# Landscaping Net Zero Carbon Plan



## Category: Landscaping and Ecology

Carbon Net Zero Goals and Key Deliverables



Key goals: Utilisation of HVO fuel (if not electric) on bigger plant, land usage for nature recovery and nature based solutions

*Key deliverables:* Carbon reduction in fuel for varied medium sized machinery (i.e. 13 ton excavators, lorries, Unimog, tree chippers etc). Nature based solutions to harness natural capital

Phase II: (2023-2025)

*Key goals*: 100% usage of lightwork to be battery operated platforms, fleet (not inc vans) transition to electric power

Key deliverables: Lower cost of fuel, lower maintenance and increased productivity

Phase III: (2030 and beyond)

*Key goals:* All electric vehicles, including heavy plant, mechanising and automating activities

*Key deliverables:* Reduction in carbon footprint in carrying out interventions, increase in biodiversity, increase in safety

People and plant is the highest contributor to the carbon footprint within this category. In the long term there is a growing need to mechanise and automate works which will require capital investment in both of these areas.



#### **Category: Landscaping and Ecology** *Carbon Reduction Initiatives*

	Carbon Reduction initiatives	Main Actions and next steps
<b>Phase I:</b> (2022 – 2023)	<ul> <li>Land use strategy – getting the best use of our soft estate and achieve sustainable land use &amp; Development of nature based solutions (NBS)</li> <li>Tree planting to promote carbon sequestration, sourcing native seeds</li> <li>Adopt Biodiversity Net Gain (BNG) metrics</li> </ul>	<ul> <li>Alignment with development of land use system to achieve biodiversity net gains and net zero carbon initiatives</li> <li>Alignment with tree procurement strategy in sourcing seeds, planting and aftercare requirement</li> <li>Increasing biodiversity value on site by minimum 10% target</li> </ul>
<b>Phase II:</b> (2023 – 2025)	<ul> <li>Adoption of clean energy, electric hydrogen or electric for landscaping machinery and fleet</li> <li>Renewable energy utilisation – Solar PV</li> <li>Lightwork equipment to be battery operated</li> </ul>	<ul> <li>OEM engagement to develop heavy duty non fossil fuel plant</li> <li>Solar power generation on the soft estate engagement with SES/OEM also dependant on investment</li> <li>Technology dependant 'battery range' increase needed</li> <li>Reduction in aesthetic maintenance to increase biodiversity</li> </ul>
<b>Phase III:</b> 2025 and beyond	<ul> <li>All fleet plant and vans to be 100% electric or non fossil fuel powered</li> <li>Mechanising and automating landscaping activities to reduce labour and plant carbon footprint</li> <li>Reduce carbon in materials &amp; products (e.g. metal fencing, concrete and pesticides)</li> </ul>	<ul> <li>OEM engagement on evolution &amp; technology dependent</li> <li>Long term objective, development needed</li> <li>Engagement with supply chain to understand alternatives</li> </ul>



### **Category: Landscaping and Ecology** Detailed Timing Plan

	2022		2023			2024				2025						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Phase I: Fuel & Nature based solutions																
Action a. Utilisation of HVO fuel																
Action b land usage for nature recovery and nature based solutions																
Action c Increasing biodiversity value on site by minimum 10% target																
Phase II: Plant, Equipment & Materials				_												
Action a Adoption of clean energy, electric hydrogen or electric for landscaping machinery and fleet																
Action b Lightwork equipment to be battery operated																
Action c Renewable energy utilisation (solar PV)																
Phase III: Heavy plant & automation																_
Action a All fleet plant and vans to be 100% electric or non fossil fuel powered																
<i>Action b</i> Reduce carbon in materials & products (i.e. metal fencing. Concrete and pesticides																•
Action c Mechanising and automating landscaping activities to reduce labour and plant carbon footprint																
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## Category: Landscaping and Ecology Carbon Net Zero Initiatives Plan



It is key for National Highways to collaborate with the wider supply chain, OEM's and industry experts to achieve net zero by 2040. Alternatives to fossil fuel and battery operated equipment requires further development and investment to gather speed on its uptake. The vision to mechanise and automate landscaping activities and adoption of nature based solutions on the estate is key to achieving biodiversity net gains and leaving a legacy to benefit people, nature and the environment.







