



# Environmental Impact Assessment [version 1.0]

<b>Proposal title: Local Electric Vehicle Infrastructure Fund (LEVI) Bid</b>		
<b>Project stage and type:</b> <input type="checkbox"/> Initial Idea Mandate <input checked="" type="checkbox"/> Outline Business Case <input type="checkbox"/> Full Business Case		
<input type="checkbox"/> Policy <input type="checkbox"/> Strategy <input type="checkbox"/> Function <input checked="" type="checkbox"/> Service <input type="checkbox"/> Other [please state]	<input checked="" type="checkbox"/> New <input type="checkbox"/> Already exists / review	<input type="checkbox"/> Changing
<b>Directorate:</b> Growth and Regeneration	<b>Lead Officer name:</b> Jacob Pryor	
<b>Service Area:</b> City Transport	<b>Lead Officer role:</b> Transport Policy, Bidding and Strategic Projects	

## Step 1: What do we want to do?

The purpose of this Environmental Impact Assessment is to help you develop your proposal in a way that is compliant with the council's policies and supports the council's strategic objectives under the [One City Climate Strategy](#), the [One City Ecological Emergency Strategy](#) and the latest [Corporate Strategy](#).

This assessment should be started at the beginning of the project proposal process by someone with a good knowledge of the project, the service area that will deliver it, and sufficient influence over the proposal to make changes as needed.

It is good practice to take a team approach to completing the Environmental Impact Assessment. See further [guidance](#) on completing this document. Please email [environmental.performance@bristol.gov.uk](mailto:environmental.performance@bristol.gov.uk) early for advice and feedback.

### 1.1 What are the aims and objectives/purpose of this proposal?

Briefly explain the purpose of the proposal and why it is needed. Please use plain English, avoiding jargon and acronyms.

1. As outlined in the One City Climate Strategy Bristol's ambition is to be carbon neutral and climate resilient by 2030.
2. Transport accounts for about 34% of the average Bristol resident's carbon footprint with driving being the largest sub-category of this at 17%.
3. A headline objective of the strategy is that by 2030 "all of Bristol's cars primarily consist of ultra-low emission vehicles (ULEVs) and 90% of other vehicles to be ULEV".
4. Nationally ULEVs accounted for 2.1% of the entire fleet in 2022, but for the West of England that number was 1.4% and for Bristol it was 1.2% - about 2,364 vehicles.
5. There are multiple factors that are preventing more rapid uptake of EV vehicles from high upfront costs, to perceived 'range anxiety' and a lack of reliable charge points.
6. The UK government's 'Taking charge: the electric vehicle infrastructure strategy' (2022) notes that the pace of delivery of public on-street charge points is a key challenge for the sector as this can be an area where the commercial case for charge point operators can be weaker.
7. Recognising that on-street charge points require additional investment the government invited councils to apply for grants from the Local Electric Vehicle Infrastructure (LEVI) fund in February 2023. The fund has two main objectives:
8. "Deliver a step-change in the deployment of local, primarily low power, on-street charging infrastructure across England."

9. "Accelerate the commercialisation of, and investment in, the local charging infrastructure sector."
10. Bristol's approach to applying for a grant from the LEVI fund will be to choose the 'right charger for the right location' which will include on-street chargers, chargers in community hubs and car parks and rapid chargers.
11. Bristol is in an advantageous position in terms of meeting both objectives of the fund given its recently launched partnership with Ameresco under Bristol City Leap (BCL)
12. Bristol City Council will seek to use BCL to accelerate the rollout of charge points under LEVI and bring in additional investment to match the government's capital grant.
13. The LEVI funding bid has 3 stages of submission.
14. Stage 1 was an Expression of Interest which was submitted by the West of England Combined Authority (WECA) and West of England (WoE) Local Authorities on the 26th of May 2023.
15. Stage 2 required WECA and WOE authorities to submit a draft tender document for review. This was submitted on the 30<sup>th</sup> of November 2023.
16. Should this Stage 2 application be successful WECA (and in turn Bristol) will receive 90% of its share of the WECA funding allocation upfront with the remaining 10% held back until Stage 3 submission.
17. Stage 3 submission is required in September 2024 and will require Bristol to finalise a draft contract with a commercial partner for review by the Office for Zero Emission Vehicles. If OZEV approve the contract the remaining funding 10% of funding will be released and the project will progress to delivery.
18. The indicative funding allocation for the WECA area is £6,644,000 and Bristol may reasonably expect to receive **up to** £4m of funding, noting that the exact figure may be less than this.
19. The projected investment through LEVI will complement the council's other efforts in the field of electric vehicle infrastructure delivery including up to £2.46m of 'Green Recovery Fund' (see Feb 24 cabinet report) which will see a further expansion of the public charge point network.

## 1.2 Will the proposal have an environmental impact?

Could the proposal have either a positive or negative effects for the environment now or in the future? If 'No' explain why you are sure there will be no environmental impact, then skip steps 2-3 and request review by sending this form to [environmental.performance@bristol.gov.uk](mailto:environmental.performance@bristol.gov.uk)

If 'Yes' complete the rest of this assessment.

**Yes**       **No**      [please select]

## 1.3 If the proposal is part of an options appraisal, has the environmental impact of each option been assessed and included in the recommendation-making process?

If 'Yes' please ensure that the details of the environmental impacts of each option are made clear in the pros and cons section of the [project management options appraisal document](#).

**Yes**       **No**       **Not applicable**      [please select]

If 'No' explain why environmental impacts have not been considered as part of the options appraisal process.

The development of the proposal has largely been driven by the assessment criteria of the funding body which focuses on increasing the provision of low-powered charge points. At a later stage of development, the proposal will consider how investment in charge points is prioritised at different locations in the city and include consideration of the type and power of charge point that best suits a given location.

## Step 2: What kinds of environmental impacts might the project have?

Analysis of impacts must be rigorous. Please demonstrate your analysis of any impacts of the proposal in this section, referring to evidence you have gathered. See detailed [guidance documents](#) for advice on identifying potential impacts.

### Does the proposal create any benefits for the environment, or have any adverse impacts?

Outline any potential benefits of the proposal and how they can be maximised. Identify how the proposal will support our corporate environmental objectives and the wider [One City Climate and Ecological Emergency strategies](#).

Consider how the proposal creates environmental impacts in the following categories, both now and in the future. **Reasonable efforts should be made to quantify stated benefit or adverse impacts wherever possible.**

Where the proposal is likely to have a beneficial impact, consider what actions would enhance those impacts. Where the proposal is likely to have a harmful impact, consider whether actions would mitigate these impacts.

Enhancements or mitigation actions are only required when there is a likely impact identified. Remember that where enhancements or mitigation actions are listed, they should be assigned to staff and appropriately resourced.

#### GENERAL COMMENTS (highlight any potential issues that might impact all or many categories)

Generally speaking, the construction of charge points will carry adverse environmental impacts attributed to the extraction, installation, use and ongoing maintenance of the materials used. Balanced against those impacts are the expected positive environmental effects which will include encouraging the uptake of zero-emission capable vehicles and the benefits that this will have for reducing carbon emissions and providing air quality benefits. Electric vehicles are often quieter than Internal Combustion Engine (ICE) driven vehicles and therefore we can expect a net positive impact on noise pollution levels.

#### ENV1 Carbon neutral: Emissions of climate changing gases

BCC has committed to achieving net zero emissions for its direct activities by 2025, and to support the city in achieving net zero by 2030.

Will the proposal involve transport, or the use of energy in buildings? Will the

#### Benefits

The lifecycle emissions of EVs in the UK is less than half of those from comparable ICE vehicles ([Ricardo 2021](#)). The energy, or carbon, 'payback' period for EVs in the UK has been shown to be approximately 20,000 kms ([Faraday Institution 2021](#)), which for an average UK car is between 2 and 3 years of age.

The lifecycle emissions of EV charge-points have been estimated to be between 1% and 3.5% of an EV's total lifecycle emissions ([Zhang et al 2019](#)).

The infrastructure installed through this proposal will encourage uptake of zero-emission capable vehicles. As these vehicles replace ICE vehicles, the proposal will have a net positive impact in reducing carbon emissions.

<p>proposal involve the purchase of goods or services? If the answer is yes to either of these questions, there will be a carbon impact.</p> <p>Consider the scale and timeframe of the impact, particularly if the proposal will lead to ongoing emissions beyond the 2025 and 2030 target dates.</p> <p><a href="#">Further guidance</a></p> <p><input type="checkbox"/> <b>No impact</b></p>	<p><b>Enhancing actions</b></p>	<p>Local consultation with the community and use of relevant data sets (e.g. identifying gaps in the network) will help to inform where the interventions will have the greatest impact which should help maximise the effectiveness of the improvements. In turn this has the potential to enhance the above-mentioned carbon savings through increased use of electric vehicles.</p> <p>Through its procurement approach the council will seek to encourage the use of energy providers that invest in renewables.</p>
	<p><b>Persistence of effects:</b>    <input type="checkbox"/> 1 year or less                      <input type="checkbox"/> 1 – 5 years                      <input checked="" type="checkbox"/> 5+ years</p>	
	<p><b>Adverse impacts</b></p>	<p>The proposal will produce carbon emissions attributed to the extraction, installation, use and ongoing maintenance of the materials used.</p>
	<p><b>Mitigating actions</b></p>	<p>The lifecycle emissions of EV charge-points have been estimated to be between 1% and 3.5% of an EV's total lifecycle emissions (<a href="#">Zhang et al 2019</a>). When, included in an EV's whole life-cycle emissions, the charge points make a marginal increase in the energy return on investment.</p> <p>The council will ensure that the environmental credentials of different charge point and energy providers are considered in the approach to procurement.</p>
<p><b>Persistence of effects:</b>    <input type="checkbox"/> 1 year or less                      <input type="checkbox"/> 1 – 5 years                      <input checked="" type="checkbox"/> 5+ years</p>		
<p><b>ENV2 Ecological recovery: Wildlife and habitats</b></p> <p>BCC has committed to 30% of its land being managed for nature and to halve its use of pesticides by 2030.</p> <p>Consider how your proposal can support increased space for nature, reduced use of pesticides, reduce pollution to waterways, and reduce consumption of products that undermine ecosystems around the world.</p> <p>If your proposal will directly lead to a reduction in habitat within Bristol, then consider how your proposed mitigation can lead to a biodiversity net gain. Be sure to refer to quantifiable changes wherever possible.</p> <p><a href="#">Further guidance</a></p> <p><input type="checkbox"/> <b>No impact</b></p>	<p><b>Benefits</b></p>	<p>Given the very small-scale and localised nature of the works the proposal is unlikely to deliver any ecological benefits that contribute to improved wildlife and habitats</p>
	<p><b>Enhancing actions</b></p>	<p>N/A</p>
	<p><b>Persistence of effects:</b>    <input type="checkbox"/> 1 year or less                      <input type="checkbox"/> 1 – 5 years                      <input type="checkbox"/> 5+ years</p>	
	<p><b>Adverse impacts</b></p>	<p>Given the very small-scale and localised nature of the works the proposal is unlikely to create any adverse ecological impacts, particularly because improvements will take place on existing highways infrastructure as opposed to encroaching on green infrastructure</p>
	<p><b>Mitigating actions</b></p>	<p>N/A</p>
<p><b>Persistence of effects:</b>    <input type="checkbox"/> 1 year or less                      <input type="checkbox"/> 1 – 5 years                      <input type="checkbox"/> 5+ years</p>		

<p><b>ENV3 A cleaner, low-waste city: Consumption of resources and generation of waste</b></p> <p>Consider what resources will be used as a result of the proposal, how they can be minimised or swapped for less impactful ones, where they will be sourced from, and what will happen to any waste generated</p> <p><a href="#">Further guidance</a></p> <p><input type="checkbox"/> <b>No impact</b></p>	<p><b>Benefits</b></p>	<p>Encouraging the use of zero-emission capable vehicles over ICE vehicles will reduce the consumption of non-renewable fossil fuels. Zero emission capable vehicles will still consume non-renewable fossil fuels, but this would be expected to be at a reduced rate as the electricity grid from which they draw energy will be partly powered by renewable sources such as wind, solar and hydro.</p>
	<p><b>Enhancing actions</b></p>	<p>Local consultation with the community will help to inform where the interventions will have the greatest impact which should help maximise the effectiveness of the improvements. In turn this has the potential to enhance the above-mentioned resource savings through increased use of zero emission capable vehicles</p>
	<p><b>Persistence of effects:</b>    <input type="checkbox"/> 1 year or less                      <input type="checkbox"/> 1 – 5 years                      <input checked="" type="checkbox"/> 5+ years</p>	
	<p><b>Adverse impacts</b></p>	<p>The extraction, refinement, and installation of materials in the project will inevitably use non-renewable resources and generate waste products. The same is true of the vehicles that will use the charge points.</p>
	<p><b>Mitigating actions</b></p>	<p>Through its procurement approach the council will seek to favour providers that can demonstrate credible proposals for reducing waste at different stages of the products lifecycle.</p>
<p><b>Persistence of effects:</b>    <input type="checkbox"/> 1 year or less                      <input type="checkbox"/> 1 – 5 years                      <input checked="" type="checkbox"/> 5+ years</p>		
<p><b>ENV4 Climate resilience: Bristol’s resilience to the effects of climate change</b></p> <p>Bristol’s climate is already changing, and increasingly frequent instances of extreme weather will become more likely over time.</p> <p>Consider how the proposal will perform during periods of extreme weather (particularly heat and flooding).</p> <p>Consider if the proposal will reduce or increase risk to people and assets during extreme weather events.</p> <p><a href="#">Further guidance</a></p> <p><input type="checkbox"/> <b>No impact</b></p>	<p><b>Benefits</b></p>	<p>None</p>
	<p><b>Enhancing actions</b></p>	<p>None</p>
	<p><b>Persistence of effects:</b>    <input type="checkbox"/> 1 year or less                      <input type="checkbox"/> 1 – 5 years                      <input type="checkbox"/> 5+ years</p>	
	<p><b>Adverse impacts</b></p>	<p>The proposal is not anticipated to have any adverse impacts on Bristol’s resilience to climate change.</p>
	<p><b>Mitigating actions</b></p>	<p>N/A</p>
<p><b>Persistence of effects:</b>    <input type="checkbox"/> 1 year or less                      <input type="checkbox"/> 1 – 5 years                      <input type="checkbox"/> 5+ years</p>		

<p><b>Statutory duty:</b> <b>Prevention of Pollution to air, water, or land</b></p> <p>Consider how the proposal will change the likelihood of pollution occurring to air, water, or land and what steps will be taken to prevent pollution occurring.</p> <p><a href="#">Further guidance</a></p> <p><input type="checkbox"/> No impact</p>	<p><b>Benefits</b></p>	<p>The proposal will encourage more trips by zero-emission capable vehicles which will provide air quality and noise benefits.</p>
	<p><b>Enhancing actions</b></p>	<p>Local consultation with the community will help to inform where the interventions will have the greatest impact which should help maximise the effectiveness of the improvements. In turn this has the potential to improve air quality and noise pollution through increased use of zero-emission capable vehicles.</p>
	<p><b>Persistence of effects:</b>    <input type="checkbox"/> 1 year or less        <input type="checkbox"/> 1 – 5 years        <input checked="" type="checkbox"/> 5+ years</p>	
	<p><b>Adverse impacts</b></p>	
	<p><b>Mitigating actions</b></p>	<p>Through its procurement approach the council will seek to favour providers that can demonstrate credible proposals for reducing pollution at different stages of the products lifecycle.</p>
<p><b>Persistence of effects:</b>    <input type="checkbox"/> 1 year or less        <input type="checkbox"/> 1 – 5 years        <input type="checkbox"/> 5+ years</p>		

### Step 3: Action Plan

Use this section summarise and assign responsibility for any actions you have identified to improve data, enhance beneficial, or mitigate negative impacts. Actions identified in section two can be grouped together if named responsibility is under the same person.

This action plan should be updated at each stage of the project. Please be aware that the Sustainable City and Climate Change Service may use this action plan as an audit checklist during the project’s implementation or operation.

Enhancing / mitigating action required	Responsible Officer	Timescale
Ensure that mitigations listed above are secured through the procurement of a charge point provider.	Jacob Pryor	2024/25
Ensure that engagement and consultation enhance the effectiveness of the improvements, drawing on local experiences and knowledge of how transport infrastructure is used.	Jacob Pryor	Start 2024 (ongoing)

### Step 4: Review

The Sustainable City and Climate Change Service need at least five working days to comment and feedback on your impact assessment. Assessments should only be marked as reviewed when they provide sufficient information for decision-makers on the environmental impact of the proposal.

Please seek feedback and review by emailing [environmental.performance@bristol.gov.uk](mailto:environmental.performance@bristol.gov.uk) before final submission of your decision pathway documentation<sup>1</sup>.

Where impacts identified in this assessment are deemed significant, they will be summarised here by the Sustainable City and Climate Change Service and must be included in the 'evidence base' section of the decision pathway cover sheet.

<b>Summary of significant beneficial impacts and opportunities to support the Climate, Ecological and Corporate Strategies (ENV1,2,3,4):</b>
----------------------------------------------------------------------------------------------------------------------------------------------

BCC's Environmental Impact Assessment has determined significant beneficial impacts from the proposal: To achieve the transport related objectives in the One City Climate Strategy, BCC needs to coordinate the rapid and large-scale expansion of EV charging infrastructure. This proposal provides BCC the financial means to contribute a large quantity of this in a way that widens the opportunity for EV ownership beyond those citizens with private off-street parking.
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<b>Summary of significant adverse impacts and how they can be mitigated:</b>
------------------------------------------------------------------------------

--

<b>Environmental Performance Team Reviewer:</b> Daniel Shelton	<b>Submitting author:</b> Jacob Pryor
<b>Date:</b> 05.02.24	<b>Date:</b> 05.02.24

---

<sup>1</sup> Review by the Sustainable City and Climate Change Service confirms there is sufficient analysis for decision makers to consider the likely environmental impacts at this stage. This is not an endorsement or approval of the proposal.