under equality and human rights act legislation. We will not operate a blanket approach to managing challenging actions and will consider the circumstances of each individual case.
- 2.6 The determination team, consists of the Health and Safety Officer, the Customer Experience Manager and the Customer Strategy and Services Lead. We have worked together to update this amended policy and guidance. The amended policy, staff guidance and flow charts are attached as appendices.

3. Principles

- 3.1 Our approach is based on the clear understanding that all customers always:
- are treated with fairness and respect and that customers afford us that same fairness and respect.
 - have rights to access public services.
 - are not precluded from raising a valid issue because of their unreasonable actions.
 - that we appreciate that anger is an understandable emotion, but customers anger should not be expressed through aggression, violence, or the use of offensive or discriminatory language.
 - Staff safety and well-being are paramount when dealing with unreasonable actions.
 - and that the decision to change or restrict a customers access to services because of their actions will only be made in accordance with our clearly defined policies and procedures and is subject to 3 monthly reviews.
 - managers will ensure staff adhere to the relevant systems, policies and procedures that are in place to identify and manage customer interactions when responding to unreasonable actions.

- Any decision to restrict access to services should be proportionate in relation to the impact the unreasonable actions have on WLDC's ability to deliver an efficient service. Any restriction should still allow fair access to mandatory services.

4. Unreasonable Actions

4.1 Unreasonable actions are those which, because of the nature or frequency of contact with us, hinder our ability to deliver services or give due consideration of complaints, it is important that the circumstance of each situation is carefully considered.

4.2 Some unreasonable actions emerge over time as customers become more persistent in pursuit of their request and we need to recognise that customers may act in a legitimate but persistent manner to pursue their request and it is important we recognise the difference between "persistent" and "unreasonably persistent" actions.

4.3 We must also consider whether there are any underlying explanations for unreasonable actions. This could be due to unmet communication or support needs and so it is important that we have regard to our duty to make reasonable adjustments under the Equality Act 2010

5. Unreasonable actions by representatives

5.1 Having a representative can be helpful for many customers. A representative could be a friend or family member or a professional such as an advocate or solicitor. We should ensure a representative has consent or other lawful basis for acting on another individual's behalf.

5.2 We will not place restrictions on representatives unless there are good reasons for doing so. For example, if a customer wants to attend a meeting with a friend or family member for support there is no reason for us to prevent that representative from speaking in the meeting without good reason.

5.3 Some representatives could act in a way that is unreasonable. This can cause difficulties for us and the individual they are representing.

5.4 We can apply our unreasonable actions policy to representatives where this is warranted. However, in doing so we should ensure that the customer they are representing is not disadvantaged by this and to avoid this we can consider taking the following actions:

- Offer to deal with the individual, directly taking account of any reasonable adjustments required or requested under the Equality Act 2010.
- Offer to support the individual to find another representative (e.g. advocacy service).
- Ask the individual to nominate another representative.

6. Examples of Unreasonable Actions

6.1 There is no exhaustive list of actions that may be unreasonable as each case should be judged based on its circumstances. The following are examples of actions which may be considered unreasonable:

- Abusive, threatening or acting in a manner intended to intimidate staff. This includes any use of racist, sexist, homophobic or other discriminatory language.
- Putting, or threatening to put information on social media or websites which includes personal information of our staff without their consent and/or making defamatory statements about staff online.
- Making excessive demands on the time and resources of staff with lengthy phone calls, emails to numerous staff, or detailed correspondence every few days or more often, and expecting immediate responses.
- Submitting repeat contacts or complaints with minor additions/variations which the customer insists make these 'new' enquiries or complaints.
- Refusing to specify the grounds of an enquiry or complaint, despite offers of help.
- Refusing to cooperate with the complaint's investigation process. For example, failing to provide information requested that is important for the investigation.
- Insisting on the complaint being dealt with in ways which are incompatible with the adopted complaints procedure or with good practice.
- Making unjustified complaints about staff who are trying to deal with the issues and seeking to have them replaced.
- Frequently changing the basis of the complaint as the investigation proceeds.
- Raising many detailed but unimportant questions, and insisting they are all answered.
- Providing false information and/or submitting falsified documents from themselves or others.
- Adopting a 'scatter gun' approach: pursuing parallel complaints or contact about the same issue with various services and/or partner organisations.

7. Recording of interactions with the Council by our customers

7.1 Modern digital technology allows individuals to record interactions with organisations more easily.

7.2 A small number of customers may misuse technology and act in a way that is unreasonable. Such as:

- Recording interactions with the Council without good reason.
- Putting recordings online without the consent of those being recorded.
- Live broadcasting interactions with the Council without their consent.
- Manipulating or editing recordings.

7.3 We should, however, not always refuse to allow customers to record interactions. It is important to acknowledge that we ourselves routinely record our interactions with customers for training and monitoring purposes. Customers should not be prevented from making their own recording to have a clear record of matters that were discussed.

We would expect Customers to advise staff members if they intended to record any interactions and the purpose for doing so.

7.4 Having a recording of a meeting or telephone call can be helpful to customers with certain disabilities who may struggle to recollect details of what was said or be unable to read or process written records about any interactions. Staff who deal with the public will be given advice on what action to take if they become aware they are being recorded as they carry out their job.

8. Preventing Unreasonable Actions

8.1 In most cases, unreasonable actions can be prevented by ensuring customers can access services and the information they need easily. The council should ensure information about our services can be accessed in a range of different ways and that we provide a range of channels for customers to use to contact us.

8.2 Our initial interaction with our customers is one of the most important contacts our customer will have and the way we begin this interaction can significantly affects how the customer interacts with us going forward. A customer, who feels listened to, understood, treated fairly and with respect and who has been given a thorough explanation of our processes and what is likely to happen with is more likely to respond positively to staff and the Council.

8.3 Unreasonable actions can also be an indication of an unmet communication or support need. Not all disabilities are visible and therefore we should ask everyone who contacts the Council whether we need to make any changes to service delivery to allow them to access services. This enables customers to tell us if they need any reasonable adjustments under the Equality Act 2010.

8.4 Where a customer's actions are considered unreasonable, it is important to speak with other teams or external partners that have had dealings with this customer and where safeguarding issues are identified it may be acceptable to share information to support the customer in their dealings with the Council.

8.5 Staff will be empowered to warn individuals of the consequences of their actions in the first instance. This may help the customer reflect on their actions and provide an opportunity for them to modify these. Staff will also be able to take immediate action in response to unreasonable actions such as terminating phone calls, asking someone to leave the council building or pausing communications.

8.6 Any immediate steps should be followed by logging of a low-level incident, a discussion with line manager which may result in an informal warning about future conduct or consideration of further action under the Councils unreasonable actions policy.

9. Policy Led Approach

9.1 We want to deal with our customers in ways that are open, fair, and proportionate. A considered, policy-led approach helps staff to understand clearly what is expected of them, what options for action are available, and who can authorise these actions.

9.2 The policy will be shared with our customers on our website and in our face-to-face reception. It will be brought to their attention if they start to act unreasonably. This can help in managing their expectations and their actions, whilst we are dealing with their issues.

10. Informal Warnings

10.1 Staff, will be empowered to give informal warnings to customers who act in an unreasonable way, giving customers an opportunity to modify their actions. Should customers continue to act in an unreasonable way then the matter will be escalated for further consideration by their line manager and if required the determination team. In many cases an informal warning should be given before any further action is taken.

11. Formal Warnings

11.1 If a customer has failed to adhere to any informal warnings from staff, then we will consider issuing the customer with a formal warning based on evidence gathered during the Health and Safety investigation.

11.2 The Determination Team, made up of the Health and Safety officer, the customer experience manager and the customer strategy and services lead, will consider any evidence staff have gathered and following discussions will reach their own conclusion on whether a formal warning is necessary or whether other actions may resolve the cause of any unreasonable actions.

This may include:

- Exploring whether the customer requires any reasonable adjustments under the Equality Act 2010.
- Offer to meet or speak with the customer to understand any concerns that may be causing them to act in an unreasonable way.
- Offer mediation if the customer requires ongoing services from the Council.
- Offer an alternative means of contact at the council where ongoing services are required.

11.3 In most cases any formal warning should be given in writing, although it is accepted that this is not always possible where a customer is homeless. In such cases, a letter will be available at reception to be handed to the customer when/if they next visit.

11.4 All letters should explain:

- Actions the Council considers unreasonable.
- Examples of actions considered unreasonable.
- A period within which future actions will be monitored, when, how and by whom, any restrictions on contact or other actions and when these will be reviewed.
- The consequences of failing to address their actions.
- A check on whether the individual requires any reasonable adjustments under the Equality Act 2010; and
- Details of the Councils Complaint Process if the customer remains unhappy with their warning and/or details of the Ombudsman if the complaint process has been exhausted.

12. Decision to Restrict Contact

12.1 The decision to restrict contact with a customer will be a last resort after attempts at reconciliation and warnings have been exhausted. However, we recognise that in serious cases it may be appropriate to restrict a customer's contact with the council without warnings being given.

12.2 Given the seriousness of restricting a customer's contact, the determination team will take the decision following a full Health and Safety investigation and review of evidence gathered over the course of the unacceptable actions.

12.3 The only exception will be where the unacceptable action, is so serious that immediate action is required, such as:

- a credible threat to harm staff or customers during the customers interactions
- where threats are made to damage council premises
- where the police advice, is to do so.

12.4 Any decision to restrict contact should be given in writing, as identified in 10.4.

13. Reviews

13.1 The decision to restrict contact should be reviewed every 3 months. If there have been no further instances of unacceptable actions then the restriction will be lifted and the customer advised, where possible.

13.2 If a decision is taken to extend the restrictions for a further 3 months, due to ongoing unacceptable actions or a potential threat to staff in carrying out their duties. Where possible the customer will be advised that the restriction has been extended by a further 3 months.

14. Further Action

- 14.1 In a small number of cases decisions to restrict contact will have no effect on a customer's actions. In most cases, restrictions put in place will help staff to manage the impact this has on services.
- 14.2 However, in the most serious cases, further action may be necessary, particularly where a customer's actions are having an adverse impact on staff welfare.
- 14.3 Where this occurs, the Council may consider placing legal restrictions on a customer, decline to provide a service at all and may also involve the police. The Council will seek legal advice before taking any of these actions.

15. Restrictions on Contact

- 15.1 In most cases, it will be sufficient to restrict access to the service, subject to unreasonable actions.
- 15.2 Restrictions may include:
- Restricting contact to an individual named officer or generic inbox.
 - Placing read correspondence on file without acknowledgement or reply.
 - Restricting physical access to Council offices
 - Restricting contact to written contact only (having regard to any agreed reasonable adjustments).
 - Restricting the length and frequency of telephone calls.
 - Restricting access to discretionary services.
- 15.3 Restrictions will be tailored and proportionate to address the unreasonable actions found in each case.
- 15.4 We can withdraw mandatory services from customers on grounds of unreasonable actions in certain limited circumstances (e.g. homelessness). Withdrawal, of a mandatory service is a serious step and we will only take this action as a last resort and will always consider wider human rights and equality duties when reaching such a decision.

16. Dealing with Further Communication

- 16.1 Where the Council decides to place correspondence on file without acknowledgement or reply we will still review the contents to ensure it does not contain significant new information or raise any safeguarding concerns.
- 16.2 We will not advise the customer that their correspondence contains no new information as this may encourage further unwanted communication.

17. Signposting to the Ombudsman

17.1 The Council will signpost to the Ombudsman after we have completed our formal complaint and appeal process if the customer remains unhappy. In most cases it should be possible for the Council to progress a complaint/appeal through our local processes and manage any unreasonable actions using the Councils unreasonable actions policy.

17.2 Once WLDC has signposted the customer to the Ombudsman we would not envisage any further interaction with the customer on the matter, all contact about the matter will be via the ombudsman.

18. Information for elected officials

18.1 This report is not intended to cover unreasonable actions from individuals directed towards elected officials such as councillors.

18.2 The Local Government Association has produced a guide for councillors on handling harassment, abuse and intimidation which can be found on its website: [Councillors' guide to handling harassment, abuse and intimidation | Local Government Association](#)

Unacceptable Customer Actions Policy

Appendix 1

1. Managing Unacceptable Customer Actions Policy

1.1 Introduction

1.2 West Lindsey District Council (WLDC) is committed to providing a quality service to all our customers. In return, we expect everyone who has contact with WLDC to treat our staff with respect.

1.3 Many of our customers tell us that they are satisfied with our services, but we recognise that sometimes this isn't always the case. To carry out our work we need to make sure we are using our resources in the best way possible, and this may mean that some customers may not always agree with our decisions or ways of implementing a service. This may mean we can't respond to every issue in a way a customer may want, especially where a disproportionate amount of time and resource is used on a single, multiple issue or ongoing case(s).

1.4 We understand that, in times of trouble or distress, people may act out of character, and, in a very small number of cases, may demonstrate unacceptable actions despite our best efforts to help, and this can make it difficult for us to deal with queries or complaints effectively. We also have a duty to protect the well-being of our staff. They should be able to come to work without fear of violence, abuse, harassment, or discrimination.

2. Purpose of this policy

2.1 This policy means we can manage unacceptable customer actions consistently and fairly. It sets out clearly what we consider to be unacceptable and the steps we may take to deal with such behaviour. It applies to everyone who accesses our services and help WLDC protect staff from abuse and harm.

3 Principles

3.1 Customer can expect that WLDC employees will always:

- treated them with fairness and respect.
- ensure customers have a right to access public services.
- customers are not precluded from raising a valid issue because of their unreasonable actions.
- appreciate that anger is an understandable emotion, but customers anger should not be expressed through aggression, violence, or the use of offensive or discriminatory language.
- ensure customers understand that staff safety and well-being are paramount when dealing with unreasonable actions.
- make the decision to change or restrict a customers access to services because of their actions in accordance with our clearly defined policies and procedures and will be subject to 3 monthly reviews.
- ensure any decision to restrict access to services will be proportionate in relation to the impact the unreasonable actions have on WLDCs ability to deliver an efficient service. Any restriction should still allow fair access to mandatory services.

3.2 In return we expect customers accessing our services to:

- be courteous at all times.
- engage with us in a way that does not hamper our ability to carry out our work effectively and efficiently for the benefit of all.

4 Safeguarding and disclosures

4.1 If, in the course of our work, customers who threaten to harm themselves or others, will be reported to the police and we will make a safeguarding referral.

5 Definition of unacceptable actions.

5.1 Unacceptable action means acting in a way that is unreasonable, regardless of the level of someone's stress, frustration, or anger. It may involve acts, words or physical gestures that could cause another person distress or discomfort.

6 Aggressive or abusive behaviour

6.1 This is actions or language (written or spoken) that could cause WLDC staff to feel afraid, threatened or abused. This includes threatening emails, telephone calls, meetings, and comments on social media or elsewhere.

For example:

- insulting or degrading language, including inappropriate banter, innuendo, or malicious allegations.
- any form of physical violence or threats of physical violence
- comments relating to any personal characteristic as defined within the Equalities Act 2010

7 Unreasonable demands and aggravating complaints

7.1 Customers might make requests that we cannot reasonably accommodate. This may include but is not limited to:

- the amount of information they seek.
- the nature and scale of service they expect.
- the volume of correspondence they generate.
- a remedy or outcome that cannot be achieved.

7.2 We accept that someone who is persistent is not necessarily guilty of unacceptable behaviour. What is seen as an unreasonable demand will depend on the circumstances of each case. We will always consider situation on its own merits.

7.3 However, the behaviour of someone who persistently contacts us about the same issue, when that issue has been dealt with, can, in some circumstances, amount to unreasonable demand. Such behaviour can take up a disproportionate amount of time and resources and can affect our ability to provide a service to others.

7.4 Examples of actions which we consider as unreasonable include but are not limited to:

- refusing to follow our complaints procedure.
- persistently pursuing a complaint where the Council's complaints procedure has been fully and properly implemented and exhausted, but no appeal has been made to the Local Government and Social Care Ombudsman (Ombudsman). Or after the Ombudsman has considered and concluded the case.
- contacting us repeatedly and frequently without giving us enough time to respond to previous correspondence.
- insisting on seeing or speaking to a particular member of staff when a suitable alternative has been offered.
- visiting our offices without an appointment.
- focusing disproportionately on a matter in relation to its significance and continuing to focus on this point despite receiving proportionate responses addressing the matter.
- adopting a 'scatter gun' approach: pursuing parallel complaints about the same issue with different members of staff.
- threatening or using actual physical violence towards staff
- being personally abusive or verbally aggressive towards staff dealing with their issue
- recording meetings or conversations (whether face-to-face or on the telephone) without the prior knowledge or consent of others involved.

8 How we will respond to incidents of unacceptable actions.

8.1 We do not expect staff to tolerate unacceptable actions when communicating with our customers. When this happens, staff have the right to:

- place callers on hold or end the call.
- ask the customer to leave the Guildhall, failure to leave voluntarily may result in customers being escorted from the Guildhall.
- not reply to an abusive email or letter - we will continue to review these communications to ensure no new issues have been raised.

8.2 Before taking such action, we will always warn customers that their actions are unacceptable and give them the chance to modify their approach. However, a warning will not be given in extreme cases when a physical threat is made. Where these circumstances arise, we will take the following steps:

- ask customers to modify their actions and explain why.
- if the action continues to be unacceptable, staff will remove themselves from the situation. If the communication is by telephone, the caller will be told that the call will be ended.
- staff will inform their manager who will investigate the situation and decide what action to take. This could include limiting a customer's contact with us.

- we will refer the matter to the police where a criminal offence has been threatened or committed.

9 Communication restrictions

9.1 If customers unacceptable actions continue, the Councils independent determination team can put in place a temporary or permanent communication restriction on a customer. If this happens, we will tell the customer that we are doing so, setting out:

- why we consider their actions are unacceptable.
- what action we are taking and if there is a time limit on the restrictions.

9.2 If we decide to limit communication, we will make a note of the limitation in our records.

9.3 Communication may be:

- limited to being conducted in writing.
- limited to a specific individual.
- removed from the Councils social media and be blocked from our accounts.
- limited to a specific email address or telephone number.
- placed on file without a further response if the issued raised in the correspondence has previously been considered.
- limited in other ways which we consider appropriate in the circumstances, in line with this policy.

9.4 In addition, we reserve the right to:

- limit telephone contact to set times on set days.
- restrict contact to a nominated employee who will deal with all future calls or correspondence.
- restrict the issues on which we will correspond.
- block emails or telephone numbers if the number and length of communications sent is excessive.
- refuse to deal with the customer face to face.
- refuse to consider a complaint or any further contact, except in exceptional circumstances.
- take any other action which we consider necessary or appropriate to make this policy effective.

9.5 Where circumstances are serious enough to warrant further restrictions, we may take legal action to prevent further contact.

9.6 In making any decision to take legal action in such cases, we may consider:

- how legal action may affect our staff.

- how legal action may affect the individual (including their personal circumstances and any reasonable adjustments)
- the extent to which we can engage or assist.
- the extent to which the process or subject matter has been exhausted.

10 Review

10.1 We will review, every 3 months, any decision to restrict communications and when appropriate will lift some or all restrictions.

11 How we will take account of our duties under the Equality Act 2010

11.1 We make sure that we meet the requirements of the Equality Act 2010 and our own Equality and Diversity Policy making sure we consider adjustments for people with protected characteristics.

11.2 The decision to restrict access to services, including the ability to raise a complaint, is not taken lightly and we will always be mindful of our need to consider our duties under equality and human rights act legislation. We will not operate a blanket approach to managing challenging actions and will consider the circumstances of each individual case.

11.3 If an individual with a protected characteristic becomes the subject of a restriction under this policy, we will consider whether the restriction may affect them more than someone without that characteristic. If this is the case, we may make different arrangements so they can still access services.

12 Local Government and Social Care Ombudsman (Ombudsman)

12.1 The Ombudsman recognises that a small number of people who complain can display unreasonable actions. It recommends that public bodies should have their own arrangements for managing unacceptable actions. However, if customers still feel that they have been treated unreasonably by the Council they can make a complaint to the LGSCO.

1. Managing Unacceptable Customer Actions – Staff Guidance

1.1 Purpose and Scope

1.1.1 This guidance note is designed to help employees manage situations in which they may be subjected to unacceptable actions from council service users.

1.1.2 For this guidance, any individual in receipt of a service that is being provided is considered a customer.

1.1.3 The guidance should be read in conjunction with the

- The flowcharts that support this documentation x 3
- Feedback policy (complaints)
- Lone worker policy
- Dealing with Complaints of Bullying and Harassment at Work.

1.1.4 The flowcharts appended to this guidance set out the key steps that employees should follow in managing unacceptable customer actions.

2 What behaviour might be considered as unacceptable or unreasonable?

2.1 Unacceptable actions directed towards council staff may for example, include the following:

- Aggressive or abusive behaviour (examples include threats including threats to self-harm or harm members of the public or staff, physical violence, personal verbal abuse, derogatory remarks and rudeness, inflammatory statements, and unsubstantiated allegations)
- Persistently making the same complaint, despite the matter having been fully addressed or investigated under the feedback policy, or seeking an unrealistic outcome with intent to persist until the desired outcome is achieved.
- Repeating complaints about a previous or historical matter that cannot be undone or remedied.
- Repeatedly changing the nature or focus of a complaint or the desired outcome, part way through an investigation or after a formal response has been provided.

3 What measures are in place to prevent unacceptable actions

3.1 Clear standards are in place to ensure that services meet the expectations of our customers and are delivered in a manner that is professional, courteous and timely.

3.2 The councils feedback policy provides details on how service users can exercise their right to register a complaint where they consider that those expectations have not been met.

3.3 The procedure aims to ensure that complaints are handled efficiently and effectively and, wherever possible, resolved to the customer's satisfaction. The expectation is that effective management of customer complaints will reduce the likelihood of unacceptable actions towards the council's staff.

3.4 In registering a complaint, customers may become frustrated or upset. Aggressive or abusive behaviour is clearly unacceptable; however, an attempt to understand the issue from the customer's perspective and show empathy may help in trying to diffuse a potentially escalating situation.

3.5 If attempts to diffuse the situation or requests for the individual to modify their actions fail, it would be appropriate to terminate the interview or telephone conversation.

3.6 The customer should be advised that their complaint will be addressed but that their actions must be modified during any future contact with the council.

4 Strategies to be used to diffuse a situation where a customer becomes abusive or aggressive?

4.1 Any or all, of the following strategies could be used:

- Acknowledge the customer's disappointment with the service they have received.
- Reassure the customer that their complaint will be addressed.
- Explain the complaints procedure and how their complaint will be handled.
- Confirm what steps will be taken and the timescales the customer can expect.
- Advise the customer that their actions are unacceptable and must stop.
- Remain calm and in control of the situation.
- If safe to do so alert other members of staff.

5 When would it be appropriate to terminate an interview/telephone conversation with a customer?

5.1 If a customer is behaving in an aggressive, abusive manner or makes threat of self-harm to themselves or others and fails to modify their actions when requested, it would be appropriate to politely terminate the interview/telephone call.

5.2 If you feel there is a risk to personal safety or the safety of others it would be appropriate to terminate the interview immediately and remove yourself from the in-person situation.

6 Will I be disciplined for terminating a customer interview or telephone conversation?

6.1 If you feel threatened or uncomfortable when involved in a one-to-one interview or telephone conversation with a customer, then you have the right to decide to advise the customer that their actions are unacceptable and end the interview/call if their actions continue. You will not be disciplined for doing so, but you should report the matter to your line manager and log either a low level and/or health and safety incident as soon as possible.

7 I have been threatened /assaulted by a customer and I want to press charges.

7.1 Where a customer has been threatening and/or violent towards an employee, the council will support that employee in reporting the matter to the Police if they wish to do so.

8 What strategies can be put in place to deal with any future contact from customers who repeatedly display unacceptable actions?

8.1 The Unacceptable Customer Actions Policy sets out several strategies that can be used to deal with future contact with customer who display unacceptable actions these are:

9 Written Correspondence

9.1 When contact is in writing customers may need to be advised that:

- Their action is unacceptable and why, for example language is considered offensive, unnecessary, and unhelpful.
- They will be asked to refrain from behaving in an unacceptable way, highlighting what that behaviour is.
- There will be no further exchange of correspondence on the matter if they persist with these actions.
- We may take other action considered appropriate within the scope of the Managing Unacceptable Customer Actions Policy.
- They may also be informed that future contact may mean we will read their letter/email and will only respond if a new issue is raised that we have not responded to before.

10 Verbal/Face to Face Interaction

10.1 Where a customer repeatedly phones, visits the office, sends irrelevant documentation and/ or repeatedly raises the same issues, the following actions may be taken:

- Only take telephone calls from the complainant at set times on set days or arrange for only one officer to be the nominated contact for calls or correspondence from the customer in the future.

- Require the customer to make an appointment to see a nominated contact before visiting the office.
- Limit access, such as requiring the customer to contact the council in writing or telephone only.
- Return any documents to the customer, by signed for mail.
- Take other action considered appropriate within the scope of the Managing Unacceptable Customer Actions Policy.

10.2 In the majority of cases, the customer should always be advised of the action that is being taken and the reasons for that course of action, although it is accepted that this is not always possible as to do so as it may result in an escalation of unacceptable actions which may put staff in harm's way. It is important to note that the customer may be vulnerable and we may need to be flexible when using this policy or they are of no fixed address.

11 I have done all I can to resolve a complaint, but the customer is not satisfied and insists further action be taken, what can I do?

- Where the complaints procedure has been exhausted and the customer continues to dispute the decision relating to their complaint, the Managing Unacceptable Customer Actions Policy should be used.
- The customer may be advised that no future phone calls will be accepted, or interviews granted in relation to his/her complaint and that any future contact on the issue must be in writing.
- Any subsequent correspondence received will be reviewed and kept on file and only acknowledged or responded to if the customer has provided significant new information relating to the complaint.
- The customer should be referred to the formal feedback policy or to the Local Government and Social care Ombudsman if the complaint has been through our feedback process.

12 Will abusive or aggressive customers be banned from council premises?

12.1 Decisions to restrict contact will only be taken after careful consideration of the situation by the Determination Team.

12.2 Wherever possible, the customer will be given the opportunity to modify their actions before a decision to restrict contact is taken, except where threats are made to inflict actual bodily harm on staff or the customer commit acts of violence to the Council premises. These actions will result in an instant ban.

13 To whom should I report Unacceptable Actions?

13.1 Unacceptable actions by a customer should always be reported to your line manager. The employee, supported by their line manager, should complete either a low-level incident form or Health and Safety Incident form on Minerva. Alerts are sent to member of the determination team following logging of these forms.

13.2 Where relevant a health and safety investigation will take place before determination is made. The determination team will use the Managing Unacceptable Customer Actions Policy and Employee Guidance, information held on our systems including listening to any recording of calls or any other evidence that is provided to inform their investigation into a customer's actions before deciding on course of action.

13.3 Any incidents will be recorded on the Customer Information Register (CIR) on Minerva, and on the CRM system, and where appropriate bespoke systems used within services, along with details of the customer contact and action taken. Details of the investigation are kept in a restricted area within the CIR in Minerva

13.4 In all cases of threats of, or actual violence, including self-harm threats, staff should always complete a Health and Safety Incident form in Minerva for the council's Health and Safety officer in line with incident reporting procedures.

14 What training does the council provide to assist employees to manage unacceptable actions?

14.1 The council provides a range of training options which may help staff to anticipate difficult situations, prevent them from arising or escalating if possible and diffuse them when they occur.

14.2 The following training courses can be found in the learning pool and can help you when dealing with the impact of unacceptable customer actions.

- Mental Health Awareness
- Mind Fitness
- Health and Wellbeing
- Hate Crime
- Mental Health

14.3 The Council will also provide bi-annual training on dealing with unacceptable actions, having difficult conversations and resilience to those staff who job role involves dealing with customers day to day.

14.4 The council's Health and Safety officer can also provide advice on conducting risk assessments particularly for members of staff who meet with customers outside of council offices and/or work alone.

14.5 The Customer Strategy and Services Lead can also provide coaching in dealing with these types of situations. Staff who feel that additional training, above what is offered, would assist them in managing unacceptable actions should discuss the matter with their line manager as part of their regular one to one meeting.

15 Other Positive Changes

15.1 We have refreshed our notices in reception. These now say.

- *“Threatening or violent actions towards our staff is unacceptable, against the law and can now result in tougher penalties.*
- *Anyone behaving disrespectfully to staff or customers will be asked to leave and prevented from returning.*
- *We will report any instances to the police, and you could be charged”.*

15.2 Customer Services staff now have access to 3 x body cameras for daily use and are to be always worn by staff in reception. The body cameras are only activated in the event of an incident and all staff have had training in alerting the customer that we are activating the body cameras and how to deploy them.

15.3 Customer services are also using a “Low Level Incident form” to report any low-level incidences, offences such as use of bad or inappropriate language etc. This is also being used to log positive actions from any customers who are known to normally behave in unacceptable ways to present a balanced picture.

15.4 This “Low Level Incident form will be rolled out across the Council once the new policy is adopted.

15.5 Several flow charts have been created in consultation with staff for ease of reference.(see appendices)

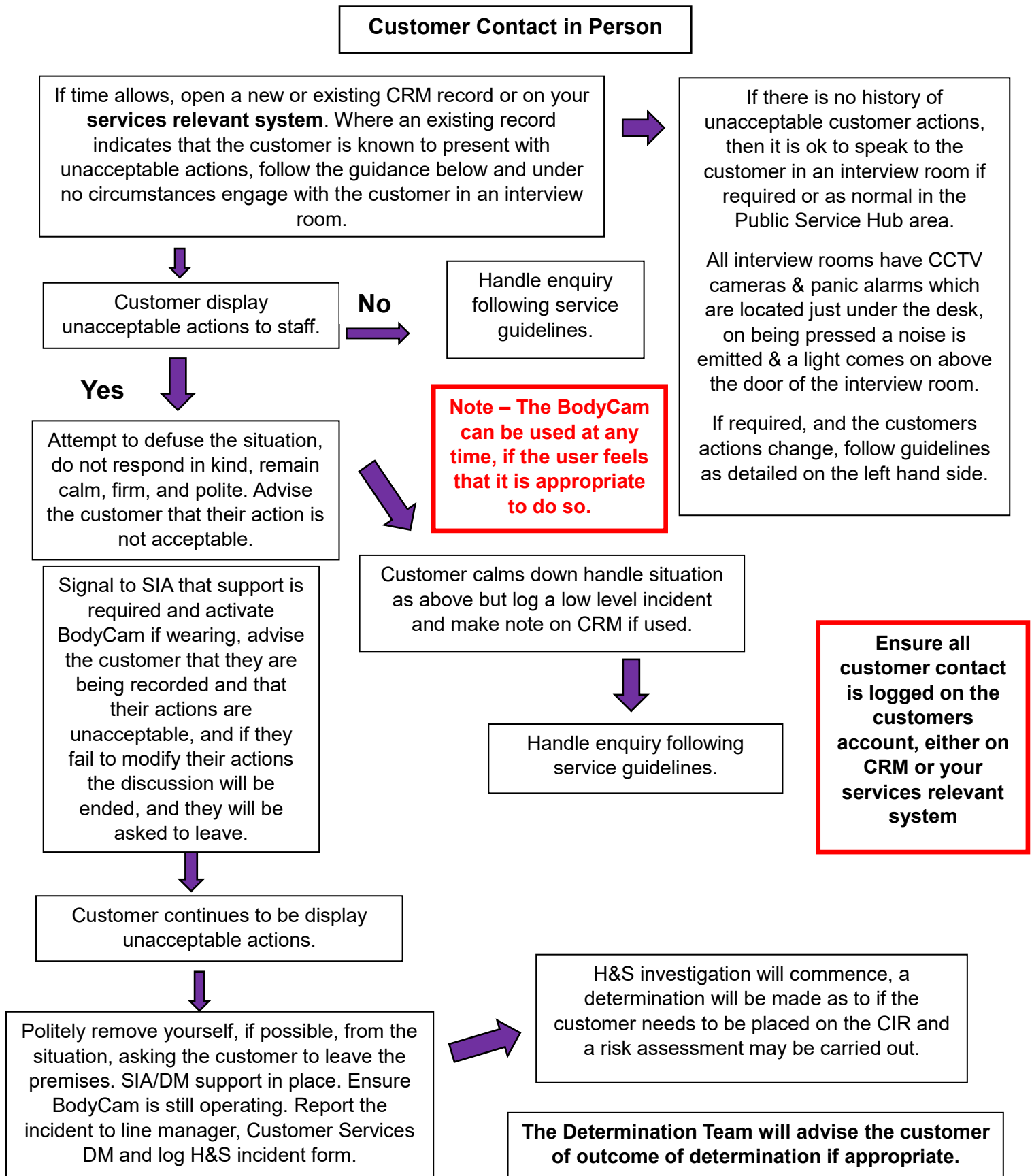
15.6 Once the policy has been adopted a leaflet, will be made available for customers about this policy.

15.7 Following advice from the Data Protection Officer discussions are underway in relation to what an appeals process may look like and if it is felt one is required.

15.8 Following a meeting with the police they are happy to be sent this policy/guidance to advise before formal adoption.

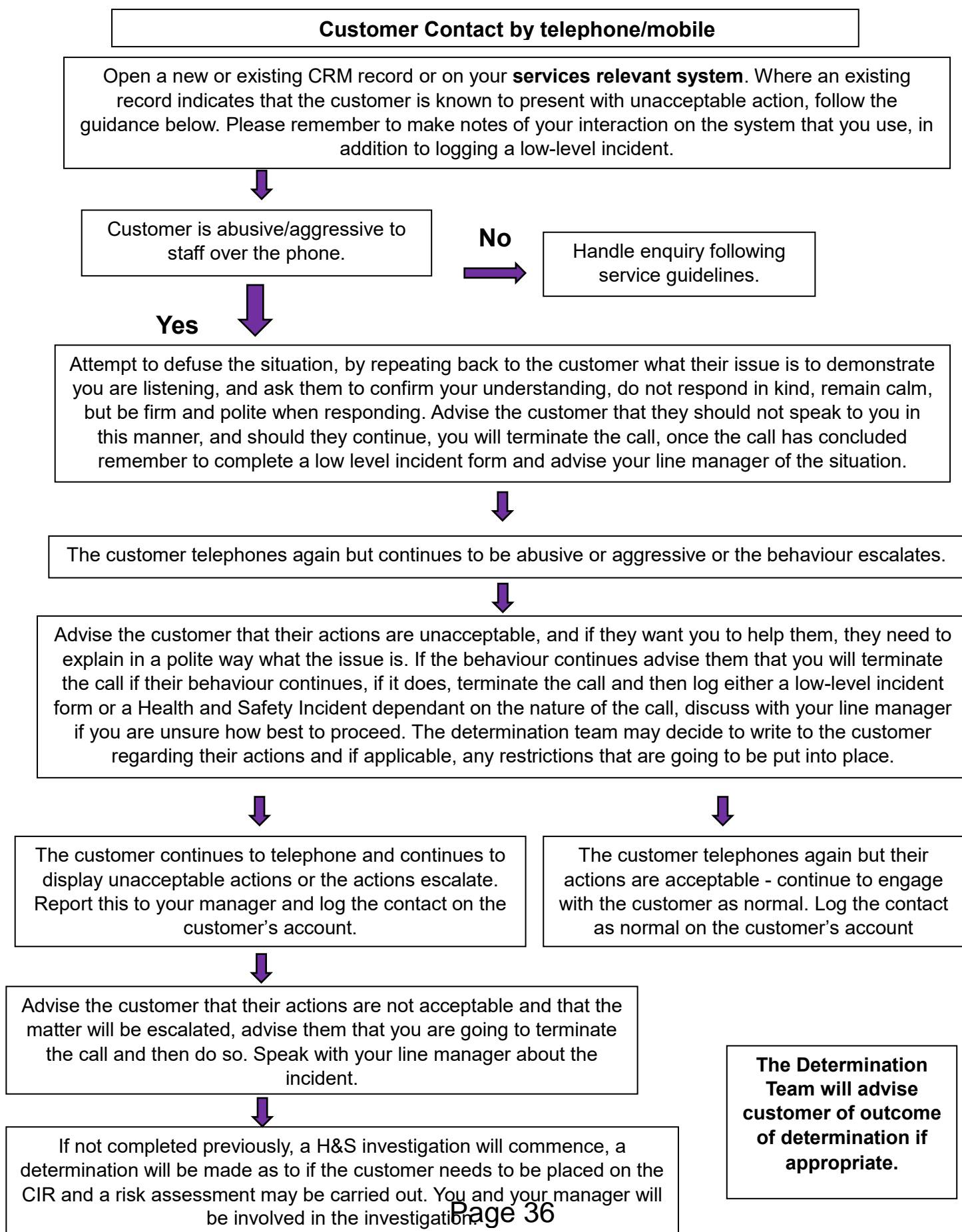
Appendix 3

Staff process for dealing with unacceptable customer actions.



Appendix 4

Staff process for dealing with unacceptable customer actions.

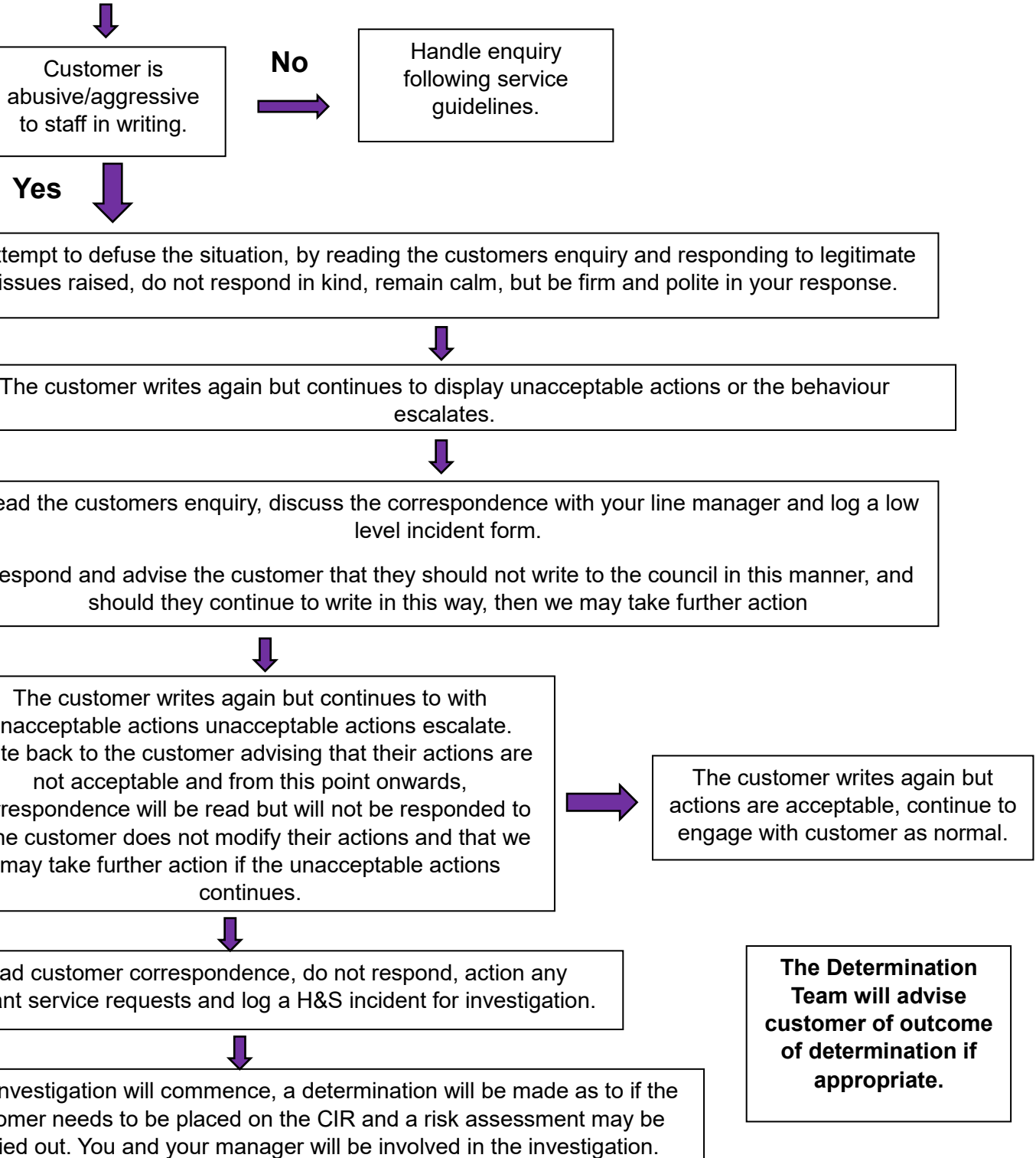


Appendix 5

Staff process for dealing with unacceptable customer actions.

Customer Contact in writing (email, chat, social media, letter)

Open a new or existing CRM record or on your **services relevant system**. Where an existing record indicates that the customer is known to present with unacceptable actions, follow the guidance below.



Agenda Item 6b



**Corporate Policy and
Resources Committee**

Thursday, 18th July 2024

Subject: Street Naming and Numbering Policy

Report by:

Director of Change Management, ICT &
Regulatory Services

Contact Officer:

Daniel Reason
Corporate Systems Development Manager

daniel.reason@west-lindsey.gov.uk

Purpose / Summary:

To present, for adoption, the Council's Street
Naming and Numbering Policy.

RECOMMENDATIONS:

Members are asked to:

- a)** Adopt the Street Naming and Numbering Policy, attached to this report as Appendix 2.
- b)** Agree, as per the advice set out in para. 3.6, that any procedural updates to the Policy, be carried out under delegation to the Director of ICT, Change and Regulatory Services, in conjunction with the Chair of this Committee. In the event of more substantive policy changes, it is recommended that the Policy be brought back to this Committee for decision.

IMPLICATIONS

Legal:

The legal framework within which the Council operates its Street Naming and Numbering is set out in the policy. The following guidance and legislation applies:

- The Towns Improvement Clauses Act 1847
- Public Health Act 1907
- The Local Government Act 1985 and subsequent amendments.

Further updates will be made as necessary to align with any new legislation.

Financial: FIN/49/25/SSc

The street naming and function is a fee chargeable service. The current charges are set out below for 2024/2025:

SNN Service	Fee
Naming streets (for the first street)	£120
Naming streets (for each additional street after the first)	£36
Renaming an existing street at resident request, per street	£301
Numbering properties (per plot, for the first ten plots)	£36
Numbering properties (per plot, from the eleventh plot onwards)	£24
Numbering block of flats (per block)	£120
Renumbering properties due to change in layout (per plot, for the first ten plots)	£24
Renumbering properties due to change in layout (per plot, from the eleventh plot onwards)	£19
Renumbering of street at resident request (per property)	£60
Naming or renaming properties (per property)	£86
Confirmation of address details	£60

There is an income budget of £33.4k for 2024/2025. Actual income received in previous 3 years:

	£k
2023/2024	15.4
2022/2023	31.7
2021/2022	28.8

Staffing:

All operational duties relating to Street Naming and Numbering fall under the function of the Council's Street Naming and Numbering and LLPG Officer. This is unaffected by adoption of the Policy and there is no impact on staffing.

Equality and Diversity including Human Rights:

Equality Impact Assessment attached as appendix 3 to this report

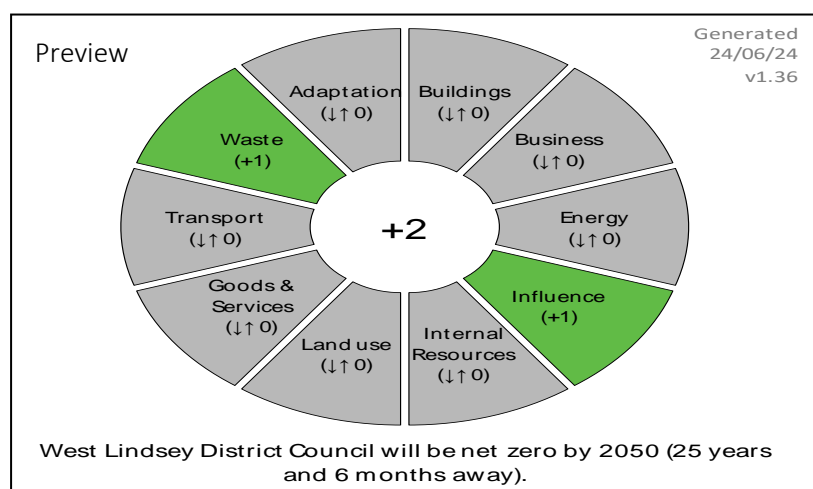
Data Protection Implications: None

Climate Related Risks and Opportunities:

In summary, the Street Naming and Numbering Policy is likely to have very limited climate, environment and sustainability impacts. Key points:

- The policy does not significantly affect areas like buildings, energy, land use, transport and climate change adaptation.
- Working with local communities on street naming may indirectly support wider engagement, although impacts are likely to be minor.
- The main environmental impact is the requirement for physical street name plates, which will require some use of materials. The policy specifies these should be made from recycled plastic where possible.
- There may be opportunities to further integrate climate and sustainability considerations, for example encouraging streets to be named after natural features, historical environmental events or local environmental/sustainability champions. Name plates could potentially incorporate environmental information or messages.

However, given the policy's limited scope, it is unlikely to be a major driver of WLDC's climate, environment and sustainability performance. An Officer view is that the Council's focus is on higher impact areas, whilst working with the team to considering incremental opportunities to 'green' the street naming process over time. Adoption of a clear policy in this area and the recommendation that the Director – Change Management, ICT and Regulatory Services will be able to make minor procedural amends allow future resources to be more effectively directed to priority corporate areas such as environment and sustainability.



Section 17 Crime and Disorder Considerations: None

Health Implications: None

Title and Location of any Background Papers used in the preparation of this report:

Street Naming and Numbering Procedure (2023)-

<https://www.west-lindsey.gov.uk/sites/default/files/2022-02/Street%20Naming%20and%20Numbering%20Procedure.pdf>

GeoPlace Guidance and Code of Practice -

<https://www.snn.geoplace.co.uk/tableofcontents>

Risk Assessment :

During the previous Parliament, it was the intention of government to update the policy relating to Street Naming and Numbering under the Levelling up and Regeneration Act 2023 to ensure a standardised approach across England. This update has not yet happened and it is unclear if/when this may happen. Should a decision be made to update and standardise the Street Naming and Numbering Policy, the Council will update its own Policy accordingly.

Call in and Urgency:

Is the decision one which Rule 14.7 of the Scrutiny Procedure Rules apply?

i.e. is the report exempt from being called in due to urgency (in consultation with C&I chairman)

Yes

☐

No

x

Key Decision:

A matter which affects two or more wards, or has significant financial implications

Yes

x

No

1. Introduction

- 1.1. The Street Naming and Numbering procedure was reviewed in 2023 (Appendix 1). This updated procedure was agreed at CP&R on 19th December 2023. It was also agreed that a full policy would be drawn up and brought back to CP&R in 2024.
- 1.2. This report fulfils the recommendations agreed by this committee on 19th December 2023 and presents, for adoption, a new policy for the Council's Street Naming and Numbering function (Appendix 2). Once adopted, this Policy replaces the previous procedure document.
- 1.3. The Street Naming and Numbering process is carried out along with Local Land and Property Gazetteer management. We have recently been awarded the Platinum Award for address and street data which is given to authorities that have maintained Gold status across all criteria of the annual improvement schedule for 10 out of the 12 months of the year to the end of March 2024. This prestigious award highlights our commitment to maintaining the highest level of data quality throughout the year and we have not fallen below Gold Standard in the last 8 years.

2. Background Information

- 2.1 All District Councils have a statutory responsibility for the naming of streets and postal addressing of properties within their authority boundaries. The legislation relating to street naming and numbering is contained within The Towns Improvement Clauses Act 1847, Public Health Act 1907, The Local Government Act 1985, and subsequent amendments.
- 2.2 Address and street data held in a common standard can be used by government, local authorities, businesses and citizens to deliver services. Good addressing of properties is important as it enables:
 - Emergency and health care services to find a property quickly
 - Mail and goods to be delivered efficiently
 - Service connections by utilities companies
 - Occupiers to apply for a credit card, benefits, pensions or obtaining goods by direct delivery
 - Financial verification of addresses and fraud detection
 - Visitors to find where they want to go
 - Reliable delivery of services and products
 - Service provider records to be maintained and kept in an efficient manner
 - Digital processing of addresses without corrupting the data.

3 Amendments

- 3.1 There are no fundamental changes to the previous procedure and the process we will follow when determining applications for Street Naming and Numbering in this policy. Rather, the policy attached as Appendix 2 serves to strengthen and formalise the Council's procedures into one formally adopted policy document. For ease, changed or added elements are highlighted in red in the policy.
- 3.2 The policy content and layout has been prepared in conjunction with the best practice guidance document from GeoPlace. GeoPlace is an organisation (LLP) established in 2010 that oversees the production and maintenance of national address and street gazetteers created and maintained with input from all local authorities in England, Wales, and Scotland.
- 3.3 The Street Naming and Numbering section on the West Lindsey District Council website will be updated where necessary to reflect the change from a procedure to a policy.
- 3.4 The policy will be displayed as digital web version to make it more accessible and easier to navigate for applicants.
- 3.5 Should a decision be made to update and standardise the Street Naming and Numbering Policy under the Levelling up and Regeneration Act 2023 to ensure a standardised approach across England, the Council will update its own Policy accordingly.
- 3.6 It is recommended that the Council's Policy be updated under delegation to the Director of ICT, Change Management and Regulatory Services in conjunction with the Chair of this Committee. If any changes to national policy require substantive changes to the Council's own Policy, then it is recommended that these changes be brought back to this Committee for decision at the earliest opportunity.

4 Main Policy Considerations

- 4.1 This policy sets out the approach that is taken when dealing with applications of this type and also for the naming, numbering and renaming of buildings or sites.
- 4.2 The new policy will also now be available as digital web version to replace the pdf version of the procedure.

4.3 Applications will be determined using this policy and the GeoPlace Guidance and Code of Practice along with any relevant consultation exercises.

5 Summary:

5.1 This paper meets the requirement, previously agreed by this committee in December 2023, to upgrade the Council's Street Naming and Numbering Procedures into a formally adopted policy (attached as Appendix 2).

5.2 The Council notes that further changes to its local policy may be required should changes to national policy be made under the Levelling Up and Regeneration Act 2023. The paper sets out recommendations for how to proceed with these as and when any government guidance is issued.

5.3 In considering this paper, members are asked to:

- a) Adopt the Street Naming and Numbering Policy, attached to this report as Appendix 2.
- b) Agree, as per the advice set out in para. 3.6, that any procedural updates to the Policy, be carried out under delegation to the Director of ICT, Change and Regulatory Services, in conjunction with the Chair of this Committee. In the event of more substantive policy changes, it is recommended that the Policy be brought back to this Committee for decision.

END

STREET NAMING AND NUMBERING PROCEDURE

Street Naming and Numbering Procedure

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1. INTRODUCTION

- 1.1 West Lindsey District Council has a statutory responsibility for the naming and numbering of streets and postal addressing of properties within their authority boundaries. The legislation relating to street naming and numbering is contained within The Towns Improvement Clauses Act 1847, Public Health Act 1907, The Local Government Act 1985 and subsequent amendments.
- 1.2 Address and street data held in a common standard can be used by government, local authorities, businesses and citizens to deliver better services. Good addressing of properties is very important as it enables:
- Emergency and health care services to find a property quickly
 - Mail and goods to be delivered efficiently
 - Service connections by utilities companies
 - Occupiers to apply for a credit card, benefits, pensions or obtaining goods by mail order
 - Financial verification of addresses and fraud detection
 - Visitors to find where they want to go
 - Reliable delivery of services and products
 - Service provider records to be maintained and kept in an efficient manner
 - Digital processing of addresses without corrupting the data.
- 1.3 “Street” includes any road, square, court, alley, passage or lane which has on one or both sides a more or less continuous and regular row of houses or other buildings.
- 1.4 The legislation requires names and numbers to be appropriate and to be prominently displayed.
- 1.5 This document provides useful information and guidance for both applicants and residents on the naming and numbering of streets. It covers new developments, re-naming of existing properties, naming and numbering of new properties into existing named streets and finally renaming and renumbering of existing streets.
- 1.6 All decisions on applications will be processed in accordance with this procedure, the Geoplace Guidance and Code of Practice and any relevant consultation exercises.

2. STREET NAMING AND NUMBERING

Types of Street Names

- 2.1 West Lindsey District Council will consider the following:-

- an application for a street name should, first and foremost, show some connection with the locality in which the street is located (e.g. the history, heritage or environment of the locality).
- an application to name a street after a deceased individual who have prominent associations with the district or part of the district.
- an application to name a street to mark some historic or political event.
- an application to name a street after places or locations, whether within the district or nationally or internationally.
- West Lindsey District Council will normally require the use of a suffix (e.g. “street”, “road”, “park”), although an application for a single name may be considered.
- any applications for names should be easy to say and spell, so as not to cause confusion, particularly in an emergency situation. It is important to note that in the majority of cases apostrophes or another punctuation will not be held in postal address databases. This is to assist emergency services etc. when trying to locate premises in a quick and efficient time frame.
- Any street name that has a royal family name or the word Royal can be applied for, but permission must be obtained from the HM King Charles III or the relevant royal family member via the Lord Chamberlain’s Office.

2.2 The following suggested names will not be acceptable:-

- Inaccurate Use of Words will not be acceptable, for example, the use of the word “Mews” when a street is not Mews, or, “The Beeches”, where the Applicant has felled all the beech trees in the area.
- Inappropriate or offensive names will not be accepted.
- An application to name a street after any living individual.
- Aesthetically unsuitable name or names that is capable of deliberate misinterpretation.
- Street names should not duplicate or conflict with any identical streets in the area. A variation in the terminal word, e.g. Street, Road or Avenue should not be used but may be considered if they lead off each other.

2.3 Whilst this is not an exhaustive list, this guidance should be noted.

3. **STREET NAMING CONVENTIONS**

3.1 Guidance in the GeoPlace Guidance and Code of Practice outlines that certain types of “Streets” must have the correct suffix:-

- Street, Road, etc for thoroughfares;

- Lane, Drive, Way etc. for side streets; and,
- Close, End, etc. for cul-de-sacs.

3.2 Geographical or feature names might include:

- Hill, Rise, etc. for slopes; and,
- Circus, Square, Crescent, etc. for the appropriate road formats.

4. APPLICATION PROCEDURE FOR APPROVAL OF STREET NAMING

- 4.1 All applicants, their agents or other interested parties must have regard to this procedure before submitting an application for street naming.
- 4.2 Applicants must in the first instance have their proposed street name agreed with the Parish or Town Council at the earliest stage of development. Parish or Town Councils are ideally placed to advise on matters of local significance and historical links and may already have a list of names that are considered appropriate. All details of the Parish/Town councils and Ward Members are shown on the web-site www.west-lindsey.gov.uk/parishcouncils. For the unparished areas of the district, Applicants should contact the District Ward Member.
- 4.3 It is important to note that marketing names that applicants use to promote their properties may not be agreed as an official address and therefore it is important that any applications for new street names are applied for at the earliest possible date as this may cause difficulties for both the applicant and the purchaser.
- 4.4 Upon receipt of an application, the proposed name(s) will be checked with the Local Land and Property Gazetteer for duplication or similar spelling or sounding names prior to the application being approved or rejected. If necessary Royal Mail, and adjacent District Council in boundary situations, will also be consulted in this regard.
- 4.5 It is standard practice for all new addresses to be placed on Royal Mail's "not yet built" file in order to avoid unnecessary deliveries during the construction stage. When the properties are complete and accessible the applicant should contact WLDC who will then contact Royal Mail to make the addresses "live". Alternatively the applicant is able to activate newly built properties themselves by using this form - online contact form

5. NOTIFICATION OF REJECTION

- 5.1 If the Council rejects a proposed street name, the applicant will be notified and the reasons given for such rejection. The applicant will be invited to submit an alternative proposed name and an alternative may be suggested by the Council.

6. NOTIFICATION OF APPROVAL

- 6.1 Once the Council approves a street name, details will be entered in the Local Land and Property Gazetteer. Statutory Authorities will receive updates via the National Land and Property Gazetteer, other local authorities may be notified.
- 6.2 There are no statutory requirements for West Lindsey District Council to provide details of changes to existing property or new developments to any external organisations.

7. ERECTION OF STREET NAME PLATES

- 7.1 Upon approval of a street name, West Lindsey District Council will provide details of the design specification and positioning for the street name plate in conjunction with the Highway Authority's requirements. This information is also on the website. See Appendix.
- 7.2 The District Council is responsible for the repair and maintenance of existing street name plates within the district when this becomes necessary either due to accidental damage, vandalism or normal wear and tear.
- 7.3 Individual names for cul-de-sacs accessed via no-through roads could give rise to excessive use of "*leading to*" name plates at the entrance to estates and should be avoided by treating the estate as a single entity.
- 7.4 Applicants are required to erect nameplates prior to occupation. Once roads are adopted the maintenance and replacement of nameplates becomes the duty of the District Council.

8. STREET NUMBERING

- 8.1 Roads, streets, drives or similar shall be numbered as follows:-
- Odd numbers on left hand side and
 - Even numbers on right hand side
 - Number 13 and all other such like numbers to be included unless requested otherwise by the applicant
 - Cul-de-sacs may be numbered consecutively in a clockwise direction up to and including a maximum of 12 properties
 - Building names or numbers shall be allocated to the road serving

the principal entrance.

- 8.2 Addresses can be issued to the majority of buildings. However, for properties to be deliverable and held on Royal Mail's database they do need to have a secure delivery point with a residential or commercial requirement.
- 8.3 If a property is numbered in a numbered street then that number must be displayed and used.
- 8.4 When infilling takes place within a street, if any unused numbers are available they should be used.
- 8.5 Should the infilling create a large number of flats or similar units, the development may be named, (as described elsewhere), and clearly identified by private signage attached to the building erected and thereafter maintained by the applicant, owner or occupier.
- 8.6 When unused numbers are not available, then the identification by suffix (a, b, c, etc.), would be acceptable.
- 8.7 The District Council is responsible for numbering the properties and will confirm the numbering when requested by the applicant. However, we would advise that numbers are allocated as and when properties are at foundation level or above to avoid the issue surrounding point 8.8 below.
- 8.8 If an applicant returns to the council to re-number a newly numbered housing development, there will be a charge for this based upon the fee set for renaming and renumbering properties.

9. STREET RENAMING & RENUMBERING

- 9.1 Renaming/renumbering existing streets and buildings is normally only considered when changes occur which give rise (or are likely to give rise) to problems for the occupiers who are experiencing problems with their location from Royal Mail, the emergency services, utility companies and deliveries.
- 9.2 Under the legislation the District Council must consult with all those affected by the potential change. Only if a majority of two thirds of occupiers (Council Tax payers) are in favour of the proposed change is the next phase undertaken. This involves a legal notice displayed at the street giving aggrieved persons 21 days to make representation to the Magistrates Court.
- 9.3 Once this stage is completed the District Council make a new order officially changing the name of the road.

10. NEW AND EXISTING BUILDING NUMBERS

- 10.1 The legislation requires properties allocated with official street numbers are to always use the number. However, a house name may also be added, but the number must not be dropped in favour of the name.
- 10.2 In no circumstance will a property with an existing number be removed at the request of the owner. This remains to be the case if historical records show that originally the property only had a house name and that the house number has been added in addition to or in replacement of the house name.
- 10.3 If new development takes place within a street, prior to the start of the numbering then the new properties/development should be named.
- 10.4 Premises that are holiday properties as a rule will not be registered as delivery addresses if they are only for short-term occupation, unless there is some form of Site Management to deal with incoming mail etc. Individual premises will be considered on their merit, but if considered suitable as a delivery address, will be required to meet the criteria of having a secure delivery point and a properly displayed name and/or number.
- 10.5 New Dwellings in existing unnumbered roads will need to have their property names officially registered.

11. APPLICATION PROCESS FOR NAMING BUILDINGS AND SITES

Naming a New Building

- 11.1 Although the District Council has no jurisdiction over the building names, in the case of new build, all new building names require to end with an appropriate suffix, for example:
 - Lodge
 - Apartments
 - Mansions
 - House
 - Court
- 11.2 For private houses it is sufficient that the name should not repeat or be similar to the name of the road or that of any other house or building in the locality.
- 11.3 As with new developments, the District Council will supply the new name to Royal Mail and the statutory bodies.

12. NAMING AND RENAMING OF EXISTING BUILDINGS & SITES

- 12.1 To make an application to add a house name to an existing property or to rename a property the applicant must be the owner of the property.
- 12.2 Renaming of an existing building or site can be applied for through the submission of a Street Naming and Numbering application. When making

a request to change the name of a building or site, the proposed name must follow the building naming requirements detailed in the 'Application Process for Naming Buildings and Sites' section of the procedure on page 8.

- 12.3 If an owner wishes to change the name of a registered building or site, the request must be made to WLDC using the online form [Street naming and numbering application form](#).
- 12.4 Should an owner wish to use a name it must be used in conjunction with the existing number. It is important to realise that house names do not replace numbers in any circumstances. WLDC can register this name with Royal Mail as an alias (this can take up to one month for their records to be updated). This means that Royal Mail will hold the address details for the property in two formats. Firstly, just making reference to the postal number and secondly with the house name and the postal number (alias address). Please note postal address data is purchasable and so not all companies will purchase the alias information for their records.
- 12.5 The Local Land and Property Gazetteer will be used to check for address duplications and to ensure that your preferred name is acceptable.
- 12.6 A public interest test will be applied to all naming and renaming of buildings and sites. Where no public interest is found in the renaming of a building or site, these will be considered and determined by the Director – Change management, ICT and Regulatory Services in line with the Council's scheme of delegation within the constitution.

13. PUBLIC INTEREST TEST

- 13.1 In cases of applications for the renaming of a building or site which is considered of public interest due for example, it has historical/social importance or is considered a prominent or significant landmark in the area, the Council will reserve the right to follow the process detailed below.
- 13.2 Once a renaming application is submitted that the Council considers to be in public interest in line with paragraph 13.1 above, the Council will:
 - a. Display a notice of the proposal in a prominent and publicly accessible position at the building/site or part to which the change application relates; and
 - b. Consult relevant and appropriate stakeholders pertinent to the building/site in question.
- 13.3 The notice under paragraph 13.2(a) above shall state the new name proposed and that representations may be made in writing to the Council by the deadline specified in the notice, not earlier than 28 days after the posting of the notice.

- 13.4 The Council shall consider all representations made as provided in paragraph 13.2(b). A report will be created which will detail the number of representations submitted to the Council, provide a summary of the representations, including those raised by key stakeholders and detail the key issues to be considered.
- 13.5 This report will be presented to Planning Committee where members will consider the key issues raised. The Committee will give weight to the views of those considered key stakeholders relative to the reason the application was considered to be in the public interest initially. The Committee will make decision on the application, whether to support or refuse the name change. The Committee's decision will be final.
- 13.6 Where an application to rename a building or site is approved WLDC will notify any necessary statutory consultees of the update to the address details and place the information on the website.

14. LISTED BUILDINGS

- 14.1 If the building to be renamed is a listed building it may be necessary for consultation with relevant parties to be completed before a decision can be made. These will typically include West Lindsey District Council's conservation officer, Historic England and other heritage groups known to the Council at the time of the application, as well as the Ward Member for the area.
- 14.2 The Council shall consider the representations made by key stakeholders as provided in paragraph 14.1. A report will be created which will, provide a summary of the representations made, including the detail of the key issues to be considered.
- 14.3 In cases where there are objections to the proposed name change this report will be presented to Planning Committee where members will consider the key issues raised. The Committee will give weight to the views of key stakeholders and particularly the buildings prominence and linkages to the area's broader history and distinction. Not all applications to rename Listed Buildings will go to Committee, however where they do The Committee will make decision on the application, whether to support or refuse the name change. The Committee's decision will be final.
- 14.4 There is no right of appeal against the renaming of a property for third parties. Therefore, a neighbour cannot object to the naming of a neighbouring property.

15. IMPLEMENTING AND MONITORING OF THE PROCEDURE

- 15.1 The procedure will be continuously monitored and regularly reviewed to ensure that it is effective in the management addresses within the District.

Specification For Street Nameplates

NON-REFLECTIVE STREET NAMEPLATE, DIE PRESSED ALUMINIUM

11 GAUGE, 3½" KINDERSLEY ON 7" PLATE,

½" BORDER, BLACK ON WHITE, RADIUSSED CORNERS, GREY BACK,
DRILLED FOR POST MOUNTING

MOUNTED ON 2 NO 80MM X 80MM UPRIGHTS, BEVELLED TOPS, 30MM
BACKING BOARD

ALL IN RECYCLED PLASTIC BOLTED THROUGH, NAMEPLATE FIXED WITH
SECURITY SCREWS FRAME TO INCLUDE BASE RODS

Street name plates – guidelines for positioning

Where possible, name plates should be positioned at 45 degrees to the "main" road, so that it can be read by approaching traffic.

If the road has equal amounts of traffic from both directions, two signs are to be used. If traffic only comes from one direction, only one sign need be used.

If there is a wall immediately to the rear of the path, mount the name plate on a suitable backing board, and fix to the wall.

If the name plate is to be post mounted, position the posts in the back of the footpath, *not* behind it. The reason for this is that the footpath is "public", but the verge will probably be private and a new owner could ask us to move it in order to either plant a hedge or build a wall.

These are merely guidelines and not definitive. If your circumstances are different please contact Anna Grieve on 01427 676620 to discuss the matter.

STREET NAMING AND NUMBERING POLICY

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1. Purpose of Policy

- 1.1. West Lindsey District Council ('the Council') is the Street Naming and Numbering authority for the administrative area of West Lindsey district. We have a statutory power to name and number streets and to approve and register official property addresses.
- 1.2. The purpose of this policy is to establish the correct process and procedures for the naming and numbering of streets and properties.
- 1.3. It covers new developments, re-naming of existing properties, naming and numbering of new properties into existing named streets and renaming and renumbering of existing streets.
- 1.4. When referring to a street throughout this policy it includes any road, square, court, alley, passage or lane which has on one or both sides houses or other buildings.

2. Reasons for Street Naming and Property Numbering

- 2.1. Address and street data held in a common standard is used by government, local authorities, businesses and citizens to deliver better services. Correct addressing of properties is very important as it enables:
 - Emergency and health care services to find a property quickly;
 - Mail, goods and services to be delivered efficiently;
 - Service connections by utility companies;
 - Occupiers to apply for credit and finance, benefits and pensions, etc.;
 - Financial verification of addresses and fraud detection;
 - Residents and visitors to find locations and amenities;
 - Service provider records to be maintained and kept in an efficient manner;
 - Digital processing of addresses without corruption of data.

3. The Street Naming Legislation

- 3.1. The legislation relating to street naming and numbering is contained within The Towns Improvement Clauses Act 1847, Public Health Act 1907, The Local Government Act 1985, and subsequent amendments.

4. Scheme of Delegation

- 4.1. The Council's Street Naming and Numbering and LLPG Officer is responsible for the administration of the Street Naming and Numbering function.
- 4.2. Oversight for this function comes from the Corporate Systems Development Manager.

- 4.3. Overall responsibility rests with the Director – Change Management, ICT and Regulatory Services as per the Council's scheme of delegation.

5. Consultation and Notification of postcodes and postal addresses

- 5.1. Once the Council approves a street name, details will be entered in the Local Land and Property Gazetteer. Statutory Authorities will receive updates via the National Land and Property Gazetteer. Other local authorities may be notified.
- 5.2. There are no statutory requirements for the Council to provide details of changes to existing property or new developments to any external organisations.
- 5.3. If the Council rejects a proposed street name, the applicant will be notified and the reasons given for such rejection. The applicant will be invited to submit an alternative proposed name and an alternative may be suggested by the Council.

6. Naming of new streets

- 6.1. Applicants must, in the first instance, have their proposed street name agreed with the Parish or Town Council at the earliest stage of development.
- 6.2. Parish or Town Councils are ideally placed to advise on matters of local significance and historical links and may already have a list of names that are considered appropriate.
- 6.3. All details of the Parish/Town councils and Ward Members are shown on the website www.west-lindsey.gov.uk/parishcouncils. For the unparished areas of the district, applicants should contact the District Ward Member.
- 6.4. It is important to note that the marketing names applicants use to promote their properties may not be agreed as an official address and therefore it is important that any applications for new street names are applied for at the earliest possible date as this may cause difficulties for both the applicant and the purchaser.
- 6.5. Upon receipt of an application, the proposed name(s) will be checked with the Local Land and Property Gazetteer for duplication or similar spelling or sounding names prior to the application being approved or rejected. If necessary Royal Mail, and adjacent District Councils in boundary situations, will also be consulted in this regard.

- 6.6. It is standard practice for all new addresses to be placed on Royal Mail's "not yet built" file to avoid unnecessary deliveries during the construction stage. When the properties are complete and accessible the applicant should contact the Council who will then inform Royal Mail to make the addresses "live". Alternatively, the applicant is able to activate newly built properties themselves by using this form - [online contact form](#).

7. Choice of street names

- 7.1. The Council will consider the following:
- an application for a street name that, first and foremost, displays some connection with the locality of the street (e.g. the history, heritage or environment)
 - an application to name a street after a deceased individual who had a prominent associations with the district or part of the district; **Written permission from the deceased individuals family will be required.**
 - an application to name a street to mark a historic or political event
 - an application to name a street after places or locations, whether within the district, nationally or internationally
- 7.2. All new street names require the use of a suffix (e.g. "street", "road", "park"), although an application for a single name may be considered.
- 7.3. Any applications for names should be easy to say and spell, so as not to cause confusion, particularly in an emergency situation. It is important to note that in the majority of cases apostrophes or another punctuation will not be held in postal address databases.
- 7.4. Any street name that has a royal family name or the word 'Royal' can be applied for, but permission must be obtained from HM King Charles III or the relevant royal family member via the Lord Chamberlain's Office.
- 7.5. The following suggested names will not be acceptable:
- Inaccurate use of words, for example, the use of the word "Mews" when a street is not a Mews, or "The Beeches", where the applicant has felled all the beech trees in the area;
 - Inappropriate or offensive names;
 - An application to name a street after any living individual;
 - Aesthetically unsuitable name or names that is capable of deliberate misinterpretation;
 - Names that duplicate or conflict with any other streets in the area.
 - A variation in the terminal word, e.g. Street, Road or Avenue should not be used but may be considered if they lead off each other.

Whilst this is not an exhaustive list, this guidance should be noted.

8. Street Naming Conventions

- 8.1. All new street names should end with a suffix which reflects the nature, history and/or location:

Avenue - for residential roads (usually lined with trees)
Circus - for a large roundabout
Close - for a cul-de-sac only
Crescent - for a crescent shaped road
Drive - for residential roads
Gardens - for residential roads subject to there being no confusion with any local open space
Grove - for residential roads (usually relating to an area of trees)
Hill - for a hillside road only
Lane - for residential roads
Mews - for residential roads
Place - for a road that has no throughway or leads to a dead end.
Rise - for residential roads (usually relates to upward rising thoroughfare)
Road - for any thoroughfare
Row - a group of attached properties not a thoroughfare
Square - for a square only
Street - for any thoroughfare
Terrace - a group of attached properties not a thoroughfare
Vale - for residential roads (usually relating to low land or near a river/stream)
Way - for any thoroughfare
Wharf - for residential roads which are near water

9. Numbering sequence

- 9.1. Roads, streets, drives or similar shall be numbered as follows:

- Odd numbers on left hand side and even numbers on right hand side;
- Cul-de-sacs may be numbered consecutively in a clockwise direction up to and including a maximum of 12 properties;
- Number 13 and all other such like numbers to be included unless requested otherwise by the applicant;
- Building names or numbers shall be allocated to the road serving the principal entrance.

- 9.2. Addresses can be issued to the majority of buildings. However, for properties to be deliverable and held on Royal Mail's database they do need to have a secure delivery point with a residential or commercial requirement.

- 9.3. If a property is numbered in a numbered street then that number must be displayed and used.

- 9.4. When infilling takes place within a street, if any unused numbers are available they should be used.
- 9.5. Should the infilling create a large number of flats or similar units, the development may be named, (as described elsewhere), and clearly identified by private signage attached to the building erected and thereafter maintained by the applicant, owner or occupier.
- 9.6. When unused numbers are not available, then the identification by suffix (a, b, c, etc.), would be acceptable.
- 9.7. The Council is responsible for numbering the properties and will confirm the numbering when requested by the applicant. However, we would advise that numbers are allocated as and when properties are at foundation level or above to avoid the issue surrounding [point 8.8 below](#).
- 9.8. If an applicant returns to the council to re-number a newly numbered housing development there will be a charge for this based upon the fee set for renaming and renumbering properties.
- 9.9. If new development takes place within a street, prior to the start of the numbering then the new properties/development should be named.
- 9.10. Premises that are holiday properties as a rule will not be registered as delivery addresses if they are only for short-term occupation, unless there is some form of Site Management to deal with incoming mail etc.
- 9.11. Individual premises will be considered on their merit, but if considered suitable as a delivery address, will be required to meet the criteria of having a secure delivery point and a properly displayed name and/or number.
- 9.12. New Dwellings in existing unnumbered roads will need to have their property names officially registered.

10. Re-numbering existing properties / buildings or Re-naming a street

- 10.1. Renaming/renumbering existing streets and buildings is normally only considered when changes occur which give rise (or are likely to give rise) to problems for the occupiers who are experiencing problems with their location from Royal Mail, emergency services, utility companies and deliveries.
- 10.2. Under the legislation the Council must consult with all those affected by the potential change. Only if a majority of two thirds of occupiers (Council Tax Payers) are in favour of the proposed change is the next phase undertaken. This involves a legal notice displayed at the street giving aggrieved persons 21 days to make representation to the Magistrates Court.
- 10.3. Once this stage is completed the Council will make a new order, officially changing the name of the road.

11. Allocation of house numbers to properties with house names

- 11.1. The Council will consider requests from emergency services, town or parish councils or members of the general public to allocate numbers to properties which only have names. Numbering is carried out on receipt of such a representation for public safety reasons.
- 11.2. Consultation is carried out with town or parish councils and ward members and occupiers. The Council will make the final decision under the scheme of delegation as described on [page 8](#).
- 11.3. After the numbering has been completed, occupiers will be sent a formal notice. The council will normally allow eight weeks for the number to be displayed.

12. Changing an existing house name to properties with no house number

- 12.1. Whilst the council will always seek to number properties, there are properties in the district that have not been numbered and are known officially by their property name. The Council will allow occupiers to change the property name providing that there is no conflict with any other address.
- 12.2. The occupier must apply to change the name and the naming and numbering procedure must be followed.
- 12.3. For premises used for business, the name of the property must be different from the name of the business.

13. Add house name/ change an existing house name with a house number

- 13.1. A name can be added to the official postal address. The occupier must apply to change or add the name and the relevant procedure must be followed.
- 13.2. Although the Council has no jurisdiction over the building names, in the case of new build, all new building names require to end with an appropriate suffix, for example:
 - Lodge
 - Apartments
 - Mansions
 - House
 - Court
- 13.3. For private houses it is sufficient that the name should not repeat or be similar to the name of the road or that of any other house or building in the locality.
- 13.4. As with new developments, the Council will supply the new name to Royal Mail and the statutory bodies.
- 13.5. To make an application to add a house name to an existing property or to rename a property or site the applicant must be the owner of the property.
- 13.6. Renaming of an existing building or site can be applied for through the submission of a Street Naming and Numbering application. When making a request to change the name of a building or site, the proposed name must follow the building naming requirements detailed in the 'Application Process for Naming Buildings and Sites' section of the procedure on [page 8](#).
- 13.7. If an owner wishes to change the name of a registered building or site, the request must be made to the Council using the online form [Street naming and numbering application form](#).
- 13.8. Should an owner wish to use a name it must be used in conjunction with the existing number. It is important to realise that house names do not replace numbers in any circumstances.
- 13.9. The Council can register this name with Royal Mail as an alias (this can take up to one month for their records to be updated). This means that Royal Mail will hold the address details for the property in two formats. Firstly, just making reference to the postal number and secondly with the house name and the postal number (alias address).
- 13.10. Please note postal address data is purchasable and so not all companies will purchase the alias information for their records.

- 13.11. The Local Land and Property Gazetteer will be used to check for address duplications and to ensure that your preferred name is acceptable.
- 13.12. A public interest test will be applied to all naming and renaming of buildings and sites.
- 13.13. Where no public interest is found in the renaming of a building or site, these will be considered and determined by the Director – Change Management, ICT and Regulatory Services in line with the Council's scheme of delegation within the constitution.

14. Public Interest Test

- 14.1. In cases of applications for the renaming of a building or site which is considered of public interest due for example, it has historical/social importance or is considered a prominent or significant landmark in the area, the Council will reserve the right to follow the process detailed below.
- 14.2. Once a renaming application is submitted that the Council considers to be in public interest in line with the paragraph above, the Council will:
- Display a notice of the proposal in a prominent and publicly accessible position at the building/site or part to which the change application relates; and
 - Consult relevant and appropriate stakeholders pertinent to the building/site in question.
- 14.3. The notice under the paragraph above shall state the new name proposed and that representations may be made in writing to the Council by the deadline specified in the notice, not earlier than 28 days after the posting of the notice.
- 14.4. The Council shall consider all representations made as provided. A report will be created which will detail the number of representations submitted to the Council, provide a summary of the representations, including those raised by key stakeholders and detail the key issues to be considered.
- 14.5. This report will be presented to Planning Committee where members will consider the key issues raised.

- 14.6. The Committee will give weight to the views of those considered key stakeholders relative to the reason the application was considered to be in the public interest initially.
- 14.7. The Committee will make a decision on the application, whether to support or refuse the name change. The Committee's decision will be final.
- 14.8. Where an application to rename a building or site is approved the Council will notify any necessary statutory consultees of the update to the address details and place the information on the website.

15. Listed Buildings

- 15.1. If the building to be renamed is a listed building it may be necessary for consultation with relevant parties to be completed before a decision can be made.
- 15.2. These will typically include the Council's Conservation Officer, Historic England and other heritage groups known to the Council at the time of the application, as well as the Ward Member for the area.
- 15.3. The Council shall consider the representations made by key stakeholders as provided in paragraph 14.1. A report will be created which will, provide a summary of the representations made, including the detail of the key issues to be considered.
- 15.4. In cases where there are objections to the proposed name change this report will be presented to Planning Committee where members will consider the key issues raised.
- 15.5. The Committee will give weight to the views of key stakeholders and particularly the buildings prominence and linkages to the area's broader history and distinction.
- 15.6. Not all applications to rename Listed Buildings will go to Committee, however where they do the Committee will make decision on the application, whether to support or refuse the name change. The Committee's decision will be final.

- 15.7. There is no right of appeal against the renaming of a property for third parties. Therefore, a neighbour cannot object to the naming of a neighbouring property.

16. Fees and Charges

- 16.1. Section 93 of The Local Government Act 2003 gives the authority the power to charge for providing the street naming and numbering services.
- 16.2. Details of the current fees can be found at:
<https://www.west-lindsey.gov.uk/planning-building-control/street-naming-numbering>
- 16.3. How to pay
- [Online application](#)
 - Telephone – 01427 676676
 - Cheque – Make payable to West Lindsey District Council and send to Street Naming and Numbering, West Lindsey District Council, Gainsborough, Lincolnshire DN21 2NA
 - Invoice – Contact us to request this service (process will take around two weeks) llpg@west-lindsey.gov.uk

17. Claims for compensation

- 17.1. The Council is not liable for any claims for compensation arising directly or indirectly from the naming of streets, re-naming of streets, numbering or renumbering of properties, naming, or renaming of properties.
- 17.2. Individuals and developers must not give any postal addresses, including the postcode, to potential occupiers, either directly or indirectly (for example via solicitors or estate agents) before the official naming and numbering scheme has been issued for it by the Council.
- 17.3. The Council will not be liable for any costs of damages caused by failure to comply with this requirement.

18. Decision and Discretion

- 18.1. The council's decision is final for the naming of roads, renaming of roads, numbering or renumbering of properties and it is at the discretion of the Director - Change Management, ICT and Regulatory Services.

18.2. However, in cases where the objections have been logged with the magistrates' court then the decision of the court will be upheld.

19. The Council is not responsible for

19.1. Correspondence and deliveries not delivered to the correct address. Any complaints should be directed to Royal Mail's customer services.

19.2. The address being unavailable on databases used by third parties, such as retail outlets (including internet based ones).

20. Street name plates

20.1. Upon approval of a street name, the Council will provide details of the design specification and positioning for the street name plate in conjunction with the Highway Authority's requirements. This information is also on the website. See Appendix B.

20.2. The Council is responsible for the repair and maintenance of existing street name plates within the district when this becomes necessary either due to accidental damage, vandalism or normal wear and tear.

20.3. Individual names for cul-de-sacs accessed via no-through roads could give rise to excessive use of "*leading to*" name plates at the entrance to estates and should be avoided by treating the estate as a single entity.

20.4. Applicants are required to erect nameplates prior to occupation. Once roads are adopted the maintenance and replacement of nameplates becomes the duty of the Council

Appendix A — Legislation

Towns Improvement Clauses Act 1847

<https://www.legislation.gov.uk/ukpga/Vict/10-11/34>

Public Health Act 1907

<https://www.legislation.gov.uk/ukpga/Edw7/7/53>

Local Government Act 1985

<https://www.legislation.gov.uk/id/ukpga/1985/51>

Local Government Act 2003, Section 93

<https://www.legislation.gov.uk/ukpga/2003/26/section/93>.

Appendix B – Street Name Plate Specification

- Non- Reflective Street name plate, die pressed aluminium;
- 11 gauge, 3½” Kindersley om 7” plate;

- ½” border, black on white, radiused corners, grey back, drilled for post mounting;
- Mounted on 2 No 80MM X 80MM uprights, bevelled tops, 30mm backing board;
- All in recycled plastic bolted through, name plate fixed with security screws, frame to include base rods.

Positioning Guidelines

- Where possible, name plates should be positioned at 45 degrees to the “main” road, so that it can be read by approaching traffic.
- If there is a wall immediately to the rear of the path, mount the name plate on a suitable backing board, and fix to the wall.
- If the road has equal amounts of traffic from both directions, two signs are to be used. If traffic only comes from one direction, only one sign need be used.
- If the name plate is to be post mounted, position the posts in the back of the footpath, *not* behind it. The reason for this is that the footpath is “public”, but the verge will probably be private, and a new owner could ask us to move it to either plant a hedge or build a wall.

These are merely guidelines and not definitive. If your circumstances are different please contact the Council on 01427 676620 to discuss the matter.

Part 2: Equality Impact Assessment*

Identifying Potential Equality Issues

Use the information in Part 1, any other supporting documents, and the questions below to aid the group's discussion on the presence of potential equality issues.

- What do you know already about equality impact or need?
- Is there any indication that particular features of this policy/function will create problems for specific groups?
- Is there any indication that particular features of this policy/function will benefit specific groups or advance equality between different groups of people?

Evidence†

It is difficult to achieve an effective EIA without good evidence. Answer the questions below about the evidence relating to the project/policy/function.

What are the existing sources of evidence and mechanisms for gathering data?

Address database (LLPG)

Guidance from GEO place

Customer Complaints system

Is there any evidence that different groups have different needs, experiences, issues and priorities in relation to the particular policy or function?

None

Is there any evidence, or other reason to believe, that there is a higher or lower level of participation or uptake among different groups?

None

Does this policy/project impact a particular area of the District? Have there been any demographic changes or trends locally?

None

* Part 2 should be completed by the Policy/Project Lead with the help of a team of people invited to assist.

† See the "Evidence Collection and Data Use" section of the [Internal EIA Guidance](#).

Is there any informal feedback from managers, staff or voluntary organisations?
Feedback internally from relevant officers and MT.

Are there gaps in the data or our knowledge? What further evidence is needed to understand the impact upon equality?

A review of any customer complaints or compliments for this service/policy to be undertaken. From the findings the policy may be amended to ensure it is assessable to all.

Impact

Based on the identification of potential equality issues and the supporting evidence, the team can try to determine the impact of the policy/project/service/function on different groups.

Does the data show different impact upon different groups?

Yes ☐ No ☒

If yes, which groups are affected?

Group	May particularly benefit	May adversely impact	No impact anticipated
People from different ethnic groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Women	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Men	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maternity/pregnancy impact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disabled people or carers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
People from different faith groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lesbian, gay or bisexual people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Older or younger people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

People in rural locations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Married people or people in civil partnerships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gender reassignment			
People on low income			
Group cont'd	May particularly benefit	May adversely impact	No impact anticipated
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Please explain the potential benefits or adverse impacts listed above.			
Recommendations Please select a recommended course of action and, where appropriate, explain your choice.			
No major change needed <input checked="" type="checkbox"/> Adjust the policy <input type="checkbox"/> Adverse impact but continue <input type="checkbox"/> Stop and remove the policy <input type="checkbox"/>			
Future actions: Monitoring and actions from the review to be undertaken as necessary. Policy to be on the website as a webpage not pdf to ensure as accessible as possible to all and able to be read by any software used by customers.			
Lead Signature: Date [‡] :13-6-2024			

[‡] What happens next? – See the “Understanding the EIA process” section of the [Internal EIA Guidance](#).



**Corporate Policy &
Resources Committee**

Thursday, 18th July 2024

**Subject: Fleet Vehicle Decarbonisation Strategy for West Lindsey
District Council**

Report by:	Director of Commercial & Operational Services
Contact Officer:	Rachael Hughes Head of Policy and Strategy rachael.hughes@west-lindsey.gov.uk
Purpose / Summary:	To present, for adoption West Lindsey District Council's first Fleet Decarbonisation Strategy

RECOMMENDATION(S):

- 1) That members adopt the Fleet Decarbonisation Strategy and Decision-Making Framework, as attached at Appendices 1 and 2 of this report.**
- 2) Members delegate authority to the Head of Policy and Strategy in consultation with the Chair of Corporate Policy and Resources Committee to make minor editorial modifications to the strategy which includes the decision-making framework, where updates to data or legislation occur, that does not fundamentally change to the core objectives of the strategy.**

IMPLICATIONS

Legal:

Net-zero greenhouse gases by 2050 is a statutory target. In May 2019, the UK Government declared a non-legally binding Climate Change Emergency declaration and the Committee on Climate Change recommended a new emissions target for the UK: net-zero greenhouse gases by 2050. This was made a statutory target in June 2019 through the Climate Change Act (2050 Target Amendment) Order 2019.

Sale of new diesel vans will be banned from 2030 and sale of diesel HGVs will be phased out by 2040 at the latest.

Financial: FIN/45/25/MT/SL

A full review and report on Fleet Decarbonisation Opportunities, the markets, funding and suitability of fuel types for a rural district was commissioned, and a draft was submitted by the Energy Saving Trust (EST) in December 2023. This was funded at a cost of £13k from the Climate Change Reserve and has been used to inform the approach taken in this strategy at appendix 1.

A grant of £25k has been received from Midlands Net Zero Hub (MNZH) and up to £13k match funding budget (previously drawn down from the climate reserve) approved to fund the spend.

£500k was allocated to support delivery of the Carbon Management Plan, (with a recognition that other funding solutions are needed to support this). The capital programme 2021-22 to 2025-26 also included for £260k of carbon reduction initiatives.

£50k of this was spent in 2021/2022 against the capital scheme 'Solar Proposal for New Waste Depot', funded from grant income.

£210k remains in the capital programme 2024/2025 for Carbon Efficiency around parish lighting. This is funded from the Maintenance of Facilities of reserve.

The uncommitted balance on the Environmental and Climate Change Reserve is £477.2k:

		2021/22 £	2022/23 £	2023/24 £	2024/25 £	2025/26 £
	Opening Balance	(500,000)	(480,000)	(608,000)	(531,206)	(477,206)
	Contribution to Reserve		(182,000)			
Capital	Solar Refuse Fleet Project			22,794		
Revenue	Climate Change Consultancy costs	20,000				
Revenue	Contribution to Head of Strategy & Policy post		54,000	54,000	54,000	
	Closing Balance	(480,000)	(608,000)	(531,206)	(477,206)	(477,206)

The Vehicle Replacement Reserve table is included within the report at Appendix 3. This table includes replacement costs for 16 refuse collection vehicles (RCV). The replacement cost for each current vehicle (diesel) is £220k for 2024/2025 and £232.2k from 2025/2026.

The forecast cost to replace the existing 16 RCV's with diesel vehicles is £3,666.4k across the years 2024/2025 to 2030/2031, leaving a balance on the reserve at year end 2030/2031 of £68.6k.

The cost of an electric RCV is reported to be £422k each and would be a total replacement cost of £6,752k for the 16 vehicles. This is a total additional cost of £3,085.6k.

Over six years there would be an average requirement for £514.3k extra contribution to the vehicle replacement scheme each year.

There is a OZEV grant of £25k per vehicle for the first 100 vehicles, a total of £400k that would reduce the additional cost to £2,685.6k.

16 vehilces £k	
Diesel RCV	3,666.4
Electric RCV	6,752.0
Additional cost	3,085.6
OZEV grant	(400.0)
Pressure	2,685.6

The current cost difference between electric and diesel vehicles varies significantly by vehicle category. For the Council's light commercial vehicles (LCVs), electric models are estimated to have upfront purchase costs around 55% higher than equivalent diesel models. For the heavy goods vehicles (HGVs) that make up a large portion of the fleet, the headline cost of electric models can be 80-100% more than diesel equivalents.

In terms of charging infrastructure, installing the necessary charge points to support a fully electric fleet is estimated to require an investment of around £2,000 per unit – circa £30,000 in total. This can only be preliminary estimate and actual costs will depend on the specific infrastructure plans developed and grid connection costs if an increase is required. The initial EST review suggests that a relatively modest increase in grid connection capacity of around 100 kVA may be sufficient to support initial fleet electrification, and that securing this additional capacity in the near-term could be a low-cost option to mitigate future supply risks.

It is important to note that while electric vehicles have higher upfront costs, there is anecdotal evidence that they can have lower operating costs related to fuel and maintenance over the life of the vehicle, however this has yet to be robustly tested by the Council and will be addressed through an agreed whole life costing methodology as part of future financial appraisals.

Detailed financial appraisals will be conducted for each vehicle procurement decision to determine whole-life costs. Grant funding opportunities will also be explored to offset some of the increased capital costs of transitioning to an electric fleet.

Staffing:

There are no staffing implications arising from this report. Implementation of the Strategy will be delivered with existing officer capacity and has been factored in to both the Operational Services Business Plan, and the Policy and Strategy Business Plan, through a Transition Team.

Resource and skill requirements will be reviewed as the Strategy matures to ensure they remain adequate. The Council's usual project management and governance frameworks will apply to any projects arising from adoption of this strategy.

Equality and Diversity including Human Rights:

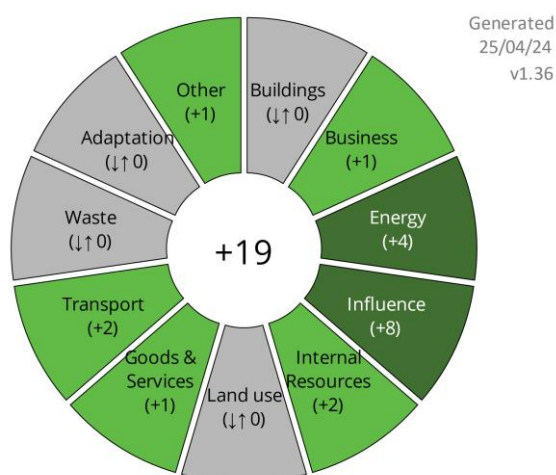
The Council's ambition is to ensure that neither the effects of climate change, nor the costs of reducing emissions, disproportionately affect anybody living or working in the district. There are no EDI implications arising from this report, however, a full equalities impact assessment will be carried out as required on any projects arising from this strategy.

Data Protection Implications:

None arising from this report.

Climate Related Risks and Opportunities: The Carbon Management Plan, Climate Strategy and Action Plan contain proposals aimed at reducing the Council's carbon emission to a net-zero position by 2050 and achieve the same across the District of West Lindsey within the same timescale.

A climate, environment, and sustainability (CESIA impact) assessment is shown below.



West Lindsey District Council will be net zero by 2050 (25 years and 8 months away).

The CESIA shows positive climate and environmental benefit from adopting the fleet decarbonisation strategy in several areas. Proceeding with the work scores highly because it represents a commitment to continued assessment of decarbonisation options, analysis and improvement action and sends a positive message to internal and external stakeholders. In 22/23 fleet emissions contributed 797 tonnes of CO₂ equivalent emissions out of an organisational footprint of 1396t CO₂e and that figure is expected to rise.

It doesn't score higher, because it only represents a commitment to a new approach, and it is not until procurement decisions are made and diesel vehicles are replaced that the carbon savings will accrue. Climate related risks are inherent. The risk of not having a Fleet Decarbonisation Plan and its aims and objectives could lead to the Council contributing to irreversible temperature rises and subsequent damage to the climate and natural environments.

Adopting a Fleet Decarbonisation Strategy now provides a clear framework in which future decisions on procurement of fleet vehicles can be based and allows the Council to properly consider and balance all factors to ensure that decisions not only deliver on the organisation's commitment to be a net zero Council by 2050, but also ensure delivery against other corporate priorities.

Section 17 Crime and Disorder Considerations:

N/A

Health Implications: Health and wellbeing are strongly linked and interwoven into the aims of the Climate, Environment, and Sustainability strategy as co-benefits of taking positive action to address climate change.

Title and Location of any Background Papers used in the preparation of this report :

West Lindsey District Council's [Carbon Management Plan](#) and [Greenhouse Gas emissions report](#)

[Fleet Update and Vehicle Procurement Request Report](#) to CP&R (July 23)

West Lindsey District Council's [Environment & Sustainability Action Plan & Annual Progress Report](#) (Oct 23)

Risk Assessment :

Fleet decarbonisation was identified as a priority within the Council's Carbon Management Plan which was adopted in June 2021. The risks associated with not undertaking this work include:

1. Failure to reduce the Council's category 1 carbon emissions. This is mitigated by following the staged procurement decision-making approach as outlined in the strategy and by using the decision-making framework within the strategy and also shown in appendix. 2
2. Risk of a damage to reputation. Having committed to becoming a net zero council and leading the agenda within the district, there is a risk that inaction will impact on the Council's reputation and role as community leader in this area and opportunities to influence other organisations and sectors will be lost.
3. Fleet decarbonisation is being achieved by early-adopters in recent years. At the moment it is too early to fully understand vehicle life cycle and ongoing maintenance costs. Indicative evidence is that maintenance costs are lower however these vehicles have not been tested in our rural environment, therefore there may be a cost risk or benefit but that is not yet understood.

Call in and Urgency:

Is the decision one which Rule 14.7 of the Scrutiny Procedure Rules apply?

i.e. is the report exempt from being called in due to urgency (in consultation with C&I chairman)

Yes

☐

No

x

☐

Key Decision:

A matter which affects two or more wards, or has significant financial implications

Yes

☒

No

☐

Executive summary

This report presents for adoption a West Lindsey District Council Fleet Decarbonisation Strategy, attached as Appendix 1 and associated decision-making framework within the strategy and as shown in appendix 2. This is the first such strategy for West Lindsey District Council (“the Council”) which provides a roadmap and decision-making pathway for transitioning to zero emission vehicles by 2035.

Through its Carbon Management Plan, the Council has made significant strides in recent years, reducing carbon emissions by 32% since 2008. However, at 34%, fuel consumption remains the biggest contributor to the Council’s current carbon footprint with significant changes required to reduce this going forward.

The approach outlined in this report has been developed to support delivery of the Council’s strategic environmental aim of becoming carbon net zero by 2050, as described in the Environment and Sustainability Strategy. Adopting this Strategy will enable the Council to make informed, evidence-based decisions to decarbonise the fleet. The timescales for implementing this decision-making framework will be driven by the already established fleet replacement schedule and in line with budget cycles.

1.0 Introduction

- 1.1 To support the development of this Strategy, officers have worked with the Energy Savings Trust to identify a staged approach, appropriate to the priorities, needs and resources of the Council. To ensure alignment with other strategic priorities and with legislative requirements, not least the Environment Act 2021, due consideration has been given to key initiatives such as the collection of food waste.
- 1.2 Particular attention has been paid to aligning the Fleet Decarbonisation Strategy to the Council's Carbon Management Plan 2021-2026, which states that "significant switching of the fleet is required for the Council to achieve its decarbonisation emissions.
- 1.3 Importantly, the ability to continue delivering an efficient high quality, high performing service that meets the needs of our customers was paramount in designing the approach set out in this report within the resources available to the Council. This ensures that the rollout of a decarbonised fleet will not result in a drop in the high quality and reliability that our residents have come to expect from the Council's Operational Services.

2.0 Key Considerations

- 2.1 In developing this Strategy, a number of challenges and opportunities were considered to ensure an appropriate approach that balances the Council's Environment and Sustainability commitments with the Corporate Plan objective of delivering a value for money, high quality service to local taxpayers. Such challenges and opportunities are summarised below for members consideration, as well as being described in more detail in the Strategy itself.

3.0 Financial Considerations

- 3.1 The transition to an electric fleet involves considerable upfront costs, including the purchase of new vehicles and the establishment of necessary infrastructure. The timescales for when these decisions will need to be made, will be driven by the vehicle replacement schedule used by Operational Services to manage vehicle replacement and procurement, ensuring the service continues to deliver high quality services to residents and businesses across the district.
- 3.2 Alternative technology vehicles, such as battery electric vehicles generally have higher initial purchase prices compared to traditional diesel vehicles. However, these costs may be offset by lower operating and maintenance expenses over the vehicles' lifespans.
- 3.3 The Energy Saving Trust report provides details of headline costs. However, due to the time sensitive nature of each decision point an internal appraisal would need to take place and a full financial appraisal and business case appended to each new procurement decision report.

4.0 Operational Requirements

- 4.1 A factor in determining the vehicle decarbonisation strategy is establishing the most appropriate fuel type for the vehicles. Even before the mandate for improved sustainability and the reduction in the Council's carbon footprint was set, the assessment and understanding of vehicle function and performance has been embedded within the decision-making process of the Council.
- 4.2 A standardised fleet running, as far as possible, on the same fuel type has always been centre to this approach to support maintenance contracts and ensure economies of scale in both the purchase of fleet vehicles and the fuel on which they run.
- 4.3 The fleet currently, with the exception of two of the managers vans are diesel. The use of diesel vehicles has always been driven by the need to cover a very large rural area efficiently and effectively.
- 4.4 Vehicle replacement is managed through the established vehicle replacement schedule, which details all of the fleet vehicles owned by the Council, including specification, age and use, and most importantly when that vehicle will need to be replaced.

5.0 Strategic Linkages

- 5.1 In addition to those already mentioned, such as the Environment and Sustainability Strategy, the Corporate Plan and the Environment Act 2021, it is important that the Fleet Decarbonisation takes into account other strategic decisions to ensure alignment across the organisation.
- 5.2 In July 2023, CP&R approved a [Fleet Update and Vehicle Procurement Request Report](#) which brought forward replacement dates for some of the Council's existing fleet due to increasing maintenance cost, and also highlighted the need for a new vehicle replacement strategy which should include options for decarbonisation. The Strategy presented in this report delivers the requirements of this recommendation.
- 5.3 Further this strategy also provides a timely and clear framework for the Council to make decisions on vehicle procurement in connection with the new requirements of the Environment Act 2021, specifically the implementation of commercial and residential food waste collections starting in 2025.
- 5.4 Due to the lead in times for vehicle procurement a decision on vehicle specification and fuel type for the food waste collection service will be imminent. As such it is important that a clear framework for assessing and balancing vehicle specification, the market, operational needs and service delivery needs to be established to ensure consistency and transparency.

6.0 Benchmarking and the Evidence Base

- 6.1 In designing this Strategy, officers carried out a benchmarking exercise to understand the fleet decarbonisation approach taken by other local authorities.
- 6.2 This focused primarily on those Lincolnshire authorities who have also been supported by the Energy Saving Trust. In doing so, the Council officers have benefitted from knowledge transfer and the ability to develop and implement a fully costed action plan based on the advice of experts in this field.
- 6.3 The Energy Savings Trust also conducted a comprehensive review of the Council's existing fleet operations, the findings of which shaped the emerging priorities include within the Fleet Decarbonisation Strategy. In summary, the Review concluded that the Council's approach to fleet decarbonisation should:
- Understand the market & technological developments including current and future capabilities of vehicles.
 - Identify which vehicles are suitable for replacement with battery electric vehicles or other alternative technologies as they come onto the market.
 - Formulate a procurement strategy based on whole life costs (in both financial and carbon terms)
 - Review whether the depot is ready to accommodate vehicles powered by alternative fuels, for example install charge points at the Caenby depot and review the options for charging.
 - Advise on supporting measures, such as driver and mechanic training.
- 6.4 A copy of the Review, which forms the evidence base for the Fleet Decarbonisation Strategy, is included in full at Appendix 4 for members information.

7.0 Current Fleet Analysis - Fleet Composition and Usage

- 7.1 The Council operates a diverse fleet essential for delivering various award-winning council services, including waste collection, street cleansing, and enforcement activities.
- 7.2 The current fleet consists of 17 heavy goods vehicles (HGVs)/refuse collection vehicles (RCVs), 13 light commercial vehicles (LCVs), and additional specialist vehicles. Collectively, these vehicles are responsible for significant annual mileage, contributing to the Council's carbon footprint.
- 7.3 The fleet's operational profile is characterised by regular, predictable routes, with vehicles typically available for charging for extended

periods, suggesting a favourable setup for transitioning to battery electric vehicles. This availability aligns with the Council's operational strategies and facilitates efficient scheduling for charging times without disrupting service delivery.

8.0 Challenges and Opportunities

- 8.1 The analysis in the EST report highlights several challenges in transitioning the fleet to zero emissions. These include the current lack of sufficient charging infrastructure, the higher initial costs of electric vehicles, and the need for significant upgrades to electrical supply at vehicle depots.
- 8.2 However, these challenges also present opportunities to innovate and improve, such as leveraging the predictable downtime of vehicles to implement efficient charging schedules and exploring renewable energy options to power the fleet.

9.0 Infrastructure Requirements - Overview of Current Infrastructure

- 9.1 The current infrastructure at the Caenby Corner depot, primarily designed to support traditional fuel vehicles, is inadequate for a wholesale transition to battery electric vehicles (BEVs).
- 9.2 The initial assessment reveals that the electrical capacity available is sufficient to handle a limited number of electric vehicles. However, for a complete transition, significant upgrades will be necessary. An assessment and full costing of any upgrades required to the depot will be undertaken as part of all future vehicle procurement decisions and will be fully costed as part of a comprehensive business case.

10.0 Electrical Grid Capacity

- 10.1 The feasibility studies conducted, including insights from the Energy Saving Trust (EST) and internal reviews, indicate that the current grid connection at the Caenby Corner depot can support the charging needs of approximately nine electric refuse vehicles and a few light commercial vehicles.
- 10.2 To accommodate the entire fleet, the electrical supply would need to be enhanced to a 400kVA capacity. This upgrade is crucial for ensuring that the fleet's operational needs are met without disruption and aligns with the broader objectives of fleet electrification.
- 10.3 The EST review estimates that upgrading the Caenby Corner depot's grid connection from the current 275 kVA to approximately 400 kVA will be necessary to support a fully electric fleet. While specific costs are not provided, the report suggests that an increase of around 100 kVA and smart charging solutions may be a relatively low-cost option and recommends engaging with the local District Network Operator (DNO), Northern Powergrid, as soon as possible.

- 10.4 Establishing costs for this work is a priority so that accurate information can be used to inform future vehicle procurement business cases, specifically in relation to the one-time infrastructure costs and ongoing monthly charges associated with the upgrade.
- 10.4 Following the award of a government grant, officers have been able to take a proactive approach, and consultants will shortly be appointed to assist with formalising costs for this enabling work. This work will help plot when sufficient capacity is required in order to minimise the risk of future supply constraints. The Council will reach out to the DNO to obtain more detailed cost estimates and explore options for incrementally increasing the grid connection capacity in alignment with the phased electrification of the fleet.

11.0 Charging Infrastructure

- 11.10 The development of a comprehensive battery electric vehicle charging infrastructure is a central component of any depot electrification plan. Current facilities only feature minimal charging points, which are insufficient for scaling up to a fully electric fleet.

A depot electrification project would involve:

- **Installation of Charging Points:** Based on the vehicle downtime and charging time requirements, a phased installation of charging stations at strategic locations within the depot is planned.
- **Smart Charging Solutions:** To optimise charging schedules and manage energy demand efficiently, the integration of smart charging technology is essential. This will allow the Council to minimise peak load impacts on the grid and reduce electricity costs.

12.0 Renewable Energy Integration

- 12.1 To further reduce the carbon footprint and operational costs associated with charging battery electric vehicles, the Council has the opportunity to explore options to integrate renewable energy sources such as solar and wind power at the depot. This initiative could involve:
- **Solar PV Panels:** Installation of photovoltaic panels on depot buildings and surrounding areas to generate electricity and reduce external power demand.
 - **Battery Storage Systems:** To enhance energy security and maximize the use of generated solar power, battery storage systems could be installed to store excess power during low usage periods.

13.0 Funding and Partnerships

- 13.1 To mitigate the high initial costs associated with fleet electrification securing the necessary funding for these upgrades is a key consideration. The Council will pursue various funding avenues, including government grants, private partnerships, and green financing options. Collaboration with energy providers and technology firms will also be critical to access the latest innovations and cost-effective solutions in electrification technology.
- 13.2 Securing external funding will be critical to advancing the fleet's electrification without imposing undue financial strain on the Council's resources. Some are available now and these are expected to become more prevalent in the future. The Council was recently successful in applying for a £25,000 grant to aid in undertaking scoping works for depot electrification.
- 13.3 There is an opportunity to further reduce electricity costs and increase security of supply by exploring a long-term power purchase agreement with a local renewables' producer.

14.0 Timeline and Phasing

- 14.1 The rollout of the necessary infrastructure will be phased according to the fleet replacement schedule and budget allocations. Initial focus will be on upgrading grid connections (if necessary) and installing essential charging points, with subsequent expansions aligned with the increase in electric vehicle acquisitions.

15.0 Financial Analysis

Cost of Transition

- 15.1 The transition to an electric fleet involves considerable upfront costs, including the purchase of new vehicles and the establishment of necessary infrastructure. Battery electric vehicles generally have higher initial purchase prices compared to traditional diesel vehicles.
- 15.2 However, these costs might be offset by lower operating and maintenance expenses over the vehicles' lifespans. These costs are detailed at a headline level within the EST report. However, an internal appraisal needs to take place and a full financial appraisal in line with the requirements of the decision making framework will be included with the final report.

Staged Replacement Cycle

- 15.3 The Council operates on a staged vehicle replacement cycle, which provides a structured approach to gradually transition the fleet to electric vehicles.
- 15.4 This cycle is strategically aligned with the vehicles' end-of-life, ensuring that replacements are economically viable and operationally necessary.

- 15.5 The staged approach allows the Council to spread the financial burden over several years, making the transition more manageable within the Council's annual budgets.

Whole Life Cost Analysis

- 15.6 A Whole Life Cost (WLC) analysis will be integral in assessing the total economic impact of purchasing and operating each vehicle in the fleet over its expected service life.
- 15.7 This analysis includes the cost of purchase, fuel, maintenance, and disposal, adjusted for the time value of money. WLC provides a more accurate representation of long-term financial impacts, guiding more informed decisions that align with the Council's financial and environmental goals.
- 15.8 These have been undertaken in the EST report but will need to be examined and validated internally by the Council's accountants and weighed against local factors and market conditions at purchase decision points. A dedicated financial analysis appendix will be included within the final report.

Financial Risk Management

- 15.9 Transitioning to an electric fleet poses certain financial risks, including the potential for higher-than-expected vehicle costs, changes in government policy, or technological advancements that could render newly acquired technologies sub-optimal.
- 15.10 To manage these risks, the Council will establish a risk mitigation strategy that includes regular market reviews, intelligent procurement, and continuous monitoring of technological developments in the electric vehicle market.

Budget Planning and Reporting

- 15.11 Accurate and transparent budget planning and reporting will be essential to track the financial performance of the fleet transition strategy.
- 15.12 Regular updates will be provided to Management Team and other stakeholders, detailing expenditures, savings, and comparisons to projected financial outcomes with diesel and electric. This transparency will help maintain stakeholder trust and ensure continued support for the initiative.

16.0 Adoption of a Procurement Decision-Making Framework

- 16.1 To guide each procurement decision effectively, the Council will adopt a version of the procurement decision-making framework as recommended in the Energy Saving Trust's report.
- 16.2 This tool will help in evaluating whether to replace, retain, or refurbish a vehicle based on a comprehensive assessment of total cost of ownership, environmental impact, and operational requirements. The

decision-making framework will be tailored to reflect the Council's specific needs and constraints, ensuring that each decision maximises both financial and environmental benefits.

16.3 It is recommended that the decision-making process and approach to procurement follows the 5-stage process in the table shown within the strategy and at appendix 2.

16.4 Where current assets are underutilised, replacements should be robustly challenged because of the high capital cost of battery electric vehicles. A well utilised, right-sized battery electric vehicle or similar can save money.

17.0 Member Scrutiny and Monitoring of the Strategy

17.1 Oversight of this strategy will sit with the Environment and Sustainability Member Working Group, a cross party group of elected members which meets once a month. The Working Group is responsible for developing, implementing, monitoring and reviewing the Environment and Sustainability Strategy Action Plan. One of the priorities within this Action Plan is to decarbonise the Councils operational services, specifically the waste vehicles.

17.2 This Vehicle Decarbonisation Strategy has been developed to provide a framework for future procurement decisions taken, as part of that programme. The success of this strategy will be monitored through those subsequent vehicle procurement decisions.

Vehicle Decarbonisation Strategy

This strategy provides a structured approach to enable the council to make informed, evidence-based decisions on fleet decarbonisation, in line with budget cycles and maintaining high standards of service.





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The West Lindsey District Council's (the council) Corporate Plan puts climate change and the environment at the heart of organisational priorities through a 'green thread' of aims and objectives designed to embed tackling climate change and promoting the environment and sustainability into all areas of our operations.

The council, in June 2024, adopted a refreshed Environment and Sustainability Strategy. The Strategy reaffirms the commitment to deliver a net zero council by 2050. As part of that commitment the council has introduced three mid-way commitments to be achieved on or before 2035. One of those commitments relates to the decarbonisation of the council's waste fleet.

Emissions relating to transport account for 34% of the council's total carbon footprint, of which the waste fleet is responsible for approximately 26%.

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Waste Fleet = 26% of Council's Carbon footprint



As the district grows that percentage will only increase unless a new approach to vehicle procurement is adopted. This Strategy looks ahead to the future, providing context for considering and adapting the approach to assessing vehicle decarbonisation opportunities to deliver the council's commitment to be net zero by 2050, whilst balancing costs and service delivery.

Vehicles are a corporate asset; they have a capital value, require regular maintenance and statutory safety inspections and are required to meet stringent Health and Safety Regulations. Operational Services is responsible for the purchase, maintenance, repair and disposal of all vehicles owned by West Lindsey District Council, including those used for waste collection, street cleansing, market duties and a small amount of supporting plant.

The purpose of this strategy is to set out the replacement pathway for the waste and recycling fleet to circa 2035, which is a statutory service delivered by the council.

This new approach needs to be undertaken against a backdrop of new and emerging technologies, fuels and energy vectors, continued financial pressures and new collection regime, whilst continuing to maintain the high level of customer service established by the service over many years.

Background

West Lindsey is one of the largest districts in England and one of the most rural in the county of Lincolnshire. One of seven districts in the county, West Lindsey covers 1,125km² (or 447 square miles) and has a population of approximately 95,200 people, making it a relatively sparsely populated area.

The size and rural nature of the district can create operational and efficiency challenges and as such it is necessary to ensure that collection rounds are well planned and effective. Currently, collection rounds are large, and the fleet is primarily fuelled with diesel to ensure that the services is value for money and high performing.

It is, however acknowledged that new vehicle technologies are rapidly developing, primarily in the form of electric powered vehicles. Hydrogen cell fuelled vehicles are also now available but limited at present by hydrogen production and the infrastructure that is required to supply it. In the context of limited resources and emerging new technologies which may be effective but often initially expensive, the route to decarbonisation of the council fleet is a significant challenge.

Some progress has already been made towards reducing the carbon impact of the fleet. The recent move to the Caenby Depot has allowed the amount of Supervisor vans to be reduced from six to three; two of which are fully electric variants.

Equally, recently procured Refuse Collection Vehicles (RCVs) are equipped with the latest generation diesel engines; fitted with electric bin-lifts, and most of the fleet have solar panels which reduce fuel usage for ancillary equipment.

In addition, as part of broader council workforce development requirements, all drivers receive regular training which includes utilising driving techniques which reduce fuel usage.

The council recently commissioned Energy Saving Trust (EST) to undertake a detailed assessment of the council's current fleet operations, the market and available technologies in order to better understand the potential

for using alternative fuels and assess the impact of this on day-to-day operations and service delivery.

This document has been used as a basis to inform the development of this strategy which will in turn inform future decision making of the council when procuring new fleet vehicles for the delivery of Operational Services.



Overview of the current fleet

The Operational Services team currently have a total of 38 vehicles which are owned and operated by the Council. The table below provides a summary (as of financial year 2022/23) of the type of vehicle and number of vehicles, average annual mileage and approximate tonnage of greenhouse gas (GHG) emissions per year.

Table 1

Fleet Category	Number of Vehicles	Annual Mileage	Approximate GHG (Scope 1 in tonnes)
HGV/RCV	17	285,691	650
LGV up to 5.2t	13	150,886	87
Sweeper	3	15,847	32
Pont	3	12	Less than 1
Civic Car	1	2,097	Less than 1
Various	1	0	28
Totals	38	454,533	799

* It should be noted that fuel recorded in the 'various' category was used across the categories, but no registration data was recorded to identify the specific vehicle.

Table 1 shows that 81.3% of GHG emissions come from the Heavy Good Vehicles/Recycling Collection Vehicle (HGV/RCVs) which undertake 62.9% of the fleet's mileage. Light Commercial Vehicles (LCVs) contribute only

Heavy Good Vehicles



Light Commercial Vehicles =



This demonstrates that the greatest potential for emission reductions is in the heaviest vehicles, and as such provides justification for an increase in fleet investment in this area to achieve this when technology is available to provide an efficient service to meet district needs.

It is also important to note that in a fleet of this nature, relatively small changes and improvements to the fleet can also result in several tonnes of GHG emissions saved. This has been previously demonstrated by the reduction in emissions following the switch from diesel to electric for 2 of the managers vans.

The Operational Services Team have a planned rolling replacement schedule for fleet vehicles, with only 'back-up' vehicles over seven years old. This rolling replacement schedule is vital for maintain operational efficiency and reducing maintenance costs.

All vehicles are now at least Euro VI/6 emissions standard. Ongoing improvements in emission technology and standards mean that today's Euro 6/VI(d) fossil fuel Internal Combustion Engine (ICE) vehicles will be superseded by cleaner ICE models with (Euro 7/VII) which is now under consideration for introduction in 2025/26. Typically, the council replaces vehicles every six years.

A full breakdown of all 38 vehicles, including specification and age can be found in appendix 3. However, it is important to note that the vehicle replacement schedule is an operational document which is updated regularly and as such will form an important part of the vehicle decarbonisation decision making framework.

This is particularly important as changes introduced by the Environment Act 2021, including the implementation of Food Waste Collections will have an impact on the make-up of the council's fleet profile and numbers of vehicles owned and operated.

Key Considerations

The council's strategic target is for West Lindsey to become a net zero council by 2050, as such all current and future decisions made by the council must be considered within that context. However, decisions cannot be made on meeting that strategic aim alone, a balance between achieving net zero, whilst also ensuring we meet other key priorities such as delivering value for money to our residents and ensuring that services are modern, sustainable and of high quality is also fundamental to the operation of the council.

A shift from a traditional fully diesel fleet to alternative sustainable fuel sources will not be undertaken quickly due to a number of factors, which includes costs. The decision-making process is made even more

challenging due to the fast-paced technological developments and the impact that has on the market, availability of product and also the price points of various vehicles.

As such, ensuring that any changes to operational services, which includes the replacement of fleet vehicles must be undertaken in a thorough and managed way which balances both climate and fiscal responsibility.

To do this, rather than trying to predict where technological developments, the market and national policy may go within the next 10 to 15yrs, a framework that draws together the keys considerations to be assessed at each decision point should be adopted.

Providing a clear set of criteria which will be used to consider each vehicle replacement decision as it arises, testing the requirements and capabilities of the vehicles needed against the opportunities provided by the market and suitability of function within the relevant timeframe.

The sections below provide a short summary of each of those key considerations which will need to be balanced to enable to council to make timely and informed vehicle replacement decisions based on service need.

A factor in determining the vehicle decarbonisation strategy is establishing the most appropriate fuel type for the vehicles. Even before the mandate for improved sustainability and the reduction in the Council's carbon footprint was set, the assessment and understanding of vehicle function and performance has been embedded within the decision-making process of the council.

A standardised fleet running, as far as possible, on the same fuel type has always been centre to this approach to support maintenance contracts and ensure economies of scale in both the purchase of fleet vehicles and the fuel on which they run. The fleet currently, with the exception of two of the managers vans are diesel. The use of diesel vehicles has always been driven by the need to cover a very large rural area efficiently and effectively.

However, with the change in national policy, around combustion engine manufacture and availability, this has led to a change in the market, seeking to develop vehicles which run on alternative fuels.

As such the need to better understand alternative fuel capabilities along with other technical enhancements is required to ensure that the developments and opportunities that arise are factored in, in order to maximise budgetary and environmental benefits, in line with the operational requirements of the council.

There are currently three main sustainable alternatives to fossil fuels in development within the market. Each having their own pros and cons. Ensuring that an alternative fuel choice is right for the council's operational requirements is fundamental to any future decision.

Hydrogen fuel cell electric vehicles

Hydrogen fuel cell electric vehicles (H2FCEVs) offer potentially convenient rapid refuelling, and zero harmful air quality emissions where vehicles are operating. However, whilst there is a potential role for 'green' hydrogen in decarbonising heavy transport, based on current assessment it is not considered to be the best pathway for council vehicles.

The detailed assessment of technical reasons is provided within the EST report, however to summarise the constraints, hydrogen fuel cell vehicles are more expensive to purchase and are far more technically complex and require more maintenance and specialist intervention, than other sustainable fuel sources, also the council would need to secure a reliable local third-party green hydrogen refuelling infrastructure, along with a back-up plan if the refuelling supply becomes unavailable.

Therefore, currently, hydrogen fuel cell vehicles do not provide a financially viable pathway to reduce emissions for the council at this point in time.

Compressed Natural Gas and Biofuel

Some vehicle manufacturers offer CNG powered vehicles as an alternative to diesel. Vehicles are powered by spark ignition engines (similar to petrol engines) and fuel is often grid gas that is compressed at a suitable facility, which relies on a sufficiently high-volume gas supply.

There are some benefits of utilising this type of fuel, including financial associated with gas costs and tax incentives, however these are outweighed by issues around supply vulnerability due to limited suppliers in the UK, much of the current supply comes from Holland and Belgium, equally there is currently a limited choice in vehicles utilising this type of technology.

There are future opportunities to secure a more local supply, particularly in the context of harvesting energy from food waste, however the end of combustion engine sales will mean that even if this can prove viable, it will only be a transition fuel over a small number of replacement cycles. The most likely niche would be for vehicles that cannot currently be replaced with battery electric vehicles, but this may not be enough to deliver value for money with the gas supply.

Hydrotreated Vegetable Oil (HVO) and other equivalent fuels

There is a growing interest in the use of this 'drop-in' diesel replacement, which includes used cooking oil. Whilst it is acknowledged that this is an attractive and flexible fuel source, there are a number of challenges around supply and sustainability, with a direct link being made between the use of this fuel source and an increase in global deforestation to meet demand. It is acknowledged that a number of high-profile international companies advertise and are advocates of this fuel type, however concerns around scalability and long term sustainability make this a potentially challenging long-term fuel choice for the council unless supply and sustainability issues can be addressed.

Battery electric vehicles

Probably the most well-known alternative vehicle fuel type is the battery electric vehicle, which has risen in prominence across the private car market. Initially considered an incredibly expensive alternative to combustion engine vehicles, as a result of a number of national policy changes, electric and hybrid vehicles have increased in popularity and have become more of a mainstream option.

It is expected that new battery prices will fall 60% by 2030 (compared to 2020), rapidly reducing electric vehicle costs. The use of dedicated manufacturing platforms for battery electric vehicles will allow vehicle manufacturers to reduce costs by up to 25% thanks to simpler assembly, the use of standard battery packs, and the savings from producing higher volumes of various battery electric vehicle models on the same chassis.

However, whilst costs are reducing and availability is increasing for small to medium sized vehicles, there remains a significant gap in the market for larger and heavy goods vehicles capable of delivering equivalent performance requirements to that demonstrated by diesel powered vehicles.

It is accepted that this position is changing rapidly, with many city and small borough councils switching to battery electric vehicles across all of

their fleet. However, currently like for like vehicles for larger rural districts where routes are structured around longer routes where a significant daily range is required, the technology does not currently exist.

This is not to say that an incremental switch to battery electric shouldn't be considered as part of the council's long term vehicle decarbonisation strategy. The pace at which battery electric vehicles are evolving means that it is highly likely that within the life of the vehicle decarbonisation strategy that the opportunity to switch a large proportion of the current fleet to this fuel type is feasible.

The detailed Fleet Decarbonisation Review undertaken by the Energy Saving Trust goes as far as to recommend that out of all of the sustainable fuel options it is battery electric that the council should be planning to move to in order to stay on track with the strategic objective to be a net zero council by 2050. However, in order to do this, there are a number of steps that must be taken to prepare the council, ensuring that any switch to an alternative fuel source continues to balance finance, customer service and sustainability aspirations.



Infrastructure Requirements Current Infrastructure

The current infrastructure at the Caenby Corner depot, primarily designed to support traditional fuel vehicles, is inadequate for a wholesale transition to battery electric vehicles. An initial assessment shows that the electrical capacity available is sufficient to handle a limited additional number of electric vehicles. However, for a complete transition, significant upgrades are necessary.

Existing Procurement and Maintenance contracts

Vehicle replacement is managed through the established vehicle replacement schedule, which details all of the fleet vehicles owned by the council, including specification, age and use, and most importantly when the vehicle will need to be replaced.

It is not clear yet, what the impact of running vehicles which are not internal combustion engine models will make on the current procurement or maintenance contracts, however this would need to be explored through the decision-making process and form part of a fully costed business case.

Anecdotally the market indicates that whilst battery electric vehicles are relatively new to the mainstream market, it is considered that battery electric vehicles tend to have a longer operational life, supported by the simplicity of electric drive train components which have been used across a wide range of transport modes, for example trains and trams, for over 100 years. In many circumstances batteries can be serviced, and faulty cells replaced, to extend their operational life at full capacity.

With larger electric vehicles, it may be necessary to take a different approach to the replacement cycle with the chassis, drive train, battery and rig all being treated as separate and independently replaceable components. To maximise the return on the investment in battery electric vehicles, it is recommended to align replacement cycles with a vehicle's battery warranty, although if a battery is well maintained, its life could be a

lot longer than its warranty period. This may mean planned replacement cycles of eight or, in some cases, ten years.

Electrical Grid Capacity

Initial feasibility studies indicate that the current grid connection at the Caenby Corner depot can support the charging needs of approximately nine electric refuse vehicles and a few light commercial vehicles. To accommodate the entire fleet, the electrical supply would need to be enhanced to a 400kVA capacity. This upgrade is crucial for ensuring that the fleet's operational needs are met without disruption and aligns with the broader objectives of fleet decarbonisation.

Charging Infrastructure

The development of a comprehensive battery electric vehicle charging infrastructure is a central component of the vehicle decarbonisation strategy. Current facilities only feature minimal charging points, which are insufficient for scaling up to a fully electric fleet. This would involve:

- **Installation of Charging Points:** Based on the vehicle downtime and charging time requirements, a phased installation of charging stations at strategic locations within the depot is planned.
- **Smart Charging Solutions:** To optimise charging schedules and manage energy demand efficiently, the integration of smart charging technology is essential. This will allow the council to minimise peak load impacts on the grid and reduce electricity costs.

Renewable Energy Integration

The council is already considering opportunities to reduce its carbon footprint across all operational areas by exploring options to integrate renewable energy sources such as solar and wind power on existing buildings, which would include the depot and further reduce the operational costs associated with charging battery electric vehicles. This would include:

- **Solar PV Panels:** Installation of photovoltaic panels on depot buildings and surrounding areas to generate electricity and reduce external power demand.
- **Battery Storage Systems:** To enhance energy security and maximize the use of generated solar power, battery storage systems could be installed to store excess power during low usage periods.

Timeline and Phasing

The rollout of the necessary infrastructure will be phased according to the fleet replacement schedule and budget allocations. Initial focus will be on upgrading grid connections (if necessary) and installing essential charging points, with subsequent expansions aligned with the increase in electric vehicle acquisitions.

Phase 1 Vehicle utilisation and vehicle data

As part of the decision-making process to transition from a traditional fuel vehicle to battery electric or other alternative sustainable fuel it will be important to consider and understand in detail the specific operation requirements of the vehicles needing to be replaced.

This will include assessing the current capability and function requirements, in terms of mileage, capacity, operational coverage in terms of the routes and purposes the vehicle is used for and assess what new opportunities may be presented by the purchase of a sustainable fuel vehicle. It will be necessary to undertake a thorough assessment of the Councils data and telematics to further support and evidence future vehicle needs to aid in the decision-making process.



Cost of Transition

The transition to a battery electric fleet involves considerable upfront costs, including the purchase of new vehicles and the establishment of necessary infrastructure. Battery electric vehicles generally have higher initial purchase prices compared to traditional diesel vehicles. However, these costs can be offset by lower operating and maintenance expenses over the vehicles' lifespans. The Energy Saving Trust report provides details of headline costs. However, due to the time sensitive nature of each decision point an internal appraisal would need to take place and a full financial appraisal appended to each new procurement decision report.

Staged Replacement Cycle

As previously referenced the council operates on a staged vehicle replacement cycle, which provides a structured approach to gradually transitioning from traditional fuel vehicles to battery electric vehicles. This cycle is strategically aligned with the vehicles' end-of-life, ensuring that replacements are economically viable and operationally necessary. A staged approach allows the council to spread the financial burden over several years, making the transition more manageable within the council's annual budgets.

Whole Life Cost Analysis

A Whole life cost analysis will be integral in assessing the total economic impact of purchasing and operating each vehicle in the fleet over its expected service life. Unlike diesel vehicles, keeping battery electric vehicles for longer does not have a negative impact on green-house gas emissions due to deterioration in diesel engine performance. As the UK grid decarbonises, greenhouse gas emissions from battery electric vehicles fall year on year. This means that higher battery electric vehicle procurement costs can be deferred over a longer period of ownership, without adverse environmental impact and it also makes best use of the energy and resources used to make the battery. Analysis of whole life cost should also include the cost of purchase, fuel, maintenance, and disposal, adjusted for the time value of money. Whole

life costing provides a more accurate representation of long-term financial impacts, guiding more informed decisions that align with the Councils financial and environmental goals. When taking decisions on vehicle purchases the whole life costing exercise must be weighed against local factors and market conditions at each purchase decision point.

Funding and Partnerships

To mitigate the high initial costs associated with fleet electrification, the council will explore various funding opportunities. These include government grants, low-interest loans, and potential incentives available for local authorities committed to reducing carbon emissions. Securing external funding will be critical to advancing the fleet's electrification without imposing undue financial strain on the council's resources. Some are available now and these are expected to become more prevalent in the future.

As well as pursuing various funding avenues, partnerships will be important, as well as shared learning with peers within the Lincolnshire Waste Partnership and other local authorities, collaboration with energy providers and technology firms may also be necessary to access the latest innovations and cost-effective solutions in electrification technology. There may also be opportunities to further reduce electricity costs and increase security of supply by exploring a long-term power purchase agreements with local renewables producers.

Financial Risk Management

Transitioning to an electric fleet poses certain financial risks, including the potential for higher-than-expected vehicle costs, changes in government policy, or technological advancements that could render newly acquired technologies sub-optimal. To manage these risks, the Council will establish a risk mitigation strategy that includes regular market reviews, intelligent procurement, and continuous monitoring of technological developments in the electric vehicle market and factor those into all decisions taken. Borrowing costs need to be considered in the cost of replacement assets.

Budget Planning and Reporting

Accurate and transparent budget planning and reporting will be essential to track the financial performance of the vehicle decarbonisation strategy. Regular updates will be provided to Management Team and the Environment and Sustainability Member Working, detailing expenditures, savings, and comparisons to projected financial outcomes with diesel and electric. This transparency will help maintain trust and ensure continued support for the initiative.

Risks and Opportunities

In recognising that there are opportunities for the fleet to transition to battery electric vehicles over the next 10 years, there are a number of challenges in transitioning the fleet to zero emissions. These include the current lack of sufficient charging infrastructure, the higher initial costs of electric vehicles, and the need for significant upgrades to electrical supply at vehicle depots.

However, these challenges also present opportunities to innovate and improve, such as leveraging the predictable downtime of vehicles to implement efficient charging schedules and exploring renewable energy options to power the fleet. However, in order to do this effectively and efficiently a clear stepped approach must be taken within the project which also allows for reflection and sense-checking prior to decisions being made.

Implementation Risks

Risk	Mitigation
Technological uncertainty - the rapid advancement in battery electric vehicle technology poses a risk of current choices becoming obsolete.	The council will look to engage in a flexible procurement approach, allowing for updates and adjustments as newer, more efficient technologies become available.
Infrastructure development delays - Delays in upgrading charging infrastructure could impede the rollout of electric vehicles.	WLDC will address this by establishing an investable business case infrastructure plan in the Caenby Corner Depot within 6 months and establishing strong partnerships with the DNO and contractors. Officers will closely monitor project timelines through rigorous project management practices. The depot Infrastructure project is being overseen by Commercial Board and Stage 2 project document plan has been submitted.
Funding Instability - potential changes in government funding and grants for sustainability projects could affect the financial planning of the fleet transition.	The council will mitigate this risk by maintaining business cases fleet investment and by working with the regional MNZH hub and lobbying for consistent government support.
Supplier Reliability - dependence on specific suppliers for EVs and charging equipment could lead to vulnerabilities.	Officers will develop contingency planning to help manage this risk.

Operational Risks

Risk	Mitigation
Vehicle Performance and Reliability - as the fleet transitions to electric vehicles, concerns about vehicle performance under various operational conditions may arise.	The council will conduct pilot programs to test new vehicles in different settings to ensure they meet operational needs.
Change Management - resistance to change from within could hinder the transition process.	The council will implement comprehensive training and engagement programs to ensure all staff are informed, involved, and supportive of the transition.
Energy Supply Disruptions - reliance on the electrical grid and potential energy supply disruptions pose risks to fleet operations.	Incorporating renewable energy sources and battery storage systems at depot sites will provide energy security and reduce reliance on the grid. A high-capacity diesel generator will remain as back up.

Opportunities

Environmental Leadership & Regulatory Compliance

By transitioning the fleet a sustainable fuel type, such as battery electric, the council will position itself as a leader in environmental sustainability within the region, enhancing its reputation and setting a benchmark for others to follow. It will also ensure that the council is in the best position to comply with future environmental regulations and stay ahead of new legislative requirements.

Operational Cost Reduction

Electric vehicles offer lower running and maintenance costs compared to traditional vehicles. These savings can be significant over the lifecycle of the vehicles, contributing to the overall financial health of the council. Innovation and Partnerships

The transition process presents opportunities for the council to engage in innovative projects and form new partnerships with technology providers, other local authorities, and government agencies. These collaborations can lead to shared learning, additional funding opportunities, and enhanced public services.



Decision Making Framework

All future vehicle procurement decisions will be made subject to the adopted decision-making framework and the established business case process.

All business cases will detail the proposal, initial expenditure and future planned capital and revenue expenditure, with a suitable risk management framework, and assessment of capacity and capability to deliver the approach. The business case will summarise the outcome of the due diligence undertaken and set out appropriate alternative options that have been considered as part of the process.

Vehicle capabilities, procurement and Maintenance

As each diesel vehicle is identified for replacement as part of the vehicle replacement programme an assessment should be made to establish if that vehicle can feasibly be replaced by a battery electric vehicle or other such vehicle with a sustainable fuel source.

This assessment will be undertaken in strict accordance with the Fleet Decarbonisation decision-making framework and associated governance, balancing a number of challenges and opportunities to ensure an appropriate approach is taken that balances the council's Environment and Sustainability commitments with Corporate Plan objectives around delivering a value for money and high-quality service to local taxpayers.

**Fleet Decarbonisation Decision Making Framework – see Page 18.

Transition Team

The move to a net zero fleet is a once in a generation transformation and is not just a project for the fleet team. In acknowledging both the challenges and opportunities of managing a successful transition of the council road transport fleet to a zero-emission fleet will require the council to establish a small working group encompassing fleet management and any relevant vehicle operating departments, estates, energy management or sustainability, human resources, procurement and finance.

The robust appraisal of need and utilisation, changing vehicle procurement to a whole life cost model, funding the new fleet and installing the charging infrastructure to support new battery electric vehicles, will require input and resources from all the groups identified above, as well as a governance and reporting structure with full senior management team engagement.

Following the detailed assessment of the council's fleet, the district and the depot, it is considered that decarbonisation of the fleet can be achieved. Based on current available technologies and their performance it is considered that battery electric vehicles are the most appropriate option and that with careful consideration of all the factors, that a staged shift from diesel to battery electric vehicles can be achieved within the next 10 years.



This is however on the basis that technological advancements in relation to battery capacity and vehicle range on larger vehicles such as HGVs are achieved and that the works to increase power capacity at the depot can also be delivered in a timely manner to meet the charging requirements of the new vehicles.

As such it is recommended that the Operational Services team continue to work with vehicle manufacturers to keep abreast of advances in technology and alternative fuels, with a focus on battery electric vehicles. The evaluation of all new developments in vehicle technology will be assessed against the decision-making pathway and will consider, operational fitness for purpose, ease of maintenance, ease of use, environmental impact (including include CO2 emissions) and operating cost.

If opportunities arise to pilot battery electric vehicles for certain operational functions at reasonable comparable cost these should be explored, with decisions made on a case-by-case basis.

Equally that a transition team is established that will work, not only on the vehicle replacement strategy but also the depot electrification project to ensure capacity is available was needed.

On going review of the day-to-day operation of the service will also need to be undertaken to ensure opportunities for changes in working practices which may secure other efficiencies and co-benefits are also taken to expedite transition where appropriate.

Member Scrutiny and Monitoring of the Strategy

Oversight of this strategy will sit with the Environment and Sustainability Member Working Group, a cross party group of elected members which meets once a month. The Working Group is responsible for developing, implementing, monitoring and reviewing the Environment and Sustainability Strategy Action Plan. One of the priorities within this Action Plan is to decarbonise the Councils operational services, specifically the waste vehicles. This Vehicle Decarbonisation Strategy has been developed to provide a framework for future procurement decisions taken, as part of that programme.

The success of this strategy will be monitored through those subsequent vehicle procurement decisions effectively utilising the decision-making framework. Corporate Policy and Resources Committee is one of two policy committees responsible for making key decisions affecting our people and our place.

Corporate Policy & Resources Committee has overall responsibility for the Vehicle Replacement Strategy, which is responsible for adopting the Strategy and monitoring its progress. The Committee has the power to 'call-in' the Vehicle Replacement Strategy to the Council's Overview and Scrutiny Committee if it has significant concerns over the decisions being made and overall performance of the strategy.

Glossary of terms

BEV – Battery Electric vehicles

CNG – Compressed Natural Gas

CO₂ – Carbon-dioxide

EST – Energy Saving Trust

Euro VI/6 emissions standard – the legal limit on the amount of NO_x gases a vehicle can emit

GHG – Green House Gas

HGV – Heavy Goods Vehicle

HVO – Hydrotreated Vegetable Oil

HFCEVs – Hydrogen fuel cell electric vehicles




ICE – internal Combustion Engine



LCV – Light Commercial Vehicle

RCV – Refuse Collection Vehicle

WLC – Whole Life Costing



Stages	Description	Issues to consider
Stage 1 	<ul style="list-style-type: none"> Vehicle(s) identified for replacement by operational services through the established vehicle replacement cycle. The transition team undertake appropriate investigative and due diligence assessments, including an overview of the current vehicle and its function as well as future business need to ensure alignment with key corporate priorities. If the proposal is supported, the potential vehicle acquisition will progress to Stage 2. 	<ul style="list-style-type: none"> Current specification of vehicle to be replaced Type (HGV, van etc.) Function (Waste Collection – garden waste, general) Current mileage Specific specialist features. Business need. Like for like. Flexibility in specification (less, additional etc.) Options to change operations (service, round etc.). Opportunity to pilot an alternative approach (vehicle/fuel type mix) Ability to adapt vehicle replacement cycle.
Stage 2 	<ul style="list-style-type: none"> The opportunity is reported in writing, with all supporting information and considered by the Council's Management Team. The report will include: <ul style="list-style-type: none"> A risk assessment and SWOT analysis. A high-level financial appraisal. An outline business case including detailed narrative around business need, the market and availability. The business case will also include an assessment of the depot and detail timeframes and any investment required for adaption and or creating capacity. If the proposal is supported, the potential vehicle acquisition will progress to Stage 3 	<ul style="list-style-type: none"> Review and summarise outcomes of pilot. Assessment of the market and availability. Vehicle options (brand, type). Fuel type available. Specification (mileage, function, capacity). Availability & lead in times. Same, similar compatible functionality. Risks to service delivery. Impacts on the depot. Timeframe. Adaption actions. Cost.
Stage 3 	<ul style="list-style-type: none"> Appropriately qualified council officers will progress a full financial appraisal and costed solution. A recommendation will be reported in writing to the Chief Finance Officer / Section 151 Officer. If the proposal is supported, the potential vehicle acquisition will progress to Stage 4. 	<ul style="list-style-type: none"> Financial appraisal considerations. Whole Life Costing. Alternative procurement route – lease/purchase/retain. Depot upgrades. Fuel costs. Maintenance. Value for money v environment impacts (cost per carbon).

Stages	Description	Issues to consider
Stage 4 	<ul style="list-style-type: none"> In accordance with current constitutional requirements in making any decision to purchase new fleet vehicles, the Chief Finance Officer will take a report to the council's Corporate Policy and Resources Committee which will include the full business case, financial appraisal and officer recommendations. If the proposal is supported, the potential vehicle acquisition will progress to Stage 5. 	<ul style="list-style-type: none"> Report recommendations. Ensure there is a balance between corporate priorities, specifically maintaining excellent service delivery, financial stability and delivering a carbon net zero council by 2050.
Stage 5  Page 109	<ul style="list-style-type: none"> Subject to the CPR committee resolution, a full procurement exercise will be undertaken to purchase the required vehicles to meet the business need at the time the decision is taken. 	<ul style="list-style-type: none"> Procurement approach. Lead in times and delivery.



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Page 1 of 1

Stages	Description	Issues to consider
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Stages	Description	Issues to consider
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Stage 5	<ul style="list-style-type: none"> Subject to the CPR committee resolution, a full procurement exercise will be undertaken to purchase the required vehicles to meet the business need at the time the decision is taken 	<ul style="list-style-type: none"> Procurement approach <ul style="list-style-type: none"> Lead in times and delivery

APPENDIX 3 – VEHICLE REPLACEMENT RESERVE

VEHICLE REPLACEMENT RESERVE	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
	£	£	£	£	£	£	£	£
Street Cleansing - 6 Vehicles								
5 Caged Vehicles	263,155					250,000		
1 2nd hand Box vehicle		15,000			15,000			15,000
Waste Collection - 17 Vehicles								
4 RCVs	880,000							
2 RCVs		464,400						464,400
2 RCVs				464,400				
4 RCVs					928,800			
4 RCVs							928,800	
1 Baby RCV 2nd Hand			50,000				50,000	
Bulky Waste - 1 Vehicle								
1 7.5Ton vehicle - 2nd Hand		60,000					50,000	
Manager Vans - 4 Vans								
1 Small Van		15,000						
1 small van				15,000				
2 Electric Vans						60,000		
Market - 1 Vehicle								
Market Tractor						25,000		
Other								
RFID Chips Capital purchase	107,100							
RFID Chips Reimbursement from GW Digimail budget		(30,400)	(30,400)	(30,400)	(15,900)			
Expenditure Total	1,250,255	524,000	19,600	449,000	927,900	335,000	1,028,800	479,400
Carry forward of Reserve from Previous Year	(640,558)	(12,103)	(44,903)	(582,103)	(689,903)	(318,803)	(540,603)	(68,603)
Contribution To Reserve	(621,800)	(556,800)	(556,800)	(556,800)	(556,800)	(556,800)	(556,800)	(556,800)
Balance on Reserve at Year End	(12,103)	(44,903)	(582,103)	(689,903)	(318,803)	(540,603)	(68,603)	(146,003)

Fleet Decarbonisation Review

West Lindsey District Council

By James Brown

Peer reviewed by Peter Eggeman

November 2023



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1. Executive summary

West Lindsey District Council (WLDC) is committed to reducing its greenhouse gas (GHG) or 'carbon' footprint to net-zero by 2050. WLDC commissioned Energy Saving Trust to produce a detailed assessment of current fleet operations and understand what the optimum route to deliver fleet emissions reductions would look like, based on a thorough assessment of WLDC's fleet operations, data and available technologies.

WLDC operate a mixed fleet based mainly from the Caenby Corner depot, including light commercial vehicles (LCVs), heavy goods vehicles (HGVs), refuse collection vehicles (RCVs) and a small amount of plant.

Key findings and opportunities

There is much to be commended about the current WLDC fleet operation, which is run from a well organised, modern depot and maintained and presented to a high standard.

There are some opportunities to reduce CO₂e emissions prior to any major fleet renewal. The following are covered in more detailed within this report:

- Specific improvements to telematics and data processes to allow consistent reporting and communication of efficiency. (**Section 3**)
- Actions to improve driver performance, such as telematics scoring and benchmarking to target training and efficiency incentives (**Section 3 & 4**).

Together, these measures would typically achieve 5% fuel savings, although where there have been no previous interventions, this can be as high as 15%. This would be equivalent to a range of 45t-135t annual emissions reductions and £22,500 to £67,500 cost saving for WLDC.

Larger emissions reductions could be made from switching to a less carbon intensive fuel type. Having comprehensively evaluated the WLDC fleet, we have concluded that battery electric will be the most suitable alternative in many cases and may be suitable for all from 2029. This is due to its high energy efficiency and zero tailpipe emissions and suitability to current usage patterns. However, this must be cost-effective and practical. We have reviewed the fleet in detail to establish where and when this approach is likely to be best applied. We expect this to emerge as a viable solution for all remaining fleet vehicles by 2030 as battery density and charging capacity improves. A key influencing factor is the amount of time available within this fleet to charge every night. Consideration of other alternatives is detailed in **Section 5**.

It is important to align plans, policies, procurement, finance and team efforts to a transition of this nature (**Section 6**). 'Whole life costing' methods will help justify additional capital expenditure, as they reflect subsequent savings on fuel and maintenance. Carbon pricing is relevant (**Section 6.7**).

Our evaluation of the fleet data and energy consumption (**Sections 7-9**) shows that with some changes to how vehicles are allocated, that would not affect overall operational outcomes, most vehicles on this fleet could be replaced by existing battery electric products that would be at least as operationally effective as diesel models. The financial case varies, so whilst battery electric vehicles (BEVs) are always cheaper to run if charged at the depot, whole life costs (WLC); which include capital and running costs combined; vary from being cheaper than diesel to more expensive than diesel (depending on vehicle category and mileage and retention cycle). However, comparisons between electric and using HVO

**In 12 months,
the WLDC fleet:**



**Drove around
454,000 miles**



**Consumed over
3,307 megawatt
hours of fossil fuel
energy**



**Produced 989t of
GHG emissions**



**There is opportunity
to reduce annual
GHG emissions by
up to 526t with
currently available
electric vehicles**

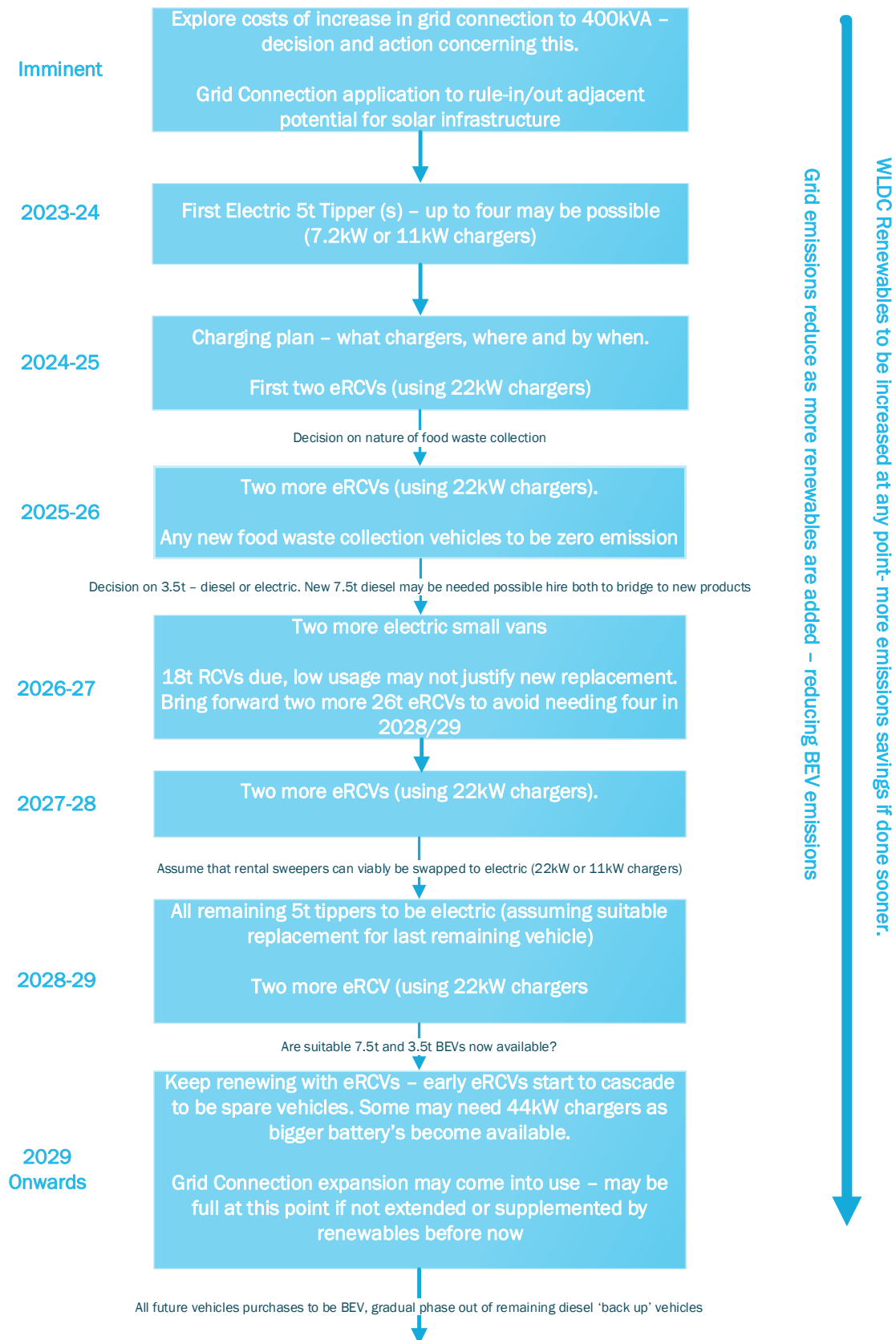
are typically more financially favourable to BEVs. The initial outlay will be substantially higher for an electric HGV or RCV. Figure 1-1 provides a road map for this transition. Table 1-1 summarises annual impact of BEVs on whole life costs, based on latest pricing information. We expect BEV purchase costs to converge more with diesel vehicle costs every year, and as such BEV WLCs to improve.

Table 1-1 Likely **annual** cost and emissions savings from electrification based on existing products (WLC).

Fleet Category	No. currently suited to BEV replacement	Ave est cost (saving) per BEV	Ave est emissions saving per BEV	Annual CO ₂ e saving in this category	Cost (saving) per tonne of CO ₂ e emissions saved
Small Van	2 of 2	Saves £200	2.7t	5.4t	Saves £74 per t
5t Cage Tippers (BEV)	4 of 5	Costs £3,500	15.5t	62t	Cost £225 per t
5t Tipper (hybrid Conv)	5 of 5	Costs £1,400	12.9t	64.5t	Cost £109 per t
26t RCV (7 Year Vs Diesel)	12 of 16	Costs £7,700	38.3t	459.6t	Cost £201 per t
26t RCV (7 Year Vs HVO)	12 of 16	Costs £1,200	n/a	n/a	n/a
26t RCV (10 Year Vs Diesel)	12 of 16	Saves £1,600	38.3t	459.6t	Saves £42 per t
26t RCV (10 Years Vs HVO)	12 of 16	Saves £11,150	n/a	n/a	n/a
3.5t Box Van	0 of 1	These vehicles do not yet have suitable BEV replacements and may need to be replaced by diesel for this cycle.			
Sweepers	0 of 3				
7.5t HGV	0 of 1				

The Caenby Corner depot has spare grid capacity of 240KVa available at all times. This is sufficient for at least nine eRCVs and replacement electric LCVs to charge overnight. There is also potential to unlock more capacity from this grid connection through battery storage. We estimate the equivalent of around 400kVa is needed for a fully electric fleet. This could also be obtained by increasing the grid connection size (this should be priced and assessed immediately). Wind and solar generation (on site or off site) could be used instead but the latter may need some battery storage to deliver energy effectively for the fleet. Increasing the grid connection size will not prevent other means of generating electricity and could allow for more ‘sleeved’ electricity to be purchased from an AD plant. Vehicle chargers will need to be in place prior to electric vehicles arriving so trunking should be put in place in one installation project, in order that chargers can be fitted easily into place when needed. It is important that chargers are not over-specified and a demand management system should manage charging load across points. **(See Section 11).**

Figure 1-1 Roadmap to emissions reduction for WLDC



Conclusion

WLDC are well placed to start the transition to an electric fleet, due to vehicles typically being available to charge for 14 hours a day, a favourable grid connection and operations that would only need minor adaptation for all but four RCVs to be electric. Some additional work is needed to ensure the grid connection is ready for the final stages of the transition, and whilst this seems a long way off, beyond 2029 it will be most cost effective and expedient to have a plan in place at the earliest stage, based on the likely assumption that products available by then will have full capability for all WLDC operational needs on a single charge.

In most cases the transition will increase vehicle capital requirements, but with some changes to replacement cycles, whole life costs will be reduced due to energy efficiency, and even more so if renewable generation or zero emission electricity sourced from AD can be achieved. Whilst, with grid electricity, emissions could be reduced by 526t, using renewables could take fleet emissions to zero and reduce electric vehicle operating costs to deliver large WLC savings.

New food waste collections should all be powered by electric vehicles, from the start, which also offers the exciting possibility of operating vehicles on electricity generated by gas from the waste itself, (although this will need to be cost effective when compared to other renewables to be justified).



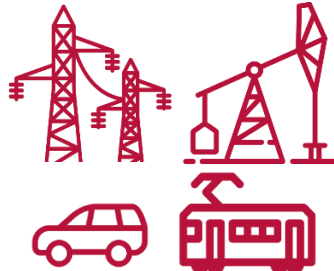
2. Emissions and energy use

2.1 Greenhouse gases (GHGs)

The carbon dioxide (CO₂e) footprint (often shortened to carbon footprint) details an estimate of the tonnage of carbon dioxide that WLDC's fleet has emitted in 2022-2023, based mainly on the fuel data provided.

The 'e' in CO₂e stands for 'equivalent' and indicates that the estimate includes the other reportable GHGs emitted by the fleet (nitrous oxide and methane) expressed in terms of their carbon dioxide equivalence over 100 years. For example, nitrous oxide (N₂O) has a global warming potential (GWP) 265 times that of carbon dioxide and one tonne of N₂O is therefore equivalent to 265 tonnes of CO₂ ([GHG Protocol, GWP Values, AR5](#)). The GWP of methane (CH₄) is 28. In the UK, GHG emissions are usually reported under Scopes 1 to 3 (**Figure 2-1**).

Figure 2-1 Summary of GHG reporting - Scopes relevant to road transport emissions

Scope 1	Scope 2	Scope 3
		
The Fleet You Directly Operate Owned, Leased, Hired	Electric Vehicle Electricity Generation	Transmission, Distribution, Extraction, Refining.
Tank to Wheel (TTW), Direct Emissions, Operational Emissions	Well to Tank (WTT), Indirect Emissions, Upstream Emissions	
Well to Wheel (WTW)		

Summary of WLDC fleet GHG Emissions

Table 2-1 WTW GHG reporting: fleet size, mileage, GHG emissions and energy consumption

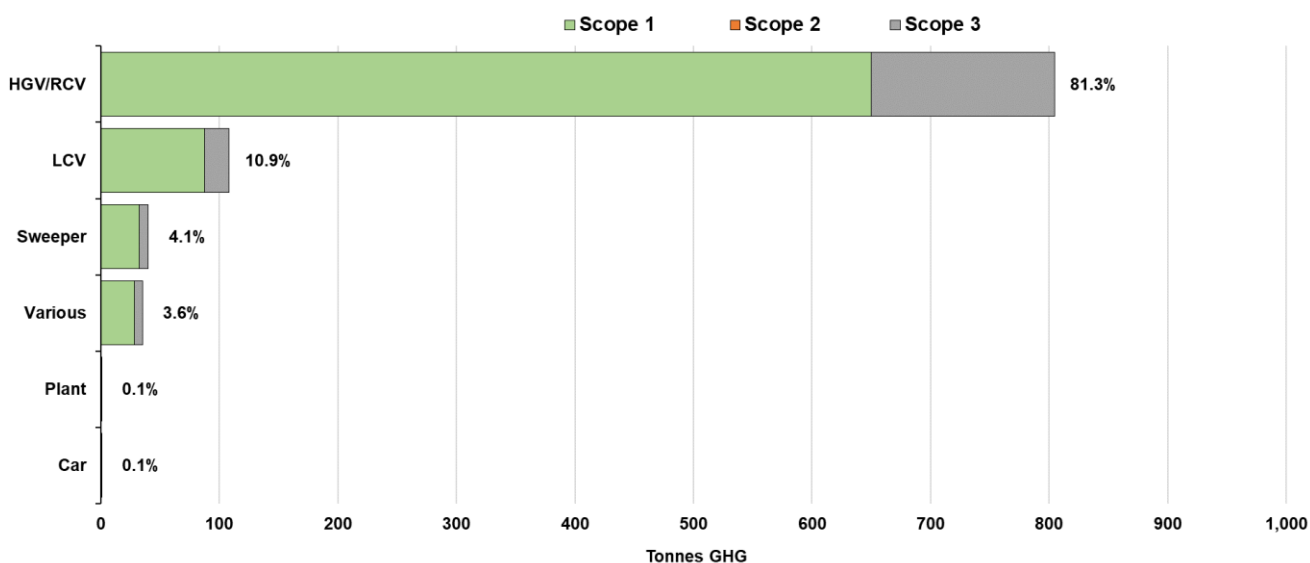
Fleet Category	Vehicles	Annual mileage	WTW GHG (tonnes)	Energy (MWh)
HGV/RCV	22	285,691	805	2,687
LCV Up to 5.2t	13	150,886	108	362
Sweeper	3	15,847	40	134
Plant	3	12	1	2
Car	1	2,097	1	2
Various	1	0	35	120
Totals	43	454,533	989	3,307

The WTW GHG footprint of the fleet (**Figure 2-2** and **Table 2-1**) is based on the fuel and mileage data provided by WLDC. We have calculated this footprint using the year-appropriate GHG conversion factors published by BEIS. It also includes an estimate of the GHG emissions from burning adBlue in the diesel exhaust systems of HGVs. The methodology used complies with international GHG reporting standards (WRI GHG Protocol) and with UK's SECR Reporting Guidelines which apply to UK public bodies. We have not included the lifecycle GHG emissions associated with the manufacture and disposal of the vehicles, which are classed as out of scope.

It should be noted that fuel recorded in the 'various' category was used across the vehicle categories, but no registration data was recorded to identify the specific vehicle.

Fleet numbers in table 2-1 reflect the number of vehicles contributing to emissions in 2022/23 rather than the current active fleet size.

Figure 2-2 Greenhouse gas emissions (tonnes) by Scope



Because, in 2022/23 nearly all WLDC vehicles were fuelled by diesel, the distribution of energy consumption between vehicle types is almost identical to the distribution of emissions. This balance would change if more alternative fuels were used.

Table 2-2 provides a breakdown of the WTW GHG emissions by reporting Scope. Scope 1 is the most important because it is the fossil-fuel GHG emissions for which WLDC are directly responsible. The vehicles burning the fuel are fully controlled and operated by WLDC and all aspects of their use from specification, usage, driving standards and monitoring are its direct responsibility. No other organisation can reduce these emissions. Grey fleet emissions are not included in this report.

Table 2-2 GHG Reporting by Scopes – Scope 1 and Scope 2 are mandatory; Scope 3 is discretionary.

Fleet category	Scope 1 GHG fossil fuel burnt (tonnes)	Scope 2 GHG electricity consumed	Scope 3 GHG extraction/distribution (tonnes)
HGV/RCV	650	0	155
LCV Up to 5.2t	87	0	21
Sweeper	32	0	8
Plant	0	0	0
Car	0	0	0
Various	28	0	7
Totals	799	0	190

Table 2-3 shows that 81.3% of GHG emissions come from the RCV/HGVs which undertake 62.9% of the fleet's mileage. LCVs contribute only 10.9% of fleet emissions despite covering 10.9% of mileage.

This shows the greatest potential for emission reductions is in the heaviest vehicles, and so it may be worth the higher level of investment to achieve this. In a fleet of this nature, relatively small improvements in efficiency can also result in several tonnes of GHG emissions saved.

Table 2-3 Analysis of fleet size, mileage, GHG emissions and energy use

Vehicle Fleet	% Number	% Mileage	% WTW GHG	% kWh of energy	WTW kgCO ₂ e per Vehicle	S1 kgCO ₂ e/km Per Vehicle
HGV/RCV	52.4%	62.9%	81.3%	81.3%	36,570	1.414
LCV Up to 5.2t	30.9%	33.2%	10.9%	10.9%	8,322	0.360
Sweeper	7.1%	3.5%	4.1%	4.0%	13,357	1.269
Plant	7.1%	0.0%	0.1%	0.1%	204	25.562
Car	2.4%	0.5%	0.1%	0.1%	594	0.137

Vehicle Fleet	% Number	% Mileage	% WTW GHG	% kWh of energy	WTW kgCO ₂ e per Vehicle	S1 kgCO ₂ e/km Per Vehicle
Various	-	-	3.6%	3.6%	-	-

Battery electric vehicle (BEV) emissions (Scope 2 and Scope 3 GHG Reporting)

BEVs have no Scope 1 GHG tailpipe emissions from directly burning fuel. They do, however, have GHG emissions associated both with the generation of electricity (Scope 2 GHG emissions), with its transmission and distribution (Scope 3 GHG emissions) and with the operation of the plant as well as the extraction and transport of fuels (Scope 3 GHG emissions).

There are currently two BEVs, but they were not introduced until after the 2022 – 2023 financial year, so are not included in the data in this section. When Scope 1 emissions are reduced through electrification of any subsequent vehicles, there will be an addition of Scope 2 and Scope 3 emissions as vehicles transition to BEVs, albeit at a small fraction of current Scope 1 levels.

2.2 Emissions that affect air quality

Every litre of fuel burnt, or mile driven by an ICE vehicle, is associated with emissions which have an adverse impact on human health. The emissions generated include hydrocarbons (HC), non-methane hydrocarbons (NMHC), carbon monoxide (CO), nitrogen oxides (NO_x – nitrogen monoxide NO and nitrogen dioxide NO₂) and particulate matter (PM). Vehicle emissions measure NO_x because NO in the presence of sunlight and ozone (O₃) forms NO₂, a regulated pollutant.

Emissions of these gases are much harder to estimate than GHG emissions. This is because they depend on vehicle mileage, how the vehicle is driven, speed, load, usage cycle, the standard of maintenance, fuel type, Euro emission category, engine technology and the effectiveness of the exhaust clean-up system.

We have determined the data in table 2-4 using the average emissions of a 2018 HGV adjusted for the area of operation as published by the [National Atmospheric Emissions Inventory](#). This analysis is based on vehicle mileage and cannot be determined from fuel data alone, so where mileage driven is missing, emissions cannot be calculated.

Table 2-4 Estimated annual emissions of nitrogen oxides (NO_x) and particulate matter (PM₁₀ and PM_{2.5})

Fleet Category	NO _x (kg)	PM (kg)
HGV/RCV	582	8.8
LCV Up to 5.2t	261	3.5
Sweeper	32	0.5
Total	875	12.8

An alternative and potentially more accurate assessment of the vehicle air quality impact would be the use of the COPERT V5 model with much more detailed usage data about each vehicle. Some fleets may have much higher emissions due to slow operating speeds, low engine temperatures, and stop/start operation which results in the Euro VI exhaust clean up technology being switched off by the engine management system to avoid emissions of ammonia and other noxious substances; this is not reflected in the above figures.

Each year in the UK, between 28,000 and 36,000 deaths can be attributed to a combination of PM_{2.5} exposure, and NO₂ exposure ([Public Health England, March 2019](#)). In England alone, the cost burden to society of these two pollutants over a ten year period (to 2025) is estimated as being in the range £5 billion to £20 billion, depending on how many diseases with links to poor air quality are included in the estimate ([Public Health England, 2018](#)).

NO₂ is strongly linked to childhood asthma and less strongly associated with adult asthma, diabetes, lung cancer, low birth weight, and dementia. Particulates are strongly associated with coronary heart disease, childhood asthma, stroke and lung cancer. There is less strong evidence of an association between particulates and chronic obstructive pulmonary disease, diabetes, and low birth weight. Recent research in London has further linked both PM_{2.5} and NO₂ to increased mental health service use among people recently diagnosed with psychotic and mood disorders.

Research has also linked particulates with dementia and the [World Health Organisation](#) (WHO) fact sheet on air pollution states that there is no known safe level of particulate pollution: “*Small particulate pollution has health impacts even at very low concentrations – indeed no threshold has been identified below which no damage to health is observed.*”

The WHO Guidelines were recently revised ([September 2021](#)) and the WHO has encouraged all countries to work towards the new recommended levels and for decision-makers to use the Guidelines “*as a tool to steer their legislation and policies*”.

The previous (2005) WHO Guidelines were already much stricter for fine particulate matter (PM_{2.5}) than the UK legal limits for this type of pollution (10µg/m³ compared to 25µg/m³), and the new WHO Guidelines are even tighter, at 5µg/m³ as an annual mean limit. The new WHO Guidelines also include a huge reduction in annual mean NO₂ compared to the UK legal limit; 10µg/m³ compared to 40µg/m³ permitted by current legislation. The WHO estimates that 80% of global deaths relating to PM_{2.5} could be avoided if current air pollution levels were reduced to the new WHO 2021 Guideline level.

Nitrogen dioxide (NO₂) emissions which originate primarily from transport have a direct impact on public health, something that should be considered in broader corporate social responsibility policies and influence decision making beyond the immediate financial case. Air quality presents a very strong argument for any decarbonisation transition to focus on vehicles with zero tailpipe emissions, wherever possible.

3. Fleet data management

Central to any well-managed fleet is good data management. Fleet operators must have up-to-date, comprehensive, accurate and accessible data on all the vehicles in use by their organisation, their drivers, their energy consumption (litres or kWh) and the business mileage driven. This applies regardless of the ownership of the fleet (purchase, lease, spot hire, contracted, etc).

For commercial vehicles, it is also important to have information about the work completed (eg load carried, jobs completed, etc) so that the performance of a fleet and its environmental impact can be linked back to the service it delivered and form part of a suite of driver, vehicle and fleet performance indicators.

Systems have been widely available for some time to accurately monitor bulk fuel tank drawings, recording both litres and mileage, record off-site fuel purchases using fuel cards, manage fleet workshops, manage the fleet itself, track all vehicle movements and link to the vehicles' internal information network, known as the CANBUS.

The quality of these commercial systems is variable. Some have not kept pace with developments in technology, and there is often a failure, or inability to fully integrate the data from all the different sources. For example, combining accurate mileage from CANBUS-linked tracking data with actual fuel dispensed from bulk tanks to give accurate energy efficiency (mpg, miles/kWh, Wh/km).

3.1 Description of data set at WLDC

The WLDC fleet team provided a list of vehicles, alongside their role and estimated replacement dates. The list also contained any vehicle disposal details since the start of 2022. Some other vehicles were evident from insurance and fuel datasets, that operated outside of the immediate remit of the fleet department. Further discussions with the fleet manager enabled a clearer understanding of any pending vehicle orders and disposals.

Direct access to the VecTec fuel system was provided. This provided easy access to reporting for fuel transactions based on drawings from an on-site diesel tank at Caenby Corner depot. There is a clear policy of refuelling vehicles to full and submitting an odometer reading at this point. With the refuse fleet, the expectation is that the vehicle is refuelled at the end of every shift, which should give a measure of efficiency and energy consumption for each shift undertaken. In general, this system was well adhered to for the RCVs, although it is clear that a small number of RCVs were sometimes refuelled up after two or more days of operating. Odometer readings were mostly recorded consistently and reliably. However, there were some 5t vehicles where it was hard to clarify whether readings were in miles or kilometres from this system and there were some clearly inaccurate readings (many of which were easy to correct with the context of a full year's dataset).

The main flaw within the fuel data was that the 'spare' fob was frequently used to refuel vehicles without their own fobs. In some cases this was evidently for new vehicles and could be attributed accordingly. However, even after this, there were still over 11,000 litres which were not allocated to a specific vehicle. Given that there were at least five vehicles with no fuel records of their own, based on discussions with the fleet team it is reasonable to assume that this fuel was shared between them. However, it is not clear how much fuel individual machines had used, or if any of this fuel had been also deployed in vehicles with their own fob, if for example it's fob was temporarily missing or broken.

There were some fuel cards in circulation that were used as a back-up for emergencies and at one stage used for off-site vehicles. It is understood that these were not used during the 2022-23 financial year, due to the 'Spare' fob providing fuel in cans for vehicles and plant in other locations. The mayoral car was a petrol vehicle, subject to very low use in 2022-23, with no fuel data available.

Compliance with recording odometer readings was ordered and consistent, with well over 90% of the records appearing to be complete and accurate. This also meant that a clear calculation could be made based on each vehicle's annual fuel efficiency, in most cases. Regarding daily energy consumption, close inspection of the RCV fuel records suggests that vehicles were routinely filled to full, although this was occasionally after more than one day of operating. We have been able to use refuelling times and dates to understand where two days operating for one refuel has taken place. With some additional processing, the data has provided a high level of confidence that daily energy consumption is well understood, and as such predictions for future energy requirements of alternatives can be made with confidence, in most cases.

For plant and machines, fuel allocations were less visible. It is not always clear how much fuel individual machines had used. This means understanding energy consumption is not possible for each machine where the spare fob was used.

RCV telematics

Most of the RCVs were fitted with ‘Vision techniques’ telematics units. This did not include any CANbus or fuel data. WLDC’s main purpose for this system is live tracking and connectivity with camera systems that are used to monitor incidents and activities. The system attempted to record mileage, with limited success. Indexes such as driver performance were displayed on the interface, but not populated with any data, so appeared to be of no use at this stage.

Reporting facilities on this system were efficient and accessible. Mileage data from a long time period was easy to download. However, it was immediately apparent that the data on this system was not consistent with the mileage figure provided when fuel drawings were made. This system always reported less mileage (an average of 92% of the fuel system total), but for some vehicles it was less than 50%. The variance was different for each vehicle, suggesting that the issue was definitely with the telematics and not with the fuel system data. The conclusion we arrived at is that there was no information reported when the system was out of signal range. The result was that distance data was inherently unreliable and could not be used for the purposes of this review. It would also be of limited value as a resource to WLDCs fleet management processes.

It was also apparent that the infrastructure for telematics was in place on the newest Dennis Eagle vehicles (registered from 2020 onwards). The manufacturer has access to vehicle data for ‘maintenance purposes’, However, this service was not subscribed to, so no data was available to WLDC.

For vehicles that were not routinely refuelled every day, understanding exact daily energy consumption was not always possible. As such alternative options were explored to attempt to achieve this. WLDC provided manually collected daily mileage read outs for seven vehicles for the whole of September 2023. Mileage totals for some of the vehicles during this month did not always accurately reconcile with the data on the fuel system, so we have had to take a worst-case scenario when considering suitability of electric alternatives. If telematics were installed in these vehicles, then the assessment could be made with greater certainty.

Site energy data

Data relating to site electricity billing, including capacity and usage was provided. Data reflecting standard half hourly metering from energy providers was provided for the depot grid connection, allowing analysis of the grid connection in relation to the demands of a future electric fleet. No data was provided concerning generation totals from solar panels, although evidence of the general positive impact of generation can be clearly seen in the half hourly data for the grid connection, and an approximation of generation capacity could be estimated.

3.2 Improving data at WLDC - Recommendations

It will be of great benefit to WLDC to procure a telematics system that can provide accessible and accurate data, that is calibrated and not interrupted by breaks in the phone signal.

If the current system cannot be corrected or improved to the desired specification, then it should be replaced. Action should also be taken to add telematics units from the ‘future system’ to any vehicles where data is currently absent.

Ideally the same system should be installed across the whole fleet – all makes and models.

Beyond the short term, there are additional desirable outcomes to achieve from all telematics units fitted and operating within the fleet.

- Accurate live reporting of fuel consumption and efficiency through the CANBUS system.
- Addition of driver scoring metrics.
- Live reporting of performance against KPIs – dashboards (this may be possible directly on the telematics package or from a telematics API feeding into fleet management software). This would include fuel, emissions and driver scores (which are currently absent on the VT system).
- Ease of integration with other systems such as vehicle safety checks, cameras and other data sources (this may or may not require specific external fleet management software for the optimum results).
- A driver interface to ensure drivers are directly aware of their performance at any point making conversations about driver performance easier (Section 4).
- Interaction with BEVs so that state of charge and energy consumption can be viewed in real time.

It would also be beneficial for WLDC to find an automated way to bring different data sources together, rather than having different systems working concurrently, all with separate outputs. Integrated fleet management packages exist (albeit to varying standards) that can combine fuel purchase, driving licences, compliance, vehicle checks, maintenance, CANBUS fuel and driver performance data all in one place, selectable by vehicle registration. When set up correctly, all data sources automatically feed into this one place and automated dashboard reporting can be directed to bring

appropriate live feedback to different people within the organisation. FORS, the compliance organisation, has approved software that achieves this (depending on the telematics used) , and many other options exist, although care must be taken to set any new system up to its potential and not to simply just add yet another data source or system to check.

However, for a small organisation such as WLDC, this may not be as important as for a large organisation, as data volumes may still be manageable within several systems.

Subsequent consideration should also be given to how data is presented ‘live’ at different levels of the council, reviewing what dashboard reporting is visible to whom and at what level. This should also include direct communication with drivers.

Action Summary

- **Short Term** – ensure telematics is reviewed and the best system selected.
- **Short Term** – complete the telematics coverage across the fleet to enable consistent reporting and data management. Add in driver performance metrics on systems or investigate alternatives.
- **Medium Term** – consider the best approach to integrate existing data sources into as few streams as possible, maximising automation and including enabling communication with drivers. This may require a specific project to simplify the data and provide live dashboard reporting that is relevant to each level of the business.

4. Improving driver efficiency

Based on the fuel records provided, every 1 % reduction in fuel use for the road-going vehicles in the WLDC fleet would reduce carbon emissions by about 9t CO₂e a year and reduce fuel costs by over £4,500 a year, so investment in the time and technology to promote good driving in this fleet should be cost effective.

We were not provided with details of WLDC's current driver and fleet protocol to review. Typically such documents give a clear guide to ensure that the conduct of drivers is legally compliant, safe and in line with the Highway Code. However, there is not usually reference to efficient driving or advice or suggestion of techniques that may reduce fuel consumption.

Whilst fuel efficiency may be discussed informally or presented at team talks, WLDC should consider explicit policies that recognise and oblige efficient driving and create a pathway for drivers to understand their performance and recognise success in this area.

4.1 Communicating performance to drivers

Monitoring fuel consumption across the fleet is important, because when it is done consistently, in close communication with drivers, it can lead to significant fuel savings. Also, drivers who use less fuel in diesel vehicles will go on to use less energy in future electric vehicles, meaning vehicles will go further on a single charge and less energy will be required for charging. Where there is the practice of 'task and finish', for RCVs, it does not always lend itself to enable efficient driving techniques for obvious reasons, so options around this should be given due consideration.

Establishing background information - driver scores

In the absence of telematics-based measures, there is no apparent background information for driver performance within this fleet. Drivers and crews do swap between vehicles and routes vary from day to day, so (currently) using MPG data will not be suitable unless it is carefully benchmarked.

For effective and sustainable monitoring to take place a more consistent technological solution is required. A new, purpose-built system may prove necessary. Solutions exist that provide either 'live' in cab feedback (eg [Lightfoot](#)), or app based systems that can provide retrospective feedback on driving and scoring to driver's mobile devices, or systems that offer a combination of both. Sometimes this functionality forms part of the basic specification of a telematics package. Telematics should be specified and procured accordingly.

Communicating efficiency with drivers

With a consistent and reliable data source established, it becomes possible for procedures and systems to be applied that will allow drivers to understand their efficiency performance and identify where training should be prioritised. Without incentive or additional motivation, not all will engage or identify with the need to reduce emissions and fuel costs.

Whilst good will and competitiveness will work in some cases, this kind of communication becomes much more effective if it can be connected to a driver incentive scheme. It is also important that efficient driving is part of WLDC policy and structured into training and performance targets.

Driver incentive scheme implementation

The working principle (in such a scheme) is that efficient drivers will save fuel and money for the employer, and that part of this saving should be invested in an incentive scheme. More drivers will engage with efficient driving techniques if there is some kind of positive incentive (financial or otherwise).

Understanding the baseline and level of performance to reward requires some understanding of the relationship between current performance and fuel costs across the fleet.

Due to variations in route and load, a consistent telematics-based driver scoring system is the best basis from which to measure performance and as such, determine the level of incentive to offer. The difference in fuel consumption between driver score ratings, needs to be understood, with variables managed, in order that the level of cost saving (and thus potential incentives) can be determined.

Rewards and incentives for efficient drivers could take several forms. It is worth consulting with drivers for which method would provide the greatest motivation. The most effective method will depend on the nature of the employment arrangements and culture within the current operation. We understand that local authority structures and employment conditions can make certain types of incentive harder to achieve than others.

We have seen the following methods used to good effect, generally used in isolation to each other (although there is no reason why some measures cannot be combined):

- Fuel savings above a specified level (ideally based on the current level of efficiency) shared with efficient drivers (usually 50:50) as a form of reward or bonus pay.
- Fuel savings above a specified level shared with either a driver's choice of charity, or all savings across the fleet to a designated charity, which could change periodically to reflect good causes that employees may be passionate about.
- All fleet fuel cost savings are pooled, and an agreed proportion allocated to a fund for which drivers achieving over a specified score, that will depend on the parameters set by the telematics provider (eg 85% or 8.5 out of 10) are entered into a monthly (or weekly) draw to win a share of. This can be a big financial incentive, but not everyone will benefit every month, although the incentive will apply to all efficient drivers. [This can even be administered or 'held' by the telematics provider, in the case of some suppliers.](#)
- A driver league table is set up. All fleet fuel saved is pooled and an agreed proportion of the financial savings are allocated to the drivers who finish in the highest league positions, based on their aggregate score over a defined period (a week or a month).

Where driver league tables are concerned, they can work even better if they incorporate a range of factors, such as customer feedback (even if the 'customer' is in-house), punctuality, presentation, vehicle cleanliness, accident rate, minor damage cost, fuel consumption (mpg) and telematics scores. League tables can also be used to identify the best drivers and they could be considered 'lead drivers' or 'fuel champion' and could be asked help to promote good driving and fuel-saving initiatives across the fleet (such as benchmarking, which is discussed in Section 4.2). Similarly league tables can be used to identify training needs and demonstrate progress and improvement amongst those who are performing less well.

Clear, regular channels of communication for achievements and goals will maximise the potential benefits of an incentive scheme. It is very likely that a well-executed incentive scheme would deliver significant fuel savings. Evidence suggests that savings will be between 5-15% where there has been limited or no previous interventions.

For example, if only a 5% saving can be made across the WLDC fleet, this would deliver annual savings of £22,500. If this is shared between the council and drivers, it offers some scope for incentives to improve driver efficiency. On top of this, GHG emissions reductions of 5% equate to 45t a year.

Action Summary

- **Short Term** – establish the best method to measure and communicate driver performance, ideally through an upgraded telematics system.
- **Short Term** – implement an efficiency incentive scheme in consultation with the drivers, taking care to understand before and after data so any improvement can be clearly quantified and the basis for the amount and nature of incentives is transparent and clear.

4.2 Undertake route benchmarking

Many of WLDCs vehicle operations involve repeated rounds and routes. In these cases a similar route pattern may occur on a two-week rotation.

Regular rounds do give an opportunity to understand how much fuel is typically consumed on each route, especially if all potential variables such as load and mileage are relatively constant (also assuming no exceptional traffic events). Direct comparisons can be made if the same vehicle is operating on the same route over a specified period with any difference most likely attributable to the driving style.

In most fleets, there are some drivers who are inherently more fuel efficient than others. The difference between best and worst can sometimes be as much as 40% where no previous interventions have taken place, although we would expect this to be less, given the positive management style at WLDC.

WLDC may already have a good idea of who the most efficient drivers are. However, if not, driver scores from telematics can be used to determine which drivers are likely to be the most efficient and these should be asked to drive all the established routes with an allocated regular vehicle for that route (for a fixed period). Exact fuel consumption should be noted from the telematics, taking full account of the normal loads and duties of the vehicle. This will then provide a contrasting 'target' figure to regular drivers for that route, using the same vehicle. If the regular drivers continue to consume significantly more fuel than the benchmark, then there is a clear focus for training and improvement that can be administered in a targeted way (and this can be further monitored with the help of the telematics driver scoring system).

This approach relates closely to the need to communicate fuel efficiency to drivers, and with the right driver KPIs, will help to maintain high levels of fuel efficiency. There is no reason why this approach cannot be combined with a driver incentive scheme.

5. General vehicle recommendations for decarbonisation

Where BEVs are operationally viable and a solution for their charging is available, the outright efficiency of this technology and the benefit of zero tailpipe emissions, means that it will always have an advantage over other existing technologies. This technology uses between a quarter and half of the energy of internal combustion (depending on the use case), and where grid technologies are clean, the emissions reduction is hard to beat, even allowing for carbon embedded in the manufacturing of batteries and vehicles.

At present it is not possible for every existing diesel vehicle to be replaced by a BEV, without some additional in-shift charging strategy, and BEVs do represent a significant additional capital cost. Therefore it is sensible for WLDC to question what other alternatives or approaches may be viable now or in the future. This section covers the positives and negatives of other prominent low emission alternatives that exist, even where they might not be practical for WLDC to employ.

5.1 Hydrogen fuel cell electric vehicles (H₂FCEVs)

A common question is whether H₂FCEVs will be suitable for future vehicle replacements on fleets like WLDCs. H₂FCEVs offer potentially convenient rapid refuelling, and zero harmful air quality emissions where vehicles are operating.

Whilst there is a potential role for 'green' hydrogen in decarbonising heavy transport (distinct from the carbon intensive 'grey' hydrogen and methane-derived 'blue' hydrogen), it is not yet clear whether this will be the best pathway for any WLDC vehicles for the following reasons:

- A hydrogen fuel cell uses more than three times the electrical energy of charging a battery for the same amount of energy to arrive at the wheels of an equivalent BEV. This means more than three times the energy needs to be generated and this comes at both a financial and environmental cost.
- When well to wheel factors such as distribution and transport of the hydrogen are taken into account, the energy use of the fuel cell is likely to be between four to six times that of a battery electric equivalent ([Zemo Partnership, 2021](#)).
- The lower efficiency of producing hydrogen for fuel cells not only means extra cost but is likely to divert renewable power away from the grid (as growing off peak demands of a national battery electric fleet are emerging), thus slowing broader decarbonisation.
- Using H₂FCEVs simply adds inefficient processes to energy generation and costly additional components and maintenance requirements compared to a BEV. It is highly likely that there will viable high-capacity battery / rapid charging alternatives emerging within this decade that will cover all WLDC's operations.
- H₂FCEVs cost significantly more to purchase than BEVs and unlike them, do not offer any operating cost savings from reduced energy consumption to offset the higher costs when compared to diesel vehicles.
- Fuel cell vehicles are more technically complex than BEVs and thus will require more maintenance expenditure.
- WLDC would ideally need reliable local third-party green hydrogen refuelling infrastructure if investing in a fleet of that nature, along with a back-up plan if the refuelling supply becomes unavailable.

For some hard to electrify vehicles, hybrid solutions that work primarily using a battery and use fuel cells as a range extender may well be helpful options that emerge later in the decade, but these are not yet commercially available from any OEMs, and local refuelling infrastructure remains critical to their usefulness.

Summary

It does not appear likely that hydrogen fuel cells will provide a financially viable pathway to emissions reduction for WLDC. Furthermore, it appears unlikely that (green) hydrogen-fuelled vehicles will even be operationally viable from an infrastructure point of view, and investing in this provision would be at a far greater premium than EV charging infrastructure to achieve the same operational results.

5.2 Compressed Natural Gas (CNG) and Bio-CNG

Some vehicle manufacturers offer CNG powered vehicles as an alternative to diesel. Vehicles are powered by spark ignition engines (similar to petrol engines) and fuel is often grid gas that is compressed at a suitable facility, which relies on a sufficiently high-volume gas supply.

Advantages of this approach are:

- Favourable road fuel duty (half that of diesel, fixed until 2032).
- This can result in a favourable WLC for some intensively used vehicles if gas prices are at reasonable levels.
- Better air quality performance than diesel (but poorer than BEV or hydrogen).

However, the downsides could include:

- Operational vulnerability if there is only one local supply (or costly infrastructure installation) – sites will need to shut down at times for maintenance.
- Limited choice and supply of vehicles.
- Low consumption across a fleet or small part of the fleet makes it difficult to find cost effective supply of fuel.
- Gas price volatility in recent times has led to higher than expected refuelling costs.

Biogas is an attractive low carbon fuel, that yields genuine emission reductions, with many transparent waste sourced feedstocks available in the UK and Europe. For most UK vehicle use cases biogas is not put directly into vehicles but is the result of paying a premium when refuelling with mains sourced gas for substitute biogas to be injected into the grid in a remote location (often in Holland or Belgium, who are connected to our grid). Whilst substantial carbon emissions reductions are achieved, these are also counted within the mains gas carbon intensity factors. This means that mains emissions have to be reported alongside the savings to avoid double counting. Further planned changes to GHG reporting protocols could mean that the savings produced when refuelling on mains gas but paying for remote biogas injection, are not attributable to the fleet in future.

If a hypothetical locally produced supply, is available, separate from the mains, then biogas related emissions savings can all be claimed in full by the fleet operator. We understand that there may be the prospect of a local supply becoming available, produced from food waste, including some that has been collected locally.

In these circumstances several questions will need to be asked before committing to use:

- What is the likely cost per unit and potential for cost volatility?
- How reliable is the supply and is there a locally accessible alternative if it fails?
- Is it more efficient to use the biogas to simply generate power for battery electric – The process of production, cleaning and compressing gas, then burning it at 30-35% efficiency in a vehicle needs to be compared to the cost and efficiency and emission profile of using the same gas to generate electricity at >90% efficiency, then using it to power a BEV at 85% efficiency.

CNG In local authority fleets

Currently we have identified four local authority fleets in England that use CNG or Bio-CNG powered vehicles.

The London Borough of Islington and Leeds City Council have both nearly completed the process of phasing out these vehicles, having had much larger CNG fleets in the past. Issues with travel to refuelling and increasing fuel costs have been significant obstacles to Islington. Leeds initially planned to have 200 CNG vans in 2015 but have moved away from this trajectory and only two now remain, with the fleet now moving to BEVs.

London Borough of Camden currently operate 32 biomethane vehicles including vans and buses. Current costs are expected to escalate substantially with the end of a long-term supply contract which may affect how long these vehicles are retained for or may see them retrofitted with other technologies.

Liverpool City Council run 20 Biomethane RCVs and Veolia operate ten CNG vehicles on behalf of Sheffield City Council. Both were introduced in the last few years, so still appear to form part of the current fleet arrangements.

In Summary

Whilst CNG in distribution is growing, it is in decline as a fuel used by local authorities. When grid gas is used there are some downsides to consider, even if biogas is injected into the grid elsewhere.

Powering food waste collection vehicles with energy harvested from food-waste is an attractive proposition. Whether there would be a sufficiently reliable and cost-effective local solution is yet to be seen. However, the end of combustion engine sales will mean that even if this can prove viable, it will only be a transition fuel over a small number of replacement cycles. The most likely niche would be for vehicles that cannot currently be replaced with BEVs, but this may not be enough to deliver value for money with the gas supply.

5.3 HVO and other ‘drop-in’ fuels

There has been growing interest in use of this ‘drop-in’ diesel replacement fuel. Much of the demand is based around its very low BEIS TTW CO₂e conversion factor, 0.0356 kgCO₂e/litre¹, versus 2.478 kgCO₂e/litre for (average biofuel blend) diesel. While we recognise the theoretical benefits of HVO, there are remaining concerns about the source of its principal feedstock, Used Cooking Oil (UCO) and the use of this fuel under the current sustainability assurance regime. We expect and hope that one significant positive outcome of the DfT’s low carbon fuels strategy consultation is to improve the robustness of the assurance process for this fuel and its feedstock.

In the UK and Europe, where UCO is classified as a waste product and has few approved secondary uses, it is much easier to trace its origin back to its producer than non-European UCO. Fundamentally, we must be certain that the UCO, used as a feedstock for HVO, is in fact a waste product. In south-east Asia and the Americas, where almost all of the UCO imported into Europe originate, UCO has sometimes been used as animal feed (mixed with grain) and so in some cases it is not a true waste product, as it has an alternative permitted use.

The high price that UCO suppliers are achieving because of its ‘waste’ classification in Europe, is resulting in a distortion of the world market: UCO is diverted from the less financially rewarding markets and is replaced with other farmed crops which may include palm oil. In instances where palm oil cannot be harvested, soy is grown instead but this crop has a lower energy yield than palm oil and so even more land must be used for crop planting. The greater demand for palm oil and other types of crop-derived oil contributes to further global deforestation, and other indirect land use change (ILUC) leading to reduction in biodiversity, a loss of ecosystem and further [increases in GHG emissions](#) (also see **Figure 5-1**).

According to the DfT’s (2020) complete RTFO data², 100% of UCO feedstock for UK HVO came from outside Europe and none of the HVO sold in the UK was produced using UK UCO. 104 million litres of UCO were produced in the UK in 2020 but none of this was used to make HVO for domestic use. In 2021, the provisional figures show only 9% of UCO was European in origin (Spain, Italy and Czech Republic). This contrasts with 100% of biomethane feedstock coming from Europe in both years.

As quoted on the BEIS conversion factors, “All fuels with biogenic content, such as (average biofuel blend) diesel and petrol and all electricity consumption should have the biogenic CO₂ emissions reported, to ensure a complete picture of an organisations emissions is created”. Instead of the 80-95% carbon reduction sometimes quoted from adopting HVO, the combined TTW, WTT and out-of-scope emissions figure, shows a much more modest reduction in carbon intensity (around 18%).

However, it is less energy intense than diesel so a slightly quantity HVO will be needed to deliver the same energy as diesel.

¹ <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>

² <https://www.gov.uk/government/collections/renewable-fuel-statistics>

Figure 5-1 Potential links between UCO and deforestation

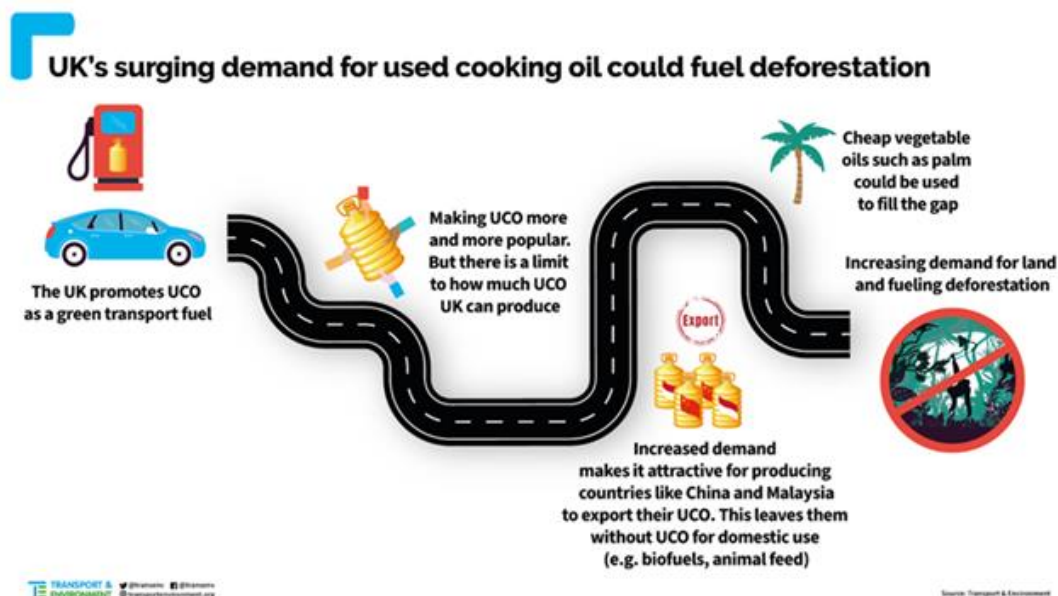


Table 5-1 Carbon intensity of HVO, diesel and electricity (BEIS Conversion Factors, 2023)

Fuel or energy	Unit	TTW (Scope 1 kg CO ₂ e)	Scope 2 kg CO ₂ e	WTT (Scope 3 kg CO ₂ e)	T&D Scope 3 kg CO ₂ e	Out-of-scope kg CO ₂	Total WTW
Biofuel HVO (UCO)	kg/litre	0.03558	-	0.35698	-	2.43	0.39256
Diesel (average biofuel blend)	kg/litre	2.4788	-	0.61101	-	0.14	3.08981
Electricity	kWh	-	0.207074	0.0459	0.0397	-	0.29264

NOTE: BEIS "Conversion Factors Methodology" states that the DfT factors published on the Renewable Fuel Statistics website take precedence over these BEIS values.

The BEIS Conversion Factors Methodology points users to the DfT RTFO data when determining GHG emission reductions from HVO. Users must be clear about the source of the claimed reductions in GHG emissions, what these figures include in and out of scope and make sure they use the right factor for the year in question.

Finally, after recent events, there is the issue of security of supply with some of the countries from which the UCO is now being sourced having been subject to sanctions by either the UK, EU, or USA. This further undermines our confidence as to the sustainability of HVO made from UCO sourced from outside Europe. In the context of grain shortages, the drive for increased consumption of fuel that is grown from crops, should also be questioned before committing to its use.

6. Using BEVs to achieve a zero-emission fleet

Where a large proportion of a fleet is operationally viable for replacement with BEVs, this will provide the most energy efficient, zero tailpipe route to large emission reductions. Their implementation may bring challenges from an infrastructure and capital point of view. Help with processes to maximise their uptake in a fleet such as WLDC is described in this section.

6.1 Establish a transition team

The successful transition of the WLDC road transport fleet to a zero-emission fleet will require WLDC to establish a small working group encompassing fleet management and any relevant vehicle operating departments; estates, energy management (or sustainability), human resources (for grey fleet), procurement and finance. The robust appraisal of need and utilisation, changing vehicle procurement to a WLC model, funding the new fleet and installing the charging infrastructure to support new BEVs, will require input and resources from all the groups identified above, as well as a governance and reporting structure with full senior management team engagement.

The move to zero tailpipe emissions is a once in a generation transformation and is not just a project for the fleet team. The decarbonisation of the fleet should be occurring in parallel with a move away from the use of fossil fuels, such as natural gas or oil for heating buildings and this will usually involve a move to electric heat pumps. The two projects need to be integrated, as site supplies and infrastructure will need to cope with the demands of heat pumps, PV generation (and possibly export), battery storage and vehicle charging.

6.2 Identify suitable BEV options

The factors to consider when selecting a suitable BEV include:

- typical daily journey length and load – longest daily trip, maximum load.
- single-charge range – avoiding charging during the working day, if possible, due to lower costs overnight and operational inconvenience.
- opportunities to charge during the day – useful for top up charging if battery range is occasionally exceeded by a small amount.
- carrying capacity – weight and volume in LCVs and HCVs.
- towing capacity – with BEVs under 3.5 tonnes, this can be limited in some cases.
- WLC – cost over the operational lifetime.
- grant funding available – any funding to cover WLC difference.

We have undertaken an initial analysis of the principal elements of the WLDC fleet using the data provided (see Sections 7 to 9). Using 2022/23 as a guide to likely future fleet usage and activity, there is some good and immediate scope for the phased transition to BEVs to begin within upcoming vehicle replacement schedules.

6.3 Review vehicle utilisation

WLDC have already been pro-active in identifying commercial vehicles with low levels of usage and have reduced the fleet size of the small vans and RCVs accordingly. Most of the remaining low usage vehicles are simply older vehicles that are retained to cover if part of the main fleet is in the workshop for maintenance or repair. It continues to make sense to select the best outgoing vehicle(s) when replacements are made to undertake this back-up role. There would be no value in replacing these with new zero emission alternatives, although this will eventually happen in the long term, as low emission vehicles reach the end of their front-line service life.

The most prominent low usage vehicle on the fleet is YT20GOP, a Skoda Superb, which has been used for occasional mayoral duties. There would currently be no GHG benefit to replacing this with a low emission alternative, due to the low mileage meaning that the GHG emissions from manufacture of a BEV would not be recovered by the fuel emissions savings.

Normally, we would recommend that such a low usage vehicle is routinely sold and replaced with spot-hired or pooled vehicles. However, in recognition of the special circumstances of the role this vehicle potentially plays, we would advise close collaboration with local service providers to understand if there is a flexible, reliable zero emission, or low emission private hire option. If there is a viable service, then disposing of this vehicle will be possible.

WLDC should also consider how much grey fleet mileage is undertaken on council business from key council locations and whether there is the potential to reduce emissions by transferring some of this mileage to low emission pool cars or

car club cars. The grey fleet is out of the scope of this review but is still worth considering for emission reduction potential.

6.4 Adapt the fleet replacement cycles to BEVs

WLDC have a planned replacement schedule for fleet vehicles, with only ‘back-up’ vehicles over seven years old. All vehicles are now at least Euro VI/6 emissions standard. Ongoing improvements in emission technology and standards mean that today’s Euro 6/VI(d) fossil fuel ICE vehicles will be superseded by cleaner ICE models with [\(Euro 7/VII\)](#) which is now under consideration for introduction in 2025/26. Typically, WLDC replaces vehicles every six years.

Unlike diesel vehicles, keeping BEVs for longer does not have a negative impact on GHG emissions due to deterioration in diesel engine performance. Indeed, as the UK grid decarbonises, BEV GHG emissions will fall year on year. This means that higher BEV procurement costs can be deferred over a longer period of ownership, without adverse environmental impact and it also makes best use of the energy and resources used to make the battery. This approach is further supported by the long operational life and simplicity of electric drive train components which have been used across a wide range of transport modes, for example trains and trams, for over 100 years. Most batteries can be serviced, and faulty cells replaced, to extend their operational life at full capacity.

With electric RCVs and HCVs, it may be necessary to take a different approach to the replacement cycle with the chassis, drive train, battery and rig all being treated as separate and independently replaceable components. This approach will be discussed further in Section 9.

To maximise the return on the investment in BEVs, we recommend aligning replacement cycles with the vehicle’s battery warranty, although if a battery is well maintained, its life could be a lot longer than its warranty period. This may mean planned replacement cycles of eight or, in some cases, ten years.

6.5 Introduce a BEV prioritised procurement policy

The assumption should be that from now, all ICE vehicles will be replaced with zero emission BEV models as part of the standard fleet replacement programme. It is occasionally appropriate to use a plug-in hybrid electric vehicle (PHEV) or an ICE range-extended electric vehicle (REEV) where a BEV is not practical, and the PHEV or REEV offers real GHG reductions because there is a significant opportunity to use it in electric-only mode.

However, PHEVs must be applied and managed carefully to avoid poor emissions performance caused by limited battery size and petrol engines being used to carry the extra weight of the electric motor and battery system.

Other technologies such as Hydrogen Fuel Cell (H2FC), Hydrogen ICE (H2ICE), Hydrogen-Diesel Dual-Fuel, Biomethane (BioCNG/LNG) and HVO (BioDiesel) should only be considered where there is no suitable BEV technology available; or expected to be available.

It is recommended that procurement follows the process in Table 6-1 .

Table 6-1 BEV procurement process

Step	Question	A	Actions
1	Vehicle under 6,000 miles per annum with no business need review yet undertaken?	Yes	Carry out full business need review. Would hire vehicles be lower cost? Could a shared vehicle fulfil the role?
2	Has a smaller vehicle been considered?	No	Investigate the efficient use of current vehicle. Has racking been installed? Is the requirement for a big vehicle infrequent? Downsize if possible.
3	Does a suitable BEV with WLCs similar to the diesel exist? Include grants in cost model.	Yes	Procure BEV
4	Would extending the operation life of the BEV make it affordable?	Yes	Procure BEV
5	Could the life of the diesel be extended until a suitable BEV is available?	Yes	Defer procurement
6	Consider procuring a reconditioned second-hand diesel vehicle or a new vehicle on short term hire linked to anticipated availability of a suitable BEV.		

Where current assets are underutilised, replacements should be robustly challenged because of the high capital cost of BEVs. A well utilised, right-sized BEV can save money. An underutilised, overweight BEV costs extra money.

6.6 Use a Whole Life Cost (WLC) selection model

A WLC model calculates all of the predicted costs of owning and operating a vehicle over its operational life, including the capital, servicing, vehicle excise duty and the fuel or energy cost. Fixed costs such as fleet management overheads, telemetry and fleet insurance could also be included, although they do not vary based on fuel or energy type.

Over a BEV's operational life, the reduction in energy cost compared to diesel vehicles may partially or completely offset the higher purchase cost and can result in an overall WLC saving. The current disruption in the energy markets caused by high gas and oil prices means it is very difficult to predict the long-term price of electricity, gas, petrol and diesel to 2030 and beyond. To mitigate for this, we advise the use of conservative figures and using long run averages of energy cost increases when predicting costs in future years. It appears unlikely that prices will remain at the current elevated levels on mid or long-term horizons.

BEVs are mechanically simpler than diesel vehicles, with significantly fewer components in the drivetrain and without a complex transmission and exhaust system. As a result, maintenance costs are much lower – often quoted at 20-30% less. Over an extended operational life of eight to ten years, the saving may be even greater, as ICE vehicles can incur significant costs in later years. The failure of even one ICE vehicle component can be very expensive - for example, replacing a gearbox, or an exhaust catalyst system. The saving from reduced maintenance costs can further help to offset the higher purchase cost or add to overall cost savings.

This approach is also valid for investment in vehicle improvements that may yield CO₂e emissions savings, for example, electric bin lifters.

A detailed explanation of how to use WLC is available in [Appendix D](#). Some leasing companies and the [Crown Commercial Service Fleet Portal](#) also provide estimates of WLCs.

6.7 Putting a cost on GHG emissions – carbon accounting

Implementing GHG emission reductions may have associated costs and deciding what costs are acceptable and where to invest, to achieve the maximum and best value GHG reductions, can be achieved by putting a price, or value, on every tonne of GHG (tCO₂e) emitted (or saved).

Many companies use a carbon price for project appraisal, including ASDA, Novartis, BP, and Shell. Some also use an 'internal price' or 'carbon fee' charged to departments based on their GHG emissions. Companies in this group include Microsoft, Apple, Disney, and Ben & Jerrys. The funds raised are then used to reduce GHG emissions, either by funding GHG reduction schemes within the same company, or by the purchase of independently accredited carbon offsets.

A shadow price for carbon can reflect the societal cost of GHG emissions ([externalities](#)) or it can assess the mitigation cost linked to specific targets. A review published by BEIS: "[Carbon values literature review \(2021\)](#)" concluded that, for the UK, the use of a "target consistent price path" was most appropriate because the country has stringent GHG reduction targets and there are significant uncertainties over the use of a price linked to societal cost. As a result, BEIS and Her Majesty's Treasury (HMT) have produced a target consistent shadow carbon price to be used in policy appraisal at a national level.

Following the announcement by the UK Government of new, more ambitious, [Nationally Determined Commitments \(NDCs\)](#), a review of the target consistent UK shadow carbon price was carried out by BEIS and HMT (October 2021).

That review resulted in a significant increase in the UK shadow carbon price from £72 a tonne to £248 a tonne in 2022 and from £81 a tonne to £280 a tonne in 2030 (see [Appendix C](#), Table C-1: Central Carbon Value (BEIS 2021)). The increase between 2022 and 2030 reflects the greater impact of emitting a tonne of GHG in 2030 on the UK's ability to reach its new NDCs.

7. Moving to a zero emission LCV fleet

7.1 Overview of the LCV fleet

WLDC currently have 10 LCVs as shown in Table 7-1. The fleet size has been reduced since the 2022/23 financial year. There are now two electric Nissan Townstars within this section of the fleet, which have commenced operations since April 2023, and numbers of small vans have been reduced. Data is from vehicles operated in 2022/23. However, any subsequent discussions of replacements will reflect the current make-up of the fleet.

Table 7-1: Categories of ICE LCVs on the fleet (2023), their energy efficiency and annual mileage

Fleet Category	Qty Oct 23	Qty 22/23	Example Make	Example Model	Average mpg	Average annual mileage	Min annual mileage	Max annual mileage
Small Van*	4	5	Peugeot	Partner	46.8	6,934	5,571	8,185
3.5t (inc Luton Van)	1	2	Iveco	Daily	18.2	13,635	Na	Na
5.2t Cage Tipper	5	6	Man	Cage Tipper	16.7	19,352	17,104	22,712

*We expect average mileage to increase with reduced fleet size

Usage levels are within a relatively small range compared to many similar fleets, suggesting that vehicle planning is well balanced. Usage levels are also relatively high, which reflects some of the actions taken already to ensure a well-utilised fleet and de-fleet unnecessary vehicles.

There were no telematics units installed in this part of the fleet. However, daily mileage logs are kept and WLDC provided daily mileage totals for all 5t vehicles, covering all of September 2023.

7.2 Small LCVs

WLDC will be very familiar with the Nissan Townstar small electric van which features a 45kWh battery. A similar specification is also available with the Renault Kangoo E-Tech.

Versions of the Stellantis group Peugeot e-Partner, Citroen e-Berlingo and Vauxhall Combo-e Cargo, with 50kWh batteries, are also available. Maxus offer the eDeliver3 with 35kWh and 50kWh battery options.

Ford are soon to launch the electric version of their smaller van and more options are emerging from manufacturers that are new to the market. These are all practical BEVs, mostly with competitive payloads and load volumes, all of which achieve real world GHG emission reductions, and which can also reduce WLCs. Table 7-2 provides a summary of some of these statistics as well as an indication of likely 'Real World range'.

Table 7-2 Payload (kg) and load space (m³) of electric LCVs up to 2.6 tonnes

Make	Model	Battery (kWh)	RW Range ¹ (Miles)	Maximum payload (kg)	Capacity Cubic m ³
Renault	Kangoo E-Tech	44	130	608-764	3.6
Nissan	Townstar L1 or L2	45	130	612-781	3.3-4.3
Maxus	eDeliver 3	35 or 53	90 - 150	865-1020 ²	4.8
Stellantis	e-Berlingo/e-Combo Cargo	50	125	800	3.8/4.4

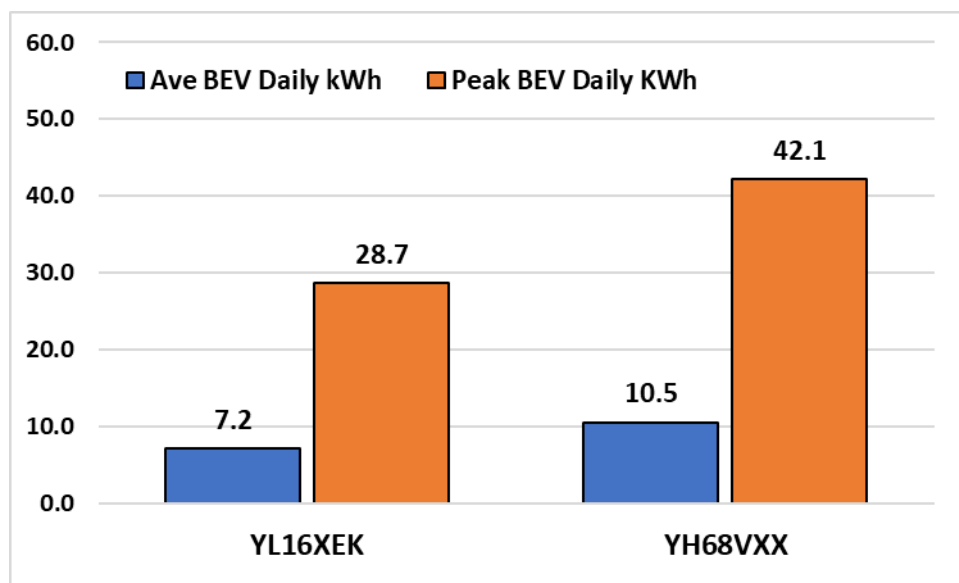
¹Real World Range – minimum based on winter use (-10°C) with heating.

²Depends on the motor/engine power output chosen and vehicle length.

This part of the fleet has been downsized from five to four vans. The two vans in this part of the fleet that have not yet been replaced by BEVs are the wardens van (YH68VXX), which undertook 7,645 miles in 2022/23 and the managers van that is used for 'call-outs'. Whilst the vehicle, YL16XEK undertook 5,571 miles in 2022/23, we would expect annual mileage to be higher going forward, due to the reduction in vehicle numbers.

No daily mileage records were available for the small vans, so the numbers in Figure 7-1 are based on an estimate. Energy is presented as an average across 240 operating days using the prevailing efficiency of individual vehicles (alongside an assumption that a BEV will use 30% of the energy of the diesel in unfavourable conditions). In the absence of data around peak usage levels, this is presented at four times the average (which considers that the vans do not typically travel far). It is not possible to confirm this without telematics data or daily records.

Figure 7-1 Average predicted daily and peak energy consumption of WLDC BEV small vans



Average daily mileages for these vehicles vary from 23 to 32 miles. WLDC may wish to collect further data to verify peak mileages for these vehicles, to understand which battery size is best and if top-up charging may be required. There is due consideration that the on-call van may need to be charged within the day, so consideration of suitable charging in typical daytime locations and subsequent provision needs to be made before a BEV can be procured with confidence that it can operate effectively.

Assuming the warden's van can fully charge at a WLDC location when not in use, it is highly likely that both remaining diesel small vans could be replaced by a BEV, with manageable operational changes. Based on data provided, replacement is not due for a few years. At this point, longer single charging ranges and improved off site charging infrastructure is expected, further minimising any likely concerns for the transition of these vans.

7.3 WLC – small LCVs

We have compared the cost of small vans with typical BEVs using a public sector framework prices at 8,000 miles a year, over eight years (eight years or 100,000 miles is the battery warranty period for several of the models). The comparison is based on current average WLDC small van efficiency, diesel at £1.40 a litre and electricity costs of £0.32 per kWh. Vehicle residual value is assumed to be 10% of the original cost of the vehicle. Pence per mile is shown on the 'y-axis'.

Figure 7-2: Comparison of ICE and BEV small van options – 8 years, 64,000 miles, purchase

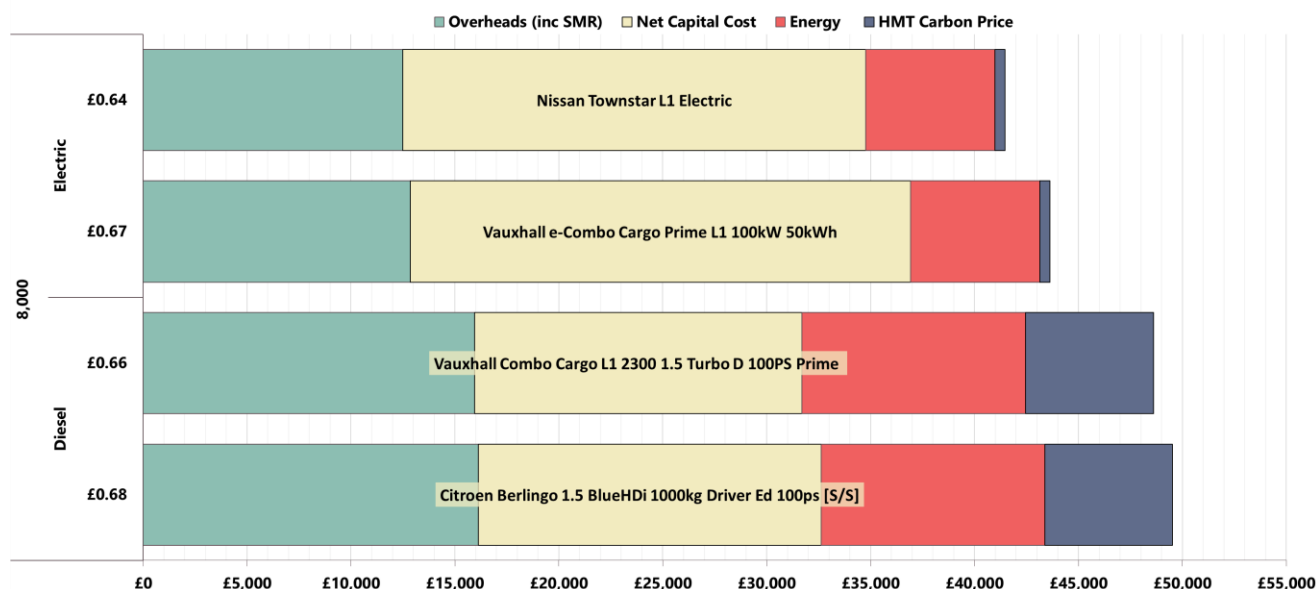


Table 7-3 Whole life cost and GHG emission comparison, small Vans at 8,000 mpa, 8 years

Make and Model	Power	Discount purchase price	£/mile	Annual GHG (t)	WLC excluding carbon price	HMT shadow carbon price
Nissan Townstar L1 Electric	Electric	£28,385	£0.640	0.2t	£40,989	£486
Vauxhall e-Combo Cargo Prime L1 100kW 50kWh	Electric	£30,636	£0.674	0.2t	£43,148	£486
Vauxhall Combo Cargo L1 2300 1.5 Turbo D 100PS Prime	Diesel	£18,348	£0.663	2.9t	£42,461	£6,144
Citroen Berlingo 1.5 BlueHDi 1000kg Driver Ed 100ps [S/S]	Diesel	£19,201	£0.678	2.9t	£43,383	£6,144

Using a BEV will reduce the GHG emissions of each small van by an estimated average of around 2.7t a year or 21t over 8 years and 64,000 miles. This is an average annual emission saving of 5.4t across both remaining small vans.

Replacing current diesel small vans with BEVs would have similar WLCs, saving up to £200 a year per vehicle at current energy prices. If electricity prices reduce from current high levels, or energy can be purchased more cheaply from on-site generation, then BEVs will create bigger savings.

If shadow carbon costs (Section 6.7) are included within price considerations, then the BEV option looks like a significantly better financial option in every case.

WLDC should replace both of their remaining small diesel vans with BEVs as their replacement becomes due within existing plans. Based on our modelling, reflecting current costs, we would expect this to deliver modest savings. In practice, the purchase price of diesel vans is increasing faster than that for BEV vans, so we would expect to see even clearer WLC advantages emerging for BEVs as the decade progresses. Initial outlay may be around £20,000 more for both vehicles, but is offset by cheaper operating costs.

7.4 Large LCVs - 3.5t

The first generation of BE vehicles in this category had limited capabilities because of small battery sizes. Newer vehicles such as Fiat E-Ducato and Maxus eDeliver 9 are now very capable, with a longer range and much greater carrying capacity than earlier vehicles. The Ford E-Transit is available with a comprehensive range of size options. Stellantis Group also produce the e-Boxer, e-Relay and the Movano-e. It is now possible to procure a 3.5t BEV with most body types and specialist applications that may be offered on a diesel vehicle.

Table 7-4 Payload (kg) and load space (m³) of electric LCVs, 3.5 tonnes.

Make	Model	Battery (kWh)	RW Range ¹ (miles)	Maximum payload (kg)	Size ²
Fiat	E-Ducato	47 or 79	91 - 148	1,900	L1-L4/H1-H3
Maxus	eDeliver 9	50, 72, 88	136 - 150	1,400	L2-L3/H2-H3
Mercedes	eSprinter	55	96	774	L2-L3/H2-H3
Renault	Master E-Tech	52	90	1,000	L2H2
Stellantis	e-Boxer/e-Relay/Movano-e	37 or 70	139	1,260 - 1,890	L2-L4/H2
Ford	E-Transit, 350, 390, 425	70	108 - 126	1,470 - 1,970	L2-L4/H2-H3

¹Real World Range – WLTP or NEDC adjusted. ²OEM categories – not the same.

Luton Van

WLDC currently operate one 3.5t van (FN20XHZ), which was registered in 2020. The vehicle has a Luton body and is primarily used for delivering and collecting bins. Average efficiency is 18.8 mpg. No daily mileage records were provided for this vehicle, but annual mileage for this vehicle is expected to be very close to 18,000 miles based on fuel odometer records. If the vehicle is used for 240 days a year, then this would be an average of 75 miles a day. Based on current efficiency and a BEV using 30% energy of a diesel, this would be equivalent to around 60kWh a day. This would be in the range of several electric alternatives that are currently available.

In reality, usage fluctuates daily as it services varying needs. Knowing the level of variation could accurately determine if a BEV could undertake this role without the need for regular top-up charging and establish the size of battery that would be most suitable.

The fuel data shows the vehicle being refuelled on less than half of the working days in the year, which means that many records could be the amalgamation of several days usage of the vehicle and cannot be used to assess daily peak energy usage. However, some records show where the vehicle is being refuelled at the end of successive shifts, giving a clear indication of daily energy use on those days. On several occasions it appears daily energy consumption would be well in excess of that of a typical BEV's single charge capacity. As such it does not appear likely that there are any current 3.5t vans that offer a suitable alternative.

WLDC should aim to understand the maximum daily energy consumed by this vehicle and how often this would exceed a typical battery capacity if adjusted to likely BEV energy consumption. This will help understand which 'future' battery size would be a viable alternative to diesel, what future in-shift charging needs may be required and so when to make the transition.

There is also a possibility that some of the options explored in section 7.5 for decarbonising the 5t cage tippers may also be relevant to this vehicle if fitted with a Luton body rather than a tipper body. Future purchases could be viable for conversion to hybrid, although more data on the use patterns of this vehicle would be necessary to fully assess viability. It is unlikely to be worthwhile to convert this specific vehicle to hybrid, this may only be worth considering on a subsequent new replacement with a longer expected lifespan.

7.5 5t Cage tippers

Until the recent (2023) launch of the Iveco Daily electric there was no OEM option for zero emission cage tippers within this weight category. Currently factory orders are possible for some variants of the Iveco Daily with a factory tipper body, through a major public sector framework. It is also possible to order a chassis cab in other weight categories and with larger battery sizes, which could be fitted with a tipper body (ex-works).

There are also 3.5t BEV options. Most would involve purchasing a chassis cab and specifying a conversion outside of the framework (table 7-4 gives an outline based on vans of the same size). The Ford Transit was the only electric model specifically offered (or categorised) as a tipper within the procurement framework. Some options are summarised in table 7-5, which is not exhaustive. We understand that a Mercedes Sprinter 5t BEV will also become available in 2024 with a 112kWh battery capacity, which will increase the options available. The emergence of competition is also likely to lead to lower prices in this vehicle category.

Table 7-5 Summary of Electric cage tippers

Make & Model	Variant	Battery (kWh)	Maximum payload (kg)
Iveco Daily	42S14 3450WB Tipper	74 kWh	1,171 kg
Iveco Daily	50C14 3450WB Tipper	74 kWh	2,105 kg*
Iveco Daily	50C14 4100WB Chassis Cab	111 kWh	1,949 kg^
Iveco Daily	72C14 4100WB Chassis Cab	111 kWh	3,680 kg^
Ford Transit	350 L3 Leader Tipper	68 kWh	1,380 kg
Ford Transit	425 L4 RWD Chassis Cab	68 kWh	1,574 kg^

* diesel 5t equivalent payload is 2,348kg. ^ estimated based on tipper body weighing 500 kg

WLDC currently operate five 5t cage tippers. Four are MAN vehicles, registered in 2018 and one is an Iveco Daily registered in 2017. Average efficiency appeared to be 16.7 mpg in 2022/23, varying from 15.4 to 17.6 mpg. Daily mileage data was available for September 2023 and fuel data was also provided in full. All vehicles enjoyed relatively good levels of utilisation, with an average of 19,352 miles in 2022/23. This varied from 15,508 (WM68HBZ) to 22,712 (WM68HCD).

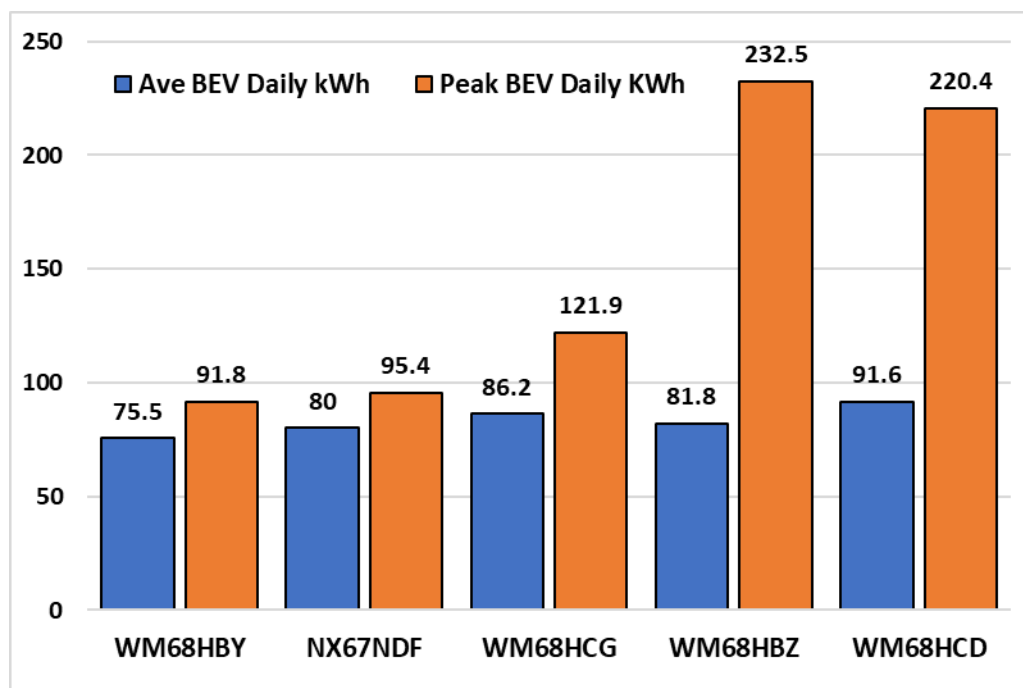
WLDC provided daily mileages of all the 5t tippers for September 2023. When combined with the specific average diesel consumption of each vehicle, and the assumption that a BEV would use 30% of the energy of these vehicles, we were able to conservatively model likely BEV energy consumption for vehicles. We were also able to model what likely energy consumption would be like for a lighter equivalent electric vehicle (3.5-4.25t), using efficiency for this size vehicle although suitability to task would depend entirely upon whether a lighter vehicle would offer sufficient payload or battery capacity.

It appears that all of the vehicles would exceed the 68kWh battery capacity of a lighter vehicle on between 28% and 38% of the days they are operated (even with the energy forecasting reflecting the higher efficiency of the lighter vehicle). They will be close to the single charge capacity on several more days. The situation would be similar with a 74kWh battery, meaning that the only option to electrify these vehicles would be with the largest battery on the market.

If a 5t (or 7t) vehicle with a 111kWh battery was employed (assuming there is sufficient space to fit a tipper body suitable to WLDCs specification with this configuration), then the operation of BEVs looks a lot more operationally favourable.

Figure 7-3 shows the forecast maximum and average energy consumption for each vehicle. Table 7-6 provides context of frequency of days where high energy consumption takes place.

Figure 7-3: Average predicted daily and peak daily energy consumption of WLDC BEV 5t tippers.



Based on data from September 2023, it appears that two of the tippers, WM68HBY and NX67NDF would not exceed the single charge range of an Iveco 50C14 with the 111kWh battery. This would make them operationally suitable for replacement with a BEV, requiring no in-shift charging to maintain current operating patterns and only charging overnight at the depot.

Table 7-6 Number of days 5t tippers would be likely to exceed BEV single charge capacity

Reg	No. of days used in September 2023	Likely BEV efficiency (miles per kWh)	Number of times BEV will exceed 110kWh	No of times a BEV will exceed 68kWh
WM68HBY	21	1.16	0	6
NX67NDF	18	1.21	0	9
WM68HCG	17	1.13	1	9
WM68HBZ	20	1.07	2	3
WM68HCD	21	1.22	4	14

The three remaining tippers would be likely to exceed the single charge capacity on occasions. Whilst this could be an issue if electrifying the fleet (arguably this would happen at least monthly for each vehicle), it is evident from closer inspection of the data that there is no date where more than one vehicle used more than a predicted 110kWh of battery capacity. The implication of this would be that if there was scope for some flexibility in how the jobs were allocated (or some ability to predict days of high energy use before a shift), it could be operationally possible to operate four out of five electric tippers within the WLDC fleet, leaving just one diesel vehicle. This of course would have capital implications which are discussed fully in Section 7.6.

Retrofit possibility for 5t tippers

[Bedeo](#) have launched a new range of retrofit products that have the aim of enabling existing (or new) diesel vehicles to be fitted with electric powertrain equipment that will secure significant emissions savings, whilst retaining an engine to act as a range extender on days when distance travelled is greater than the battery can deliver.

Bedeo is a brand of BD Auto who have manufactured all the electric 3.5t-4.25t vehicles for Fiat in recent years. Powertrains are supplied by Protean, who are well established as a supplier to OEMs. In the Bedeo product, there are in-wheel motors leaving sufficient space to accommodate batteries alongside tipper mechanisms.

The option offered for a 5t vehicle is a range extender configuration which replaces the vehicles original diesel engine with an electric drivetrain and new petrol 'range extender' (in contrast to the 3.5t conversion that retains the original Euro 6 diesel engine). This is being made available initially for the Mercedes Sprinter 5t, with the first demonstration vehicle now available with a van body. Battery options are likely to be 37kWh and 74KWh. This configuration will allow the vehicles to continue running for as long as is needed on the range extender engine after the battery becomes depleted.

Given that most of the mileage on this fleet is within a 74kWh capacity of a battery's capacity, this product would have had the effect of electrifying over 83% of WLDC's mileage if fitted to all cage tipper vehicles in September 2023. This would be the annual equivalent of a 12.5t CO2e emission saving based on 83% of the emissions reduction that would be achieved from switching to a BEV.

7.6 WLC – Tippers

Cost comparisons for 5t tippers have been based on 20,000 miles a year, which is close to the current average for this part of the fleet. We have considered BEV alternatives with a 111kWh battery, and varying payloads as well as an estimate relating to the forthcoming range extender.

Not all vehicles were available to quote as tippers on the framework, so all have been priced as a chassis cab for consistency. The vehicle costings will still be comparable for WLDC because the body conversion costs do not vary with power type and the main difference will be from the drivetrain. On the procurement framework there were fewer BEV tippers listed than BEV Chassis Cabs, which could no doubt be specified with an additional cost conversion to a tipper.

We have assumed diesel will cost £1.40 a litre and electricity costs of £0.32 per kWh (all exc vat). Vehicle residual value is assumed to be 10% of the original cost of the vehicle in all cases. A cost of £0.50 a litre has been added to further compare costs of running diesel vehicles using HVO. We have also considered the benefit of reduced energy costs that could be delivered by investment in renewable energy sources and how that could affect the WLC calculation.

Diesel costs are based on 16.7 mpg, which is the average for WLDC's caged tipper fleet. Vehicle costs are modelled over eight years, which is closely aligned to battery warranty (155,000 miles and eight years). However, if batteries are regularly charged using overnight AC charging, it is probable that there will be significant residual life beyond eight years, although the residual life of the rest of the vehicle would need to be assessed at that stage.

Figure 7-4 WLC comparison of ICE and BE tipper options at 8 years, purchase, 160,000 miles

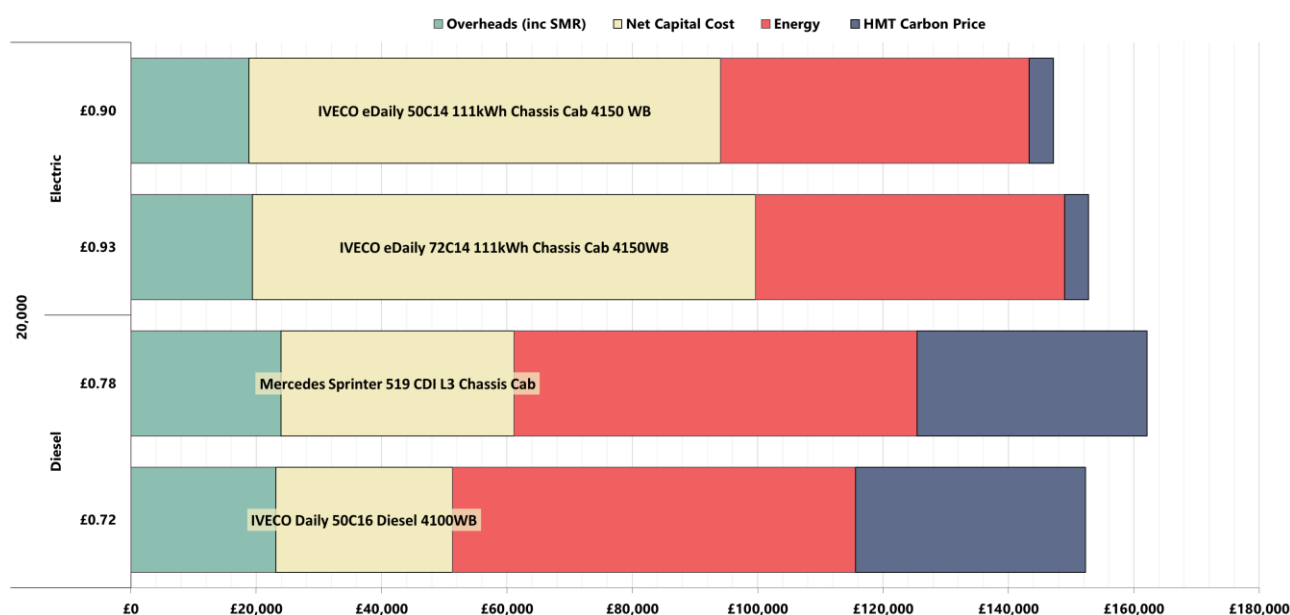


Table 7-7 5t LCV chassis cab - WLC and GHG emission comparison, at 8 years, 160,000 miles

Make and Model	Power	Discount purchase price	£/mile	Annual GHG (t)	WLC excluding carbon price	HMT shadow carbon price
IVECO eDaily 50C14 111kWh Chassis Cab 4150 WB	Grid Electric	£86,762	£0.896	1.8	£143,317	£3,842
IVECO eDaily 72C14 111kWh Chassis Cab 4150WB	Grid Electric	£92,518	£0.931	1.8	£148,939	£3,842
Mercedes Sprinter 519 CDI L3 Chassis Cab	Diesel	£43,741	£0.784	17.3	£125,418	£36,700
IVECO Daily 50C16 Diesel 4100WB	Diesel	£34,203	£0.722	17.3	£115,575	£36,700
IVECO Daily 50C16 Diesel 4100WB	HVO	£34,203	£0.892	2.1	£143,303	£4,482
Mercedes Sprinter 519 CDI L3 Chassis Cab with £30k Conversion (74kWh)	17 % Petrol 83% Electric	£73,741	£0.853	4.4	£136,512	£9,427
IVECO eDaily 50C14 111kWh Chassis Cab 4150 WB	50% Grid Electric 50% Renewable* *£0.10 kWh	£86,762	£0.790	0.9	£126,739	£1,921

Options exist to replace up to four of the five 5t tippers, that can deliver substantial emissions reductions of around 15.5t per year per vehicle. However, all these options do come at differing levels of WLC. In the case of electrification, the costs are front-loaded with capital expense, and then running costs are reduced throughout the life of the vehicle, albeit without fully compensating for all additional purchase costs.

Overall, if a 1,950kg payload is sufficient then the Iveco eDaily 50C14 111kWh would be a good low emission alternative to diesel tippers. If not the larger capacity 72C14 would cost £700 a year more over the life of the vehicle and has the same footprint.

When compared to diesel equivalents, an electric tipper would cost around £1,900 less a year to operate if powered by grid electricity. However, when purchase costs are factored in, the WLC is £3,500 a year more than the diesel. This works out at around £225 for each tonne of carbon emissions saved, which is less than the shadow carbon price suggested by the government, and as such may represent a good value investment in emissions reduction.

If the BEV is compared to running a diesel vehicle using HVO, the WLC would be very similar. The difference being that the HVO vehicle would have much higher running costs than the BEV (close to £4,750 a year). Given that carbon emissions may ultimately be more from HVO, tailpipe emissions remain, and questions remain over supply, feedstock (indirect land use issues) and out of scope emission reporting, it does not appear to be as viable as using an electric vehicle.

BEVs in this category start to look increasingly attractive if calculated with energy costs that are not at current peak levels. Whilst prices could increase or decrease, increasing the renewable energy content used to power the fleet is a good way to secure lower energy prices. If the lifetime cost of solar energy is considered at £0.10 kWh, and this could be installed to provide 50% of the energy a vehicle requires, then an average cost of £0.21 kWh would be achieved, and the WLCs of electric vehicles start to compete with some diesel models. In the example in table 7-7, the WLC gap reduces to just over £1,000 a year, and emissions are reduced further still by the renewable energy that is generated.

The conversion to the range extender hybrid option also looks worthy of further consideration, especially for any vehicle that regularly needs to undertake trips that would exceed the single charge driving range of a battery. Assuming 83% of range can be undertaken in electric mode and a £30,000 conversion cost, this costs marginally more than a diesel over an eight-year life cycle, but still reduces emissions by 12.9t.

If the extra capital can be raised, WLDC should initially consider replacing up to four of the five cage tippers with electric equivalents, which would deliver emissions savings of 62t a year and reduce running costs by approximately £7,500 a year. This would also allow the possibility of further emission and cost savings if renewable energy is successfully produced and capacity increased at the depot. If orders have already been placed for diesel vehicles, it would be worthwhile to understand if some could be rescinded and redirected towards the BEV options (subject to acceptable lead times and body specifications).

Any vehicles that are replaced with diesel vehicles should be considered for conversion to range extender hybrid early in their life in order to maximise potential emission reductions and running cost reductions.

7.7 LCVs that could transition to BEV -summary

Before replacements become due, there is the need to plan for additional capital for BEVs. Even if there are lower operating costs, it is important to acknowledge the new cost profile within financial planning.

Table 7-8 Estimated total replacement costs of diesel or BEV LCVs

Fleet category	No. of vehicles	No. of vehicles operationally suited to battery electric	Estimated capital cost of all diesel replacements	Estimated capital cost of buying BEVs where suitable
Small van	2	2	£36,700	£56,800
Luton Van	1	0*	£30,000	Na (or +£25k conversion)
5t	5	Up to 4*	£221,000	£431,250 (inc 1 diesel)

**further consideration of usage case required.*

Lead times mean that new vehicles may need to be ordered well in advance of when they are required for work. WLDC need to plan for sufficient additional capital investment for each year, in line with scheduled vehicle replacements.

7.8 Plant and Machinery

WLDC provided information on two road registered machines – a JCB machine and a New Holland Tractor.

Unfortunately, no data on fuel allocated for either machine was available. Refuelling appears to take place using the ‘Spare’ fob, which means any fuel used by these vehicles is not attributable to the specific vehicle.

Without any knowledge of energy used by each vehicle, it is not possible to quantify emissions, usage, costs and suitability or benefits of lower emission alternatives.

The implications are that energy consumption needs to be clarified for each machine before conclusions can be drawn regarding the suitability of any alternatively fuelled variants. This would need to be achieved by monitoring vehicle-specific fuel efficiency alongside activity to understand the maximum energy consumption from diesel (in kWh). This can be used to predict what the likely maximum will be with an electric alternative, using the efficiency of electric alternatives as a guide. If maximum daily energy consumption is within the single charge capacity of a battery in an available product, then the implication would be that an electric alternative is operationally suitable. Even if this is the case, it should also be considered that usage needs to be sufficiently high to justify a low emission replacement, when emissions from embedded carbon within batteries are taken into account. WLDC would need to be sure that operational emissions savings can offset those from the manufacture of a battery powered alternative.

In practice, the market for such electric machinery is not mature, and there are not yet electric alternatives in every class. However, the potential for reducing air quality emissions is particularly high, given the generally lower standard of emissions controls on such machines.

WLDC should quantify fuel use, and when usage is understood, and the need for emission reduction is established, progress to test and assess available products.

8. Moving to a zero emission HGV fleet

8.1 Overview of the HGV/RCV fleet

WLDC have 22 HGVs (including RCVs and Sweepers) as shown in Table 8-1. The list does include some RCVs that are subject to lower levels of usage due to them being spare vehicles for when the primary fleet is being repaired or serviced.

Table 8-1 Categories of HGV/RCVs on the fleet (2022-23), their energy efficiency and annual mileage

Fleet category	Qty	Example make	Example model	Average mpg	Average annual mileage	Min annual mileage	Max annual mileage
7.5t	1	MAN	Curtain Side	14.7	20,733	n/a	n/a
4.5t Sweeper	2	Scarab	M25H	3.8*	5,646	n/a	n/a
15t Sweeper	1	DAF	15t Sweeper	7.9	10,201	n/a	n/a
18t RCV*	2	Dennis	Elite 18t	5.6	8,576	n/a	n/a
26t RCV	16	Dennis	Elite 6	4.8	15,347	11,348	21,439

* Data only available for one vehicle

For some vehicles, it was not possible to identify exact patterns of usage where no telematics units were present and refuelling did not always occur daily. There are variations in mpg between similar vehicles within all sectors of the WLDC fleet. Some of this will undoubtedly be attributable to usage cycles, but some may also reflect varying driving styles, although vehicles are not allocated to one driver/operative.

Where we can confidently understand daily energy consumption from fuel records, more accurate conclusions have been drawn about the operational suitability for replacement with BEVs. Where daily energy consumption is less visible assumptions based on average efficiency and daily mileage have been made. Where no information on daily mileage is available, more assumptions have to be made.

8.2 7.5t HGVs

Mercedes, through its Fuso subsidiary, has its 7.5-tonne eCanter model in full production. The specification offers three battery options with gross weights ranging from 6.5t to 8.5t, providing from 40kWh to 120kWh battery capacity, with the latter claiming up to a 120-mile range from mixed use (the smaller battery would be closer to 40 miles). However, the larger battery model is likely to require a C category driving licence and will be restricted from roads where there is a 7.5t weight limit.

There is currently a payload impact from transitioning to battery electric 7.5t HGVs. It appears likely that a 12t electric HGV will be typically presented as the alternative to a 7.5t diesel vehicle by some manufacturers, especially where operations are payload critical.

Some smaller manufacturers currently produce a 7.5t BEV chassis that can be fitted with the correct body for WLDC's needs. BEV products exist from companies such as Electra and Magtec and these are available now to purchase or lease. Electra use 'gliders' (chassis without engines, gearbox or exhaust), provided by Isuzu as a basis to build their 7.5t BEV upon. The chassis is warranted by the OEM and Electra have their own dealer network under the banner of NRG fleet. With a 140kWh (useable) battery capacity, range is expected to around 120 miles. However, the weight of the batteries in small trucks limits payload.

Another alternative could be the Iveco Daily chassis with a curtain-side body. These vehicles were covered in depth in Section 7.5 in the context of tipper bodies. Longer wheelbases are available, and payload may be sufficient, depending on the weight of the body specified, but largest batteries are only 110kWh.

Decarbonising WLDCs 7.5t curtain-side

There were no daily mileage records provided for this vehicle. It was also not refuelled routinely every day. However, it was sometimes refuelled on successive days, and it was also frequently refuelled after two days work.

On these occasions it was possible to use the daily energy consumption or the average of two days to understand if the likely future energy consumption of the vehicle would fit with the available BEV products. In practice this would be an optimistic outlook, as the combination of two days would not usually be evenly split, so there are probably more high usage days than are indicated in table 8-2.

Table 8-2 Summary of 7.5t HGV likely BEV daily energy consumption.

Reg	No. of days use BEV would exceed 110kWh	No. of days use BEV would exceed 120kWh	No. of days use BEV would exceed 140kWh	Maximum likely daily BEV energy
NX70PCF	40+	31+	13+	172kWh

This analysis would point to a replacement BEV 7.5t vehicle needing in excess of a 170kWh battery to operate effectively with just overnight charging.

In practice, such an energy capacity is unlikely to be possible soon with a 7.5t vehicle. The weight of a high-capacity battery would simply take up too much payload.

A 12t BEV with a 190kWh battery could be used as an alternative, but capital costs would be likely to be close to £200,000, which could be prohibitive. Additionally, driver licensing requirements would be more onerous (C category) and the vehicle would be likely to feel quite ‘over-sized’ for its duties. It is our view that a 12t vehicle is probably an inappropriate replacement for this vehicle.

We would anticipate that a suitable BEV replacement for this vehicle will not be available when it is due for replacement in 2025/26, unless a strategy can be formed to rapid (DC) charge a vehicle in-shift on a regular basis. This would depend on the vehicle being located consistently near to sufficiently high-powered charging infrastructure during a shift (possibly at the depot) and the vehicle being specified to receive DC charge to a sufficiently high level to achieve a sufficient top-up charge in a very short period of time.

By the time the second cycle of replacement for this vehicle is due (circa 2030/31), the possibility of an affordable zero emission alternative is much greater, as is the likelihood of suitable infrastructure for rapid top-up charging. We would expect WLDC to plan for a BEV replacement at that stage. The only action for now is to ensure any future battery charging demand is factored into the depot’s charging infrastructure strategy and grid connection capacity.

8.3 Sweepers

Increasing numbers of options are emerging for electric sweepers. Nottingham City Council is operating a fleet of eight small electric sweepers ([Boschung](#)). Companies like [Whale](#) (tankers and gully cleaners) and [Johnston/Bucher](#) sweepers have used electric drive kits from the Dutch company [EMOSS](#) to convert donor vehicles. The [Green machine Ze500](#) is another small fully electric sweeper that has recently emerged on the market with a useable battery capacity of up to 46kWh. Schmidt also offer the [e-Swingo 200](#) for daily duties, suited to inner cities and pedestrianised areas. Battery size is 75kWh.

Also, recently launched from the Fayat group, which owns Scarab, is the ERavo, which is an 11.5t sweeper with a payload of approximately 5t and retail cost of approximately £390,000. The smaller EMC210 electric, is likely to be approximately £225,000, which contrasts with diesel equivalent capital costs of just below £100,000.

WLDC operated three sweepers in 2022/23. We understand that these are hired on a yearly basis, currently from Dawson. One is a 15t DAF truck and two are smaller 4.5t sweepers that are more suited to urban areas. We understand Dawson also hire out equivalent sized electric sweepers.

Figure 8-1 WLDC – two of the leased sweepers currently on the fleet

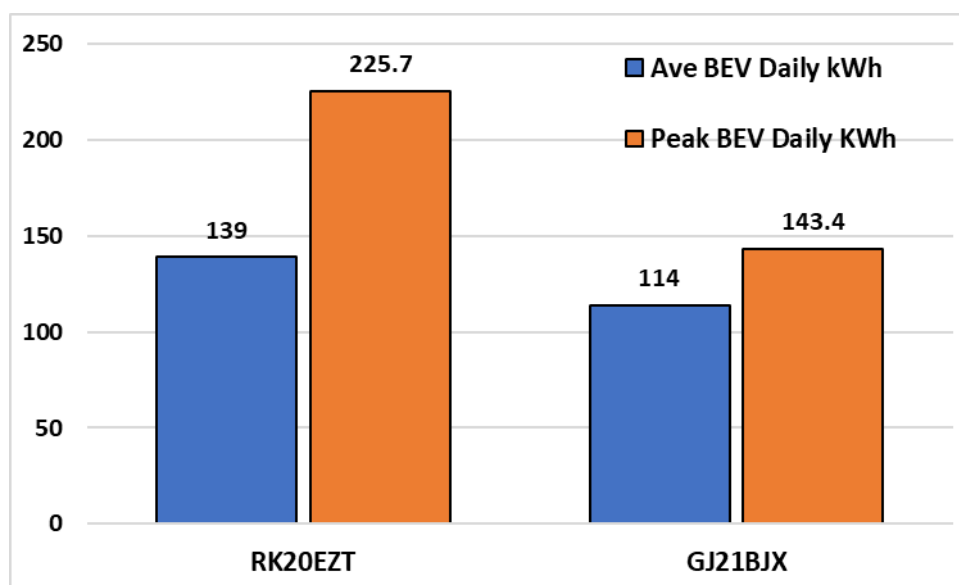


Fuel data and mileage was available for two of the sweepers, GJ21BJX (4.5t Scarab) and RK20EZT (15t Johnston). This is sufficient to allow energy modelling for operational suitability of a BEV as well as helping to lower operating costs. However, no data was available for LJ20CJE (which was listed in the vehicle replacement plan). We understand that fuel from this vehicle has been obtained using the ‘spare’ fob and no mileage was reported. We will assume that it has a usage profile that is similar to GJ21BJX for the purposes of the review, although we have no data to confirm anything of the nature and extent of its operation.

GJ21BJX averaged 3.8 mpg, travelling an average of 30 miles per working day (September 2023) and RK20EZT achieved 7.9mpg. This was calculated as 76 miles per working day (September 2023).

Based on current efficiency, Figure 8-2 shows the likely energy use for a BEV equivalent, based on it using 30% of the energy of the ICE version.

Figure 8-2 Average daily energy consumption and predicted peak BEV energy of WLDC sweepers



Both refuelling and mileage data for GJ21BJX point to an energy consumption in excess of that which any current BEV sweepers of that size can offer. Typical daily use would amount to around 114 kWh. Even using a lower (less BEV pessimistic) energy conversion factor of 25% to reflect the usage type, would still indicate likely energy consumption of 95kWh a day. This means that the 4.5t sweepers at WLDC are not yet suited for electrification if only overnight charging is available.

The only solution with current products would be for rapid charging during the driver breaks. However, if locations for breaks change, then this would be an unlikely outcome, and would point to small sweepers at WLDC only being suitable for electrification after significant improvements in battery density and single charge capacity, which would be closer to the end of the decade to make this change.

For the 15t sweeper, RK20EZT, it is understood that an electric alternative is available, advertised with a 200kWh battery capacity. However, it appears that only 170kWh is useable capacity. Annual fuel data does not show the vehicle being refuelled every day, but there are twelve occasions where it is clear that more than 170kWh electric energy would have been needed in a day to power an electric sweeper of this size at WLDC. In practice this could be more, but there was not sufficient granularity of fuel data to confirm. Using September's daily mileage for the same vehicle and the average mpg, this looks like it would be between two and four occasions in that month. In all but a few of these cases, energy use would be close to the 170kWh capacity, so top up charging needs would be minimal. WLDC would need to understand if this is a practical and acceptable operational compromise, once or twice a month to enable decarbonised sweeping from this kind of vehicle. The alternative would be to delay procurement until later in the decade, when improved battery capacity is expected to be achieved by manufacturers.

The economic case for electrification will depend entirely on the differential between hire rates for electric and diesel vehicles (as these include maintenance). We did request a quote for hiring an electric sweeper from Dawson but did not receive a response. We would expect the electric version to save around £187 a month at current fuel rates compared to diesel and £480 compared to HVO. Table 8-3 provides a brief summary of possible cost scenarios for a 15t Sweeper. With 50% renewable energy, fuel savings could be even greater.

Table 8-3 Anticipated fuel costs for a hired 15t sweeper

Power Source	Energy Unit Cost	Energy cost per year	£/mile	Monthly energy cost
Grid Electricity	£0.32 / kWh	£5,973	£0.59	£498
50% Renewable 50% Grid Electricity	£0.10 / kWh £0.32 / kWh =£0.21 / kWh	£3,919	£0.38	£327
Diesel	£1.40 exc vat	£8,218	£0.81	£685
HVO*	£1.90 exc vat	£11,740	£1.15	£978

*slightly larger quantity due to lower energy density

The maintenance-intensive nature of sweeping ancillaries means that buying and retaining a vehicle like this may not deliver any significant savings, even if it operated for longer. However, hiring these vehicles does allow WLDC the flexibility to move to a zero-emission alternative when the time is right, without capital outlay, and understanding energy costs will help inform decarbonisation strategies and compare total running costs with hire costs.

9. Moving to a zero emission RCV Fleet

9.1 Battery electric refuse and recycling vehicles

The City of London (Veolia) and Manchester City Council (Biffa) now have substantial fleets of the 18t (2-axle) and 26t (3-axle) Electra RCVs (Figure 9-1) in operation. The Electra vehicle has also entered service with several other councils and boasts a 270kWh useable battery capacity.

The Dennis Eagle eCollect, is a 300kWh battery electric version of the company's popular 26 tonne 'narrow' model. Well over 100 are already in service with many councils including Nottingham, Newport, Cardiff, Oxford, Powys, Dundee, York, Cambridge, Sunderland, and Islington. However, this vehicle is limited to a 40mph top speed which may disadvantage its operation on many of the routes undertaken by WLDC.

Renault's 26t eRCVs ([D Wide ZE](#)), has proved popular, with Enfield Council, Peterborough Council and North Lincolnshire Council having purchased several. Renault provide a low entry cab for the electric RCV range. Batteries were initially 265kWh (four 66kWh units), which are adequate for many applications, however, we understand that 90kWh batteries can now be specified, with no weight or space penalty. This gives a total of 360kWh, quoted as a useable capacity of over 300kWh when new.

The first [DAF 6x2 eRCV](#) has been supplied to the Dutch waste company ROVA (it has a 170kWh useable battery and a 30 minute rapid recharge time).

Figure 9-1: One of the City of Manchester's 27 Electra/Mercedes 26 tonne 300 kWh electric refuse vehicles



An alternative to buying a new electric RCV is offered by the UK company [Refuse Vehicle Solutions \(RVS\)](#) who have entered into an agreement with EMOSS to use its technology to convert donor RCVs from diesel to electric. The old vehicle chassis, cab and waste collection rig are refurbished, new electric bin lifts are fitted, and the diesel drive train is replaced by an EMOSS electric drive, with the option of a 200kWh or 280kWh battery. Examples are in service with Islington Council and Chichester District Council.

The Geesinknorba group have also developed an electric RCV in collaboration with GINAF, using a DAF LF chassis. The vehicle has a 200kWh battery and a 44kW on-board AC charger. Lunaz offer a comprehensive [upcycling solution](#) which claims to deliver a 21 tonne saving from the embedded carbon in the chassis and prevents the further sale and emissions of an old vehicle after it has finished service. So far this has mainly been focused on Mercedes Econic chassis, which can be supplied by Lunaz, if needed. Battery options are 260kWh and 380kWh. However, whilst this does cost more than some new vehicles, it is confirmed that discounts apply with volume.

It is understood that a BE resource recovery vehicle (eRRV) - the RQ-E will shortly be available from Romaquip based on a DAF glider chassis and that Terberg (owners of Dennis Eagle) are working with Electra to produce an eRRV based on an IVECO glider chassis for their kerbsider/loader range.

9.2 Moving to a zero emission RCV fleet at WLDC

WLDC have a fleet of 17 Dennis Eagle 26t RCVs and one 18t RCV. Several of the older vehicles could be considered 'secondary' or spare, so they are used to cover other vehicles if they break down or are needing maintenance. These do not feature in planned replacements, as they will themselves be replaced by other 'semi-retired' vehicles through cascading the best of the vehicles that are replaced by new.

Average efficiency is recorded at 4.8mpg based on data from fuel drawings. A detailed analysis of energy use has taken place for every vehicle, assessing the fuel data sources, and identifying where refuelling has and has not happened daily, so that the most accurate possible conclusion on maximum daily energy use is arrived at. Data has been checked in order that our conclusions regarding suitability for eRCVs should be realistic in all likely conditions.

4.8mpg is an impressive efficiency figure for an RCV fleet and whilst some of this will be due to the rural nature of the routes, factors such as electric bin lifts and the installation of solar matting on some of the vehicles will have made significant contributions to this. Aside from the potential for driver improvement, WLDC have certainly worked well to maximise the base efficiency of the diesel vehicles. Daily utilisation is also comparatively good, due to the longer shift and relief crew operating model.

Figure 9-2 WLDC diesel RCVs parked in the depot



Replacing the refuse fleet with zero emission vehicles is very important moving forward, as at WLDC, the RCV fleet accounts for over 80% of fleet emissions, with a large WLDC RCV producing an average annual 46 tonnes of GHG, which is about three times the GHG produced by one of the 5t tippers.

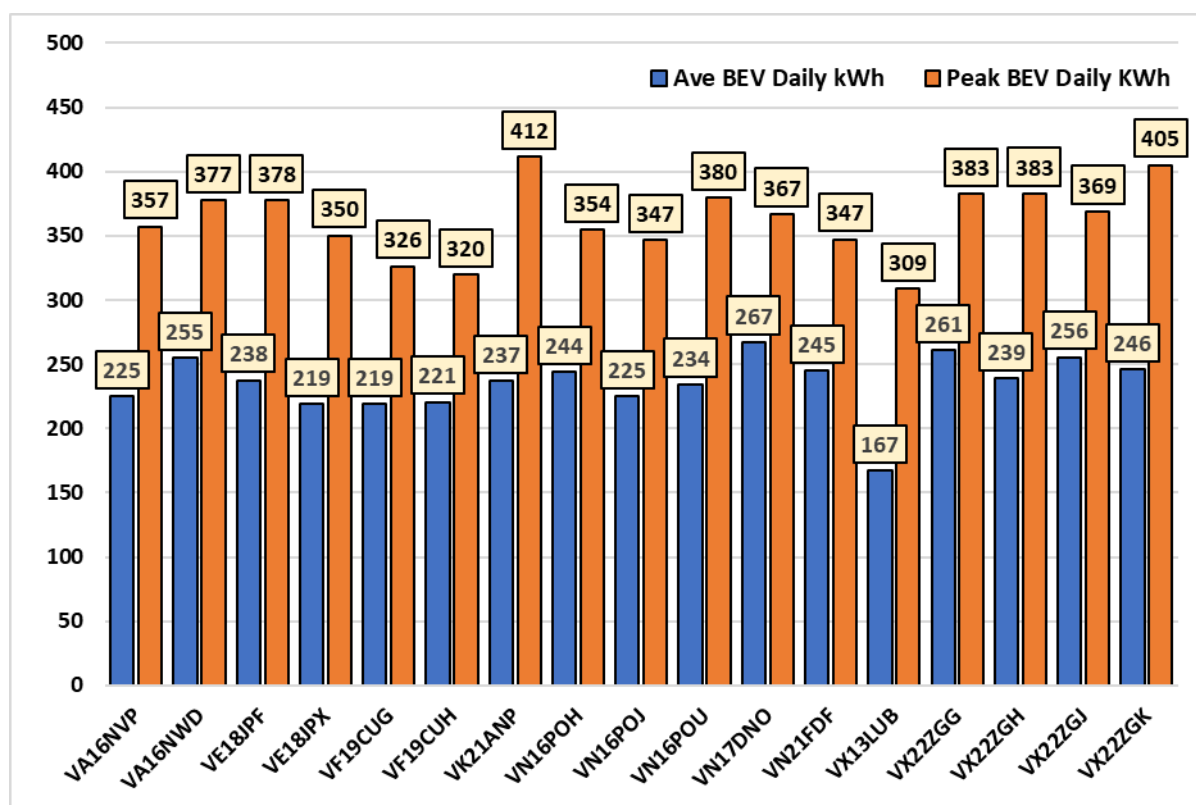
An eRCV is likely to use between 25-30% of the energy of a diesel equivalent during operation (the latter is more likely in colder conditions and at speeds where a diesel vehicle would be more efficient). We have used the 30% figure, to make allowances for adverse conditions and ensure some caution within our conclusions.

All of the WLDC RCVs usually exceeded 200kWh of equivalent likely BEV energy consumption during a typical working day. Refuelling data suggested that average daily electric energy use would be somewhere between 220 kWh and 273 kWh for all RCVs. These figures are likely to be slightly inflated due to a small number of days when vehicles were not refuelled daily and two days data was amalgamated into one refuelling event. This occurred more in some specific vehicles than others.

WLDCs RCVs are not allocated to specific routes or sets of routes, so there are no consistent patterns of energy consumption visible for each vehicle. This also means that all vehicles have relatively high peaks of energy consumption, as they all may be used on longer or more energy intensive routes, on some occasions.

Figure 9-3 sums up registration numbers, and the likely average and maximum energy consumption of eRCV replacements of the current RCV fleet. This assumes that a BEV will use 30% of a diesel vehicle's energy and that 2022-23 operations offer a sufficiently accurate indication of future activity.

Figure 9-3: Potential peak and average daily energy use (kWh) of an all-electric heavy RCV fleet (30% ICE energy use, average from 2022-23 data), in place of current ICE RCVs



If taken at face value, it is possible to look at maximum energy consumption and dismiss the use of OEM eRCVs because all vehicles are likely to exceed a single charge of 300kWh during a shift at some point (this is the ‘useable capacity’ figure offered by Renault Trucks, with Dennis Eagle lower, at 270kWh). The ‘upcycled’ Lunaz vehicle with the larger 380kWh battery would be viable to replace eight of the RCVs, allowing for some battery degradation over the life of a vehicle. A further three may also be suitable, but this does not allow for any battery degradation.

However, if the fleet is viewed holistically and the possibility of allocation of vehicles to more specific routes is considered then the possibility of transition to an OEM eRCV looks more favourable than the data in Figure 9-3 initially suggests. Table 9-1 provides an evaluation of individual vehicles high energy consumption days and table 9-2 considers the amount of times 300kWh on eRCV energy would be likely to be exceeded on any given day across the fleet.

Table 9-1 Further analysis of BEV suitability of high energy consumption of RCVs by registration

Vehicle Registration	Peak daily eRCV energy (kWh)	Days over 270 kWh eRCV energy	Days over 300 kWh eRCV energy	Days over 360 kWh eRCV energy	Days over 380 kWh eRCV energy
VA16NVP	357	27	4	0	0
VA16NWD	377	62	29	2	0
VE18JPF	378	38	18	3	0
VE18JPX	350	31	12	0	0
VF19CUG	326	20	4	0	0
VF19CUH	320	22	3	0	0
VK21ANP	412	57	29	5	3
VN16POH	354	59	22	0	0
VN16POJ	347	29	6	5	0
VN16POU	380	26	9	1	0
VN17DNO	367	108	40	2	0
VN21FDF	347	50	17	0	0
VX13LUB	309	3	1	0	0

Vehicle Registration	Peak daily eRCV energy (kWh)	Days over 270 kWh eRCV energy	Days over 300 kWh eRCV energy	Days over 360 kWh eRCV energy	Days over 380 kWh eRCV energy
VX22ZGG	383	85	45	3	1
VX22ZGH	383	41	24	2	1
VX22ZGJ	369	79	45	1	0
VX22ZGK	405	26	12	4	2
Total	412	763	320	23	7

Vehicles highlighted in red italics are spare / secondary to main fleet.

Table 9-1 Shows the number of times each of these vehicles exceeds typical eRCV product battery capacities in a year, during one working day (according to the available data).

All but one of the vehicles would regularly (more than once a fortnight) exceed 270kWh eRCV equivalent energy consumption, which effectively rules out the current Dennis Eagle product for the WLDC fleet as it does not come with an on-board charger and cannot recharge off site.

At 300kWh (the daily charge capacity of both the Renault and Electra models), there are eight vehicles that would need an in-shift charge between once a month and once a year. Only four vehicles would require this more than once a fortnight if vehicle allocation carried on exactly as in 2022-23. However, table 9-2 shows the true potential for eRCVs with a 300kWh battery if some level of strategic route allocation were to take place based on battery capacity.

At 380kWh (which is the claimed battery capacity available with a Lunaz up-cycled vehicle, there were only seven 'vehicle days' across the whole fleet in 2022/23 where the eRCV could not have fulfilled all duties on a single charge. Even if this is adjusted to 360kWh to allow for some battery degradation as the vehicle ages, this still only equates to 23 vehicle operating days annually. We can only identify one day where this happens to more than one vehicle simultaneously and the second vehicle would be expected to consume 360.1 kWh during that day. This would suggest that a fleet of 380kWh eRCVs would only need to be supplemented with one diesel vehicle to fulfil all operations. The viability of this will depend on how predictable the days where energy consumption is at its greatest are. The 380kWh eRCV option is a non-OEM refurbished product, that appears to be both robust and high quality, but cannot be seen in operation anywhere at more than several 'months' old. Whilst this brings its own risk factors, it is also substantially more expensive than some of the OEM products, which provides significant reasons why a straightforward transition to upcycled vehicles isn't the primary recommendation from this review.

Table 9-2 Number of dates and 'vehicle working days' when a 300kWh eRCV battery would be insufficient

Scenario	Number of dates	Number of vehicle operating days
Weekdays when no vehicles exceeded a likely 300 kWh eRCV energy consumption	66	66
Weekdays when one vehicle exceeded a likely 300 kWh eRCV energy consumption	94	94
Weekdays when two vehicles exceeded a likely 300 kWh eRCV energy consumption	45	90
Weekdays when three vehicles exceeded a likely 300 kWh eRCV energy consumption	31	93
Weekdays when four vehicles exceeded a likely 300 kWh eRCV energy consumption	14	56
Weekdays when over four vehicles exceeded a likely 300 kWh eRCV energy consumption	0	0

When the entire RCV fleet operation (including retired vehicles) is taken into consideration, it is apparent that there only 66 calendar days when 300kWh would not be exceeded by any RCV on the fleet if substituted by an eRCV. This means that there would be a majority of days (184) where at least one RCV would exceed the eRCV equivalent of a 300kWh battery charge. This happens between one and 45 days in the year for every vehicle. However, if all data is put together, there are 333 occasions where an RCV would exceed 300kWh eRCV equivalent energy consumption. However, this is usually only one or two vehicles on the same day and there were no days when more than four vehicles exceeded this energy consumption on the same day as each other.

It would therefore be reasonable to assume that a maximum of all but four RCVs on the fleet could be electric without any impact on operations, beyond the addition of changes that require some planning and parameters in how specific vehicles are allocated to routes that demand the highest level of energy consumption.

To reliably achieve a greater level of electrification, without compromising operations with in-shift charging, becomes progressively more challenging with each of the last four vehicles to transition. Based on earlier discussions, three could

be replaced with upcycled vehicles with a 380kWh battery and at least one would need to remain either as diesel, or a plan would be needed to top-up charge during the busiest working days (occasions where top-up charging will create the greatest level inconvenience).

However, it is also important to remember that 2022/23 operations will not be exactly the same as the future's. New housing and population growth may create demand for additional vehicles and changes to routes could increase or decrease the energy consumption of the individual vehicles. There will need to be some flexibility built in. There will also need to be consideration of how food waste collections will interact with current fleet demands (Section 10).

We would expect any transition to be phased in gradually, and by the time the final four vehicles need replacing, there may well be suitable OEM products or new solutions that smoothly overcome any energy capacity shortfall presented by current products. Therefore, operationally, there is no reason why the transition to eRCVs should not start now.

9.3 WLC model for electrification of RCVs

We have estimated costs for the replacement of a typical diesel RCV with an eRCV and have used the average energy efficiency data (mpg) from WLDC's RCVs in 2022/23 to determine the energy cost savings and GHG emissions. Any new diesel vehicles are not expected to have significantly better energy efficiency than current models, as both old and new fleet meet the Euro VI emission standard and the engine technology is very similar.

Because a BEV drive train has far fewer wearing parts it is expected to be inherently more reliable. Some manufacturers even offer a ten-year battery warranty. Therefore, we have modelled the life of the BEVs over both seven and ten years and the ICE vehicles over seven years (based on the fact WLDC retain some RCVs for six years and some for longer than seven years) and also with a second new ICE fleet for the last three years (costs are proportionate to this). What is not included in this model is the additional cost of future diesel RCVs associated with meeting the new Euro VII emission standard in 2026/27.

Table 9-3 Electric 26 tonne RCV fleet – factors used in the WLC energy model

RCV factor	Electric	Diesel	HVO	Notes/units
Annual mileage/vehicle	15,400	15,400	15,400	Fleet data
Energy efficiency	3.01 kWh/mile	4.8 mpg	4.1 mpg	BEV and HVO calculated from diesel.
Cost of energy/fuel	£0.32	£1.40	£1.75	Base cost Aug 2023 (ex VAT)
Annual inflation to 2030	3.24%	1.79%	1.79%	Based on BEIS 2009-19

The cost savings from eRCV chassis maintenance are significant but the cost of maintaining the rig will be similar for both vehicle types. The energy/fuel costs for August 2023 are used as the base year but an annual inflationary increase has been applied. Future carbon taxes have not been considered but may be significant. Reductions in electric energy costs may be achieved through self-generation and may be likely given the current 'spike' in energy prices.

Table 9-4 Seven and ten-year net capital cost of an electric and diesel RCV

Cost summary	Renault D-Wide electric 376kWh	Dennis Eagle Elite diesel	Dennis Eagle Elite HVO	BEV cost (-saving)	Notes
Vehicle capital cost	£422,000	£232,000	£232,000	£190,000	OEM data
Residual value (chassis)	-£11,000	-£11,600	-£11,600	0	
OZEV grant funding	-£25,000			-£25,000	*First 100 UK vehicles, after which, £16,000
Residual value (battery)	-£30,000			-£30,000	Estimated as 20% of battery
Total vehicle cost	£355,500	£220,400	£220,400	£135,100	
Over 7-year project	£355,500	£220,400	£220,400	£135,100	
BEV retained for 10-years	£355,500	£314,857	£314,857	£40,644	7/3 for ICE vehicle

The higher capital cost of the eRCV fleet is apparent in Table 9-4 and even if the ICE fleet is renewed at seven years and the costs associated with the additional three years included over ten years, the BEV vehicles still have a significant additional capital cost of over £40,000. The residual value of the batteries could be higher than our estimate (they should have a second life in energy storage and may even have the potential to be refurbished for longer use in a vehicle) and it is quite possible that in 2030 (and 2033), an electric chassis will be worth much more than a diesel chassis, and possibly even have significant residual life.

Table 9-5 and

Table 9-6 show estimates comparing the total costs of ownership of RCVs over seven and ten years respectively.

Table 9-5 Seven-year WLC – includes fuel, AdBlue, VED and road user levy

Cost Summary	Electric	Diesel	BEV cost (-saving)	HVO	BEV cost (-saving)	Notes
Total fleet net capital cost	£355,501	£220,400	£135,101	£220,400	£135,101	From previous table
Total energy cost	£118,330	£153,516	-£35,186	£218,160	-£99,830	Includes inflation, assumes all depot charging
AdBlue cost		£2,501	-£2,501	£2,501	-£2,501	No inflation
SMR (ex-tyres) costs	£67,200	£84,000	-£16,800	£84,000	-£16,800	Estimate with eRCV at 70% of ICE figures
VED + road user levy	£0	£3,990	-£3,990	£3,990	-£3,990	DVLA V149/1 - 2020 Policy
Euro VI CAZ levy from 2027	£0	£0	£0	£0	£0	No local CAZ proposed
Whole life cost	£541,031	£464,407	£76,624	£529,051	£11,980	

Table 9-6 Ten-year WLC – includes fuel, AdBlue, VED and road user levy

Cost Summary	Electric	Diesel	BEV cost (-saving)	HVO	BEV cost (-saving)	Notes
Total fleet net capital cost	£355,501	£314,857	£40,644	£314,857	£40,644	From previous table
Total energy cost	£177,699	£225,357	-£47,658	£320,253	-£142,554	Includes inflation, assumes all depot charging
AdBlue cost		£3,573	-£3,573	£3,573	-£3,573	No inflation
SMR (ex-tyres) costs	£120,000	£120,000	0	£120,000	0	Estimate with eRCV at 70% of ICE figures
VED + road user levy	£0	£5,835	-£5,835	£5,835	-£5,835	DVLA V149/1 - 2020 Policy
Euro VI CAZ levy from 2027	£0	£0	£0	£0	£0	No local CAZ proposed
Whole life cost	£653,201	£669,623	-£16,422	£764,687	-£111,486	

The OZEV grant for 26t HCVs is £25,000, which is capped at five vehicles per year per organisation (£125,000), and £16,000 for the next ten vehicles, beyond this it reduces to £5,000. This amount will also vary according to how many vehicles have been sold nationally at the time of the grant application.

We would expect electric RCVs to reduce the energy cost of an RCV by about £35,000 over seven years and £47,500 over 10 years. They would also eliminate the need for ‘AdBlue’ exhaust additive and would be zero-rated for Vehicle Excise Duty and Road User Levy. Other savings arise from reduced chassis maintenance costs.

There is therefore an estimated cost of about £76,600 (£7,660 a year) extra from operating an eRCV compared to diesel over seven years when capital costs are included (Table 9-5). If vehicles are retained for 10-years (Table 9-6) then this will become a significant saving, even allowing for rig refurbishment (which means no maintenance savings are expected for the eRCV). We would estimate the saving to be between £1,000 and £2,000 a year across the life of the vehicle. Buying an upcycled truck with a larger battery will add around £60,000-£70,000 to the capital costs, but will not deliver any significant additional running cost savings.

With a seven-year replacement cycle, the eRCV WLC is quite close to that of running a diesel vehicle on HVO (our forecast is around £1,200 a year more), and at ten years, the eRCV offers significant savings over HVO, likely to be more than £11,000 a year.

This is all based on an assumption that electricity will only increase from its current high base cost. If grid electricity costs decrease, or if a significant contribution can be made from on site or local renewable energy production, an eRCV will start to deliver significant savings, even if retained for only seven years.

Using eRCVs where possible, taking measures to manage electricity costs and operating vehicles for as long as is reliably possible, will be the most cost-effective way to decarbonise this fleet.

It should be noted that with the current volatility and unpredictability of fuel and energy prices, any modelling of future costs could be subject to significant variation in either direction. However, whilst we remain very close to an all-time high electricity cost there is the strong possibility of a return to more favourable rates, especially as the influence of renewables increases in its contribution to grid generation.

Emission reductions from a transition to eRCVs is summarised below.

Table 9-7 Ten-year energy use (kWh) and GHG Emissions (kg CO₂e) of an electric and diesel RCV fleet

Energy use and GHG	Electric	Diesel	BEV cost (-saving)	Notes
Energy consumption (kWh)	464,113	1,547,043	-1,082,930	Assumes 70% reduction
Scope 1 kg CO ₂ e		366,433	-366,433	BEIS Factors
Scope 1 AdBlue kg CO ₂ e		1,112	-1,112	Used by SCR - BEIS
Scope 2 kg CO ₂ e	53,428	0	53,428	UK Grid - Predicted
Scope 3 T&D kg CO ₂ e	4,728	0	4,728	UK Grid - Predicted
Scope 3 WTT kg CO ₂ e	15,143	88,950	-73,807	BEIS Factors
WL WTW GHG (kg CO ₂ e)	73,299	456,495	-383,195	-383 tonnes over vehicle life

Over the ten-year lifetime of an eRCV, total GHG emissions will reduce by 383 tonnes and by at least 90% after ten years. The eRCVs have no Scope 1 emissions and all the GHG emissions are Scope 2, from the generation of electricity and Scope 3 from transmission and distribution (T&D) losses as well as ‘WTT’ emissions at the generator – all of these will fall over the lifetime of the project, as the UK Grid decarbonises. Local generation of electricity by WLDC using a wind turbine or PV³ array would help to reduce electrical energy costs (typically to around 10p/kWh equivalent or less) and shield WLDC from future fluctuations in electricity costs.

If WLDC can order operations so that at least the next 10 RCVs are replaced by an eRCV equivalent, then annual emissions would reduce by at least 383t compared to operating diesel vehicles. This figure could increase to 608t if 16 of 17 of the RCVs (which includes ‘replaced’ spare or secondary vehicles) that are eventually transitioned electric.

This carbon reduction is particularly good value for money in all circumstances. Even using the seven-year figures, the cost per tonne of emissions saved equates to £200 a tonne, which is less than the carbon price quoted in Section 6.7.

Air quality improvements

The diesel RCV engine has significant emissions of both NO_x and PM and these must be controlled using a selective catalytic reduction system (SCR) for the NO_x and a particulate trap for the PM. Both these technologies struggle to work well at the low exhaust temperatures associated with low speeds and with intensive stop/start operations. The SCR may switch off as it can release ammonia at low temperatures and the particulate trap may need to be regenerated by driving the vehicle at sustained speed.

Table 9-8 below has been determined using the [COPERT5](#) model for a Euro VI diesel operating at an average speed of 20 km per hour reflecting something of the stop-start operation of RCVs in a rural area. This is a vehicle specific model and very different from the ‘Average UK HCV’ values presented earlier in this report.

Vehicles powered by HVO still emit tailpipe pollutants, possibly at a marginally lower rate than fossil diesel, but an eRCV does not emit anything in this way.

Table 9-8: Air Quality: Emissions per vehicle over the 10-year life of an ICE and BEV RCV (kg)

Air quality (Project life)	Electric	Diesel	BEV emission reduction	Notes
Nitrogen Oxides (NO _x) kg	0	217	-217	NAEI COPERT5 (20 km/hr)
Particulate matter (PM) kg	0	2.0	-2.0	NAEI COPERT5 (20 km/hr)

Offsetting the GHG embedded in the battery

One concern often expressed when evaluating BEVs is the embedded GHG in the battery associated with the manufacture of the battery cells. One option, the Lunaz ‘upcycled’ vehicle will largely compensate for this by recycling the chassis and body of a used vehicle, which will prevent around 20t of carbon from manufacturing those parts of a new vehicle. However, this is not the case if a new vehicle is purchased.

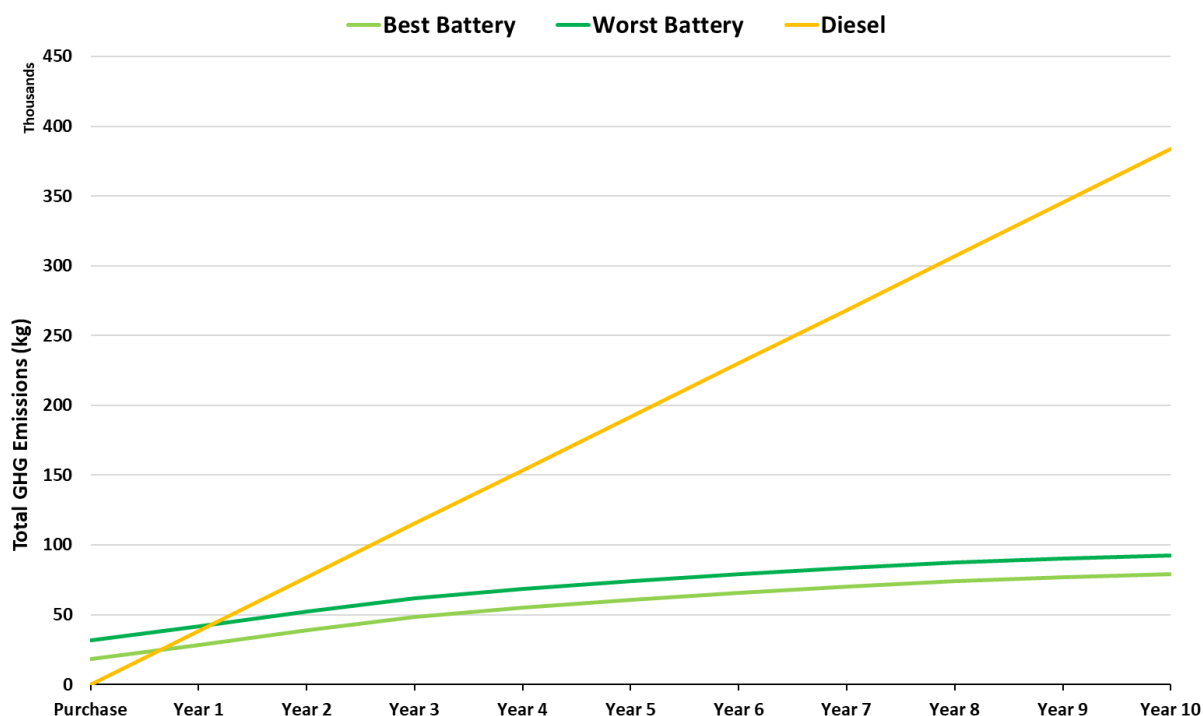
Research by the Swedish Environmental Research Institute in cooperation with the Swedish Energy Agency has identified the variation in GHG emissions associated with each kWh of capacity ([Lithium-Ion Vehicle Battery Production, 2019](#)) depending on the GHG intensity of the manufacturing process.

In 2019, the range was from 61 kgCO₂e/kWh to 106 kgCO₂e/kWh. Figure 9-4 demonstrates that even with the most GHG intensive battery (worst battery) the electric RCV offsets the GHG embedded in its manufacture within 18 months - when the yellow line of cumulative diesel emissions crosses the green lines of cumulative eRCV emissions. In the case of the ‘best battery’ this occurs after about a year of use based on WLDC mileage and current diesel efficiency.

During 2019-2023, many battery manufacturers around the world have moved to using renewable energy for the production process which would place their batteries in the ‘best’ category. Even if the battery manufacturing plant is 100% net zero, there are still GHG emissions associated with the extraction, processing and transport of the raw materials required for manufacture of the battery.

³ [LAPV Article on Solar PV](#)

Figure 9-4 Cumulative GHG Emissions, 300kWh battery, 10-year life, UK Grid, WLDC RCV operation.



Treating the principal components as separate assets

Electric motors, batteries, vehicle chassis and refuse/recycling rigs all have different operational lives. Most heavy-duty electric motors can operate with minimal servicing for 20 years or more (based on experience in trains and trams) and can be easily refurbished – two new bearings and a rewind of the coils.

Batteries can be serviced by replacing faulty cells and, when they are no longer economic to refurbish, they can still be used in a battery storage array as the reduced storage capacity – and therefore range – is not an issue. The chassis and cab can be fully refurbished, and the refuse rig replaced. All of which means that simply replacing the whole vehicle at seven years – common practice for diesel RCVs – is likely not the optimal ownership strategy for an electric RCV fleet. Longer retention may also be complemented by refurbishment and second life of many components. Lunaz state that their upcycled vehicle can be refurbished at least one more time and are looking to build that into agreements with some clients.

10. Fleet options for food waste collection

Details of long awaited reforms to recycling collections have started to [emerge through government communications](#).

Under the new legislation, waste collection authorities in England must arrange a weekly collection of food waste for recycling or composting from households. All non-household municipal premises in England must arrange for the separate collection of food waste and to present their waste in accordance with these arrangements, but they are not required to have weekly collections.

The weekly collection of food waste is likely to need to be in place for most households [by early 2026](#). It is not yet clear if and what the nature of any additional funding settlement to facilitate this collection will be.

This potentially has implications for the future shape and operation of the WLDC fleet. Two likely pathways available would be to (1) use dedicated food waste collection vehicles that would operate in addition to current services, or (2) integrate food waste collection with other recycling using a permutation of a resource recovery (RRV) type vehicle, the likes of which are used commonly by Welsh local authorities but require a more thorough sorting of waste streams at the roadside. We would also expect other options to emerge that may be a hybrid of these ideas or emerge from adaptation of current collection arrangements and vehicles.

WLDC will need to make decisions surrounding broader recycling collections and waste management that go beyond the scope of fleet. However, fleet implications may still be a significant factor in these decisions. Understanding the fleet options will help with the decision making process.

Dedicated food waste collection vehicles

Food waste collection vehicles are typically comprised of a chassis with a dedicated enclosed body, which is watertight and has access doors at a height that food waste can be placed through into the main container(s). Whether the body is required to tip waste, or simply hold removable sub-containers will depend on how the waste is processed at its destination.

Some larger vehicles come equipped with bin lifts, but these are most likely to be only necessary where there is a substantial trade food waste collection element to rounds, as household food waste holders will be relatively small.

Various sizes of chassis have already been adapted for dedicated food waste collections, which means that all the usual diesel or electric base vehicle options should be adaptable. Payload requirements are likely to depend on the density of collection addresses and the ease of access to tip a full load. Some very different options have already emerged between local authorities.

Lewes Council have been trialling the use of 3.5t electric Maxus eDeliver 9 vehicles. This typically offers between 1 and 1.5t payload and up to an 88kWh battery.

Basildon Council have purchased a 12.5 tonne Electra eCargo (figure 10-1), which is based on the on the conversion of an Iveco Cargo chassis. This is specified with a 140kWh battery and has an allowance of 7.9t for payload. Range is claimed at up to 156 miles, although this will no doubt depend on weather conditions and the amount that is being carried.

Figure 10-1 – Electra 12.5t eCargo compact electric waste collection vehicle



Some councils have 7.5t diesel powered vehicles already allocated to this kind of task. The ability to use 7.5t electric vehicles would be very sensitive to range and payload. It would be more likely that those needing such a large volume of collection would opt for the larger payload and battery of the 12.5t vehicle.

It would also be possible to convert a chassis similar to that of the 5t Iveco eDaily (with up to a 111kWh battery), which would be likely to provide a sufficient payload at a similar economic outcome to that covered in Section 7.6 for the caged tippers. It is likely that this would be the option that would provide an optimum balance between range, payload, cost and ability to do the job for a council with widely distributed collections such as WLDC. More choices in this size category will emerge as the 5t Mercedes eSprinter is released onto the market in 2024.

Resource Recovery Vehicles

Rather than simply adding another collection to the current operation, a worthwhile alternative that should be considered is in the form of the resource recovery vehicles, which are typically built on a 12-tonne chassis, with a highly specialised body (see figure 10-2), which can be adapted to an individual service's needs. This is a different approach which would necessitate a rethink of recycling collections by WLDC, in the context of current waste disposal contracts. The food waste would be collected at the same time as other recyclables and deposited into a separate removable pod within the vehicle.

Residents collect various categories of dry recyclables in different containers. It may be possible to specify food and cardboard and food and mixed in different iterations of this kind of vehicle. The vehicles can come equipped with mechanisms to store plastic and cans in the roof space, and also a compacting mechanism which works to optimise space in a large cardboard collecting compartment at the rear. The compartmentalisation allows for easy depositing of different waste streams at recycling centres.

This approach has been used to good effect over many years in Wales. A great example, which includes food waste being sent for anaerobic digestion, can be seen in [Merthyr-Tydfil](#). More detail of how the process works can be seen in this example from [Anglesey](#). However, it is acknowledged that both examples see items sorted to a much greater extent than they would need to be in West Lindsey, and they would have a different routine in terms of what needs to be collected, but the vehicles should be adaptable and could be individually dedicated to either cardboard and food, or mixed recyclables and food.

Advantages of this approach are:

- Very high recycling rates can be achieved.
- Residual waste is reduced.
- Waste disposal costs are reduced.
- Food waste collections do not simply become extra mileage.
- Electric vehicles can be used, achieving greater efficiency than a larger vehicle on a lighter weight recycling round. This means batteries can be smaller and capital required for the vehicles might be less.

Figure 10-2 A Romaquip Resource Recovery Vehicle



11. Electric vehicle charging infrastructure (EVCI)

Energy Saving Trust provides [guidance on charging infrastructure](#) on the main website, which is a helpful read alongside this report. Appendix B also provides further generic information on charging.

11.1 Number of charge points

Generally, we expect every electric vehicle should have a parking bay and charge point of sufficiently high power during its 'down-time'. If different vehicles are off duty at consistently different times, then bays and chargers can be shared, it does not appear this will be the case at WLDC. However, some low use vehicles that do not need a daily charge could be charged on alternate days.

Charging heavy goods vehicles

HGVs, with very large batteries need a powerful charging infrastructure if they are to recharge in time for the next shift. This can be 22 kW three-phase AC (400V, 32A) units which can be doubled up if needed (two per vehicle), or more sophisticated 50 kW+ DC chargers. For WLDC, most RCV activity would not need more than a 22kW AC charger available for 14 hours every day. Where daily energy consumption exceeds 300kWh a higher charge rating may be needed, although as shown in Table 9-2, this is very much a minority of cases.

If a vehicle can be operationally viable with regular AC charging, this will be beneficial to both the longevity of the battery and the stability of the energy supply within the depot.

The higher output systems require a much greater investment in the electricity supply infrastructure and the technology of DC rapid charging is advancing quickly, so DC chargers are more likely to become obsolete or require upgrading.

The cost of DC infrastructure starts at about £12,000 per unit and increases with DC capacity – some systems cost over £30,000 each. To that can be added significant cabling costs and grid infrastructure upgrades, as high output charging will soon exhaust available grid capacity. The incorporation of battery storage into charging infrastructure can assist in providing a high amount of power at the time it is needed but will further add to costs.

It is very likely that large parts of the charging infrastructure, and in particular the expensive cabling and groundworks, will outlive the first generation of electric vehicles. It is also very unusual to include the cost of the onsite bulk diesel tanks, fuel dispensing systems, fuel monitoring software, and the annual maintenance of the fuel system in the total cost of ownership of a diesel vehicle.

During the summer months, on-site PV generation can be used during the late afternoon and early evening to charge vehicles at a time when the 'domestic' site load is falling. Using the PV to displace grid import will have a significant cost saving and GHG emissions reduction. Where there is battery storage, PV power can also feed into this. Any wind power generated could also contribute to charging vehicles.

Meeting the demand for BEV charging

There are several options for charging BEVs. The simplest is to build sufficient site capacity (kW or kVA) to meet the simultaneous maximum demand for charging all the BEVs from the grid connection at the full rate supported by the charger, regardless of the local 'domestic' site load. This can be expensive, especially if it requires significant upgrades to the local grid infrastructure.

The other option is to alternate when vehicles are charged, so fewer chargers are required.

A potential issue with timed charging, which must be based on predicted need, is that there is a risk of some vehicles not having an adequate charge if charger power is not sufficiently high to enable this in the available time.

It is also possible to link the management of the energy available for charging BEVs to the site's 'domestic' load so that the charging control system can maximise the current it draws, as the load from the rest of the site falls. Each step-up in charger management requires more investment in the charging system but may avoid even more expensive capacity upgrades in the local grid and gives the fleet team greater visibility around demand and driver behaviour.

It is important to specify 'back office' software that gives clear visibility on the status of chargers and vehicles being charged to the fleet team, whenever required.

11.2 Potential charging capacity at Caenby Corner depot

Figure 11-1 is based on the half hourly (HH) electrical energy consumption data for the connection at the Caenby Corner depot. We have reported on 12 months of WLDC's data from 1 December 2021 to 29 November 2022. The charts show:

- the maximum energy used on-site in any half-hour period (blue)
- the average daily consumption (black line)
- the baseload or minimum daily consumption in any half hour period (red)
- the 'static' (or always available 24/7) charging capacity (dark green)
- the 'dynamic' charging capacity (pale green)

The 'static' charge capacity is the difference between the maximum recorded site use and the site supply maximum adjusted by the site power factor. The 'dynamic' capacity is a measure of the energy available between the recorded peaks of maximum usage.

The 'static' capacity is so called because it can be used to charge vehicles without any sophisticated demand management controls. Provided the total kW demand of the installed charging points cannot exceed the static capacity, the system is self-limiting.

For example, if the static capacity is 25kW, then three 7.4kW (22.2kW) charge points could be installed and used at the same time without exceeding site capacity and with no further management systems. The static capacity is also available 24 hours a day, so the only possible constraint on its use is a desire to avoid higher daytime tariffs and charging during the (national) peak period of electricity demand which occurs between 16:00 and 19:00, Monday to Friday.

The 'dynamic' capacity represents unused capacity that falls between the peaks of daily usage. This capacity could be accessed by using charge points on timers but that would require careful management to ensure a significant margin of error between the demand from the charging points and other site loads. This would only work on more simplistic demand patterns.

The static capacity can be combined with a control system to regulate the current to the charge points such that it never exceeds the site's static capacity and to that could be added, at timed intervals, the site's dynamic capacity. So, in our example of 25 kW capacity, we could have six 7.4 kW charge points but if all six are in use the power to each would be limited to 3.7 kW. As vehicles become fully charged so they stop charging and their share of the site's 25 kW capacity is reallocated over the remaining vehicles. This is a very efficient system and should ensure that all the vehicles are fully charged. It is cost effectively implemented using one primary controller and up to 10 to 20 drone charge points.

The final enhancement is to add a system to continuously monitor the total site load and adjust the power available to the vehicle charge points accordingly. A 'load balancing' system allows all the capacity above the baseload to be utilised. However, the control system must be very responsive and work 100% of the time as a failure to adjust charging capacity in response to an increase in demand elsewhere on the site could result in a site blackout or penalty charges for exceeding the site maximum demand limit.

11.3 Site Summary – Energy capacity and usage at Caenby Corner

Table 11-1 Caenby Corner connection capacities, power factor, and available kW

Connection name	Site capacity (kVA)	Power factor	Available (kW)
Caenby Corner	275	0.98 (Est)	270

Figure 11-1 Caenby Corner connection energy consumption profile 2022

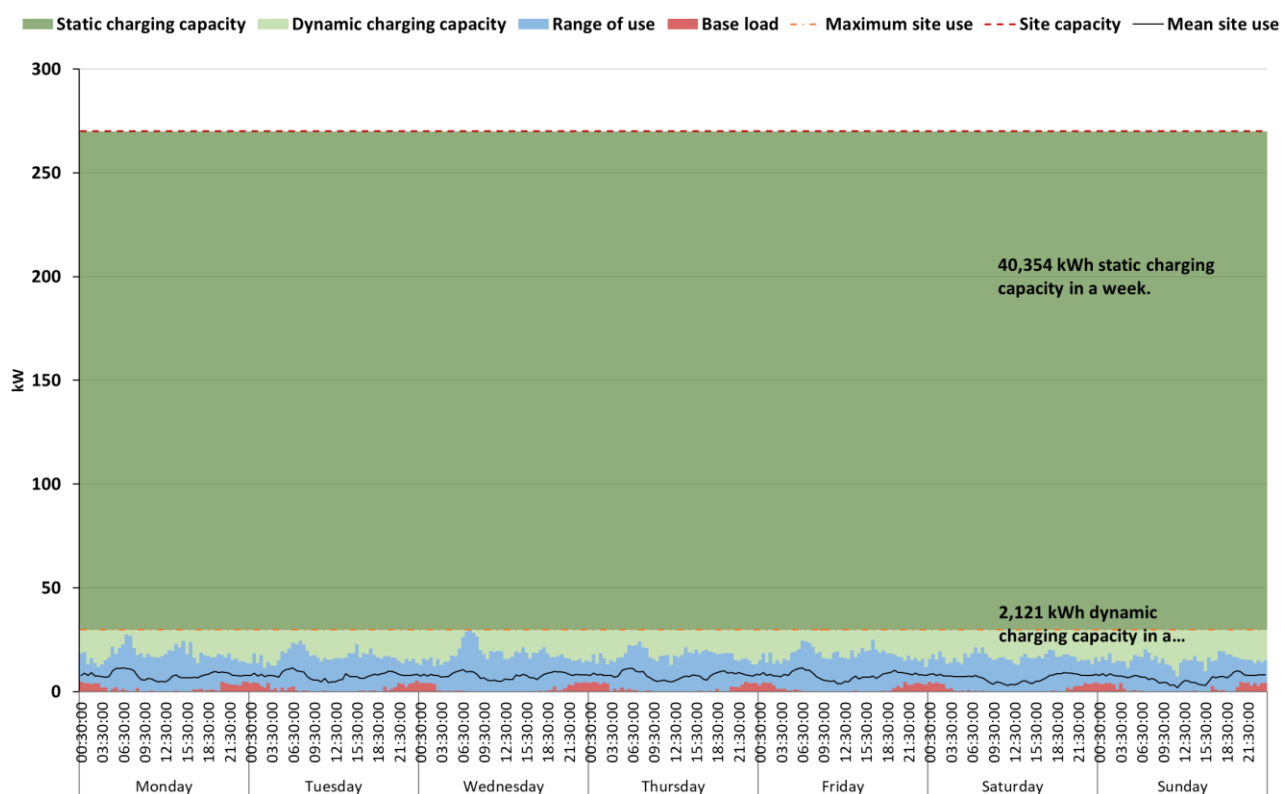


Figure 11-1 shows that the grid connection for the Caenby Corner has a lot of static capacity in relation to current energy consumption levels. Energy consumption in the data provided peaked at just below 30kWh in an hour, which was on a Wednesday morning in December 2021 between 0700 and 0800. This means that for the entirety of the year, there was always 240kVa static capacity available at any one time.

The existing grid connection is capable of charging around eleven electric RCVs, or nine RCVs and all of the LCVs, if they were electrified.

Typical energy usage from this grid connection does not appear to ever exceed 20kVa overnight, giving slightly more capacity (10kVa), for charging, always available at times when vehicles will require it, with the application of a timer.

From April to October, there are many times during the day where this grid connection draws nothing from the grid. This is when the sun is shining, and the current solar array generates more power than is required for operation of the site. In summer this can be the case for several successive hours. This suggests there is even more energy freely available, which if stored, could also be used to re charge electric vehicles overnight.

If significantly more solar PV was to be installed within this grid connection, then most of the power generated would be excess to depot requirements and would also be generated at a time when most vehicles are off site. Therefore, the viability of any infrastructure would depend on making suitable arrangements to store, sell or export any additional generation capacity.

It is also apparent that because there is always 240kVa unused during the day, that over 10 hours, each night, a further 2,400kWh of energy (enough for eight or nine more eRCVs) could, in theory, be obtained and stored from this grid connection, should WLDC find the grid connection insufficient and difficult to extend to meet the needs of a fully electric fleet. However, this would require a very large and (potentially) expensive battery storage facility.

11.4 Potential energy demand for an electrified WLDC fleet

Taking a simplistic approach, it would be tempting to plan for future energy capacity based on each vehicle or machine having a suitably sized charger available (discounting those not based at Caenby Corner) that could be used concurrently, at full power with all others. Adding up all charger capacities would give a total maximum demand by which connection size could be procured. This gives a total of around 530 kVA, when allowing 22kW for RCVs and large HGVs (16 was the maximum RCVs recorded as used in one day), 11kW for cage tippers and sweepers and 7.2kW for other vehicles.

This is not the typical recommended approach because it is likely to build in much unnecessary cost associated with the extra capacity and is not an efficient use of grid capacity that will also need to serve electrification of other local businesses.

A more efficient approach would be to understand the peak demands for charging and use smart charging to moderate charge levels over the available charging period. Table 11-2 summarises potential maximum energy demand from the vehicles based at Caenby Corner, based on 14 hours availability to charge.

However, prior to using these totals, opportunities to reduce peak demand are afforded by organising day-time charging for vehicles that are not on duty all day. Three 22kWh chargers at this site that were installed to coincide with the arrival of two Nissan small vans. Whilst these vehicles have 22kWh charging capability, they should only be charged at this rate in the day, so it does not affect the spare capacity available for RCVs and heavier vehicles at night. Charging these vehicles during the working day, when available, will maximise the benefits from cheaper, greener solar on-site generation and will happen in a short time frame. If these vehicles do need overnight charging, then the use of a 3.5kWh charger would be much better for the distribution of grid capacity around the rest of the fleet.

Calculations have been carried out using different estimates based on the quality of data available. The best data was for RCVs that refuelled every day. Good data was also available for vehicles with daily mileage records (cage tippers and two sweepers). Data for other vehicles is based more on estimates. The assumption that a BEV will use 30% of the energy of the diesel applies in all cases, based on the best combination of fuel data, and existing efficiency of individual vehicles. Any vehicles that do not appear in fuel records, may not be adequately reflected in this table, as it is not possible to forecast their daily energy consumption.

Table 11-2 Expected daily energy use from an electrified WLDC fleet by vehicle category.

Activity level	Vehicle category	Max vehicles in use a day	Daily EV kWh at 30% of diesel	Total daily kWh needed per vehicle on charge	Total kVA for all vehicles to be charged fully (Over 14 hours)
Peak	RCV	16	4,212	263	301
Average	RCV	12.5	3,014	242	216
Peak*	5t Tipper	5	504	101	36
Average	5t Tipper	5	383	77	27
Peak*	Sweeper & 7.5t^	4	685	171	49
Average	Sweeper & 7.5t	4	452	113	32
Peak*	LCV	5	240**	48	17
Average	LCV	5	99	20	7
Average	Other	Unknown	154	n/a	11
Peak	Total	30	5,795	n/a	414
Average	Total	26.5	4,102	n/a	293

* Day of highest combined energy consumption across all vehicles in category **based on max battery capacity

^ based on peak use for all vehicles happening on same day

The hypothetical maximum daily energy demand using this method at Caenby Corner is 5,795 kWh. It is based on all vehicle categories having peak energy consumption on the same day and as such is far higher than any possible worst-case scenario. In these circumstances an electric vehicle fleet would demand 414 kVA of energy capacity to charge over 14 hours, providing charger output is connected and controlled by a smart facility. This also assumes all vehicles would need to be fully charged following a 'worst-case' day.

Average figures are 4,102kWh in a day, which would equate to an additional energy demand of 293kVA, which is only marginally more than the 240kVa availability.

The 414kVa peak figure is based on all vehicles having their peak activity on the same day and would far exceed a worst-case scenario for a fully electric fleet; this would include vehicles for which there are not yet suitable BEV replacements. The actual maximum demand may be closer to the average than the peak due to peak activity not occurring in all vehicles at the same time. In the short term the current grid connection will suffice for most of the demand that will arise over the next few years, providing charging is managed and the right kind of chargers are specified. Actions such as charging small vans overnight on 22kW chargers must be avoided, with these higher capacities, instead reserved for eRCVs. Charging vehicles in the day (when free) would assist in this process and battery storage could be installed to enable greater overnight charging capacity, utilising solar PV in the summer and (primarily) grid power in the winter.

11.5 Charging a fully electric fleet at Caenby Corner

The lack of sufficient spare capacity within a grid connection can sometimes provide a significant obstacle to fleet electrification and could require careful storage and redistribution of every potential kWh to minimise grid re-enforcement implications. However, the risk for WLDC is low as there is currently a lot of spare capacity within the grid connection, that will provide for a significant proportion of the future needs of an electric fleet.

The substation that is local to the depot is operated by Northern Powergrid. This is classified as amber, so appears to have some spare capacity. WLDC could consider a small increase in grid connection size (circa 100kVa) to ensure sufficient future supply for a fully electric fleet. This may be a relatively cheap option, and as such worth implementing as soon as possible to minimise the risk of it not being available later. However, this may not be necessary if enough self-generation is put in place to deliver all the additional energy required beyond the capacity of the existing grid connection.

If upgrading the grid connection, consideration should also be given to future non-fleet demands for power (such as that created by a transition to heat pumps), and allowances made for any likely fleet expansion. It is generally more cost effective to avoid multiple upgrades, and rather make provision for all likely future development at an early stage in the transition.

If approaching Northern Powergrid, the local distribution network operator (DNO) for the upgrade, then there would be a monthly cost for each additional kVA capacity that is obtained, in line with what is paid for existing capacity, and there may be a one-off infrastructure upgrade cost, depending on what is physically needed to achieve a larger connection.

It is possible to secure capacity and avoid monthly charges by arranging grid upgrades through an independent distribution network operator (iDNO). In this case, capacity can be secured in advance without the monthly charge, due to a differing legislative framework. These factors should be considered in costing any upgrade. Quite often, suppliers will offer a package of grid upgrade, charging infrastructure installation and finance, if desired.

11.6 Meeting extra capacity needs through other sources

As an alternative to a larger grid connection, it may be possible to meet the additional needs through different methods of generation, storage or procurement of energy. This can also off-set the need to use grid electricity that is already available, providing a lower emission, cheaper alternative.

On-site Solar Photovoltaic (PV) generation at Caenby Corner

There are currently onsite solar PV panels covering the depot roof as shown in Figure 11-2. Whilst no details were provided on peak generation capacity, it would appear to be sufficient for all current site daytime needs, when the sun is shining from May to September. It appears that this could be at least 20-25kW in summer, when compared with peaks within the half hourly data. Generation is highly concentrated in the months with more daylight and brighter conditions. This is already taken account of within the energy consumption profile in figure 11-1. There is also power generated that is not used, as indicated by 944 half hourly day time segments where no electricity was needed from the grid to power the depot. Unfortunately, this is not at the same time as when most electric vehicles would typically be available to charge, so the only way to harness this low-cost power, would be through battery storage, which would bring its own capital costs. We did not have access to sufficient data to quantify the excess generation taking place.

Figure 11-2 Caenby Corner Depot, showing roof mounted solar PV array



Expansion of solar PV at Caenby Corner

Within the depot compound there is an area of grassed land that should be suitable for solar PV infrastructure (figure 11-3). A more detailed assessment of its potential was undertaken as part of this review (shown in Appendix E:).

The generation potential was assessed at around 111kW for this area. Over the course of the year, this would be expected to produce around 107,000 kWh of energy, based on estimated and modelled sunshine hours and intensity.

Whilst this is more than the current 63,300kWh used on this grid connection, it is only likely to be around 11% of that which is required by a future fully electric fleet and except for late spring and summer evenings, it will be delivered at a time when the fleet cannot benefit directly. Because of the size of the existing grid connection, exporting surplus energy will be possible from this without major delay. Current rates may be between 5p and 15p per kWh, so it would represent much better value to use as much of this power as possible for charging the fleet. This could be achieved by installing battery storage, but this is capital intensive, with approximate costs expected at around £150 per kWh of battery storage. To assess financial viability, the expenditure on electricity that this approach saves would need to exceed the cost of a battery over the whole life of that battery. In the case of WLDC, savings from minimising grid connection size are not likely to be a significant consideration.

A project of this size is likely to be of insufficient scale to be worth selling power to neighbouring businesses.

Figure 11-3 Location and layout of potential solar PV expansion



Development of solar PV adjacent to Caenby Corner Depot

While evaluating the Caenby Corner site for solar capacity, it became apparent that adjacent land (formerly the Caenby Corner Raceway) is for sale for around £100,000. This land has substantial potential for generating electricity, should it be developed using solar PV.

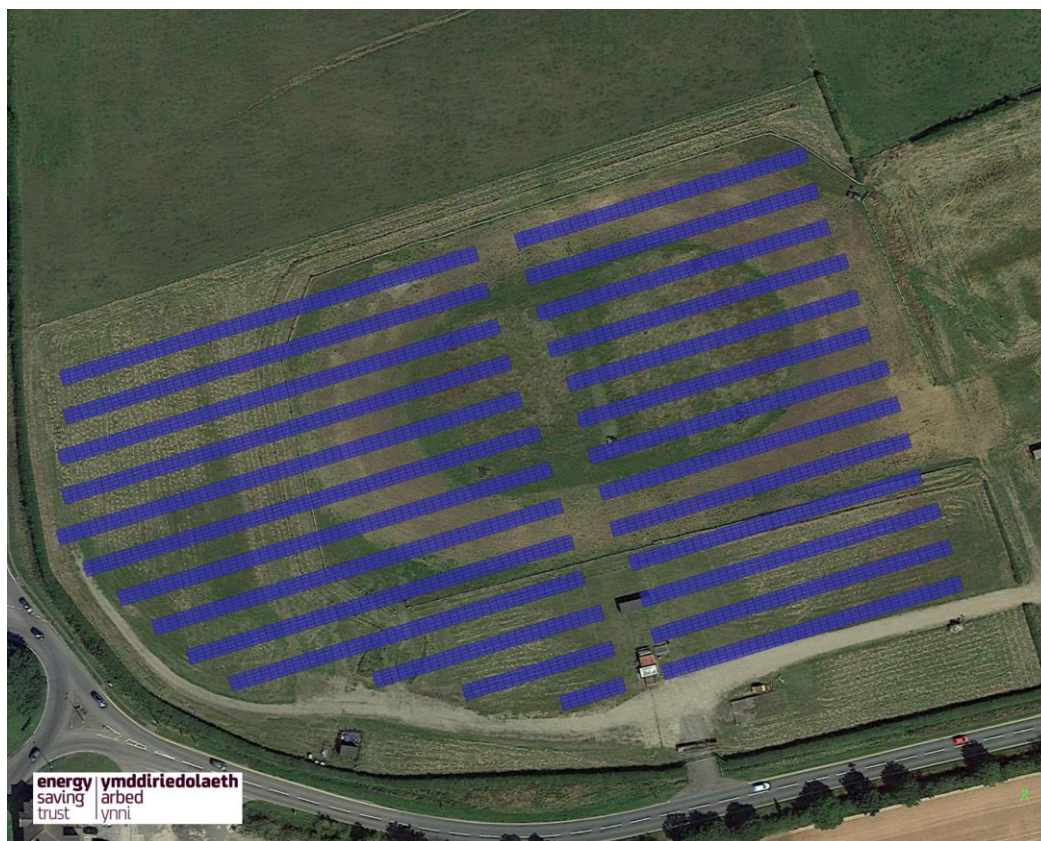
At the request of WLDC we have also assessed this site for its potential solar generation capacity (area shown in figure 11-4). Details are shown in Appendix F:.

This is a much larger area and so could have a generation capacity of 2.47MW, which would generate an estimated 2.362GWh of electricity during a year. This would be nearly two and a half times the requirement of a fully electric fleet.

For this development to be viable, it would be essential to export the majority of the energy – therefore we recommend that a grid connection request is submitted as soon as possible to establish what is possible and in what time scale. WLDC do not need to own the land to make this enquiry but do need to enquire to ensure it is a possibility.

Financial viability of a project of this size would be significantly enhanced if agreements to sell energy to businesses in the immediate vicinity can be achieved. It would also appear necessary to store some of this energy in batteries to assist with fleet recharging. This would be a substantial investment, but one that with the right agreements to sell the energy, would deliver a significant financial return in the mid to long term.

Figure 11-4 Potential layout of adjacent solar PV generation



The potential for wind power

[The Central Lincolnshire Local Plan](#) (adopted April 2023) states that “proposals for a small to medium single wind turbine...are in principle supported throughout Central Lincolnshire...” (page 45). This is subject to suitable scale, siting and design, no impact on aviation, navigation and acceptable impacts on the amenity of sensitive neighbouring uses.

The exposed nature of the depot suggests that this may be a productive location for a wind turbine, although we recommend that this is measured by a wind speed monitor for a year before installation, to check and ensure benefits are worthwhile and quantifiable. It is possible to find companies that offer free of charge feasibility studies to research local wind speeds.

One of the key benefits of a wind turbine is that it will generate electricity at times when the solar PV is unable to, such as after dark and in the winter months. Any power generated when the fleet is back in the compound and charging would offset grid electricity, at a lower cost and at zero emissions. This would also contribute to reducing the need for a larger grid connection.

Taking the example of a 50kW wind turbine that is 25m tall to the hub, and using a pessimistic capacity factor of 20%, we could expect an annual generation of 87,000kWh a year. If, as quoted by some manufacturers, a turbine has a 20-year life, return on investment will be delivered in the first half of the projects life. This will depend on (1) how much the cost of the turbine and project is, and (2) how much WLDC grid energy consumption can be offset and (3) the price achievable by exporting excess energy. WLDC should thoroughly investigate and consider a project of this nature.

Energy from biogas generated from food waste

There is a significant biogas facility in Hemswell, which uses food waste and anaerobic digestion processes to produce an effectively zero emission source of energy.

Whilst gas-powered vehicles have already been discussed in Section 5.2 and do not seem viable for use in this fleet, the most likely potential application for biogas within this fleet is through power generation to charge electric vehicles.

Where biogas is burned to generate electricity, it is an efficient process. If this electricity is used to charge BEVs, not only is it being used in another efficient process, it also means these vehicles can be operated at zero GHG emissions.

The main issue faced in using this source of electricity is how to transport it from where it is generated to the depot (or the fleet). A private wire arrangement would be likely to require overhead cables to reach the depot. This is a distance of 2.5km ‘as the crow flies’ but would need to be further depending on how much extra distance would be needed to achieve an acceptable route (assuming this was achievable, and permission could be achieved). Based on a hypothetical cost of £150 a metre, derived from similar projects, this could cost over £400,000 to install. (Burying cables would cost several times more than this). This would require a very low base cost of electricity, guaranteed for a significant amount of time, to achieve any kind of financial return.

As such, it appears that unless there is an option to cost effectively rapid charge vehicles on the AD site, this option may prove costly. If regular rapid charging on this site is an option that can be worked to fit in with some vehicles operating patterns or, if a small number of vehicles could charge overnight in this location under an operationally suitable arrangement, savings could be achievable and the need for any additional grid capacity at the Caenby Corner depot would be prevented or at least diminished.

It may still be possible to buy this electricity directly from the supplier through a process called a ‘sleeved power purchase agreement’ (or PPA), but transmission would be through the grid, which would attract its own cost and this would not make any contribution to increasing the size of the depot grid connection. Prices can be agreed and fixed for long periods with this arrangement, which has both potential advantages and disadvantages for the purchaser. Zero emission electricity is effectively being purchased by this method, so greater carbon emissions savings can be reported.

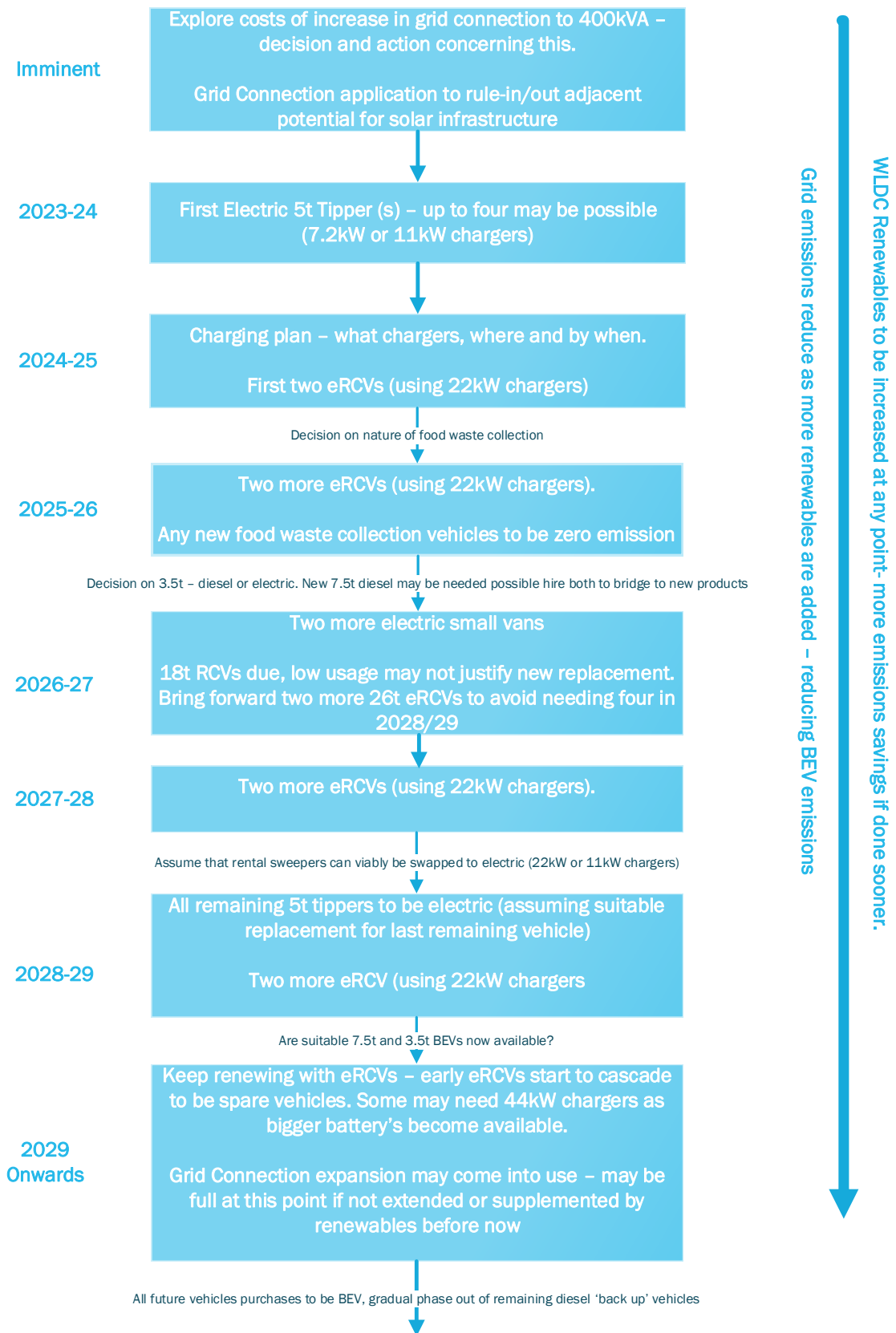
11.7 EVCI Summary

WLDC have substantial headroom within the current grid connection, that with linked smart charging and specification of 22kW AC chargers for RCVs and smaller 11kW, 7.2kW or 3.5kW AC chargers for smaller vehicles, could enable the successful transition of much of the current fleet to BEV. If higher output DC chargers are specified, the connection will be insufficient and only limited benefits realised. It is therefore important that all infrastructure is purchased with due consideration of a vehicle (or fleet sector’s) availability to charge over a long period, and adjusted to the lowest output that could achieve a full recharge.

However, in the longer term there may be the need for an additional 100kVa grid connection size to achieve reliable power for a fully electric fleet. A simple, low risk way to secure this would be to extend the size of the grid connection now while there is still opportunity and capacity available at the local substation. However, if WLDC are planning to invest in more renewables or energy storage, this could ultimately prove to be unnecessary. The issue will be that if the decision to make a grid connection increase is made at a significantly later date, the substation might not have any spare capacity and the upgrade could become a significant obstacle to the final stages of fleet electrification.

WLDC should form a strategy for achieving the future energy supply and make an early decision on increasing grid connection size. Assessing and understanding the cost of increasing the connection to around 400kVa (or more) could be a key driving factor in the decision, which, whilst removing risk would not prevent other developments described in Section 11.6.

12. Decarbonisation road map



Appendix A: Glossary of terms

Abbreviation	Meaning
BEV	Battery-electric Vehicle
CAZ	Clean Air Zone (England and Wales, excluding London)
CCC	UK Committee on Climate Change
CNG	Compressed Natural Gas - methane (CH ₄)
DBEIS/BEIS	(Department for) Business, Energy and Industrial Strategy
Defra	Department for Environment Food and Rural Affairs
DVLA	Driver and Vehicle Licencing Agency
DVSA	Driver and Vehicle Standards Agency
EV	Electric Vehicle - usually battery-powered (BEV)
GHG	Greenhouse Gas - in transport usually CO ₂ , CH ₄ and N ₂ O
GVW	Gross Vehicle Weight – Replace by MAM
GWP	Global Warming Potential
H2FC	Hydrogen (H ₂) Fuel Cell
HCV	Heavy Commercial Vehicle – also known as HGV – over 3.5t MAM
HGV	Heavy Goods Vehicle – also known as HCV – over 3.5t MAM
ICE	Internal Combustion Engine – Petrol/Diesel/Gas
LCV	Light Commercial Vehicle – Van – up to 3.5t MAM
LNG	Liquid Natural Gas – methane (CH ₄)
MAM	Maximum Authorised Mass – replaces GVW Gross Vehicle Weight.
NAEI	National Atmospheric Emissions Inventory – Transport Factors
NCAP	New Car Assessment Programme - Safety
NEDC	New European Driving Cycle (now replaced by WLTP)
NG	Natural Gas – methane (CH ₄)
OEM	Original Equipment Manufacturer, e.g. Ford, Nissan, Toyota etc.
OZEV	Office of Zero Emission Vehicles
PHEV	Plug-in Hybrid Electric Vehicle
PM	Particulate Matter – associated with wide range of human illness
RDE	Real Driving Emissions (RDE1 and RDE2)
t	Tonnes
TTW	Tank to Wheel
ULEV	Ultra-Low Emission Vehicle
ULEZ	Ultra-Low Emission Zone (London only)
V2G	Vehicle to Grid – Technical Guidance (UK Power Networks)
VCA	Vehicle Certification Agency
VED	Vehicle Excise Duty – also called Vehicle Tax.
VRM	Vehicle Registration Mark
WLC	Whole Life Cost
WLTP	Worldwide Harmonised Light Vehicle Test Procedure
WRI	World Resources Institute – GHG Protocol
WTT	Well to Tank
WTW	Well to Wheel
ZEZ	Zero Emission Zone (TfL and Mayor of London Guidance)

Appendix B: Introduction to electric vehicle charging infrastructure

Charging an electric vehicle fleet

With the exception of emergency services and 24/7 delivery vehicles, most fleets of electric vehicles can be fully recharged overnight or during other periods of inactivity. If the electric vehicle has been matched to the service being delivered, it should, if fully charged, be able to complete its normal working day without top-up charging. There are high mileage services that offer frequent top-up charging opportunities – for example, an inter-site delivery or minibuss service – but these are a special case. It is also possible to consider a split shift service where a rapid-charger top-up to 80% battery capacity during the day would enable a second shift to operate. These are special cases and the business case for each needs to be considered separately.

AC or DC charging and Smart Management

There are two basic types of charging infrastructure: AC (Alternating Current) and DC (Direct Current). An AC charger relies on the vehicle's "on-board" charge management system to convert the AC to DC and ensure that the battery is not damaged during charging. This is the simplest type of charger. The output of AC charging systems ranges from 3.7kW (240 Volt, 16 Amp, single phase) up to 44 kW (400 Volt, 60 Amp, three phase) but are usually 7.4 kW (240 Volt, 32 Amp, single phase) or 22 kW (400 Volt, 32 Amp, three phase).

Limited information is exchanged between the vehicle and the AC charger, as the "on-board" hardware and software is managing the charging process. As a result, the AC charger does not know the State of Charge (SoC) of the battery or the battery capacity. That will change when the [Open Smart Charging Protocol](#) is widely adopted by both vehicle manufacturers and charge point suppliers but until then, AC systems cannot use information about the vehicle's State of Charge (SoC) and battery size (kWh) to develop an optimal strategy.

DC charging systems deliver the power directly to the batteries and bypass the vehicle's AC/DC on-board charge management system. To do this safely and without damaging the expensive batteries, the DC charge point must communicate with the vehicle's battery management system and understand the size of the battery as well as its SoC. DC chargers are, therefore, a lot "smarter" and management of DC charging can be more sophisticated as the charge management software knows the SoC and battery size of connected vehicles.

ABB has announced a 350 kW "Terra" rapid charger which, in theory, could provide a compatible electric car with about 100 miles of range in five minutes and it is unlikely that DC charging technology will stop at 350 kW. Tesla are known to have ambitions for much higher charging rates, their fastest V3 "Superchargers" are 250 kW and are connected to a 1MW power cabinet, they reduce Tesla charge times by 50% - so fast that some Tesla owners have complained they do not get a long enough break after three or four hours driving. A Tesla V4 Supercharger is under development and the company is understood to be considering 1MW for their Tesla Semi truck.

One way of making both the AC and DC system 'smarter' is to require the driver to enter all the information needed by the charging system, either through a smart phone app or on the charger itself. The BEV charging infrastructure at [CalTech](#), California, is an experimental system that requires the driver to enter the vehicle's details (this includes battery size) the current SoC of the battery and the time when the vehicle is required to be 100% charged. This information is then processed through an optimisation algorithm to minimise the electricity demand and carbon impact, while still meeting the user's requirements – the system is known as an Adaptive Charging Network (ACN). It is not commercially available yet and the optimisation algorithms are still subject to refinement but have been published as open source code.

In the short term, the closest we can get to the perfect charging system may require the integration of on-board vehicle telematics with a vehicle identification system in the charge point. The telematics can report the SoC and battery capacity to the charge management system and the charging post can report which vehicle is plugged in, either by using a contactless RFID Card or automatic number plate recognition (ANPR) camera.

A charging strategy must also consider the non-linear nature of the process. If a vehicle returns to a 7.4kW charger needing 74 kWh of energy to replenish its battery, it will take longer than 10 hours to fully recharge it. When a battery is fully depleted, there is little internal resistance to the flow of current (Amps) and so energy can be quickly transferred to the battery but as it reaches 80%-90% SoC, the internal resistance increases, and the charging system has to increase the voltage to maintain the current. However, there is a maximum voltage above which damage to the battery will occur. When that voltage is reached, the flow of energy to the battery (Amps) falls and the battery charge rate diminishes. Because of this, the vehicle that returns to a 7.4kW charger requiring 74 kWh of energy may take 12 hours to fully recharge.

Number of charge points

Our expectation is that every vehicle requiring overnight charging will have its own parking bay and charge point as this allows the charging load to be spread throughout the evening making maximum use of the site import capacity. The alternative is to have some sort of charging rota for drivers or to have someone on site, overnight, whose job it is to move the vehicles from parking bays to charge point bays. Rota systems are prone to user error and a failure to plug in on the allotted evening would mean the vehicle may not be available for use the following day.

To have someone moving the vehicles to charging bays throughout the evening would require the charging system to know the SoC of the fleet and calculate the order in which vehicles should be presented for charging. There would also need to be spare capacity to cope with vehicles returning with a lower SoC than expected.

There is the option of using rapid DC chargers like a conventional fuel pump, but this could result in queuing and long delays without careful time management as a full charge could still take over 20 minutes. In the future, it may be possible to charge new battery technologies more quickly and fully recharge a vehicle in 5-10 minutes from a powerful DC charger; that technology is not available on the current generation of vehicles but will have a role if a rapid top-up is required during the working day.

A further benefit of have one charger per vehicle is the ability to use “pre-conditioning”. This is the term given to either heating/defrosting (winter) or cooling (summer) the vehicle while it is still attached to the power supply and just prior to it entering service. Typically, pre-conditioning can be configured to turn on 30 minutes before the vehicle is normally required and it can also be initiated from a phone application. Using this feature means the vehicle starts the day at the right temperature and with a 100% SoC and battery capacity is not used defrosting the windows or cooling down the driver’s compartment.

Charging cars and commercials up to 3.5 tonnes

For vehicles with battery sizes up to 75 kWh, a 12-hour charging window usually provides enough time in which to recharge the battery from a fully depleted SoC (only 10% residual charge in the battery) using a basic 7.4 kW charger. Almost all the vans up to 3.1 tonnes GVW have battery options under 75 kWh, as do cars with a single charge range of less than 240 miles. Only cars and vans specified with a greater range or load carrying capability and therefore larger 100 kWh batteries, may need longer than 12 hours to fully recharge at 7.4 kW from 10% SoC.

On many sites, 7.4 kW charging can use the site’s unused capacity to charge a small fleet of cars and vans, without the need for complex charger management. As long as the combined demand of all the chargers operating simultaneously does not exceed the available capacity, there is no requirement for smart charger management.

A simple domestic 7.4 kW AC charger can be purchased from hardware stores for under £400 and installed by a competent electrician. The most sophisticated 7.4 kW charge points with card scanner, GPRS network connection, management software and full barrier protection cost about £1,700 for a two-port pillar. A further £1,000 for specialist installation, management software, billing systems, commissioning, and on-site support should be added to this, with about £250 of that cost being an annual expense. These costs can escalate if a lot of groundwork is required, or if the system requires local grid infrastructure to be upgraded.

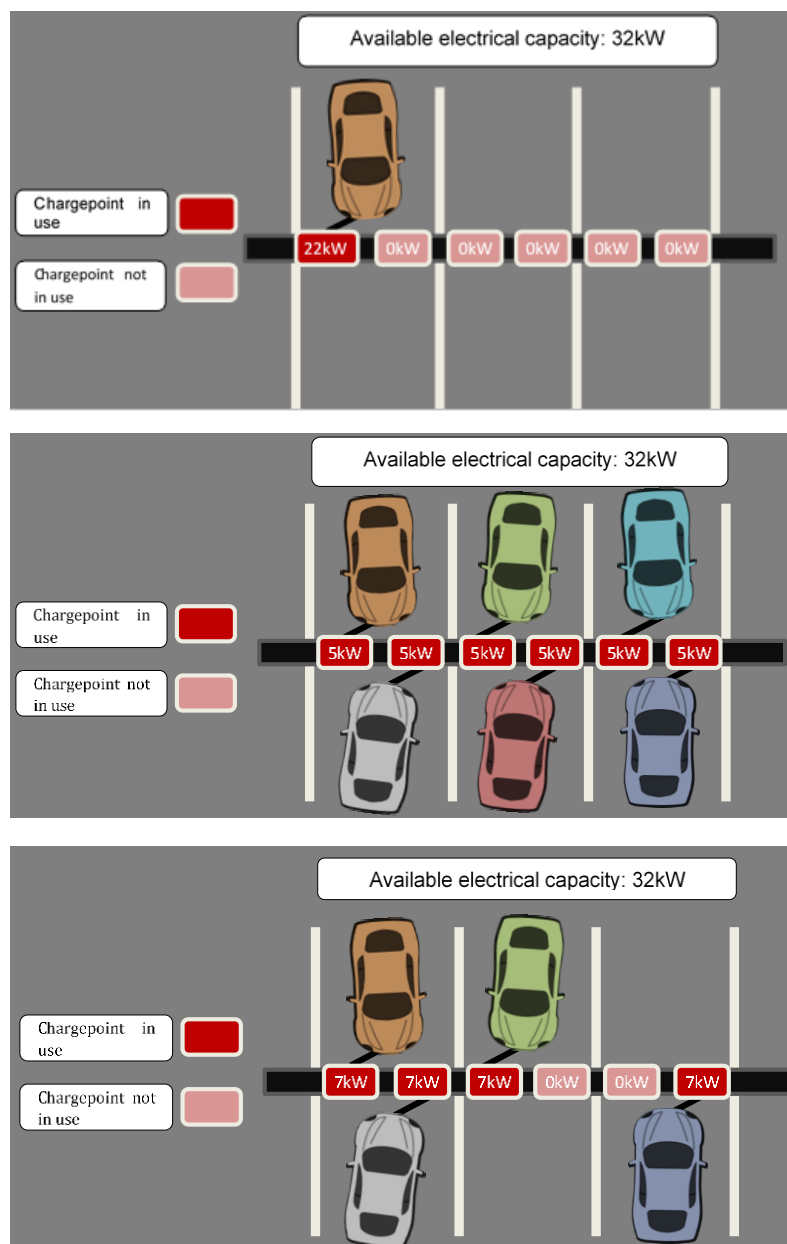
Load Management

Load management offers a potential solution for multiple charge points to be operated without exceeding the maximum power capacity of a site. It can be achieved through dynamic power management to charge points, reducing the speed of charge as necessary to moderate total electrical demand, striking a balance between the number and the speed of charge points.

Load management systems can also be configured to limit the proportion of a site’s total energy supply that BEV charge points can use, again to prevent exceeding the total site capacity. Moreover, load management technology can avoid or minimise costly upgrades to the electrical supply.

The principle of load management is that when a charge point is being used, the vehicle is charged at the fastest speed permitted by the charge point and vehicle in question. When several charge points are being used, the speed being delivered to each can be reduced. The following diagrams illustrate the principle.

Figure C-1: Load management charging infrastructure



Charge point systems with features such as remote access, back office integration and load management also help to manage the BEV fleet. This may include the ability to remotely control the charge points (to end a charging session, for example) and to monitor the usage of the infrastructure on site.

The end-user can be identified through an RFID card or user app which allows the amount of electricity used by each vehicle to be measured, individual vehicle and driver efficiencies to be determined and allocated to cost centres

Charging heavy commercial vehicles (from over 3.5 tonnes to over 30 tonnes)

Heavy commercial vehicles, with very large batteries need a more powerful charging infrastructure if they are to recharge in time for work the following day. This can be 22/44 kW three-phase AC (400V, 32/60A) units which can be doubled up (two per vehicle), or more sophisticated 50-150 kW DC chargers. Some large buses with 385 kWh battery packs use 2 x 44kW AC chargers. These high-power AC and DC systems require a much greater investment in the electricity supply infrastructure and the technology of DC rapid charging is advancing quickly, so DC chargers are much more likely to become obsolete or require upgrading in the future.

The cost of DC infrastructure starts at about £12,000 per unit and increases with DC capacity – some systems cost over £30,000 each. To that can be added significant cabling costs and sometimes grid infrastructure upgrades, if the site does not already have a very good electricity supply.

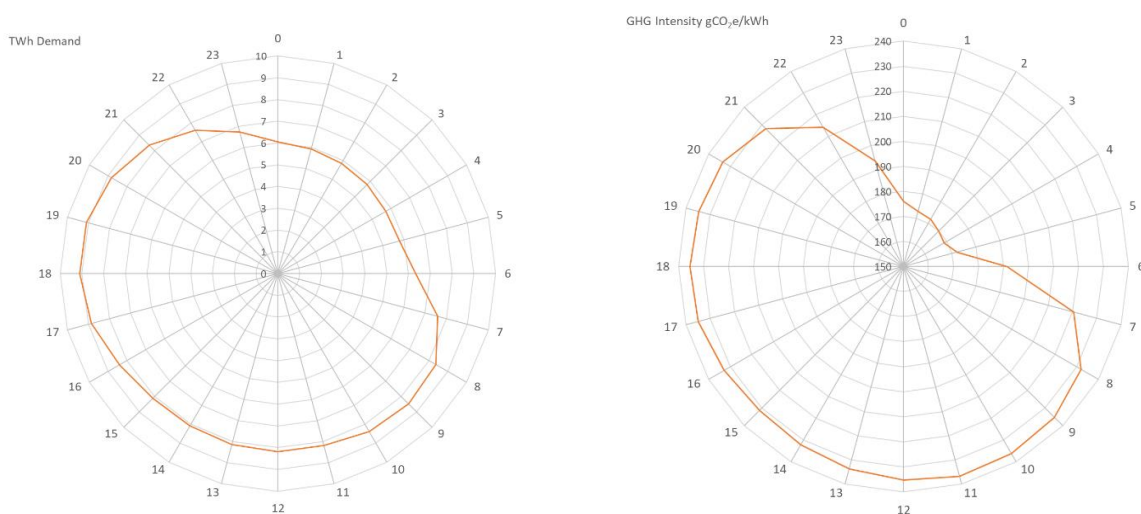
It is very likely that large parts of the charging infrastructure, and in particular the expensive cabling and groundworks, will outlive the first generation of electric vehicles. It is also very unusual to include the cost of the onsite bulk diesel tanks, fuel dispensing system, fuel monitoring software, and the annual maintenance of the fuel system in the whole life cost model of a diesel vehicle.

Getting the timing right

Ideally, vehicles should be charged overnight to avoid the demand from large-scale BEV charging negatively impacting the grid. During the working week, from 06:00 to 23:00 hrs, demand on the UK Grid is at its maximum and grid GHG emission intensity (kgCO₂e/kWh) may be high due to the use of fossil-fuel based generation to meet demand.

However, avoiding the peak entirely leaves a very narrow window of seven hours in which to charge vehicles. The reduction in GHG emissions from avoiding the higher “daytime” intensity is only 10%-15% over the entire charging period and in terms of tonnes of GHG rather than percentage this will diminish in importance as the grid decarbonises.

Figure C-2: Variation in energy demand (TWh) and GHG intensity (gCO₂e/kWh) during the working day (2019).



Note the above chart of GHG intensity has an axis from 150 to 240 gCO₂e/kWh

During the summer months, on-site PV generation can be used during the late afternoon and early evening to charge vehicles at a time when the “domestic” site load is falling. Using the PV to displace grid import will have a significant cost saving and GHG emission reduction.

Some organisations have addressed site capacity by installing battery storage that can store any unused capacity during the day and then charge the vehicles at night.

Getting the tariff right

When implementing an electric vehicle fleet, it is essential to negotiate low off-peak tariffs for electricity at all sites where the electric vehicles are based. This may mean a new tariff structure as the highest demand may have shifted from daytime to off-peak use.

There is an increasing range of innovative tariffs in the domestic sector aimed at owners of electric cars as well as households with “power walls” and at least one of these – Agile Octopus – includes negative tariffs. During the first nine months of 2020 there were 80 hours of negative electricity pricing in the UK. The domestic Octopus Go tariff charges £0.05/kWh from 00:30 to 04:30 hours because it makes use of surplus generation. With many more large battery electric vehicle fleets on the grid the need for “curtailment” of wind generation could be significantly reduced or eliminated.

It is anticipated that innovative tariffs will become available in the commercial sector as the BEV charging market grows. The National Grid Electricity System Operator (ESO), working with partners, has already developed and published an open system called the “Carbon Intensity API” which makes available the predicted carbon intensity of the grid up to two days in advance in half hour periods.

In the future this forecast could be used to adjust the price paid for electricity by lowering the cost (£/kWh) when renewable generation is high (carbon intensity low) or curtailment of wind generation may occur and increasing the cost when fossil fuel generation is high (carbon intensity high). This has the aim of modifying customer behaviour as well as being used to directly manage the activity of “smart” appliances which could include electric vehicle charging systems. The objective would be to eliminate curtailment of wind generation and match demand to supply throughout the day.

Overcoming capacity issues

An issue at some depots is the lack of local grid capacity and, as indicated earlier, the upgrade of the local grid to provide the significant additional capacity required can be very expensive. On sites with inadequate capacity there may be another local substation with spare capacity that can be accessed. In the first instance the local Distribution Network Operator (DNO) should be contacted but they may not be able to offer an affordable solution.

Alternatives to DNO capacity upgrades include the use of on-site renewable generation coupled with battery storage or just the use of battery storage to absorb any spare capacity during the day and then feed it back into the vehicles overnight combining stored energy with site capacity. This is the solution that has been implemented at the bus company Stagecoach's Guildford Depot by Zenobe Energy.

Figure C-3: Tesla Powerpack (78 units) installed at Stagecoach's Guildford Dept



The Tesla Powerpacks charge during the day when the depot is empty and then discharge at night into the bus fleet. According to Zenobe, owner and supplier of the pack as well as the charging infrastructure, the system was installed more quickly than the grid upgrade required at the site and at a lower cost. It also has the advantage that it can be moved to another site if Stagecoach no longer have access to the depot.

There are Independent DNOs (IDNOs) in the market such as Vattenfall and Octopus/Eclipse Power and these may also offer innovative and affordable grid reinforcement or upgrade options including integration of PV canopies and battery storage with the grid upgrade and charging systems.

Some of the heavy goods vehicle manufacturers (for example Volvo) are entering into partnership with energy providers to offer a “turn-key” solution which includes installing the charging infrastructure, refurbishing, or recycling of the vehicles at their end of life and repurposing, or recycling of the batteries.

Appendix C: UK Grid 2014 to 2030

There are several organisations attempting to predict future carbon intensity of the grid, and these are often updated during the year to reflect changes in policy or grid performance.

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- The BEIS GHG Scope 2 Factor for the year, which is about two years behind real-time emissions because of the verification process. This is used for GHG reporting.
- The real time performance of the grid, in year (or year to date) as calculated from the Elexon data set.
- The Committee on Climate Change (CCC) and BEIS projections (Updated October 2021).
- The average of the CCC and BEIS data sets.
- The HM Treasury Green Book – Central Non-Traded Cost of Carbon Emissions (BEIS 2021).

Table C-1: UK Grid future carbon intensity – BEIS Factors, Actual (Elexon), CCC and BEIS Predictions

Year	BEIS GHG Scope 2 Factor	Year on Year Change	Actual in year from <u>Elexon Portal</u>	CCC Balanced Pathway 6th Budget	BEIS 2021 (Table 1)"	CCC - BEIS Average	Central Carbon Value (BEIS 2021)
2014	494.26		415.7				
2015	462.19	-6%	364.2				
2016	412.04	-11%	277.1	269.0	287.6	278	
2017	351.56	-15%	247.1	240.0	257.0	248	
2018	283.07	-19%	227.8	219.0	238.8	229	
2019	255.60	-10%	204.3	193.0	212.9	203	
2020	233.14	-9%	184.4	153.0	159.4	156	£241
2021	212.33	-9%	184.9	151.0	148.7	150	£245
2022	193.52			148.4	138.9	144	£248
2023	176.32			134.5	133.3	134	£252
2024	160.67			135.4	145.4	140	£256
2025	146.40			125.2	123.0	124	£260
2026	133.40			93.3	90.7	92	£264
2027	121.56			74.8	75.0	75	£268
2028	110.76			64.6	69.4	67	£272
2029	100.93			58.1	65.0	62	£276
2030	91.96			46.1	51.6	49	£280
2031	83.80			37.1	40.8	39	£285
2032	76.36			26.5	35.3	31	£289
This data is available from CCC and BEIS until 2050							

When calculating the future emissions of a BEV fleet, it is important to use these predictions, to ensure the potential GHG reduction from the switch to electric power, is fully assessed.

These figures do not take account of the most recent [British Energy Security Strategy \(April 2022\)](#) which envisages a significantly faster growth in off-shore wind, raising the target for 2030 from 40GW to 50GW, which may result in even lower average grid emissions by 2030.

Appendix D: Whole Life Cost (WLC) in practice

Calculating the WLC is straightforward, but it becomes complicated when you try to include the treatment of interest on capital and taxes. These vary and are outside the scope of this report; you should consult with your finance team about how to handle the capital deployed and whether there is a preference for purchase or lease. Similarly, VAT is handled differently in the private and public sectors and even between similar public sector bodies – our costings always exclude VAT.

The following factors need to be considered in a WLC model. The (L) indicates when a factor is usually included in a lease agreement and does not have to be considered separately.

Purchase price (L): Most large organisations will be able to obtain a discount, especially if committing to the purchase of several vehicles, or purchasing from one manufacturer for a period.

OZEV grant (L): [OZEV](#) offers grants to encourage the take-up of ZEVs. This is accessed by the manufacturer or dealer and will have been deducted from the final price at the point of sale.

Residual value (L): This represents the value of the vehicle at the end of its operational life. The difference between the initial purchase cost and the residual value is known as depreciation. It will vary significantly depending on vehicle type, age, and final condition. Some vehicle types are fully amortised over their operational life and any residual value is treated as a disposal surplus.

With BEVs, the batteries will have a value at the end of the vehicle's life and can be refurbished and reused in energy storage arrays; you might want to consider valuing the batteries separately.

Servicing, Maintenance, Repair (SMR) and Tyre Costs (L): Several organisations can provide a forecast of SMR and tyre costs. However, these are usually limited to four or five-year budgets. If you are planning to keep a vehicle for eight or ten years, you will need to base this cost on your experience, or past fleet records.

Vehicle Excise Duty (VED) (L): This is the annual road use charge; for new cars it is linked to OEM published carbon emissions in the first year but is then a flat rate. VED for zero emission vehicles is currently fixed at zero.

Fleet Management Charge: Many fleet operations include an internal management fee to cover day-to-day management of the vehicle including organising servicing, breakdown cover, fuel cards, driver training and other support services. For some this is a flat rate, but others vary the rate depending on the category of vehicle. This may also include the cost of any additional telemetry installed on the vehicle and the data connection charges.

Insurance: Corporate insurance rarely takes account of the risk of individual vehicles or drivers; instead, it applies a fixed charge for the whole fleet, and will usually reflect previous claims history. How this is apportioned varies but there is merit in linking the charge to the past claims record of the department using the vehicle, so good driving is rewarded and managers are incentivised to act on bad driving.

CAZ/LEZ/ULEZ charges: While ICE diesel vehicles that meet the Euro 6/VI standard currently get charge-free access to clean air zones, this may not be true over their entire operational life. Several towns and cities are considering zero emission zones (ZEZ) and the London ultra-low emission zone (ULEZ) only guarantees Euro 6/VI diesels charge-free access to the zone until 2025.

Appendix E: Assessment of solar PV potential within depot



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	986.9	
	POA Irradiance	1,110.3	12.5%
	Shaded Irradiance	1,104.5	-0.5%
	Irradiance after Reflection	1,059.7	-4.1%
	Irradiance after Soiling	1,038.5	-2.0%
	Total Collector Irradiance	1,038.5	0.0%
Energy (kWh)	Nameplate	116,025.8	
	Output at Irradiance Levels	114,430.4	-1.4%
	Output at Cell Temperature Derate	114,270.6	-0.1%
	Output After Mismatch	110,014.2	-3.7%
	Optimal DC Output	109,765.3	-0.2%
	Constrained DC Output	109,742.5	0.0%
	Inverter Output	107,657.4	-1.9%
	Energy to Grid	107,119.1	-0.5%
Temperature Metrics			
	Avg. Operating Ambient Temp		12.6 °C
	Avg. Operating Cell Temp		18.0 °C
Simulation Metrics			
	Operating Hours		4595
	Solved Hours		4595

☁ Condition Set												
Description	Condition Set 1											
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)											
Solar Angle Location	Meteo Lat/Lng											
Transposition Model	Perez Model											
Temperature Model	Sandia Model											
Temperature Model Parameters	Rack Type	a	b	Temperature Delta								
	Fixed Tilt	-3.56	-0.075	3°C								
	Flush Mount	-2.81	-0.0455	0°C								
	East-West	-3.56	-0.075	3°C								
	Carport	-3.56	-0.075	3°C								
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2	2	2	2	2	2	2	2	2	2	2	2
Irradiation Variance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	0.50%											
Module Characterizations	Module	Uploaded By					Characterization					
	Q-PEAK DUO XL-G11.2 570 (Hanwha Q Cells)	HelioScope					Spec Sheet Characterization, PAN					
Component Characterizations	Device	Uploaded By					Characterization					
	Sunny Central SC 400 LV-11 (SMA)	HelioScope					Default Characterization					
	STP 25000TL-30 (SMA)	HelioScope					Spec Sheet Efficiency					

📦 Components		
Component	Name	Count
Inverters	STP 25000TL-30 (SMA)	4 (100.0 kW)
Strings	10 AWG (Copper)	12 (261.3 m)
Module	Hanwha Q Cells, Q-PEAK DUO XL-G11.2 570 (570W)	196 (111.7 kW)

🔌 Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	-	Along Racking
Wiring Zone 2	-	9-17	Along Racking

🏠 Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 2	Fixed Tilt	Landscape (Horizontal)	15°	163.22348°	7.4 m	4x1	49	196	111.7 kW

Appendix F:Assessment of solar PV potential of adjacent land



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	986.9	
	POA Irradiance	1,110.3	12.5%
	Shaded Irradiance	1,101.6	-0.8%
	Irradiance after Reflection	1,057.3	-4.0%
	Irradiance after Soiling	1,036.2	-2.0%
	Total Collector Irradiance	1,036.2	0.0%
Energy (kWh)	Nameplate	2,556,114.4	
	Output at Irradiance Levels	2,520,850.2	-1.4%
	Output at Cell Temperature Derate	2,517,388.1	-0.1%
	Output After Mismatch	2,436,651.4	-3.2%
	Optimal DC Output	2,420,049.4	-0.7%
	Constrained DC Output	2,419,543.6	0.0%
	Inverter Output	2,374,115.8	-1.9%
	Energy to Grid	2,362,245.0	-0.5%
Temperature Metrics			
Avg. Operating Ambient Temp		12.6 °C	
Avg. Operating Cell Temp		18.0 °C	
Simulation Metrics			
		Operating Hours	4595
		Solved Hours	4595

☁ Condition Set												
Description	Condition Set 1											
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)											
Solar Angle Location	Meteo Lat/Lng											
Transposition Model	Perez Model											
Temperature Model	Sandia Model											
Temperature Model Parameters	Rack Type	a	b	Temperature Delta								
	Fixed Tilt	-3.56	-0.075	3°C								
	Flush Mount	-2.81	-0.0455	0°C								
	East-West	-3.56	-0.075	3°C								
	Carport	-3.56	-0.075	3°C								
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2	2	2	2	2	2	2	2	2	2	2	2
Irradiation Variance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	0.50%											
Module Characterizations	Module	Uploaded By					Characterization					
	Q.PEAK DUOXL-G11.2 570 (Hanwha Q Cells)	HelioScope					Spec Sheet Characterization, PAN					
Component Characterizations	Device	Uploaded By					Characterization					
	Sunny Central SC 400 LV-11 (SMA)	HelioScope					Default Characterization					

📦 Components		
Component	Name	Count
Inverters	Sunny Central SC 400 LV-11 (SMA)	5 (2.00 MW)
Strings	10 AWG (Copper)	450 (58,279.4 m)
Module	Hanwha Q Cells, Q.PEAK DUO XL-G11.2 570 (570W)	4,328 (2.47 MW)

🔌 Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	7-10	Along Racking

🏠 Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 2	Fixed Tilt	Landscape (Horizontal)	15°	163.22348°	6.8 m	4x1	1,082	4,328	2.47 MW

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Agenda Item 6d



**Corporate Policy &
Resources**

Thursday 18th July 2024

Subject: Food Waste Collections

Report by:	Director of Commercial and Operational Services
Contact Officer:	Robert Gilliot, Operational Services Manager, Darren Mellors, Change, Programme and Performance Manager robert.gilliot@west-lindsey.gov.uk, darren.mellors@west-lindsey.gov.uk
Purpose / Summary:	This report details WLDC's approach to comply with the Food Waste Collection scheme mandated in the Environmental Act 2021 and requests the approval to purchase the vehicles to deliver this service in advance of the deadline.

RECOMMENDATION(S):

1. Allocate £897,060 of capital grant funding to the 2024-25 Capital Programme to purchase vehicles, caddies and bins to deliver the district wide Food Waste Collection scheme.

IMPLICATIONS

Legal: The implementation of the scheme is stipulated in the Environment Act 2021 with financial penalties in place for authorities failing to deliver in alignment with statutory deadlines.

Financial: FIN/42/25/SSC/CPR

Summary of option 2. (more clarification can be found on page 3)

- Vehicles Purchase £670k. Recommendation is to purchase 2024/25.
- Caddies and commercial bins purchase £227.1k. Recommendation is to purchase in 2024/25.
- First year revenue costs for full service starting on 01/04/26 is estimated at £1,022.3K.

To meet the statutory deadlines of the Environment Act 2021 this report asks for approval to spend the capital elements of the scheme in 2024/25 to allow for the procurement of associated Food Waste Collection vehicles and associated caddies. This spend is fully funded by the first funding stream grant of £1,023.2k, which has already been received.

We expect there will be £126k remaining after procurement, which we suggest is moved to the vehicle replacement reserve, to fund future vehicle replacements. However, if this procurement is not made until 2025/26 there is a risk there will be no grant remaining as cost will increase due to inflation, demand, and higher manufacturing costs.

Option 2 - Capital	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Vehicles	£670,000	£0	£0	£0	£0	£0	£670,000
Caddies & Bins	£227,060	£0	£0	£0	£0	£0	£227,060
Contribution to EMR	£0	£126,119	£0	£0	£0	£0	£126,119
Total	£897,060	£126,119	£0	£0	£0	£0	£1,023,179

At this point in time, we have no confirmation that the government will fund transition and on-going revenue costs. This report assumes we will receive 80% contribution to transition costs and 80% contribution to revenue costs but starting in 2026/27.

Option 2 - Revenue costs	2024/25 costs	2025/26 costs	2026/27 costs	2027/28 costs	2028/29 costs	2029/30 costs	Total Costs
Communications	3,800	26,300					30,100
Caddy delivery & Liners	35,800	73,300	29,500	39,500	41,500	41,500	261,100
Staffing		0	756,200	778,200	800,000	826,000	3,160,400
On going vehicle costs	2,300	9,100	110,600	110,600	110,600	110,600	453,800
contribution - vehicle replacement		0	126,000	126,000	126,000	126,000	504,000
Total costs	41,900	108,700	1,022,300	1,054,300	1,078,100	1,104,100	4,409,400
Funding - 80%	(8,000)	(56,000)	(717,000)	(742,600)	(761,700)	(782,500)	(3,067,800)
Funding Gap	33,900	52,700	305,300	311,700	316,400	321,600	1,341,600

This funding gap is estimated at £1,342k even with 80% government funding. This will increase our Medium-Term financial gap to 2029/30 will be £2.8m.

Clarification on costings.

Funding

Grant funding is split into 3 funding streams.

1. Capital transitional funding. £1,023,179 has been received to pay for the purchase of vehicles, caddies and communal bins.
2. Resource transitional funding is due to be confirmed in 2024/25. It has been assumed the grant will cover 80% of the costs.
3. Ongoing resources and revenue costs. Is due to be provided from 01/04/26. It has been assumed the grant will cover 80% of the costs occurred from 01/04/26.

Vehicles

The purchase of the vehicles in option 2 is £670k. This is based on procuring:-

- Five 7.5t food waste vehicles at an estimated cost of £90k each.
- Two 11t food waste vehicles at an estimated cost of £110k each.

The ongoing vehicles costs in option 2 are based on :-

- Insurance which will start if the year of purchase 2024/25 £2.3k for 7 vehicles and £9.1k for each subsequent year.
- Fuel costs per vehicles is estimated at £9.2k for 2024/25 and £48k for each subsequent year.
- Tyres per year is £768 per vehicles. 2025/26 cost is £1.5k for two vehicles and £5.4k for each subsequent year.
- Vehicle Tax per vehicle being operated is £165. 2025/26 is £330 for two vehicles and £1.2k for each subsequent year.
- Maintenance is estimated at £4,583 per vehicle. 2025/26 is £9.2k for two vehicles and £35k for each subsequent year.

Contribution to the vehicle replacement fund is £126k per annum which is based on £18k per vehicles.

- 2025/26 is £126,119, which is the estimate remaining capital transitional grant.
- 2026/25 onward is £126k and will be funded from General fund balances, as we expect no funding will be provided for the replacement of vehicles.

Caddies and bin costs

The purchase of the communal bins and caddies is funded from the capital transitional grant is £227.1k

- 100 communal bins at £20.60 each. Total of £2.1k.
- 45,000 5litre Kitchen caddies at £1 each. Total of £45k.
- 45,000 23litre Kerbside caddies at £4 each. Total of £180k.

The delivery of caddies and communal bins is funded from the resource transitional grant and is estimated at £50k. This was based on the cost of distributing the purple bins recently. We are estimated the grant for this to be £35k, which is 80% of the cost.

The ongoing caddies costs are estimated to be.

- Caddy liners in 2024/25 £29.5 to be distributed in ready for 2025/26 collections.
- Caddy replacement cost of £10k per year from 2027/28, which is based on 2,000 caddies at £5 each.
- Ongoing vehicles costs – Maintenance, fuel, tyres, tax and insurance. For 6 months the costs is £11k.

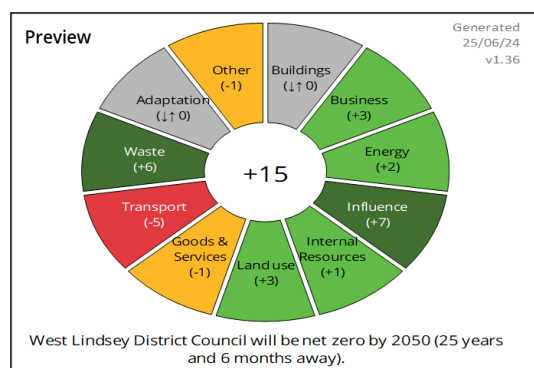
First full year domestic service

The first full year domestic service will start on 1st April 2026. The revenue cost is estimated at £1,022.3k, which includes £126k contribution to the vehicle replacement reserve. We expect the grant to cover 80% of the ongoing costs, but not the contribution to reserves.

Equality and Diversity including Human Rights: Equality Impact Assessment to be completed.

Data Protection Implications: None

Climate Related Risks and Opportunities:



The recently adopted Environment and Sustainability Strategy includes waste as one of the 10 priority themes identified on which action by the Council should be focused. Both in terms of direct action to reduce the Council's own waste, but also in terms of the Council acting as an enabler and community steward, creating the conditions, and where appropriate services, to allow the wider District to engage with and embrace new initiatives in a straightforward and positive way to deliver maximum benefit to the environment and sustainability agenda.

Decisions on the types of vehicles procured will be made in alignment Vehicle Decarbonisation Strategy. The strategy is designed to provide a clear framework for all future waste vehicle procurement decisions, balancing priorities around maintaining excellent service standards, value for money and moving to a net zero fleet. The decision-making framework included in the strategy includes a seven-stage process, with specific questions to consider at each stage, which will ensure that an appropriate balance across Corporate Priorities is achieved.

Section 17 Crime and Disorder Considerations: None.

Health Implications: None

Title and Location of any Background Papers used in the preparation of this report: [Environment Act 2001](#)

Risk Assessment: Risk assessment to be completed.

Call in and Urgency:

Is the decision one which Rule 14.7 of the Scrutiny Procedure Rules apply?

i.e. is the report exempt from being called in due to urgency (in consultation with C&I chairman)

Yes

☐

No

x

Key Decision:

A matter which affects two or more wards, or has significant financial implications

Yes

x

No

☐

1.0 Executive Summary

- 1.1 The Environment Act 2021 mandates separate food waste collections for households and businesses to reduce landfill waste. Local councils must implement these collections by 1st April 2025 for commercial properties and by 1st April 2026 for domestic properties. Non-compliance with these deadlines will result in financial penalties.
- 1.2 Domestic food waste in West Lindsey is currently collected with residual black bin waste and to comply with the scheme, the council will need to implement weekly food waste collections.
- 1.3 All households are to be issued a 5-litre food caddy for internal use and a 23-litre caddy for external use. To encourage participation, households will receive caddy liners, though these are not mandatory. Communal properties, such as apartment blocks or homes of multiple occupancies, will receive 5-litre internal caddies and shared 140-litre external bins.
- 1.4 District wide implementation of the scheme will require the purchase of seven food waste collection vehicles and 50,000 internal and external caddies and 100 communal bins. Proactively acquiring the required vehicles and caddies will ensure compliance with statutory deadlines and ensure that the best price is achieved.
- 1.5 To help with associated costs, the government have announced three new burden funding streams; one to cover the capital elements with the remaining two covering required revenue expenditure. The council is in receipt of the capital finding stream which will allow for the purchase of required vehicles and caddies however the value of the two remaining revenue funding streams has not been confirmed and remains a risk to delivery.

2.0 Introduction

- 2.1 Introduced in November 2021, the Environment Act 2021 aims to decrease the volume of food waste sent to landfills by requiring separate food waste collections for households and businesses.
- 2.2 The Act stipulates that local councils must implement a domestic Food Waste Collection (FWC) scheme by April 1, 2026, while commercial properties must comply by April 2025. Non-compliance with these deadlines will incur financial penalties.
- 2.3 This report seeks approval for the purchase of vehicles and caddies to go live in April 2026.

3.0 Background (The Current State)

- 3.1 Approximately 9.52 million tonnes of food is discarded annually¹. Household waste accounts for 70% of this total, amounting to 6.6 million tonnes annually, of which an estimated 4.5 million tonnes is edible. In total, the UK's food waste could potentially feed approximately 30 million people per year.
- 3.2 Currently, domestic food waste in West Lindsey is co-collected as part of the fortnightly residual waste collection (black bin). The Waste and Resources Action programme (WRAP) estimate that households across the country dispose of 1.46kg of food waste per week. For West Lindsey District Council (WLDC) this estimation would equate to 3,500 tonnes of food waste collected across the district per annum.

4.0 The Future State

- 4.1 Compliance with the act requires WLDC to introduce a separate weekly FWC scheme throughout the district. To help facilitate this, households will be issued with a 5-litre food caddy for internal use and a 23-litre caddy for external use. Caddies have lockable lids to prevent accidental spillage and minimise the risk of animals accessing food waste. To help encourage take-up, households will

¹ <https://www.theecoexperts.co.uk/home-hub/food-waste-facts-and-statistics>

be supplied with caddy liners although this is not a mandatory requirement of the scheme.

- 4.2 South West Ward properties will receive FWC caddies ensuring a consistent service is offered throughout the district. Communal properties such as apartment blocks or Homes of Multiple Occupancies (properties housing at least three tenants or featuring shared facilities like bathrooms or kitchens) will receive the internal 5-litre food caddies but not the 23-litre caddies for external use. In these cases, communal properties will get 140-litre bins for external use; this is the maximum size that the vehicles can lift and empty.
- 4.3 No residual waste (black bins) will be refused due to non-compliance with the scheme. It is not anticipated that the caddies will be refused collection due to contamination as the disposal location will be able to take items such as full yoghurt pots and eggshells. The disposal location is dependent on the outcome of procurement exercise being held by Lincolnshire County Council; a decision is expected in September 2024.
- 4.4 A robust communications strategy is being developed to help with the scheme and ensure that residents have access to all relevant information.
- 4.5 The recently adopted Environment and Sustainability Strategy identifies operational services, specifically the waste fleet as contributing to 34% of the Council's total emissions. This makes this area of the Council a priority for action, in the journey to becoming a net zero Council. As such it is important that any decisions made in relation to the procurement of new waste vehicles is undertaken in the context of the impact on the Council's carbon footprint.
- 4.6 In order to support future decision making and ensure that the Council balances key corporate priorities, including achieving net zero by 2050, whilst balancing decisions against customer service and financial stability, a Vehicle Decarbonisation Strategy has been developed. This strategy sets out the broad principles of decarbonisation, including fuel types, maintenance, and vehicle specification. The strategy also includes a 7-step decision making framework, which highlights the key considerations and factors which need to be assessed and evidenced and balanced against delivering against the corporate priorities.

- 4.7 Acknowledging the faced paced rate in which technology is developing in this area the decision-making framework and the questions within are not time sensitive and as such, all future decisions on vehicle procurement can be made in line with this framework, ensuring consistency and transparency in approach.
- 4.8 Decisions on the types of vehicles procured, including fuel types will be made in alignment Vehicle Decarbonisation Strategy. This will be done as part of the procurement process of each vehicle being replaced or in this case being purchased for a newly created service. This paper does not specify the types of vehicles now, as much may change in the vehicle market between now and when that decision must be made.
- 4.9 Based on the current FWS operation model and initial assessment of vehicle availability and functionality it is considered that the scheme may require district five 7.5 tonne vehicles, two 11 tonne vehicles, six drivers, 12 loaders and one supervisor. However, the exact specification and fuel type of the vehicles will be confirmed as part of the future procurement exercise.
- 4.10 To help with associated costs, the government have announced three funding streams. It is unclear on the amount of funding that will be issued through Funding Streams 2 and 3 however it is assumed that these will cover 80% of anticipated revenue expenditure. An overview of the available funding is shown in Table 1.

Funding Stream	Expected	Purpose
New Burdens Funding Stream 1: Project Capital	2023/24	Capital elements of the scheme including the purchase of food waste vehicles and caddies. This is a one-off payment. *Received £1,023,179*
New Burdens Funding Stream 2: Transition Funding	2024/25	Set-up costs of the scheme including the delivery of caddies to residents and associated communications. This is a one-off payment.
New Burdens Funding Stream 3: Revenue Funding	2025/26	Pay for the delivery of the scheme and collection of food waste, the longevity of this funding is unknown.

Table 1: Funding Streams

4.11 WLDC currently implement a Trade Waste Scheme that has over 500 customers and failing to be able to collect food waste from these will result in this service not being able to be offered and a potential loss of income. To mitigate this, Commercial collections will be collected part of the FWC pilot scheme (to be determined).

4.12 The programme aims to realise the following strategic objectives linked to the Corporate Plan and Environment and Sustainability Strategy:

- **Environmental and Sustainability.** Reduce landfill waste by diverting food waste to Energy to Waste site and increasing recycling rates.
- **Community Engagement.** Increase public awareness and participation in waste reduction efforts through education and communication.
- **Demand Handling.** Deliver a modern and innovative way of handling demand from residents regarding the scheme.
- **Resource Efficiency.** Optimise the use of resources to efficiently deliver caddies and collect and transport food waste.
- **Compliance with Legislation.** Ensure compliance with the Environmental Act 2021.
- **Long-term viability.** Establish a system that is sustainable and adaptable, capable of scaling up as needed, and maintaining its effectiveness over the long term.

5.0 Implementation Plan: Domestic and Commercial food waste collection commence in April 2026.

5.1 Both commercial and domestic collections will be implemented from April 2026. This ensures compliance with the residential property deadline. It will be one year after the deadline for commercial properties. Implementation of this option will mean that the council will not be able to offer a commercial waste collection scheme resulting in a loss of revenue.

- 5.2 To deliver this option, most activity will need to occur in 2025. Vehicle and caddy orders will need to be submitted in March and May respectively. An understanding of round routing and demand handling will be completed within the summer prior to the recruitment process starting in September with the view to have operatives in roles by December 2025. Caddies will be delivered to residents between January and March 2026 ready for the collections commencing in April 2026.
- 5.6 In order to meet the deadline it will be necessary to order the waste vehicles following approval at Corporate Policy & Resources committee.
- 5.7 The benefits of ordering food waste vehicles earlier are.
- Alignment of service delivery with the statutory deadline for offering commercial collections from 1st April 2025.
 - Vehicles are secured in time for the statutory deadline of 1st April 2025 for Commercial collections, and 1st April 2026 for Domestic collection by 1st April 2026.
 - Proactive procurement prior to an assumed increase in demand from other Local Authorities.
 - Ensure that the best price is achieved, as there is a risk the prices may go up due to inflation, demand, and higher manufacturing costs in 2025/26.
- 5.8 The delivery timeframe of caddies is 6 -12 weeks resulting in a July 2024 order being expected in August. Caddies will be stored in situ at the depot until required. To help meet the commercial deadline, food waste collections will be undertaken one day a week from the April deadline.
- 5.9 The wider FWC programme is to be delivered through five subsequent projects ensuring a managed and considered approach is given to the roll out. Projects 03 and 04 will have supporting project management paperwork with the delivery deadlines of the remaining projects being managed and monitored through the programme team.
- 5.10 The supporting Project Plan, see Table 3, has been developed to ensure programme compliance with the statutory deadlines of the scheme.

Project	Owner	Start	Due
01. Approval to proceed	Project Sponsor	Jan-24	Jul-24
02. Procure required equipment	Lead Officer	Jul-24	Jan-25
03. District wide rollout	Lead Officer	Aug-25	Jan-26
05. Food Waste go-live	Lead Officer	Apr-26	Apr-26

Table 2: Project Plan

6.0 Costs to the Council

6.1 Costings have been provided for the recommended option but further calculations can be provided upon request.

Capital Costs.

6.2 The capital expenditure is for seven food waste vehicles, 45,000 internal caddies, 45,000 external caddies and approximately 100 communal bins. WLDC has received funding stream one which is the project capital payment of £1,023,179. It is estimated that £126,119 of the grant will not be spent on capital and therefore, in line with the funding it is proposed that this underspend is allocated to the vehicle replacement fund reserve.

Option 2 - Capital	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Vehicles	£670,000	£0	£0	£0	£0	£0	£670,000
Caddies & Bins	£227,060	£0	£0	£0	£0	£0	£227,060
Contribution to EMR	£0	£126,119	£0	£0	£0	£0	£126,119
Total	£897,060	£126,119	£0	£0	£0	£0	£1,023,179

Table 3: Capital Costs

Revenue Costs.

6.3 There is currently no confirmation of the amount of revenue funding to be received through New Burdens Revenue Streams 2 and 3 however it is assumed that it will cover 80% of anticipated revenue expenditure. This has not been confirmed and remains a risk to delivery.

6.4 The implementation of the service is shown below:

Option 2 - Revenue	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Communication	£3,800	£26,300	£0	£0	£0	£0	£30,100
Caddies & Bin - Delivery	£6,300	£43,800	£0	£0	£0	£0	£50,100
Total Transition costs	£10,100	£70,100	£0	£0	£0	£0	£80,200
Caddies & Bin - liners/replacements	£29,500	£29,500	£29,500	£39,500	£41,500	£41,500	£211,000
Staffing	£0	£0	£756,200	£778,200	£800,000	£826,000	£3,160,400
Ongoing Vehicles costs *	£2,300	£9,100	£110,600	£110,600	£110,600	£110,600	£453,800
Contribution to EMR	£0	£(100)	£126,000	£126,000	£126,000	£126,000	£503,900
Revenue costs	£31,800	£38,500	£1,022,300	£1,054,300	£1,078,100	£1,104,100	£4,329,100
Total	£41,900	£108,600	£1,022,300	£1,054,300	£1,078,100	£1,104,100	£4,409,300

* vehicle costs include maintenance, fuel, tyres, vehicle tax and insurance. 2024/25 is insurance only.

Table 4: Revenue implications

Anticipated Programme Funding.

6.5 As previously discussed, three funding streams are anticipated to cover required capital and revenue expenditure. The Capital project grant has been received. The transition and ongoing revenue funding is still to be confirmed. This has been estimated at 80% of the costs, with no grant funding for vehicle replacement. Table 6 shows the programme funding.

Option 2 - Funding	Value	Comment
Grant income	£1,023,179	Funding streams - 1) Capital project
Grant income	£64,000	Funding streams - 2) Transition fund
Grant income	£3,002,979	Funding streams - 3) Revenue Funding.
TOTAL	£4,090,158	

Table 5: Programme Funding

Pressures/(Savings) on the Medium-Term Financial Plan.

6.6 The option brings a pressure of £1,341.5k on the MTFP, as detailed in the table below. This pressure is due to the assumption we will only receive grant to cover 80% of the ongoing costs.

Option 2 - Pressures/(Savings)	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	Total
Communication	£800	£5,300	£0	£0	£0	£0	£6,100
Caddies & Bin	£30,800	£38,300	£5,900	£7,900	£8,300	£8,300	£99,500
Staffing	£0	£0	£151,300	£155,700	£160,000	£165,100	£632,100
Vehicles costs	£2,300	£9,100	£22,100	£22,100	£22,100	£22,200	£99,900
Contribution to EMR	£0	£(100)	£126,000	£126,000	£126,000	£126,000	£503,900
Total	£33,900	£52,600	£305,300	£311,700	£316,400	£321,600	£1,341,500

Table 6: MTFP pressures

7.0 Recommendations

1. Allocate £897,060 of capital grant funding to the 2024-25 Capital Programme to purchase vehicles, caddies and bins to deliver the district wide Food Waste Collection scheme.

<end>



**Corporate Policy and
Resources Committee**

Thursday, 18 July 2024

**Subject: Budget and Treasury Monitoring - Quarter 1 2024/2025 (partial)
(1st April 2024 to 31st May 2024)**

Report by:	Director of Corporate Services
Contact Officer:	Sue Leversedge Business Support Team Leader sue.leversedge@west-lindsey.gov.uk
Purpose / Summary:	This report sets out the revenue, capital and treasury management activity from 1 st April 2024 to 31 st May 2024. Due to committee timings, we bring a two month report to the June committee meeting.

RECOMMENDATION(S):

REVENUE

- a) Members accept the forecast out-turn position of a £0.524m net contribution to reserves as of 31st May 2024 (see Section 2) relating to revenue activity.
- b) Members accept the use of Earmarked Reserves approved by the Chief Finance Officer using Delegated powers (2.4.1).
- c) Members accept the contributions to Earmarked Reserves approved by the Chief Finance Officer using Delegated powers (Section 2.4.2).

CAPITAL

- d) Members accept the current projected Capital Outturn position of £31.998m (Section 3).
- e) Members approve the amendments to the Capital Schemes as detailed in 3.2.

TREASURY

- f) Members accept the report, the treasury activity and the prudential indicators (Section 4).

IMPLICATIONS

Legal: None arising as a result in this report.

REVENUE

The draft revenue forecast out-turn position for 2024/2025 is a net contribution to reserves (underspend) of £0.524m relating to revenue activity as of 31st May 2024.

The forecast General Fund Balance as of 31st March 2025 is £2.325m (excluding carry forwards). This is £0.325m above the minimum working balance of £2.0m agreed by this Committee.

The items with significant variances are contained within this report at 2.1 and 2.2.

CAPITAL

The capital programme forecast outturn for 2024/2025 is expenditure of £31.998m against a revised budget of £36.973m, a variance of £4.975m.

The amendments to the 2024/2025 capital scheme are detailed at 3.2.

TREASURY

The Treasury Management activities during the reporting period are disclosed in the body of this report. Total external borrowing is currently £24.0m.

There have been no breaches of Treasury or Prudential Indicators within the period of this report.

Average investments for the quarter 1 (April - May) were £21.762m, which achieved an average rate of interest of 5.207% (January - March was 21.581m, 5.309%).

Staffing:

Salary budgets 2024/2025 were based on an estimated 3.5% pay award across all scale points.

There are 4 separate negotiations for pay award:

1. Chief Officer Pay
2. NJC Local Government Staff
3. Chief Executive Pay
4. Locally Determined Pay Points

Pay award negotiations are ongoing, the latest employer offer as of 17th May 2024 being:

- With effect from 1 April 2024, an increase of £1,290 (pro-rata for part-time employees) to be paid as a consolidated, permanent addition on all NJC pay points 2 to 43 inclusive.
- With effect from 1 April 2024, an increase of 2.5% on all pay points above the maximum of the pay spine but graded below deputy chief officer.
- With effect from 1 April 2024, an increase of 2.5% on all allowances.

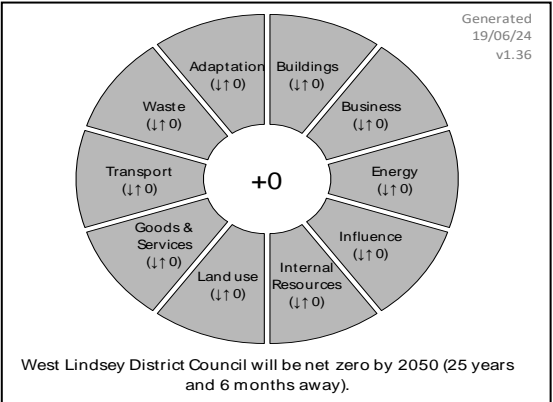
The forecast outturn as of 31st May 2024 is based on current pay scales pending agreement of the 2024/2025 pay award, resulting in an underspend against budget of £0.474m.

If the latest employer offer was agreed, this would result in additional costs of c£0.512m. Whilst the offer is an average of 3.5% across all scale points which is the increase built into the 2024/2025 MTFP, due to the weighting of the proposal there would be additional cost of £0.038m when compared to the budgeted amount. We have not built this into the forecast yet as we await further notification from the Employee Side negotiations.

Equality and Diversity including Human Rights: None arising as a result of this report.

Data Protection Implications: None arising as a result of this report.

Climate Related Risks and Opportunities: None arising as a result if this report.



Section 17 Crime and Disorder Considerations: None arising as a result of this report.

Health Implications: None arising as a result of this report.

Title and Location of any Background Papers used in the preparation of this report : N/A

Risk Assessment: This is a monitoring report only.

Call in and Urgency:

Is the decision one which Rule 14.7 of the Scrutiny Procedure Rules apply?

i.e., is the report exempt from being called in due to urgency (in consultation with C&I chairman)

Yes

☐

No

X

Key Decision:

A matter which affects two or more wards, or has significant financial implications

Yes

☐

No

X

1. Executive Summary

This report provides the oversight of financial performance at the end of Quarter 1 2024/2025 for:

REVENUE

- Revenue Forecast Out-Turn (after carry-forwards) – Contribution to Reserves **£0.524m**. (-2.92% of Net Revenue Budget – see 2.1 for details of significant variances).
- Appendices included within the report:**
 - Capital Investment Programme – budget monitoring table as of 31st May 2024.
 - Link Asset Services Updated Interest Rate Forecast 29 May 2024.
 - Link Treasury Services Monthly Investment Analysis Review May 2024.
 - UK Shared Prosperity Fund (UKSPF) Update Qtr. 1 2024/2025.

CAPITAL

- Capital Actual Out-Turn: Final outturn £31.998m against a revised budget of £36.973m, resulting in a variance of **£4.975m**.
- £5.04m being net underspends on scheme budgets, and £0.065m increase to scheme budgets.

Members are asked to note:

- Underspend on schemes of £5.04m detailed at 3.2.1
- Increase to scheme budgets of £0.065m detailed at 3.2.2
- Movement of budget between schemes detailed at 3.2.3

Underspends	£m
Capital Enhancements to Council Properties	(0.040)
Trinity Arts Centre Improvements	(5.000)
Total	(5.040)

Increase in Scheme Budgets	£m
Disabled Facilities Grants	0.065
Total	0.065

Movement of Budgets between Schemes	£m
From	
5-7 Market Place Redevelopment	(0.001)
Thriving Gainsborough - Whitton Gardens	(0.406)
To	
Thriving Gainsborough - Townhall THI	0.001
Thriving Gainsborough - Pocket Park	0.405
Thriving Gainsborough - Market Place/Streetscape	0.001

Variance Again Revised Budget	(4.975)
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TREASURY MANAGEMENT

Treasury Management Report and monitoring:

- Investments held as of 31st May 2024 were:
 - Average investment interest rate for April to May was 5.207%.
 - Total Investments at the end of Quarter 1 were £17.965m.

The tables below reflect the movement on our investments and borrowing in Quarter 1:

Investment Movements	Qtr. 1 £'m
Investments B/fwd. (at 31.03.2024 including cash held at bank)	20.272
(Less) Net Capital expenditure/ Funding received	(2.347)
Add PWLB/Other LA Borrowing in year	5.000
Add/(Less) Net Revenue Expenditure	(7.027)
Add/(Less) Net Collection Fund Movement (Ctax/NNDR)	2.129
Investments carried forward (at Period end)	18.027

The prudential borrowing position reflects actual borrowing undertaken from the Public Works Loans Board/Other Local Authorities and the amount of internal borrowing required to meet the actual costs of borrowing up to the 31st of May 2024. Internal Borrowing is an approved practice whereby external borrowing is delayed by using cash held for other purposes. It allows us to avoid paying interest until the original expenditure planned for the internally borrowed cash is required.

	Qtr. 1
Prudential Borrowing	£'000
Total External Borrowing (PWLB)	14,000
Other Local Authorities	10,000
Internal Borrowing	12,159
Total Prudential Borrowing at 31.05.2024	36,156

FINAL REVENUE BUDGET OUTTURN 2024/2025

2. The Revenue budget forecast out-turn for 2024/2025 currently stands at a net contribution to reserves of **£0.524m** as detailed in the table below.

Details of headline variances by Cluster can be found below at 2.1 and 2.2.

Cluster	Base Budget £	Revised Budget £	Forecast Outturn £	Outturn Variance before Cfws £	Carry Forwards £	Outturn Variance after Cfws £
Our Council	8,224,800	8,685,800	8,556,414	(129,386)	0	(129,386)
Our People	1,715,100	1,802,900	1,675,938	(126,962)	0	(126,962)
Our Place	4,705,100	4,989,000	4,739,807	(249,193)	0	(249,193)
Covid 19 Business Support Grants	0	0	2,400	2,400	0	2,400
Grand Total	14,645,000	15,477,700	14,974,560	(503,140)	0	(503,140)
Interest Receivable	(658,200)	(658,200)	(683,600)	(25,400)	0	(25,400)
Investment Income - Property Portfolio	(1,568,400)	(1,568,400)	(1,564,254)	4,146	0	4,146
Drainage Board Levies	531,900	531,900	531,900	0	0	0
Parish Precepts	2,700,700	2,700,700	2,700,700	0	0	0
Interest Payable	692,700	692,700	692,700	0	0	0
MRP/VRP (repayment of borrowing)	959,300	959,300	959,300	0	0	0
Net Revenue Expenditure	17,303,000	18,135,700	17,611,305	(524,395)	0	(524,395)
Transfer to / (from) General Fund	(52,700)	(880,800)	(880,800)	0	0	0
Transfer to / (from) Earmarked Reserves	1,248,600	1,244,000	1,244,600	600	0	600
Amount to be met from Government Grant or Council Tax	18,498,900	18,498,900	17,975,105	(523,795)	0	(523,795)
Funding Income						
Business Rate Retention Scheme	(5,796,700)	(5,796,700)	(5,796,700)	0	0	0
Collection Fund Surplus - Council Tax	(290,000)	(290,000)	(290,000)	0	0	0
Parish Councils Tax Requirement	(2,700,700)	(2,700,700)	(2,700,700)	0	0	0
New Homes Bonus	(845,300)	(845,300)	(845,300)	0	0	0
Other Government Grants	(1,113,900)	(1,113,900)	(1,113,900)	0	0	0
Council Tax Requirement	(7,752,300)	(7,752,300)	(7,752,300)	0	0	0
TOTAL FUNDING	(18,498,900)	(18,498,900)	(18,498,900)	0	0	0
Balanced Budget / Funding Target	0	0	(523,795)	(523,795)	0	(523,795)

2.1 The significant incremental variances against the approved budgets being:

KEY:	
↑	improved position (i.e. increased surplus, or reduction in pressure)
↔	no change
↓	worsened position (i.e. decrease in surplus, or increase in pressure)

Cluster	EXPENDITURE	Total £000	Direction of Travel From Prev. Qtr.
BUDGET UNDERSPENDS			
Our Council / Our People / Our Place	Salary (underspends) / pressure. (£474k) impact of pay award not yet agreed/applied, (£62k) underspend arising from vacancies offset by pressures due to temporary resources appointed to cover vacant posts.	(£536)	New
Our Council / Our Place	Fuel - average price per litre to date £1.16, forecast £1.20 for remainder of year (compared to £1.14 average price per litre for the year 2023/2024).	(£53)	New
PRESSURES			
	Various forecast outturn variances <£10k	£2	New
		(£587)	
Cluster	INCOME	Total £000	Direction of Travel From Prev. Qtr.
BUDGETED INCOME NOT ACHIEVED			
Our Council	Commercial Waste income aligned to updated Business Plan approved March 2024.	£63	New
		£63	
TOTAL VARIANCE		(£524)	

2.2 Significant items (>£10k) of note by Cluster:

2.2.1 Our Council

- Commercial Waste** is forecasting a shortfall in income of £0.063m. This is reflective of the Business Plan approved by Corporate Policy and Resources committee 21st March 2024, which included an estimated £0.073m net pressure in 2024/2025. The Business Plan will be reflected in the Medium Term Financial Plan (MTFP) from 2025/2026.

2.2.2 Our Place

- **Fuel** – There is a forecast underspend against fuel budgets of £0.053m. The average fuel price to date is £1.16 per litre, with an average price of £1.20 per litre forecast for the remainder of the year (compared to the average price paid per litre during 2023/2024 of £1.14).

2.2.3 Establishment

Salary budgets 2024/2025 were based on an estimated 3.5% pay award across all scale points.

There are 4 separate negotiations for pay award:

1. Chief Officer Pay
2. NJC Local Government Staff
3. Chief Executive Pay
4. Locally Determined Pay Points

Pay award negotiations are ongoing, the latest employer offer as of 17th May 2024 being:

- With effect from 1 April 2024, an increase of £1,290 (pro-rata for part-time employees) to be paid as a consolidated, permanent addition on all NJC pay points 2 to 43 inclusive.
- With effect from 1 April 2024, an increase of 2.5% on all pay points above the maximum of the pay spine but graded below deputy chief officer.
- With effect from 1 April 2024, an increase of 2.5% on all allowances.

The forecast outturn as of 31st May 2024 is based on current pay scales pending agreement of the 2024/2025 pay award, resulting in an underspend against budget of £0.474m.

If the latest employer offer was agreed, this would result in additional costs of c£0.512m. Whilst the offer is an average of 3.5% across all scale points which is the increase built into the 2024/2025 MTFP, due to the weighting of the proposal there would be additional cost of £0.038m when compared to the budgeted amount.

- An underspend of £0.536m is reported against employee costs:

The impact of the pay award not yet agreed/applied is £0.474m with the remaining underspend of £0.062m due to vacancies above the 2% vacancy factor, offset by pressures due to the appointment of temporary resources to cover vacancies.

2.3 Fees and Charges

- 2.3.1 £2.215m has been received in Fees and Charges income during 2024/2025 to date against a budget of £2.111m, a gain of £0.104m.

The significant variance forecast for the year end is:

- Shortfall in Commercial Waste income of **£0.063m** (see 2.2.1 for details)

2.4 Use of and Contribution to Reserves – Net Movement to Reserves **£0.0.47m.**

2.4.1 Use of Reserves – Delegated Decision - **£0.055m**

The Chief Finance Officer has used delegated powers to approve the use of earmarked reserves up to £0.05m.

- £0.005m from Revenue Grants Unapplied Reserve. Department for Levelling Up, Homes and Communities (DLUHC) Installing chess tables in parks and public spaces grant.
- £0.006m from Revenue Grants Unapplied Reserve. HM Land Registry grant – Local Land Charges migration.
- £0.044m from Health and Wellbeing Reserve. Good Homes Alliance pilot project.

2.4.2 Contribution to Reserves - **£0.009m**

- £0.009m to Communities at Risk Reserve. Originally drawn down for the Warm Packs Contribution, to be returned to reserve as funding now met from the Household Support Fund (HSF) grant.

2.5 Grants

As of 1st April 2024, we had an amount of £0.706m relating to grants received which had yet to be expended. Budget provision will be created throughout the financial year as required to deliver projects in accordance with grant terms. The forecast balance as of 31st March 2025 is £0.559m.

2.5.1 Successful Grant Bids and New Grant determinations

The following grants have been received/awarded during this period:

Grant Issued By	Name of Grant	£
Department for Work & Pensions (DWP)	Rent Allowance	2,451,225
Department for Environment, Food & Rural Affairs (DEFRA)	Food Waste Collections	1,023,179
Department for Levelling Up, Homes and Communities (DLUHC)	Homelessness	299,691
Department for Levelling Up, Homes and Communities (DLUHC)	New Home Bonus	211,316
Nottingham City Council	Homes Upgrade Grant (HUG2)	130,841
Lincolnshire County Council	Household Support Fund	70,520
Department for Work & Pensions (DWP)	Housing Benefit Admin Grant	55,678
Department for Levelling Up, Homes and Communities (DLUHC)	Funding Guarantee	52,712
Department for Work & Pensions (DWP)	Discretionary Housing Payments	35,085
Department for Levelling Up, Homes and Communities (DLUHC)	Domestic Abuse	34,173
Department for Levelling Up, Homes and Communities (DLUHC)	Transparency Code	33,453
National Heritage Lottery	Townscape Heritage (THI)	26,014
Midlands Net Zero Hub (MNZH)	Electrification of Depots	25,000
Department for Work & Pensions (DWP)	Misc. Housing Benefit Grants	19,616
Department for Levelling Up, Homes and Communities (DLUHC)	Redmond Review	18,447
Department for Environment, Food & Rural Affairs (DEFRA)	Biodiversity Grant	14,994
Home Office	Asylum Dispersal Grant	14,000
Department for Levelling Up, Homes and Communities (DLUHC)	Electoral Integrity	5,907
Department for Levelling Up, Homes and Communities (DLUHC)	Service Grant	3,517
		4,525,369

Income and expenditure budgets will be created to reflect the grant being received and spend activity where applicable.

Other Items for information

2.6 Planning Appeals

In Quarter 1 2024/2025, to the end of May 2024, there were three appeals determined – two of which were dismissed, one allowed.

There is one live application for costs which is awaiting decision. Appeal costs are not budgeted for and therefore any costs allowed will be a direct loss to the Council.

Period	Number of Appeals	Allowed	Dismissed
April	1	0	1
May	2	1	1
Total for Quarter 1	3	1	2

2.7 Aged Debt Summary – Sundry Debtors Aged Debt Summary Quarter 1 2024/2025 Monitoring Report

At the end of May 2024, there was a total of £0.231m outstanding debt in the system over 90 days. Much of this debt was over 150 days old (95%) and comprised of:

- Housing £0.088m
- Electoral Services £0.053m
- Environmental Services £0.002m
- Property Services £0.013m

For each of these areas the debt recovery process is under way for all debt over 90 days, payment plans are being put in place where possible.

- Housing Benefits overpayments £0.011m the majority of which will look to be recovered through ongoing entitlement or where appropriate on agreed repayment schedules.

The level of outstanding debt for the same period 2023/2024 is provided below for information:

2023/2024 Total £	Month	90 – 119 days £	120 – 149 days £	150+ days £	2023/2024 Total £
233,249	Quarter 1 - ending May 2024	5,145	5,541	220,623	231,309

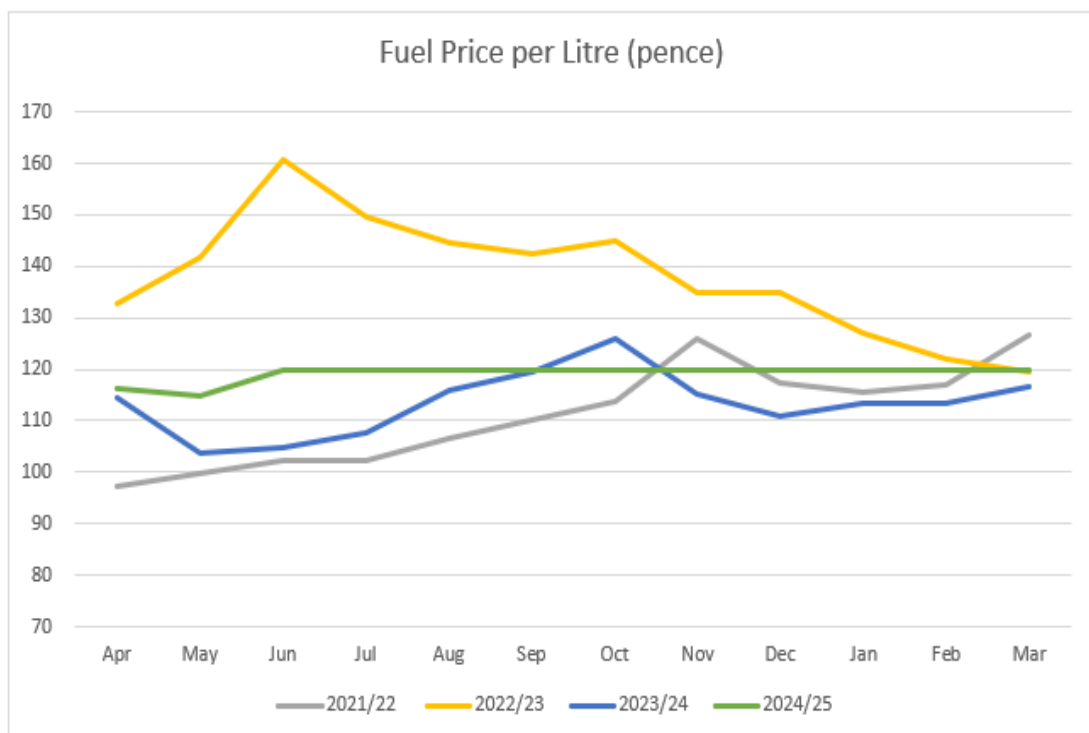
2.8 Changes to the Organisation Structure

- 2.8.1 A Homes and Health Restructure was approved during the period with an overall saving of £0.024m during 2024/2025.
- 2.8.2 Corporate Policy and Resources Committee (17th January 2024) approved the appointment of two additional enforcement officers for a two-year fixed-term period. The posts are to be funded via the draw down of £0.089m from the Communities at Risk Reserve and £0.089m from General Fund Balances. Both posts have been recruited to with a forecast cost of £0.059m for 2024/2025.

2.9 Fuel

- 2.9.1 The chart below shows the actual price paid per litre of fuel, in pence, for each year from 2021/2022 to 2024/2025.

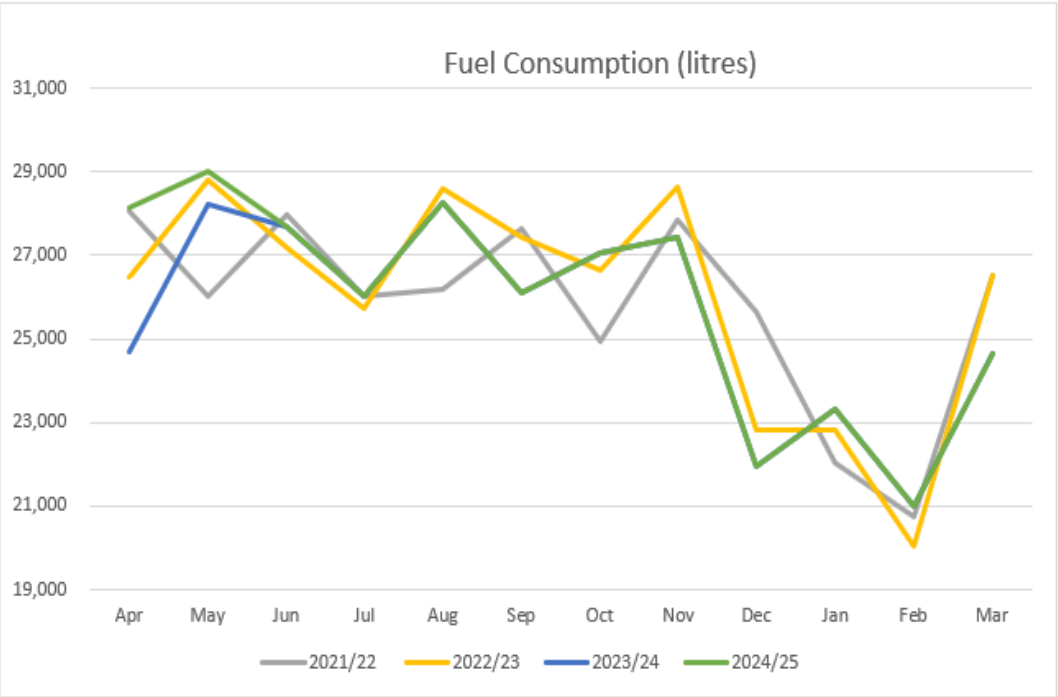
The prices shown for 2024/2025 are actuals to date, for the period April to May 2024, at an average of £1.16 per litre. The average price paid per litre during 2023/2024 was £1.14.



- 2.9.2 The chart below show the actual volume of fuel purchased, in litres, for each year from 2021/2022 to 2024/2025. The volumes shown for 2024/2025 are actuals to date, for the period April to May 2024, with estimates for the remainder of the year based on the previous years' consumption.

There is a drop in fuel purchased December to February, which reflects the

pause in Garden Waste collections.



3.1 CAPITAL UPDATE – Quarter 1 2024/2025

3.1.1 The Capital Budget forecast out-turn is £31.998m against a revised budget of £36.973m. This results in a variance (underspend) of **£4.975m**.

This is made up of:

- **£5.040m** net underspend
- **£0.065m** requested increase to schemes for 2024/2025

3.1.2 Individual Schemes are detailed in the table contained within the report at **Appendix 1** with commentary provided on performance.

3.2 Capital Programme Amendments 2024/2025

The detailed capital monitoring table is included within the report at **Appendix 1**. The amendments to the following schemes are requested:

3.2.1 Net Underspend Position - **£5.040m**

- **Capital Enhancements to Council Properties** – repairs to 9 Lord Street windows which have already been carried out by the tenant resulting in an underspend of **£0.040m**.
- **Trinity Arts Centre Improvements** – To be removed from the capital programme due to uncertainty around funding of the scheme. If resources are identified to progress the works in the future a report will be brought before committee to reinstate a budget into the capital programme. **£5.000m**.

3.2.2 Increase to Scheme Budgets - **0.065m**

- **Disabled Facilities Grant (DFG)** - DFG top up grant £0.061m from DLUHC, landlord contributions to DFG £0.004m. Total increase **£0.065m**.

3.2.3 Movement of Budget Between Schemes

Movement of Budgets between Schemes	£m
From	
5-7 Market Place Redevelopment	(0.001)
Thriving Gainsborough - Whitton Gardens	(0.406)
To	
Thriving Gainsborough - Townhall THI	0.001
Thriving Gainsborough - Pocket Park	0.405
Thriving Gainsborough - Market Place/Streetscape	0.001
Total	0.000

3.3 Acquisitions, Disposals and Capital Receipts

3.3.1 The Council has made no land acquisition during Quarter 1.

3.3.2 The Council has made no asset disposals during Quarter 1.

3.3.3 Capital Receipts - The total value of capital receipts received in 2024/2025 at the end of Quarter 1 total £0.062m:

- £0.055m from the Housing Stock Transfer Agreement share of Right to Buy receipts
- £0.007m repayments of DFG Grants

4. TREASURY MONITORING – Quarter 1 (April – May 2024)

The Treasury Management Strategy Statement (TMSS) for 2024/2025, which includes the Annual Investment Strategy, was approved by the Council on 4th March 2024. It sets out the Council’s investment priorities as being:

- Security of capital;
- Liquidity; and
- Yield.

The Council will aim to achieve the optimum return (yield) on its investments commensurate with proper levels of security and liquidity. In the current economic climate, it is considered appropriate to keep investments short term to cover cash flow needs, but also to seek out value available in periods up to 12 months with highly credit rated financial institutions, using our suggested creditworthiness approach, including a minimum sovereign credit rating and Credit Default Swap (CDS) overlay information.

- 4.1 Officers can confirm that there have been no breaches of Prudential Indicators as detailed at 4.9 below.
- 4.2 Interest received (April - May) has been more than the average 7-day Sterling Overnight Index Average (SONIA) (5.1990%) with an average yield of 5.207% (including CCLA) and 5.149% (excluding CCLA). The Council budgeted to receive £0.651m of investment income during 2024/25.

4.3 Interest Rate Forecasts

The Council’s treasury advisors, Link Asset Services, have provided the following forecasts in early June 2024:

LINK GROUP – MAY 2024

	End Q2 2024	End Q3 2024	End Q4 2024	End Q1 2025	End Q2 2025	End Q3 2025	End Q4 2025	End Q1 2026	End Q2 2026	End Q3 2026	End Q4 2026	End Q1 2027
Bank Rate	5.25%	5.00%	4.50%	4.00%	3.50%	3.25%	3.25%	3.25%	3.25%	3.00%	3.00%	3.00%
5yr PWLB Rate	4.90%	4.70%	4.50%	4.30%	4.10%	4.00%	3.90%	3.90%	3.90%	3.90%	3.90%	3.80%
10yr PWLB Rate	5.00%	4.80%	4.60%	4.40%	4.30%	4.10%	4.10%	4.10%	4.00%	4.00%	4.00%	3.90%
25yr PWLB Rate	5.30%	5.20%	5.00%	4.80%	4.70%	4.50%	4.50%	4.40%	4.40%	4.40%	4.30%	4.30%
50yr PWLB Rate	5.10%	5.00%	4.80%	4.60%	4.50%	4.30%	4.30%	4.20%	4.20%	4.20%	4.10%	4.10%

Appendix 2 details Link Asset Services detailed commentary on Interest Rate Forecasts (as at end of May).

4.4 Investments

The Council held investments of £17.965m on 31st May 2024. The table below details these investments for Quarter 1:

	Qtr. 1
Investments at Qtr. 1	£'000
LGIM Money Market Fund	5,600
CCLA Money Market Fund	5,500
Local Authority	4,000
Lloyds Bank Deposit Account	500
CCLA Property Fund	2,000
Insight Money Market Fund	365
Total	17,965

Link Treasury Services Monthly Investment Analysis Review May 2024 is included in **Appendix 3**.

4.5 Investment in Local Authority Property Fund (CCLA)

The total the Council has invested now stands at £2m (of an approved £4m). Interest is receivable on a quarterly basis.

4.6 New External Borrowing

External temporary borrowing of £5.000m was repaid in May 2024 and new external temporary borrowing was taken at £5.000m.

The Council's total external borrowing stands at £24.0m.

4.7 Total Prudential Borrowing at Quarter 1

	Qtr. 1
Prudential Borrowing	£'000
Total External Borrowing	24,000
Total Internal Borrowing	12,156
Total Prudential Borrowing	36,156

4.8 Borrowing in advance of need

The Council has not borrowed in advance of need during the period ending 31st May 2024.

4.9 Compliance with Treasury and Prudential Limits

It is statutory duty for the Council to determine and keep under review the affordable borrowing limits. The Council's approved Treasury and Prudential Indicators (affordability limits) are included in the approved Treasury Management Strategy (TMS).

During the financial year to date the Council has operated within these treasury and prudential indicators and in compliance with the Council's Treasury Management Practices.

The prudential and treasury Indicators are shown below and consider the revisions to the Capital Programme as detailed in section 3 of this report.

	Original £'000	Qtr. 1 £'000
Treasury Indicators		
Authorised limit for external debt	29,155	29,155
Operational boundary for external debt	24,155	24,155
External Debt Investments	18,750 (13,000)	24,000 (13,000)
Net Borrowing	5,750	11,000
Prudential Indicators		
Capital Expenditure	30,716	31,998
Capital Financing Requirement (CFR)	36,340	36,156
<i>Of Which is Commercial Property</i>	19,099	19,099
Annual change in CFR*	(866)	(866)
External Debt Forecast	18,750	24,000
Under/(over)borrowing	17,590	12,156
Ratio of financing costs to net revenue stream*	9.55%	9.36%
Incremental impact of capital investment decisions:		
Increase/Reduction (-) in Council Tax (band change per annum)	£0.00	£(4.80)

APPENDIX 1

Capital Investment Programme 2024/2025

Cluster/Scheme	Stage	Actuals	Base Budget	Revised Budget incl. Contingenc y	Forecast Outturn	Over/ (Under) Spend	Carry Forwards/ Drawbacks	Narrative	Contingenc y Forecast Outturn	Contingenc y Budget	
		£	£	£	£	£	£		£	£	
Our Council											
Capital Enhancements to Council Properties	BAU	(6,812)	175,000	242,400	202,400	(40,000)	0	£40k budget no longer required for repairs to 9 Lord Street windows as these works have been completed by the tenant.	0	0	
Carbon Efficiencies - Street Lights	Stage 3	0	160,000	210,000	210,000	0	0		0	0	
Chamber Equipment Refresh	Pre Stage 1	0	10,000	10,000	10,000	0	0		0	0	
Civic Car Replacement	Pre Stage 1	0	30,000	30,000	30,000	0	0		0	0	
Contact Centre	Stage 2	0	26,500	26,500	26,500	0	0		0	0	
CRM System	Stage 3	0	95,400	95,400	95,400	0	0		0	0	
Desktop Refresh	BAU	0	11,000	21,000	21,000	0	0		0	0	
ERP Systems Phase 2	Stage 2	0	200,000	200,000	200,000	0	0		0	0	
Member ICT Provision	Stage 3	0	32,000	32,000	32,000	0	0		0	0	
Mobile Phones	Pre Stage 1	0	10,000	10,000	10,000	0	0		0	0	
Richmond House Conservatory	Stage 3	0	50,000	50,000	50,000	0	0		0	0	
Saxilby Footbridge	Stage 3	(3,359)	0	0	0	0	0		0	0	
Our People											
1.1 Flagship Community Grants Programme	Stage 3	38,536	338,700	281,000	281,000	0	0		DFG top up grant £61.3k, landlord contributions to DFG £3.3k. Budget to be increased through Qtr.1 reporting to Committee.	0	0
1.2 Supporting our Town, Village & Neighbourhood Centres	Stage 3	12,856	0	27,600	27,600	0	0			0	0
Disabled Facilities Grants	BAU	98,110	674,900	904,200	968,800	64,600	0	0		0	
Extra Care Provision	Stage 3	1,250,000	1,161,000	1,661,000	1,661,000	0	0	0		0	
Home Upgrade Grant Phase 2	Stage 3	83,526	8,585,000	9,274,300	9,274,300	0	0	0		0	
Parks Fund Project	Stage 3	0	0	47,500	47,500	0	0	0		0	
Supported Accommodation (LEAP)	Stage 3	0	42,800	42,800	42,800	0	0	0		0	
Our Place											
1.3 Safer Streets West Lindsey	Stage 2	6,498	24,400	66,400	66,400	0	0	Saving on awning costs. Move £0.1k back to Townhall THI scheme as budget originally came from there.	0	0	
1.4 Multi Year Signature Events Programme	Stage 3	(298)	0	500	500	0	0		0	0	
2.1 Flagship West Lindsey Business Support Programme	Stage 3	75,066	421,700	578,400	578,400	0	0		0	0	
5-7 Market Place Redevelopment	Stage 3	4,227	0	49,700	49,127	(573)	0		44,900	44,900	
CCTV Expansion	Stage 3	0	0	27,400	27,400	0	0		0	0	
Food Waste Collection	Stage 2	0	720,000	720,000	720,000	0	0		0	0	
Gainsborough Heritage Regeneration	Stage 3	24,843	1,009,700	1,099,600	1,099,600	0	0		0	0	
Hemswell Cliff Investment for Growth	Stage 2	0	88,300	128,300	128,300	0	0		0	0	
Market Rasen 3 year vision	Stage 3	2,818	103,000	126,000	126,000	0	0		0	0	
Purchase of RAF Scampton	Stage 2	0	4,750,000	4,750,000	4,750,000	0	0		0	0	
Shop Front Improvement	Stage 3	0	49,771	48,871	48,871	0	0		0	0	
Thriving Gainsborough - Bus Station	Stage 3	(1,161)	0	1,000	1,000	0	0		0	0	
Thriving Gainsborough - Cinema	Stage 3	283,355	4,721,748	5,467,548	5,467,548	0	0		0	0	
Thriving Gainsborough - Living Over The Shops	Stage 2	0	609,960	767,860	767,860	0	0		0	0	
Thriving Gainsborough - Market Place/Streetscape	Stage 3	0	421,912	435,112	435,914	802	0		Move £0.1k from Whitton Gardens scheme.	0	0
Thriving Gainsborough - Pocket Park	Stage 3	8,868	265,000	261,500	666,952	405,452	0		Move £405.5k from Whitton Gardens scheme .	0	0
Thriving Gainsborough - Resources	Stage 3	0	275,526	381,326	381,326	0	0		0	0	0
Thriving Gainsborough - Townhall THI	Stage 3	140,787	1,021,573	1,369,673	1,370,246	573	0		Move £0.1k from 5-7 Market Place scheme - underspend on awnings.	0	0
Thriving Gainsborough - Wayfinding Strategy	Stage 3	1,795	5,800	10,800	10,800	0	0		0	0	0
Thriving Gainsborough - Whitton Gardens	Stage 3	6,613	964,944	1,172,844	766,589	(406,254)	0		Move £405.5k to Pocket Park scheme, £0.1k to Market Place/Streetscape scheme.	0	0
Trinity Arts Centre Improvements	Pre Stage 1	0	2,500,000	5,000,000	0	(5,000,000)	0		To be removed from the capital programme due to uncertainty around funding of the scheme. If resources are identified to progress the works in the future a report will be brought before committee to reinstate a budget into the capital programme.	0	0
Unlocking Housing (LoS)	Stage 3	0	69,600	69,600	69,600	0	0		0	0	0
Vehicle Replacement Programme	BAU	446,990	1,090,500	1,242,800	1,242,800	0	0		0	0	0
WLDC - Cinema Land Purchase	Stage 3	0	0	31,900	31,900	0	0		0	0	0
Total Capital Programme Gross Expenditure		2,473,257	30,715,734	36,972,834	31,997,433	(4,975,400)	0			44,900	44,900



Updated Interest Rate Forecast 29 May 2024

LINK GROUP UPDATED INTEREST RATE FORECAST

Updating of our forecasts 28 May 2024

Comparison of forecasts for Bank Rate today v. previous forecast

Bank Rate	Jun-24	Sep-24	Dec-24	Mar-25	Jun-25	Sep-25	Dec-25	Mar-26	Jun-26	Sep-26	Dec-26	Mar-27
28.05.24	5.25	5.00	4.50	4.00	3.50	3.25	3.25	3.25	3.25	3.00	3.00	3.00
05.02.24	5.25	4.75	4.25	3.75	3.25	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Change	0.00	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.00	0.00	0.00

- On 9 May, the Bank of England's Monetary Policy Committee (MPC) kept rates on hold for the sixth time in a row but is now firmly in the camp of preparing the market for near-term interest rate cuts. The vote in favour of keeping rates on hold was 7-2. There were seven members that voted for rates to stay on hold but, importantly, Bank of England insider, David Ramsden, joined Dr. Swati Dhingra in voting for a 25bps cut.
- Subsequently, the UK April inflation data disappointed to the upside, with annual CPI falling from 3.2% to 2.3%, but this was above the Bank of England and consensus view of 2.1%, with services and core inflation (excluding energy, food, alcohol and tobacco) remaining sticky at 5.9% and 3.9% respectively.
- However, despite these upside surprises, the CPI measure of inflation is likely to fall close to or below 2% when next reported on 19 June, and based on Capital Economics' latest forecasts is likely to fall close to 1% within the next year. Indeed, Capital Economics also forecast RPI to fall close to zero over the same timeline.
- Nonetheless, there remain several key factors that could act as a headwind to near-term rate cuts. The first of these is the stickiness of wage inflation. With average pay increasing at close to 6% y/y, the Bank of England will be keeping a close eye on upcoming wage and employment data. In particular, it will be looking for a loosening in the labour market arising from a reduction in the prevailing near 1 million job vacancies, an increase in unemployment (currently 4.3%), and government policies that do not significantly impact the current elevated level of migration (c700k per annum).
- Moreover, whatever the shape of domestic data, recent gilt market movements have been heavily influenced by the sentiment pertaining to US monetary policy. Again, inflation and labour data has proven sticky and the market's expectation for rate cuts has gradually reduced throughout the course of the year, so that possibly rates may not start to be cut until November at the earliest. In any event, even if the Bank of England starts to cut rates first, it may mean that the medium and longer parts of the curve take longer to fully reflect any such action until the US yield curve shifts lower too. Given the potential inflationary upside risk to US treasuries if Trump wins the presidential election in November (increased tariffs on imports from China for example), therein lies a further risk to yields remaining elevated for longer.
- Closer to home, the General Election is not expected to have a significant impact on UK monetary policy. Both leading parties are aware of the public finance backdrop, and there is minimal leeway for further tax cuts or added spending without negatively impacting market sentiment. It may even be the case that the Bank of England will steer clear of an August rate cut – should that be supported by the inflation data – in favour of weighing up fiscal policy implications and market sentiment in the aftermath of the election.
- Accordingly, our central case is still for a rate cut before the end of September, but we are not committed to whether it will be in August or September. Thereafter, the path and speed of rate cuts is similar to that which we previously forecast, with Bank Rate eventually falling to a low of 3% by H2 2026.
- However, given the increased uncertainty surrounding our central gilt market forecasts, and the significant issuance that will be on-going from several of the major central banks, we have marginally increased our PWLB forecasts by c20 to 30 basis points across the whole curve.
- In summary, regarding PWLB rates, movement in the short-end of the curve is expected to reflect our Bank Rate expectations to a large degree, whilst medium to longer-dated PWLB rates will remain influenced not only by the outlook for inflation, but by the market's appetite for significant gilt issuance

(£200bn+ for each of the next few years). As noted at the March Strategic Issues webinars, there is upside risk to that part of our forecast despite the Debt Management Office skewing its issuance to the shorter part of the curve.

Our current and previous PWLB rate forecasts below are based on the Certainty Rate (the standard rate minus 20 bps) which has been accessible to most authorities since 1 November 2012. Please note, the lower Housing Revenue Account (HRA) PWLB rate started on 15 June 2023 for those authorities with an HRA (standard rate minus 60 bps).

Link Group Interest Rate View	28.05.24											
	Jun-24	Sep-24	Dec-24	Mar-25	Jun-25	Sep-25	Dec-25	Mar-26	Jun-26	Sep-26	Dec-26	Mar-27
BANK RATE	5.25	5.00	4.50	4.00	3.50	3.25	3.25	3.25	3.25	3.00	3.00	3.00
3 month ave earnings	5.30	5.00	4.50	4.00	3.50	3.30	3.30	3.30	3.30	3.00	3.00	3.00
6 month ave earnings	5.30	4.90	4.40	3.90	3.50	3.30	3.30	3.30	3.30	3.10	3.10	3.20
12 month ave earnings	5.10	4.80	4.30	3.80	3.50	3.40	3.40	3.40	3.40	3.20	3.30	3.40
5 yr PWLB	4.90	4.70	4.50	4.30	4.10	4.00	3.90	3.90	3.90	3.90	3.90	3.80
10 yr PWLB	5.00	4.80	4.60	4.40	4.30	4.10	4.10	4.10	4.00	4.00	4.00	3.90
25 yr PWLB	5.30	5.20	5.00	4.80	4.70	4.50	4.50	4.40	4.40	4.40	4.30	4.30
50 yr PWLB	5.10	5.00	4.80	4.60	4.50	4.30	4.30	4.20	4.20	4.20	4.10	4.10

Gilt yields and PWLB rates

The overall longer-run trend is for gilt yields and PWLB rates to fall back over the timeline of our forecasts, as inflation continues to fall through 2024 and 2025. Our target borrowing rates are set **two years forward** (as we expect rates to fall back) and the current PWLB (certainty) borrowing rates are set out below: -

PWLB debt	Current borrowing rate as at 28.05.24 p.m.	Target borrowing rate now (end of Q1 2026)	Target borrowing rate previous (end of Q4 2025)
5 years	5.01%	3.90%	3.70%
10 years	5.03%	4.10%	3.90%
25 years	5.46%	4.40%	4.20%
50 years	5.24%	4.20%	4.00%

Borrowing advice: Our long-term (beyond 10 years) forecast for Bank Rate remains at 3%. As all PWLB certainty rates are currently significantly above this level, borrowing strategies will need to be reviewed in that context. Overall, better value can be obtained at the shorter end of the curve and short-dated fixed LA to LA monies should also be considered. Temporary borrowing rates will, generally, fall in line with Bank Rate cuts.

Our suggested budgeted earnings rates for investments up to about three months' duration in each financial year are set out below.

Average earnings in each year	Now	Previously
2024/25	4.70%	4.55%
2025/26	3.35%	3.10%
2026/27	3.10%	3.00%
2027/28	3.25%	3.25%
2028/29	3.25%	3.25%
Years 6 to 10	3.25%	3.25%
Years 10+	3.50%	3.25%

We will continue to monitor economic and market developments as they unfold. Typically, we formally review our forecasts following the quarterly release of the Bank of England's Monetary Policy Report but will consider our position on an ad hoc basis as required.

Our interest rate forecast for Bank Rate is in steps of 25 bps, whereas PWLB forecasts have been rounded to the nearest 10 bps and are central forecasts within bands of + / - 25 bps. Naturally, we continue to monitor events and will update our forecasts as and when appropriate.

Interest Rate Strategy Group

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West Lindsey District Council

Monthly Investment Analysis Review

May 2024

Monthly Economic Summary

General Economy

The UK manufacturing PMI rose to 51.2 in May from 49.1 the previous month, its highest reading since July 2022, but slightly below market expectations of 51.3. This meant that UK factory activity returned to expansion (ie a reading above 50) with manufacturing production driven by increased new work, strong market conditions and efforts to complete existing contracts. Despite overall improvements, new exports fell for the twenty-eighth consecutive month. Meanwhile, the UK Services PMI fell to 52.9 in May from 55 in April, beneath market expectations of 54.7. Despite the slowdown, this indicates the seventh consecutive expansion in the sector as UK companies continued to adapt to the prolonged period of higher interest rates. However, despite increases in business and consumer spending, activity is still weighed by the effect of the rising living costs which explains the slowdown in activity from the previous month. Consequently, the UK composite PMI dropped to 52.8 in May, a fall from 54.1 in April, and below market expectations of 54 but still a solid expansion in the private sector. Meanwhile, the UK construction PMI increased to 53 in April from 50.2 the previous month (it is released on a one-month lag to other sector reports), its second consecutive expansion led by growth in the commercial and civil engineering sectors.

The UK economy expanded 0.4% m/m in March, following an upwardly revised 0.2% in February, and beating market expectations of 0.1%. The biggest contribution to the rise came from a 0.5% increase in services output helping GDP have its strongest performance in 9 months. Additionally, production grew by 0.2% but, in contrast, construction shrank by 0.4% having been impacted by inclement weather conditions. Elsewhere, the UK's trade deficit narrowed to £1.098 billion in March, from a revised £1.478 billion in February, and its smallest deficit in three months, as imports dropped by 1.5% compared to a fall in exports of just 1%.

The UK recorded a further 178,000 drop in jobs in the three months prior to March, following a 156,00 decrease in the previous period, although this was above market expectations of a 215,000 fall. Meanwhile, average weekly earnings (including bonuses) increased at 5.7% y/y in the three months to March, beating market expectations of 5.3%. The unemployment rate edged up to 4.3% between January and March, just above 4.2% in the previous period and in line with market expectations.

Regarding inflation, the monthly Consumer Price Index (CPI) rose by 0.3% in April, slowing from the 0.6% rise in March but above market expectations of 0.2%. The headline annual rate dropped significantly to 2.3% in April, its lowest since July 2021, largely down to falling gas and electricity costs, as Ofgem lowered the energy price cap. There was also a slowing in rates for food and recreation and culture, however, these were offset primarily by the upward contribution from motor fuels.

In the retail sector, sales declined 2.3% in April, following a downwardly revised 0.2% drop in March and significantly worse than market expectations of a 0.4% fall. This was the largest decrease in retail sales in four months, with non-food stores and motor fuels leading declines, although sales volumes declined in most sectors. Meanwhile, the GfK Consumer Confidence Indicator improved to -17 in May from -19 in April, its highest reading since December 2021 and better than market expectations of -18. Elsewhere, public sector net borrowing, excluding public sector banks, increased to £20.5 billion in April, compared to market expectations of £19.3 billion. It was the largest public deficit since April 2021, as expenditure rose 3%, and receipts increased 1.9%.

US Economy

The US economy added 175,000 jobs in April, in comparison to the upwardly revised 315,000 jobs in March but short of market expectations of a 243,000 increase. The main areas of gain were the healthcare sector, while transportation and warehousing sectors also saw improvements. The US economy expanded an annualised 1.3% in Q1 2024, below the 1.6% advanced estimate mainly due to a downward revision in consumer spending. The US inflation rate eased to 3.4% after its 3.5% reading March, which was its highest since September, and in line with market expectations.

EU Economy

In the Euro area, the inflation rate remained at 2.4% in May, in line with market expectations and still above the ECB's 2% target. Meanwhile, the core rate, excluding food and energy prices, fell to 2.7%, from 2.9% the previous month, matching market expectations. GDP in the Euro area expanded by 0.3% in the first quarter of 2024, recovering from a 0.1% contraction in the two previous months, and in line with initial estimates. It was its largest expansion since Q3 2022, as France, Germany and Italy all expanded at a faster pace than the previous quarter.

Housing

The Halifax House Price index rose 1.1% y/y in April, accelerating after an upwardly revised 0.4% gain in March while relative stability helped buyers gain confidence as mortgage applications rose and industry-wide approvals hit an 18-month high. Meanwhile, the Nationwide House Price Index increased 1.3% y/y in April, which marked the fourth straight price rise but its slowest pace in three months.

Currency

Sterling appreciated against both the Euro and Dollar over the month.

May	Start	End	High	Low
GBP/USD	\$1.2493	\$1.2732	\$1.2778	\$1.2486
GBP/EUR	€1.1694	€1.1728	€1.1767	€1.1611

Interest Rate Forecasts

Link Group and Capital Economics still hold that Bank Rate will peak at 5.25% in this cycle.

Bank Rate														
	Now	Jun-24	Sep-24	Dec-24	Mar-25	Jun-25	Sep-25	Dec-25	Mar-26	Jun-26	Sep-26	Dec-26	Mar-27	
Link Group	5.25%	5.25%	5.00%	4.50%	4.00%	3.50%	3.25%	3.25%	3.25%	3.25%	3.00%	3.00%	3.00%	
Capital Economics	5.25%	5.25%	5.00%	4.50%	4.00%	3.50%	3.00%	3.00%	3.00%	3.00%	-	-	-	

West Lindsey District Council

Current Investment List

Borrower	Principal (£)	Interest Rate	Start Date	Maturity Date	Lowest LT / Fund Rating	Historic Risk of Default	Expected Credit Loss (£)
MMF CCLA	5,500,000	5.13%		MMF	AAAm		
MMF Insight	365,000	5.24%		MMF	AAAm		
MMF LGIM	5,600,000	5.20%		MMF	AAAm		
Bedford Borough Council	3,000,000	5.30%	28/05/2024	29/07/2024	AA-	0.004%	0
Lancashire County Council	1,000,000	5.30%	31/05/2024	30/08/2024	AA-	0.006%	0
Borrower - Funds	Principal (£)	Interest Rate	Start Date	Maturity Date			
CCLA Local Authority Property Fund	2,000,000	-0.50%					
Total Investments	£17,465,000	4.55%					
Total Investments - excluding Funds	£15,465,000	5.20%				0.004%	£0
Total Investments - Funds Only	£2,000,000	-0.50%					

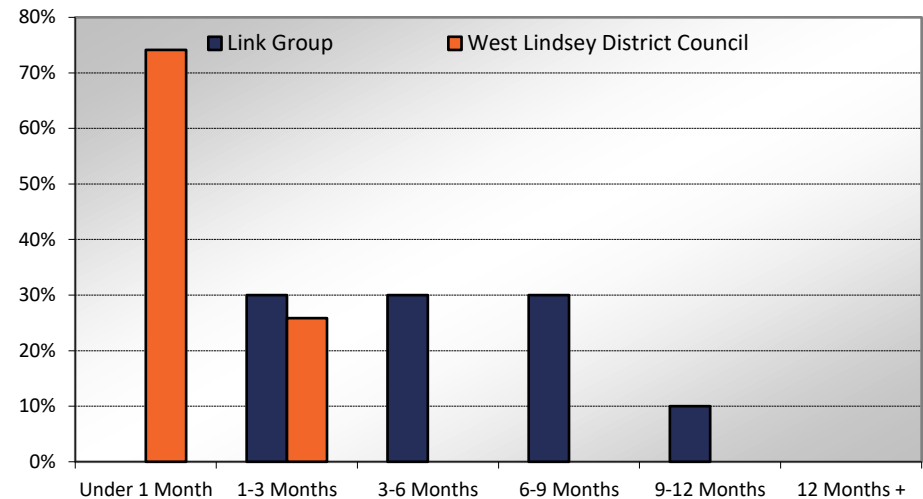
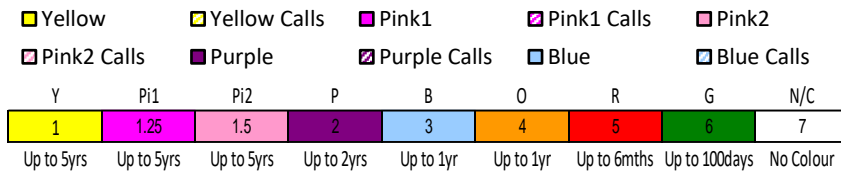
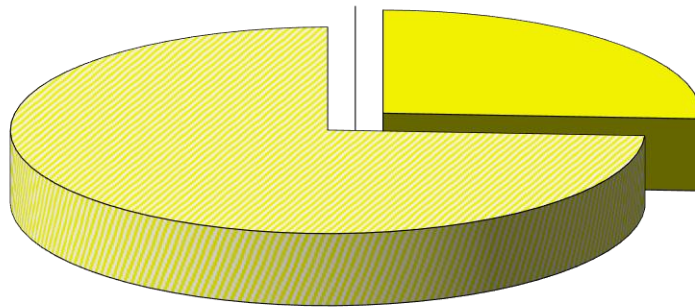
Note: An historic risk of default is only provided if a counterparty has a counterparty credit rating and is not provided for an MMF or USDBF, for which the rating agencies provide a fund rating. The portfolio's historic risk of default therefore measures the historic risk of default attached only to those investments for which a counterparty has a counterparty credit rating and also does not include investments which are not rated.

The Historic Risk of Default column is based on the lowest long term rating. If clients are using this % for their Expected Credit Loss calculation under IFRS 9, please be aware that the Code does not recognise a loss allowance where the counterparty is central government or a local authority since relevant statutory provisions prevent default. For these instruments, the Expected Credit Loss will be nil. Please note that we are currently using Historic Default Rates from 1990-2023 for Fitch, 1983-2023 for Moody's and 1981 to 2023 for S&P.

Where Link Group have provided a return for a property fund, that return covers the 12 months to December 2023, which are the latest returns currently available.

West Lindsey District Council

Portfolio Composition by Link Group's Suggested Lending Criteria



Portfolios weighted average risk number = 1.00

WARoR = Weighted Average Rate of Return

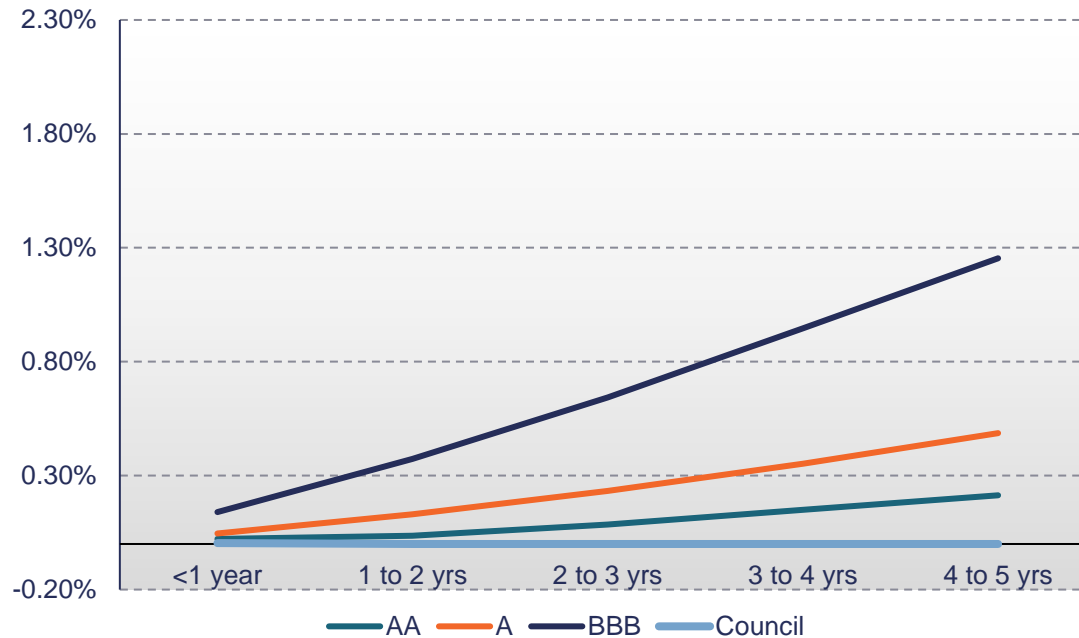
WAM = Weighted Average Time to Maturity

	Excluding Calls/MMFs/USDBFs									
	% of Portfolio	Amount	% of Colour in Calls	Amount of Colour in Calls	% of Call in Portfolio	WARoR	WAM	WAM at Execution	WAM	WAM at Execution
Yellow	100.00%	£15,465,000	74.14%	£11,465,000	74.14%	5.20%	17	18	67	69
Pink1	0.00%	£0	0.00%	£0	0.00%	0.00%	0	0	0	0
Pink2	0.00%	£0	0.00%	£0	0.00%	0.00%	0	0	0	0
Purple	0.00%	£0	0.00%	£0	0.00%	0.00%	0	0	0	0
Blue	0.00%	£0	0.00%	£0	0.00%	0.00%	0	0	0	0
Orange	0.00%	£0	0.00%	£0	0.00%	0.00%	0	0	0	0
Red	0.00%	£0	0.00%	£0	0.00%	0.00%	0	0	0	0
Green	0.00%	£0	0.00%	£0	0.00%	0.00%	0	0	0	0
No Colour	0.00%	£0	0.00%	£0	0.00%	0.00%	0	0	0	0
Total	100.00%	£15,465,000	74.14%	£11,465,000	74.14%	5.20%	17	18	67	69

West Lindsey District Council

Investment Risk and Rating Exposure

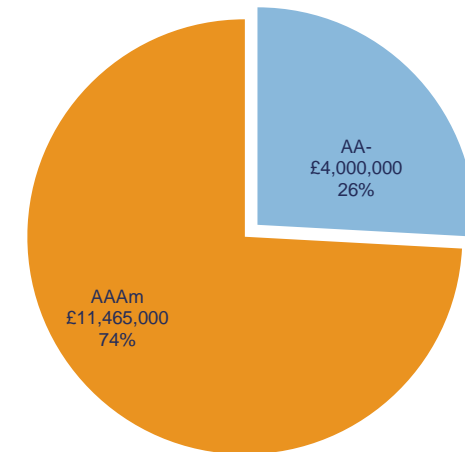
Investment Risk Vs. Rating Categories



Historic Risk of Default

Rating/Years	<1 year	1 to 2 yrs	2 to 3 yrs	3 to 4 yrs	4 to 5 yrs
AA	0.02%	0.04%	0.09%	0.15%	0.21%
A	0.05%	0.13%	0.23%	0.35%	0.49%
BBB	0.14%	0.37%	0.64%	0.95%	1.25%
Council	0.00%	0.00%	0.00%	0.00%	0.00%

Rating Exposure



Historic Risk of Default

This is a proxy for the average % risk for each investment based on over 30 years of data provided by Fitch, Moody's and S&P. It simply provides a calculation of the possibility of average default against the historical default rates, adjusted for the time period within each year according to the maturity of the investment.

Chart Relative Risk

This is the authority's risk weightings compared to the average % risk of default for "AA", "A" and "BBB" rated investments.

Rating Exposures

This pie chart provides a clear view of your investment exposures to particular ratings.

Note: An historic risk of default is only provided if a counterparty has a counterparty credit rating and is not provided for an MMF or USDBF, for which the rating agencies provide a fund rating. The portfolio's historic risk of default therefore measures the historic risk of default attached only to those investments for which a counterparty has a counterparty credit rating and also does not include investments which are not rated.

West Lindsey District Council

Monthly Credit Rating Changes FITCH

Date	Update Number	Institution	Country	Rating Action
28/05/2024	2026	Toronto-Dominion Bank	Canada	The Outlook on the Long Term Rating was changed to Negative from Stable.
29/05/2024	2028	National Australia Bank Ltd.	Australia	The Long Term Rating was upgraded to 'AA-' from 'A+'. The Short Term Rating was upgraded to 'F1+' from 'F1'.
29/05/2024	2028	Commonwealth Bank of Australia	Australia	The Long Term Rating was upgraded to 'AA-' from 'A+'. The Short Term Rating was upgraded to 'F1+' from 'F1'.
29/05/2024	2028	Westpac Banking Corp.	Australia	The Long Term Rating was upgraded to 'AA-' from 'A+'. The Short Term Rating was upgraded to 'F1+' from 'F1'.
29/05/2024	2028	Australia and New Zealand Banking Group Ltd.	Australia	The Long Term Rating was upgraded to 'AA-' from 'A+'. The Short Term Rating was upgraded to 'F1+' from 'F1'.
29/05/2024	2028	Macquarie Bank Ltd.	Australia	The Long Term Rating was upgraded to 'A+' from 'A'.

West Lindsey District Council

Monthly Credit Rating Changes MOODY'S

Date	Update Number	Institution	Country	Rating Action
02/05/2024	2023	Danske A/S	Denmark	The Long Term Rating was upgraded to 'A1' from 'A2'. The Outlook on the Long Term Rating was changed to Stable from Positive.
14/05/2024	2024	Nordea Bank Abp	Finland	The Outlook on the Long Term Rating was changed to Positive from Stable.
28/05/2024	2025	Al Rayan Bank Plc	United Kingdom	The Long Term Rating was downgraded to 'A2' from 'A1'. The Outlook of the Long Term Rating was changed to Stable from Negative.
28/05/2024	2027	Commonwealth Bank of Australia	Australia	The Long Term Rating was upgraded to 'Aa2' from 'Aa3'. The Outlook on the Long Term Rating was added as Stable.

West Lindsey District Council

Monthly Credit Rating Changes S&P

Date	Update Number	Institution	Country	Rating Action
30/05/2024	2029	Toronto-Dominion Bank	Canada	The Outlook on the Long Term Rating was changed to Negative from Stable

Whilst Link Group makes every effort to ensure that all the information it provides is accurate and complete, it does not guarantee the correctness or the due receipt of such information and will not be held responsible for any errors therein or omissions arising there from. All information supplied by Link Group should only be used as a factor to assist in the making of a business decision and should not be used as a sole basis for any decision. The Client should not regard the advice or information as a substitute for the exercise by the Client of its own judgement.

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Cost Centre	Intervention	Total Project Budget	22/23 QTR4 £	23/24 Year £	24/25 Qtr1 £	24/25 Qtr2 £	24/25 Qtr3 £	24/25 Qtr4 £	24/25 Total £
Revenue									
5022	1.1 Flagship Community Grants Programme	630,000	215,500	266,549	21,754				21,754
5017	1.2 Supporting our Town, Village & Neighbourhood Centres	130,000	0	14,006	8,008				8,008
5019	1.3 Safer Streets West Lindsey	167,000	6,100	73,900	15,065				15,065
5020	1.4 Multi Year Signature Events Programme	229,186	25,900	99,082	18,705				18,705
5021	1.5 West Lindsey Walking, Cycling and Wayfinding	60,000	0	0	0				0
5018	1.6 Green Space Management & Community Project Development	197,600	0	45,000	0				0
5026	2.1 Flagship West Lindsey Business Support Programme	545,000	0	155,400	74,660				74,660
5024	2.2 Maximising the Visitor Economy Offer	50,000	0	13,386	980				980
5025	2.3 Growing Innovation	400,000	50,000	0	0				0
5023	2.4 Supporting our Markets & Retail Centres	250,000	8,600	107,093	34,606				34,606
5028	3.1 Local Skills Programme	158,000	0	108,307	25,000				25,000
5029	3.2 Skills for the Future	250,000	0	0	0				0
5030	UKSPF Admin	108,017	4,500	21,370	5,722				5,722
	Capacity Funding	20,000	20,000	0	0				0
		3,194,803	330,600	904,093	204,500	0	0	0	204,500
Capital									
500027	1.1 Flagship Community Grants Programme	702,490	0	421,439	38,536				38,536
500023	1.2 Supporting our Town, Village & Neighbourhood Centres	60,000	0	32,416	6,937				6,937
500025	1.3 Safer Streets West Lindsey	84,370	10,000	8,044	6,498				6,498
500026	1.4 Multi Year Signature Events Programme	31,464	11,163	19,826	(297)				(297)
500028	2.1 Flagship West Lindsey Business Support Programme	643,331	0	65,001	75,066				75,066
		1,521,655	21,163	546,726	126,739	0	0	0	126,739
TOTAL UKSPF SPEND (GRANT/WLDC MATCH/OTHER)			351,763	1,450,819	331,239	0	0	0	331,239
									Total Projects Spend
Funding									
	UKSPF	2,700,437	75,663	914,428	296,302				1,286,393
	UKSPF CAPACITY	20,000	20,000	0	0				20,000
	REPF	795,821	0	269,520	26,947				296,467
	WLDC MATCH	1,200,200	256,100	266,871	7,990				530,961
		4,716,458	351,763	1,450,819	331,239	0	0	0	2,133,821
Notes:									
Most interventions are now incurring spend with the main grant schemes going live in May 2023.									
The above actuals do not include commitments.									
Intervention 2.3 - £200k grant not yet secured (LEP/University/Private sector match)									

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Intervention	Update as at 31/05/24	Project Manager
1.1 Flagship Community Grants Programme	<p>Forecast predicts scheme will be fully awarded based on number of applications received so far. Panel meeting due to take place March-24 has been pushed back to April-24. Any applications which cannot be funded due to lack of budget will be kept on hold and considered in the future should any funding become available in case of other projects not progressing.</p> <p>Projects now in delivery are being supported by officers and monitoring work underway.</p>	Grant White
1.2 Supporting our Town, Village & Neighbourhood Centres	<p>Neighbourhood Development Fund launching in June 2024 to provide grants for project development and feasibility support. Details of the fund will be sent to eligible organisations across the district.</p> <p>All locations are now engaged and in delivery, with a small number of completed projects.</p> <p>A few examples,</p> <p>Cherry Willingham - Event equipment / improvements to green space borders that the retail area.</p> <p>Welton – Marketing Support for combined Arts Festival / installation of bike shelters, bike racks, bins, map lectern</p> <p>The underspend from the original locations as agreed has been reallocated via phase 2 of the scheme to Market Rasen and Caistor.</p> <p>A small amount of capital funding remains unallocated (£322) GW and WO to agree location to allocate this budget.</p>	Grant White/Wendy Osgodby
1.3 Safer Streets West Lindsey	CCTV coverage upgrades in Hemswell Cliff and Market Rasen have now commenced and are expected to be complete by May-24. The plan for additional CCTV within Marshalls Yard continues to be developed.	Grant White
1.4 Multi Year Signature Events Programme	The Illuminate event was held on the 09/03/24 with a Gainsborough Town Council contribution of £1k. The event saw over 2000 visitors to the fire garden and hundreds of residents took part in the parade. Workshops were carried out in 4 local schools. The Gainsborough Old Hall and Parish Church supported with event space. A Peter Pan production is being led by the Trinity on	Cara Markham

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	Tour outreach team and is planned for July 2024 in Market Rasen at a subsidised rate through UKSPF's contribution. The team are now starting to prep for the two day Christmas Lights festival in November 2024/	
1.5 West Lindsey Walking, Cycling and Wayfinding	Work for this intervention was due to begin late 2023, however has been pushed back to 2024/25. Funding opportunity for Parish/Town Councils and other VCSE due to be opened in July 2024. Will focus on supporting project development and feasibility to enable walking, cycling or wayfinding improvements.	Grant White
1.6 Green Space Management & Community Project Development	The Conservation Volunteers work continues into 2024/25. On-going green space work on sites owned by the Council and exploring project opportunities at other locations including sites owned by Parish Councils. Green Space Officer due to start in July 2024.	Grant White
2.1 Flagship West Lindsey Business Support Programme	<p>2.1.1 Business Lincolnshire Growth Hub: Project live – 149 WL businesses have engaged with the service; 91 WL businesses have accessed BL support (3 hours+) and 16 WL entrepreneurs (pre-start) have received support to be business ready (to May 24). Support has so far helped created three (3) new businesses and three (3) new jobs.</p> <p>2.1.2 WLDC Retail/Visitor Economy Advice and Guidance Programme: Project live – 640 hours of support delivered (to May 24) to 48 WL businesses, and 1 WL entrepreneur (pre-start) has received support to be business ready. (64 distinct interactions of 3hrs or more).</p> <p>2.1.3 UKSPF Business Sustainability (Green Growth) Grant: Project Live - 46 EOIs submitted, 16 full applications, 14 grant offers made (to May 24) = c.£260k grant and c.£369k project value (of which 6 grants have been claimed). Currently, only £14k of fund unallocated (Rev + Cap).</p> <p>2.1.4 REPF/WLDC Grants: Project Live – 26 EOIs submitted, 6 full applications, 2 grants claimed = c.£121k grant and c.£199k project value (to May 24). Over 96% of available funds now allocated - £322k (grant) live applications, with a total project value of £696k (grant + match).</p> <p>The support offer continues to be signposted within the business e-brief and WLDC comms/social media channels etc. and new case studies will be shared with members and</p>	James Makinson-Sanders/Wendy Osgodby

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	published to WLDC website as and when they are finalised. We have now exceeded our whole programme target of 100 'Number of businesses receiving non-financial support (numerical value)'.	
2.2 Maximising the Visitor Economy Offer	<p>LCC's Countryside Service have now been identified as the partner to support the creation new walking routes. Two new walking routes in Cherry Willingham and Tealby will be created branching off from existing Viking ways.</p> <p>The Aviation guide is completed and was launched to coincide with the opening of RAF Ingham visitor centre.</p> <p>Placemarque have now been procured and appointed to develop wayfinding strategies within Caistor and Market Rasen, draft reports have been produced and feedback obtained from the destination partners, we are awaiting final reports.</p> <p>Work also ongoing under this intervention includes:</p> <ul style="list-style-type: none"> - Development of thematic clusters, a set of itineraries linking local businesses together under key themes - 4 x workshops are being delivered to support visitor economy collaborations (2 have taken place / 2 planned for October) - Development of Lincolnshire Wolds Outdoor Festival, Partnership agreement being developed with ELDC) - Development of tool kit to support businesses to maximise the benefits of the festival has been produced and distributed. 	Wendy Osgodby
2.3 Growing Innovation	Following the initial failed tender round due to limited timescale and capacity, the agri-tech sector specialist has now confirmed he will be able to lead and deliver the commission in consultation with a range of stakeholders and consultees. A proposal has now been received and reviewed by WLDC officers and the UK Food Valley Manager. An inception meeting will be scheduled over the next few weeks with a view to start the work in July and a completed draft report submitted by December.	Marina Di-Salvatore

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2.4 Supporting our Markets & Retail Centres	<p>Towns Manager continues to meet regularly with Market Rasen and Caistor Town Councils to ensure the funding is dispersed across the rural communities.</p> <p>The Gainsborough farmers market programme will now also include a teen market to encourage youth traders who will be selected and entered into a national competition.</p> <p>The summer festival is now branded as GO Festival and planned for 15/06/24. The Arts Council has awarded £30k small project grant to develop community engagement, which is to be delivered through the town centre event. This will include shop decorations and handmade bunting. Two future events have been created in Market Rasen and Gainsborough – Wordfest, offers wrap around literature and arts workshops leading to a town centres event with authors and publishers trading at the general market.</p>	Cara Markham
3.1 Local Skills Programme	<p>3.1.1- Phase 1: December 2023's monitoring report received, with project on target to achieve UKSPF outcomes. STEPS have received their third payment of £25,000.</p> <p>3.1.1- Phase 2: As at Dec-23 the following figures have been achieved against the expected outputs and outcomes (red text is achievement to date):</p> <p>3.1.1- Phase 3: As at Mar-24 the figures below have been achieved against the expected outputs and outcomes (red text is achievement to date) The project is in now in Q3. The increase in figures across the board demonstrates the progression of the individuals – with some who started on programme at the outset now in a position to successfully achieve employment.</p>	Amanda Bouttell

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	Outputs	E33: Employment Support for Economically Inactive People	
	Number of Socially Excluded People Accessing Support (numerical value)	70 (43)	
	Number of people supported to engage in job searching	66 (43)	
	Number of people receiving support to gain employment	56 (13)	
	Quarter 4 figures due end June 2024.		
3.2 Skills for the Future	<p>Workforce Development Grant Scheme</p> <p>Launched in May 2024 and provides small grants to SME's, including community organisations to help support training and development to upskill the existing workforce. The grant will only fund training or development that isn't mandatory or already funded elsewhere – e.g. AEB funded course, skills bootcamps, apprenticeships etc.</p> <p>We expect to support 50-60 organisations with the funds and around 250 people.</p> <p>The fund is £240k and applications must be received before end Dec 2024. Training must have started by end March 25 and completed by Sept 25.</p> <p>5 EOI's and 2 applications received as at mid-June 2024.</p>		Amanda Bouttell
UKSPF Admin	Officer time spent on UKSPF schemes is now being allocated to the UKSPF administration budget.		Grant White/James Makinson-Sanders

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Capacity Funding	For the remainder of the programme this funding is being utilised to cover the staff costs of managing the programme including the completion of government assurance reports, the monitoring and reporting of outputs and outcomes and the financial due diligence and reporting.	Sally Grindrod-Smith
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Corporate Policy & Resources Committee Work Plan (as at 10 July 2024)

Purpose:

This report provides a summary of items of business due at upcoming meetings.

Recommendation:

1. That Members note the contents of this report.

Date	Title	Lead Officer	Purpose of the report	Date First Published
18 JULY 2024				
18 Jul 2024	Food Waste Collections	Darren Mellors, Performance & Programme Manager	Supporting paper to request funding requirements for the scheme to allow for resources to be procured and a pilot to be undertaken.	03 April 2024
18 Jul 2024	Street Naming and Numbering Policy	Daniel Reason, Senior Enabling Technology Officer	New SNN policy following approval of the SNN procedure in December 2023.	15 May 2024
18 Jul 2024	Fleet Vehicle Decarbonisation Strategy	Rachael Hughes, Head of Policy and Strategy	Operational strategy to support fleet replacement decisions.	15 May 2024
18 Jul 2024	Budget and Treasury Monitoring Qtr. 1 2024/2025	Sue Leversedge, Business Support Team Leader	This report sets out the revenue, capital and treasury management activity from 1st April 2024 to 31st May 2024.	15 May 2024
18 Jul 2024	Unacceptable Customer Action Policy and Guidance	Lyn Marlow, Customer Strategy and Services Manager	Policy and Guidance around how to deal with the actions of customers who display unacceptable behaviours in their dealing with us causing heavy workload and stress for officers	19 June 2024
18 Jul 2024	Trinity Arts Boundry Wall Remedial Options Report	Luke Matthews, Building Maintenance Technician	Options report to explore feasibility of possible remedial repair options in regards Trinity Arts Northern boundary wall	

18 Jul 2024	Drivers pay supplement	Robert Gilliot, Operational Services Manager	Market supplement payments for HGV drivers (class 2) were added 3 years ago with the driver shortage and retention, request for continuation of this supplement	
19 SEPTEMBER 2024				
19 Sep 2024	Trinity Arts Centre Business Plan	Cara Markham, Commercial Development Manager		15 May 2024
19 Sep 2024	Lea Fields Crematorium Business Plan	Ady Selby, Director - Operational & Commercial Services	For Members to approve a refreshed Crematorium Business Plan	01 November 2023
19 Sep 2024	Scampton Update	Sally Grindrod-Smith, Director Planning, Regeneration & Communities	The report will provide a financial and legal update, as well as progress with the delivery of the investment and regeneration plan.	
17 OCTOBER 2024				
17 Oct 2024	ICT Policy Update	Cliff Dean, ICT Team Manager	Approval for the Information Systems Asset Management Policy, Monitoring Policy and the ICT Generative Artificial Narrow Intelligence, Large Language Model, Automation Policy	03 April 2024
14 NOVEMBER 2024				
14 Nov 2024	Budget and Treasury Monitoring - Quarter 2 2024/2025 (1st April 2024 to 30th September 2024)	Sue Leversedge, Business Support Team Leader	This report sets out the revenue, capital and treasury management activity from 1st April 2024 to 30th September 2024.	15 May 2024
14 Nov 2024	Proposed Fees and Charges 2025/2026	Sue Leversedge, Business Support Team Leader	Propose Fees and Charges to take effect from 1 April 2025.	15 May 2024
14 Nov 2024	Progress and Delivery Quarter Two (2024/25)	Claire Bailey, Change,	Progress and Delivery Quarter Two	

Projects and Performance (2024/25)
Officer, Darren Mellors,
Performance &
Programme Manager

12 DECEMBER 2024

12 Dec 2024	Council Debts for Write Off 2024/25	Alison McCulloch, Revenues Manager	All council debts over £2,500 for write off by committee 2024/25	15 May 2024
27 Jan 2025	Local Council Tax Support Scheme 2025/26	Alison McCulloch, Revenues Manager, Angela Matthews, Benefits Manager	To determine new council tax support scheme for 2025/26	15 May 2024

9 JANUARY 2025

13 FEBRUARY 2025

13 Feb 2025	Budget and Treasury Monitoring - Quarter 3 2024/2025	Sue Leversedge, Business Support Team Leader	This report sets out the revenue, capital and treasury management activity from 1st April 2024 to 31st December 2024.	15 May 2024
13 Feb 2025	Corporate Policy and Resources Committee Draft Budget 2025/2026 and estimates to 2029/2030.	Sue Leversedge, Business Support Team Leader	The report sets out the draft Revenue Budget 2025/2026 including that of this Committee and those recommended by the Prosperous Communities Committee for the period 2025/2026. It also includes estimates to 2029/2030 to be included in the Medium Term Financial Plan	15 May 2024

13 MARCH 2025

10 APRIL 2025

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