

Cambridgeshire Peterborough Combined Authority

LOCAL TRANSPORT & CONNECTIVITY PLAN

Carbon Assessment Base Analysis

March 2022



> Phase 1 - Scope & Purpose

> National Policy Context

> Phase 1 - Findings

> Phase 2 - Scope & Purpose

Phase 1 - Carbon Assessment Base Analysis

- > WSP commissioned to produce initial high-level carbon assessment to support LTCP engagement.
- > The scope of that work was:
 - Indicative analysis of current baseline emissions across the region
 - BAU forecasts (based on national assumptions from central government)
 - Test impact of 15% traffic reduction target recommended by the CPCA Climate Change Commission (2019 baseline)
 - High-level review of trip distances to assess level of opportunity to shift modes
 - Outcome: Indicative analysis to inform future investigation

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The national policy context

Figure 1: The Three Phases of the UK's Transport Decarbonisation Policy



“
The climate emergency will shape policy across the UK.
”



“
Britain is on the verge of a transport revolution.
Jessie Norman, MP
”

Phase 2: Reflection

- **Initial period of reflection – so you declared a Climate Emergency: What Next?**
- July 2020 – DfT publishes Gear Change to promote walking & cycling
- December 2020 – Government publishes the Construction Playbook
- March 2021 – Mission Zero for Transport published by Transport Scotland committing to reducing emissions by 75% by 2030 and net zero by 2045
- June 2021 – Welsh Government announcement freeze on new roads projects
- July 2021 – Transport for the North targets “near-zero” surface transport carbon by 2045
- July 2021 – National Highways publishes its roadmap to Net Zero by 2050
- July 2021 – DfT publish the TDP publication confirming ban of petrol / diesel cars & vans by 2030, HGVs by 2040 and a Net Zero rail network by 2050 and linking future local transport funding to the production of an LTP with quantifiable carbon reductions
- COP26 is hosted in Scotland in Nov 2021 and declaration to transition to 100% zero emission cars and vans by 2040
- DfT published Carbon Management Guidance for Tier 1 and 2 Transport schemes in **November 2021**

“
Around 60% of Local Transport Authorities haven't updated their LTPs for over a decade and a lot of policy context has changed.
”
Department for Transport




- March 2019 – DfT publishes the Future of Mobility and launches four Future Mobility Zones
- May 2019 – UK Government becomes the first nation in the world to declare a climate emergency
- Oxford Dictionary chooses climate emergency as the word of the year
- 2019 sees over 400 declared climate emergencies across the UK Local Government sector with Net Zero targets ranging between 2030 and 2050

Phase 1: Declarations

“
I believe that the struggle for decarbonised transport, clean development and clean air is as important as the struggle for clean water was in the 19th century.
Grant Shapps MP



Gear Change
A bold vision for cycling and walking

Decarbonising Transport
A Better, Greener Britain

Net zero highways: our 2030 / 2040 / 2050 plan



“
We need to shift away from spending money on projects that encourage more people to drive.
Lee Waters, Deputy Minister for Climate Change
”

“
Together, we will work towards all sales of new cars and vans being zero emission globally by 2040, and by no later than 2035 in leading markets.
”

Phase 3: Action

- Much anticipated **Levelling Up White Paper** published in February 2022 reaffirms Governments commitment to linking future local transport funding to the production of an LTP with quantifiable carbon reductions
- DfT announce the publication of **Local Transport Guidance and supporting guidance on Quantifying Carbon Reduction**. Consultation scheduled for Summer and publication in late 2022. LTAs required to produce an LTP this parliamentary term
- DfT publish **Electric Vehicle guidance** during 2022 requiring LTA's to have a strategy in place this parliamentary term
- DfT are due to launch their **Future of Transport: Rural Strategy** during 2022 following consultation in late 2021
- National Highways to integrate net zero into their statutory consultee response to planning applications in 2022
- The Transport Select Committee report on National Road Pricing on 4th Feb 2022: **DfT & HMT must jointly establish an arm's-length body tasked with recommending an alternative road charging mechanism to replace fuel duty and vehicle excise duty by the end of 2022**
- NIC's **National Infrastructure Assessment** to be published in 2023 and set out infrastructure needs and recommendations for the next 10-30 years including reaching net zero

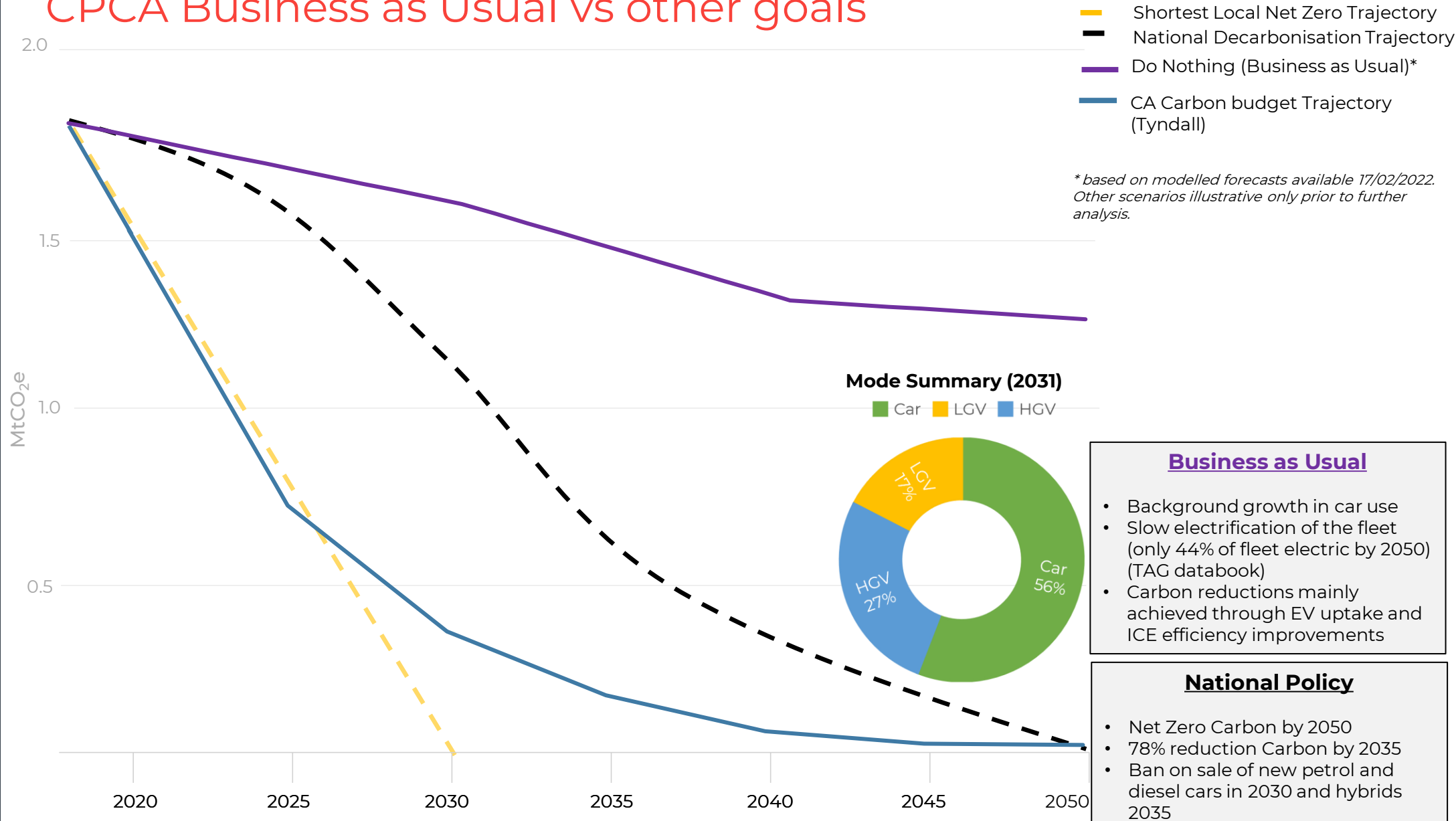


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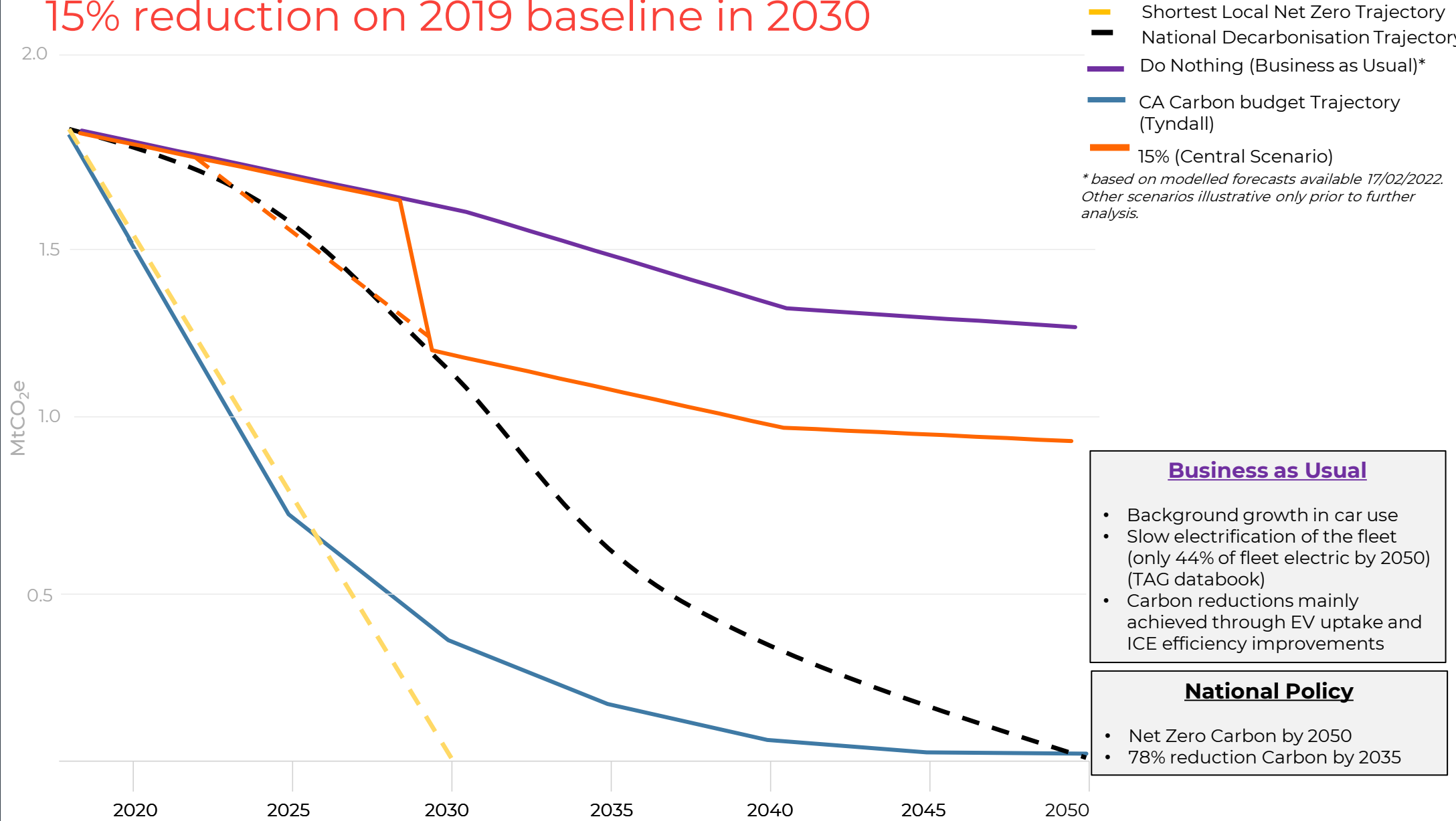
What does a 15% reduction achieve, compared to national legal targets?



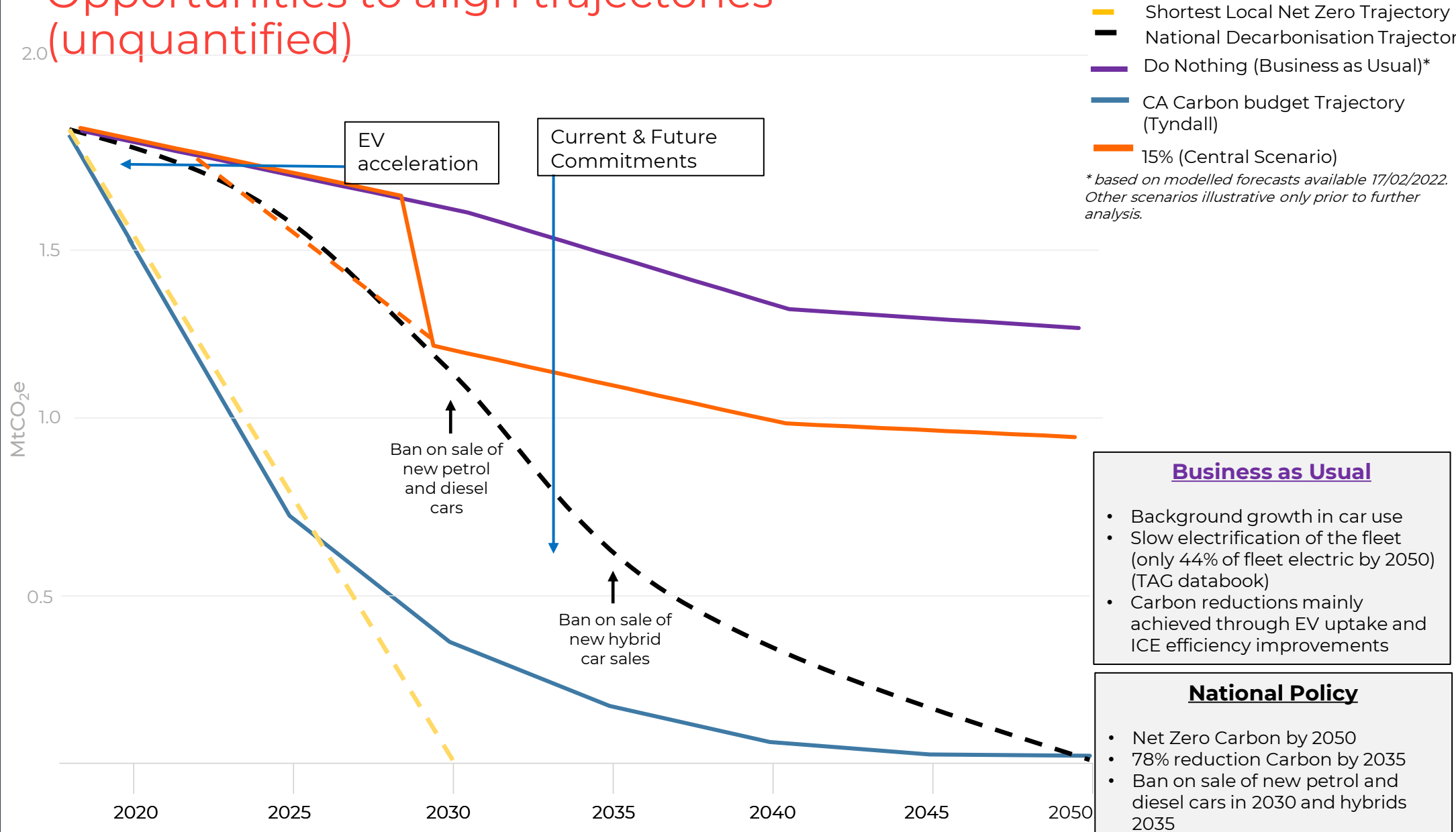
CPCA Business as Usual vs other goals



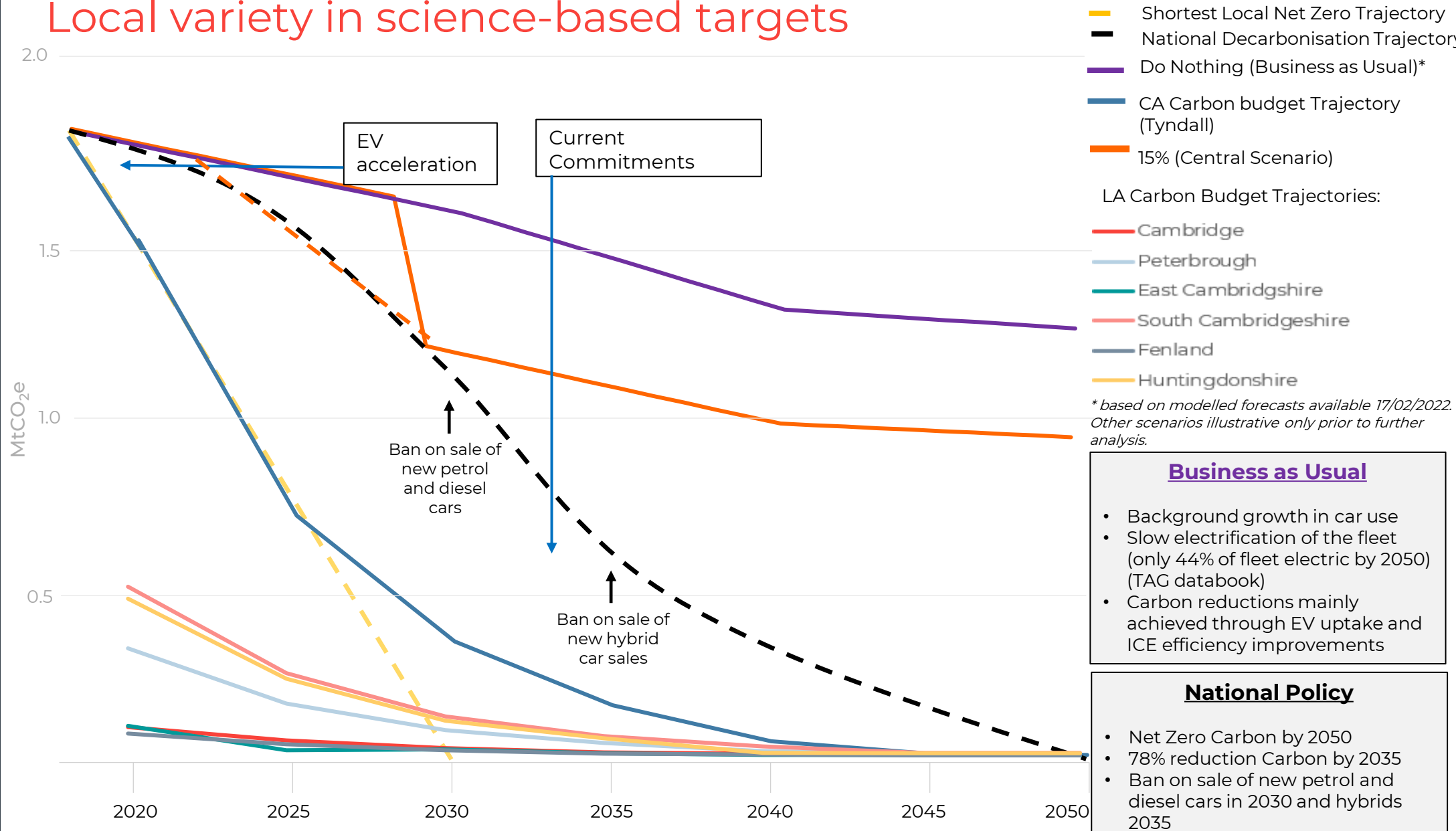
15% reduction on 2019 baseline in 2030



Opportunities to align trajectories (unquantified)



Local variety in science-based targets



Tyndall Centre Carbon Budgets

(science-based targets for 2° warming)

	Tyndall Maximum Cumulative Carbon Budget (million tonnes / MtCO2) for the period 2020 - 2100	Tyndall estimate of BAU (2017) CO2 emission budget exhaustion (post-2020)	Tyndall Annual reduction needed to meet Paris aligned carbon budget	Tyndall Zero / Near-Zero Deadline	Currently agreed Net Zero Target - Council	Currently agreed Net Zero Target Area
CAMBRIDGESHIRE & PETERBOROUGH COMBINED AUTHORITY						
					2030	2050
Peterborough City Council	6,100,000	<7 years	13.60%	2041	2030	2030
Cambridgeshire CC					2030#	2045
Cambridge City Council	3,600,000	<7 years	12.60%	2043	2030	2030
East Cambridgeshire District Council	3,200,000	<6 years	14%	2040	2040	(No) 2050
Fenland District Council	4,100,000	<7 years	13.40%	2041	(No) 2050	(No) 2050
Huntingdonshire District Council~	7,600,000	<6 years	14.10%	2040	2040	2040
South Cambridgeshire District	7,400,000	<6 years	13.90%	2041	2050*	2050*

County aim for net zero scope 1 & 2 emissions by 2030, and 50% reduction in scope 3

~HDC agreed its 2040 ambition December 2021

*SCDC = reduce Council emissions by 75% by 2030 // reduce area emissions by 50% by 2030

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Uncertainties & Further work

'Business as Usual – 15%' vkms does not align with national legal & policy, or science-based reduction pathways, with a significant gap demonstrated

The size of the gap is has not yet been fully refined to the local context

Local transport funding will be conditional on demonstrating emission reductions aligned with national policy

Similar to many authorities across the country, two broad avenues for action are emerging:

Organisational Reflection & Reorientation

OUTCOME:

- Consensus on strategic goals
- Increased agility to respond to funding opportunities
- Staff upskilled to become carbon literate
- Carbon at the heart of processes & governance
- A strong & proportionate strategic case for change
- Stakeholder support & advocacy

Knowledge & Evidence Base Development

OUTCOME:

- Emissions gap quantified
- Current commitments tested
- Detailed analysis of local impact of national trends
- Define & quantify the proportionate, necessary scale of action
- Evidence-base for long-term investment and programme
- Robust, compliant plans



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Phase 2 Proposal

Phase 2 Carbon Assessment Proposal

1. More detailed study will provide better-informed understanding of the carbon value the proposed 15% reduction target may provide
2. Refining the local evidence base will continue to inform further development of the Local Transport and Connectivity Plan and associated public consultation.
3. To increase the likelihood of long-term investment by central government, further work will be designed to meet emerging requirements of DfT's Transport Decarbonisation Plan associated with Carbon reduction.

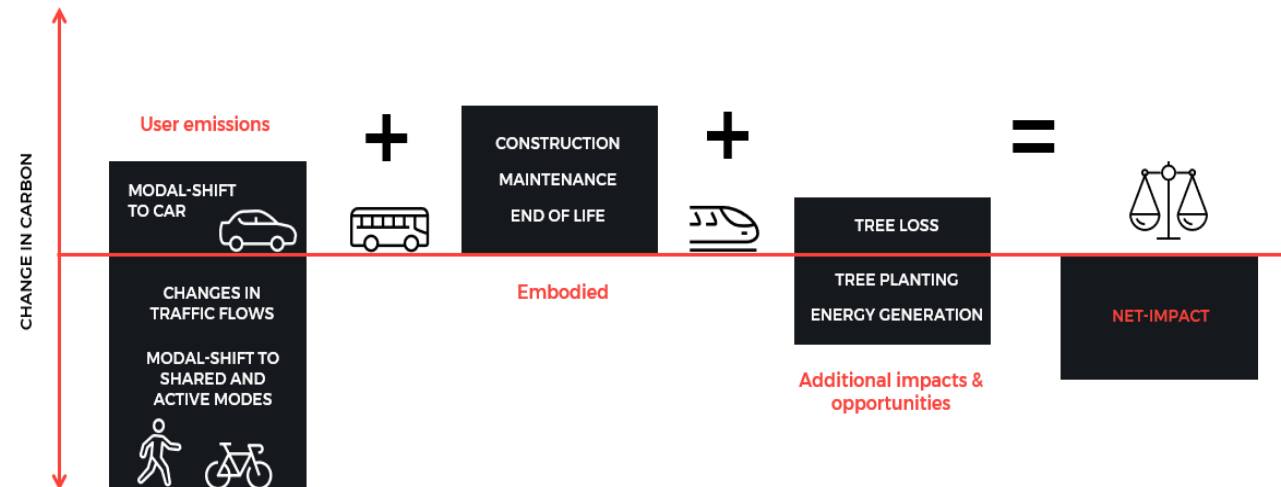
Phase 2 Carbon Assessment Proposal

- > Phase 2 aims to reduce some of the inherent uncertainties in Phase 1 analysis and increase local relevance. The Phase 2 approach at this stage comprises two workstreams, running in parallel:
 - > **Workstream A**
 - **Carbon Appraisal** of current programme & committed schemes
 - > **Workstream B**
 - Refining model-based **Local Evidence**
- > These two workstreams will provide greater clarity around the likely carbon impact of the existing programme and what scale of action is necessary to better-align local forecasts with delivery of a net zero transport system by 2050.

Workstream A - Carbon Appraisal

- Produces a quantified assessment of current transport commitments and their projected impact on reducing carbon emissions.
- Enhances understanding of the relationship between User Emissions, Embodied Emissions and Additional Impacts informing best value carbon approaches within the current portfolio.
- Indicates the type and scale of transport interventions needed to mitigate carbon impacts from development.

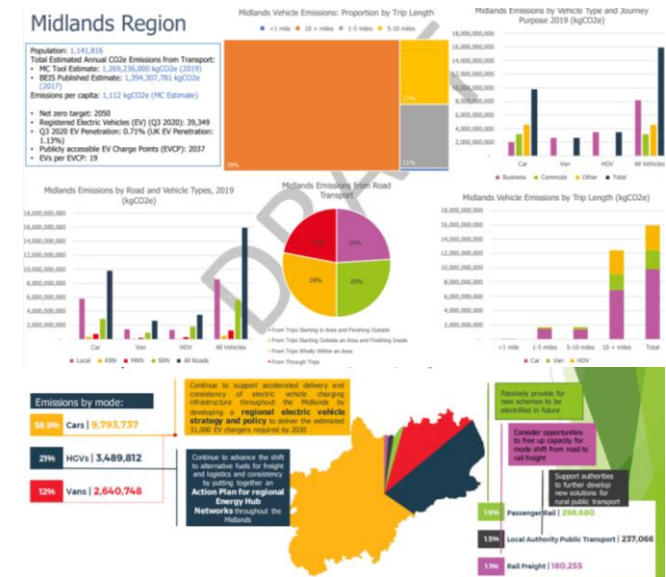
These findings can be layered into the Baseline Emissions Model, to more completely understand the net impact on CPCA's business-as-usual decarbonisation pathway, prior to the addition of any further policy interventions developed via the LTCP.



Workstream B - Refining Local Evidence

- Increases understanding of current trip patterns contributing to greatest carbon emissions, including how they are projected to change over time.
- Determines significance of carbon emissions outside CPCA control (e.g. trips on the strategic road network or influenced by externalities).

This will increase stakeholder and public support through demonstration of a robust evidence base upon which decisions can be made.



Dashboard analytics produced from similar baseline emissions modelling undertaken for Midlands Connect

Summary

- Future local transport funding will become conditional on local areas demonstrating how emissions will be reduced through Local Transport Plans.
- Initial analysis indicates that future CPCA transport emissions do not align with national legal targets, policy goals or science-based reduction pathways, with a significant gap demonstrated.
- There is some uncertainty around the size of the gap, necessitating further study in Phase 2.
- Phase 2 will provide more detailed **local** analysis, will refine the scale of the challenge and provide politicians and policy makers a robust, evidence-based position from which they can make informed decisions on what actions to take.
- Phase 2 will reflect that “one size doesn’t fit all” in terms of policy and transport infrastructure interventions and help inform what will work where and why.
- In terms of Behavioural change policy and interventions, Phase 2 would be better informed by public feedback from the consultation to gauge appetite and propensity for change.