

5<sup>th</sup> June 2024

<b>Report of</b>	<b>Head of Neighbourhood Services</b>	<b>Author</b>	<b>Robert Doran</b>
<b>Title</b>	<b>Adoption of Fleet Strategy</b>		
<b>Wards affected</b>	All Wards		

**1. Executive Summary**

- 1.1 In December 2020, the Environment & Sustainability Panel endorsed a new Fleet Transition Plan (Appendix A). This Plan set out a program for the transition of the Council’s diesel fleet to a zero-carbon fleet by 2030 in line with the Council’s Climate Emergency Action Plan. With the introduction of a small number of electric vehicles to the Council’s fleet and the trial of alternative lower emission fuels while industry is continuing to develop, Officers wanted to update this transition Plan and formulate a Fleet Strategy.
- 1.2 This Strategy (Appendix B) was formulated using extracts from the Fleet Transition Plan 2020 alongside new information that was gathered from fleet manufacturers, other local authorities and third-party critical friends including the Energy Savings Trust. The Strategy is now more up to date and explores some of the options that the Council can take in the future to achieve a carbon neutral tailpipe fleet.
- 1.3 The Environment & Sustainability Panel, at its meeting on 21 March 2024, agreed to recommend to Cabinet the implementation of the Strategy as per the report, with the following addition:
  - That when selecting suppliers of vehicles, due regard is given to the environmental, employment and human rights standards in place at the point of manufacture of substantial components (those components representing greater than 25% of the market cost of the vehicle), including battery technology, of the vehicle which is being procured.

**2. Recommended Decision**

- 2.1 To approve the Fleet Strategy in line with the recommendations made by the Environment & Sustainability Panel.

**3. Reason for Recommended Decision**

- 3.1 With current technology continuing to develop in the world of batteries and alternative fuels, Council Officers continue to work with vehicle manufacturers, other local authorities and third-party critical friends including the Energy Savings Trust to test the market by way of trialling alternative fleet options.

#### **4. Alternative Options**

- 4.1 An alternative option would be to remain with the current Fleet Transition Plan however, with technology advancing year on year regarding alternative fuels and batteries, having a more robust and up to date Strategy will put the Council in a better position when making informed decisions regarding the procurement and management of their fleet.

## 5 Background Information

- 5.1 At its meeting of 17 December 2020, the Environment & Sustainability Panel endorsed a Fleet Transition Forward Plan (Appendix A) that set out to deliver a rolling replacement programme of electric/hybrid vehicles as the diesel vehicles came to their end-of-life span. It was set out that the Council's fleet is used to deliver a range of important and front-line services, including Neighbourhood Services, Pest Control, and the Helpline Service. The Council has a responsibility to ensure that all fleet complies with national standards, is adequate in terms of capacity, reliable, and is fit for purpose to deliver against the agreed outcomes for the service. At the time of the report, the Council's Strategic Plan for 2020/23 prioritised tackling the climate challenge and leading sustainability, with a key goal to improve air quality and reduce the Council's direct carbon emissions to achieve a net zero carbon footprint by 2030. The Climate Emergency Action Plan identified that the Council's fleet was accounting for, approximately 22% of its total emissions in 2019/20. As the grid continues to decarbonise, it was reported that the emissions from the Council's fleet would become an increasingly larger portion of the overall footprint. The Plan therefore proposed to take a phased approach to renewing the fleet as new technologies and associated infrastructure became available.
- 5.2 Since ratification of the Plan, the Council has made strides towards the goals set out by introducing a small number of electric vehicles to its fleet. Concurrently, it began trialling alternative lower emission fuels, reflecting the ongoing developments in the industry. Recognising the dynamic nature of the industry and the evolving options for sustainable transportation, the Council's Officers have sought to update the Plan and formulate a comprehensive Fleet Strategy.
- 5.3 The new Strategy (Appendix B) was formulated using key insights from the Fleet Transition Plan 2020. It also incorporated new information gathered from various sources, including fleet manufacturers, other local authorities, and third-party critical friends such as the Energy Savings Trust. This approach ensured that the Strategy was informed by a broad range of perspectives and up-to-date industry knowledge. The updated Strategy is more comprehensive and current, exploring some of the potential pathways that the Council can pursue in the future. The Strategy serves as a roadmap for the Council's transition to a more sustainable fleet, aligning with its broader commitment to environmental responsibility.
- 5.4 In February 2024 Officers presented this new Strategy to the Environment & Sustainability Panel. During this meeting the Panel explored various aspects of the Strategy, and it was agreed that Officers would be given the opportunity to present more information at the next Environment & Sustainability Panel in March 2024. Aspects explored:
- An explanation of the 'tipping point' beyond which our use of electric vehicles would require us to install a sub-station at Shrub End
  - Need to know the whole life cycle of batteries and vehicles.
  - Check the current cost of Hydrotreated Vegetable Oil (HVO) and diesel.
  - Check the cost per mile for the fuel types listed on page 39 of the agenda.
  - Provide more detail in the Equality Impact Assessment in relation to the Council's procurement social value indicators.
  - The carbon intensity of grid electricity (powering a battery electric vehicle (BEV)) versus the carbon intensity of internal combustion engine vehicles.
  - Vehicle retention
  - Manufacturing of vehicles

- 5.5 In March 2024 Officers presented a further report to the Environment & Sustainability Panel to further inform the Panel on the aspects of the Strategy they wished to explore. The Panel expressed satisfaction with the information provided and proposed an additional recommendation to be presented to Cabinet. The recommendation was articulated as follows:

*‘That when selecting suppliers of vehicles, due regard is given to the environmental, employment and human rights standards in place at the point of manufacturers of substantial components (those representing greater than 25% of the market cost of the vehicle), including battery technology, of the vehicle which is being procured.’*

- 5.4 In response to this recommendation, it is confirmed that as part of every tender process, the Council poses questions pertaining to the environment and human rights, specifically in relation to modern slavery. While Officers do not delve into the specifics of components such as batteries, questions posed can be modified to encompass this aspect in the future. When the Council employs frameworks, it cannot assure that these questions are posed. However, moving forward, the Council can instruct the framework providers submit these specific questions.

## **6. Equality, Diversity and Human Rights implications**

- 6.1 Through the Council’s Procurement Strategy, Officers will ensure that all procurement and purchasing documentation recognises, understands, and supports the Council’s policies with regards to equal opportunities, diversity, and human rights.
- 6.2 The Council is committed to ensuring equality in its procurement processes. As part of this commitment. The Social Value Portal is utilised for relevant contracts, enabling bidders to propose targets that align with the Colchester Themes, Outcomes, and Measures (TOMs) framework. This framework is a comprehensive set of measures designed to assess the social value of a contract.

## **7. Strategic Plan References**

- 7.1 Fleet operations are a key element of the way the Council delivers its services to residents and businesses and therefore underpins much of the activity that will deliver against the strategic priorities. The proposal directly links to the vision, themes, and objectives of the Strategic Plan 2023-26 – A City Fit for the Future: Respond to the climate emergency.

## **8. Consultation**

- 8.1 Frontline staff and service managers involved in the operational management of core services that require vehicles will be consulted and will continue to be involved at all stages of the procurement and selection process to ensure that vehicles are fit for purpose and appropriate.
- 8.2 Demonstration electric vehicles will continue to be tested with teams and feedback received will be considered.
- 8.3 Continued networking with other Local Authorities that have tried and tested alternatives to diesel fuelled vehicles will be made to gain real world knowledge in how these vehicles perform over a long period.

8.4 Officers consulted with Nottingham City Council to obtain their experience in introducing and maintaining fully electric vehicles (EVs) over the past ten years. Their experience showed the following:

Battery (including battery management) technology is improving rapidly as it is the single largest cost in many electric vehicles and the aspect which has the largest scope for development and thereby efficiency improvements and financial savings. Consequently, the last seven years has seen a huge increase in the average range of batteries without a corresponding increase in weight or cost. A larger, but often unseen, improvement has been made in battery management for example with the cooling systems employed – many batteries are now liquid cooled, and these could be reasonably be anticipated to last 20+ years.

As well as these improvements in the EVs coming off the production line, advances have also been made to tackle the 1 million EVs already on UK roads. Some options trialled by Nottingham City Council (NCC):

- Repair – battery refurbishment tools which NCC have utilised to restore seven-year-old batteries from a maximum range of 35-40 miles back to 71-80 miles.
- Reuse – we have installed two containers which, in total, are filled with 48 batteries which were previously in Renault Kangoo's and came to the end of their usable life in the vehicles but still have around 720kWh capacity which is sufficient for our purposes.
- Replace – we are working with a Scottish company on a new method of replacing old EV batteries with new ones which have the latest technology. We are hoping to change the batteries in two of our 2016 Nissan Leaf's to the larger, liquid cooled batteries which would likely see the battery outlasting the vehicle.

8.5 Motor vehicle manufacturers tend to be substantial organisations and it is not in their interests to be associated with illegal or unsustainable methods of vehicle manufacturer. In the past it was often quoted that there was element of child labour in the Democratic Republic of Congo being used by electric vehicle battery manufacturer supply chains. Current production methods with rare trace minerals and materials are being sourced from across the globe. In December 2023, [this](#) report concluded that there is "little doubt that resource extraction will be significantly lower for electric cars compared with their petrol or diesel equivalents as recycling increases.

## **9. Publicity Considerations**

9.1 The introduction of EV and hybrid fleet vehicles is a demonstration of the Council's commitment to tackling the Climate Emergency and demonstrates positive progress on the journey to being net zero carbon for Council operations by 2030. Public communications will reflect this commitment when new vehicles come on board.

9.2 The vehicle fleet underpins many of the Council's core frontline teams and is a highly visible asset out in communities supporting services that benefit residents, local businesses, and visitors to Colchester. Livery will be attached to the vehicles as appropriate.

## **10. Financial implications**

10.1 A fleet replacement programme is in place and will require capital investment in the future per the programme. As set out in the Strategy, careful consideration and business cases will be devised for any replacement vehicles to determine the most appropriate

type of vehicle to purchase. Additionally, through the procurement process, due consideration will be given to the comparison and value for money provided by outright purchase or leasing. There will be no impact on the already approved capital programme.

## 11. Health, Wellbeing and Community Safety Implications

11.1 Less tailpipe emissions from the Council's fleet will have health benefits not only for staff but for the public. As recycling collection vehicles service each property within the city, reduced or no tail pipe emission will be welcomed. With fully electric vehicles the driving experience for a driver and crew where applicable is more pleasant due to a quieter driving experience.

## 12. Health and Safety Implications

12.1 The Council has a corporate responsibility to ensure that all fleet and transport operations comply with national standards.

## 13. Risk Management Implications

13.1 The Council will seek to mitigate against any potential risks by following a compliant procurement process and ensure contingency Plans are in place for any failure of vehicles that may impact on core services.

13.2 Without these vehicles it would make it difficult for the Council to undertake its duties under the Environmental Protection Act 1990 and the Clean Neighbourhoods and Environment Act 2005.

## 14. Environmental and Sustainability Implications

14.1 The consideration of environmental and sustainability implications of the decision being taken is set out in the table below:

Sustainability theme	Positive environmental impact	Neutral impact/ Not applicable	Negative environmental impact	What are the positive and negative impacts on carbon reduction / environment?	How will positive impacts be enhanced/ encouraged? And negative impacts minimized or
Energy	Y			<p>Positive impacts are reducing tailpipe emissions as the Council transitions to a fully electric / Hydrogen or alternative fuel in the short term.</p> <p>Switching to electric vehicles will increase electricity use but</p>	<p>Introducing an electric fleet to the Council will enhance our goal to be carbon neutral by 2030.</p> <p>Communications can be shared throughout Colchester showing residents and businesses the</p>

Sustainability theme	Positive environmental impact	Neutral impact/ Not applicable	Negative environmental impact	What are the positive and negative impacts on carbon reduction / environment?	How will positive impacts be enhanced/ encouraged? And negative impacts minimized or
				using electricity will have less emissions associated with it than diesel production and use.	commitment to making Colchester a cleaner environment for both residents and visitors.
Waste				At the end-of-life stage for electric vehicles, batteries are being repurposed for electricity storage or recycled, with raw materials such as lithium and nickel being reclaimed for use in new battery production. Advances in battery technology, particularly in battery management systems and cooling mechanisms, have led to substantial improvements in efficiency and cost-effectiveness without added weight or expense. These enhancements, such as the adoption of liquid cooling systems, suggest a potential lifespan of over twenty years for modern batteries.	N/A
Procurement	Y			Procurement will follow the Council rules. Services will be involved in vehicles requirements and specifications before decisions are made to procure. The fleet Strategy shows a criterion before vehicles are purchased which includes if a vehicle is required, what size vehicle is required and if there is a more	

Sustainability theme	Positive environmental impact	Neutral impact/ Not applicable	Negative environmental impact	What are the positive and negative impacts on carbon reduction / environment?	How will positive impacts be enhanced/ encouraged? And negative impacts minimized or
				environmentally friendly alternative option.	
Biodiversity and green spaces		Y		N/A	N/A
Transport	Y			<p>Within the Fleet Strategy services will be asked to ensure the following principles are agreed and considered at each stage,</p> <ul style="list-style-type: none"> <li>• Review the data systems in place to track, monitor and evaluate the fleet.</li> <li>• Undertake robust evaluation of operational need and financial viability.</li> <li>• Challenge the number and size of vehicles.</li> <li>• Explore both lease hire and purchasing options, considering existing budgets.</li> <li>• Base decisions on expert recommendations and guidance</li> </ul>	The Council continues to view all future fleet requirements and looks to procure vehicles producing less greenhouse gas emissions.
Adaption		Y		n/a	n/a
Water			Y	The mining of materials for electric vehicles does use a large amount of water which is difficult to mitigate.	n/a
Digital		Y		A majority of the fleet will be fitted with telematics to monitor fleet journeys and determine efficiency of trips.	n/a
Community	Y			Positive impacts on a carbon emission reduced fleet, alongside other benefits such as reduced noise and improved local air quality	



Sustainability theme	Positive environmental impact	Neutral impact/ Not applicable	Negative environmental impact	What are the positive and negative impacts on carbon reduction / environment?	How will positive impacts be enhanced/ encouraged? And negative impacts minimized or
				The Council will be role-modelling and may demonstrate to others action they can take to reduce their environmental impact	
Housing/ Development		Y		n/a	n/a
Carbon Emissions saving	Y			Transitioning the fleet to alternative lower emission fuels or electric vehicles will have a positive impact on the environment including staff and residents. Although the carbon emissions associated with mining materials for electric vehicles are high, the lifetime emissions of using electric vehicles over fossil fuel alternatives is lower.	A continued vehicle replacement cycle will factor in low carbon emission vehicles at every stage.

## Appendices

Appendix A Fleet Transition Forward Plan 2020 [General Report \(cmis.uk.com\)](#)

Appendix B Fleet Strategy 2024 [Document.ashx \(cmis.uk.com\)](#)

## Background Papers

Environment & Sustainability report February 2024 [General Report \(cmis.uk.com\)](#)

Environment & Sustainability report March 2024 [General Report \(cmis.uk.com\)](#)