

North Somerset Place Policy & Scrutiny Panel

# Transport Decarbonisation: Action Programme

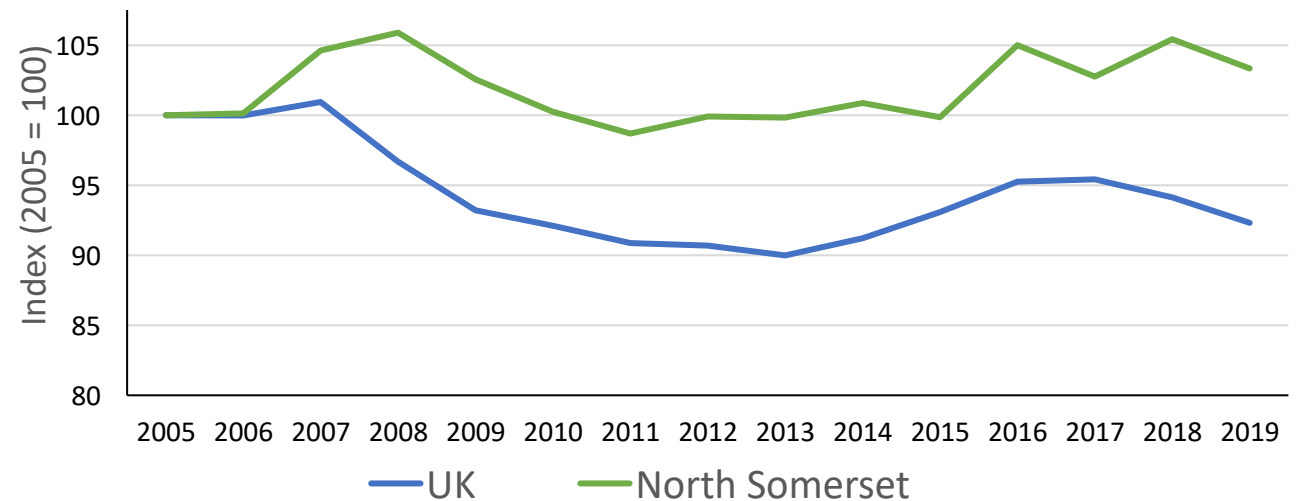
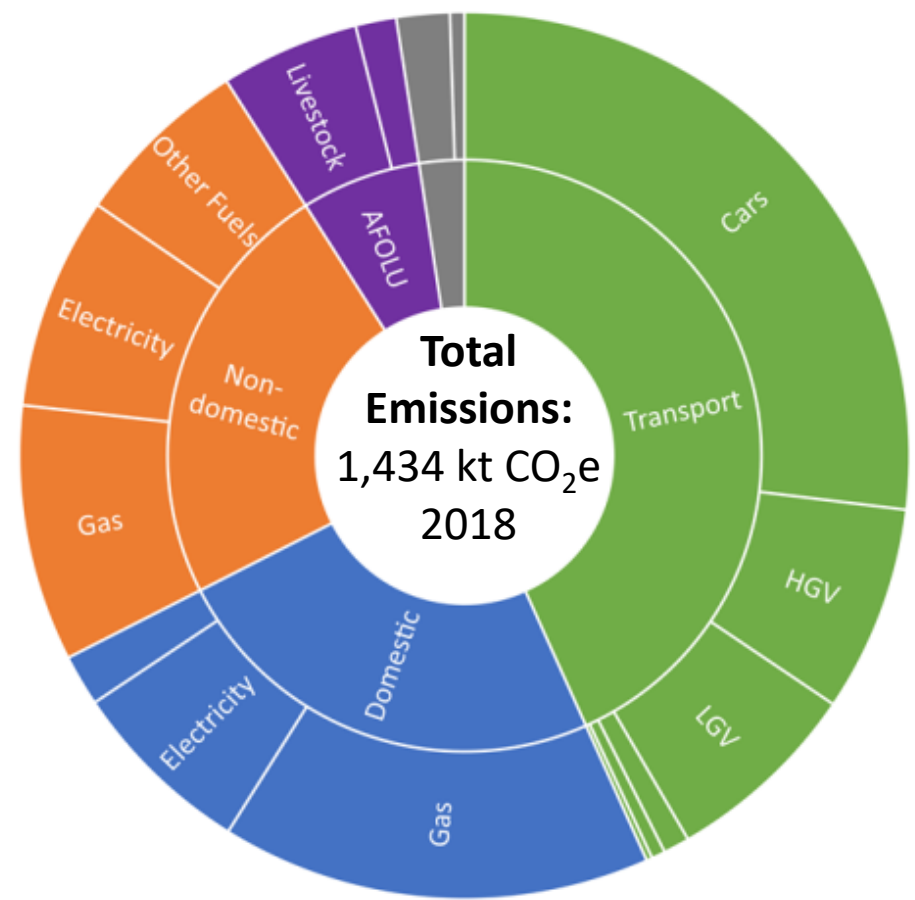
13 July 2022

Bella Fortune & Lindsay Margerison

Strategic Transport Planning

# Emissions in North Somerset

- Transport accounts for 43% of all GHG emissions in NSC (~50% of CO<sub>2</sub>)
- Car traffic is over 60% of this and 25% of the NSC total emissions
- Road transport emissions are **rising**
- **NSC traffic emissions up 9% since 2011**
- Mode shift changes being outweighed by more car use, longer trips and larger vehicles (e.g. SUVs)



# The differing challenge - NSC & UK

## Targets for emissions reductions

UK	2035 78% reduction
NSC	2030 net zero

## Transport Sector emissions contribution

UK (2019)	30%
NSC (2019)	43%

This means that we have to go **further** and **faster** than the national picture.

This is a significant challenge – success is likely to require North Somerset to be leaders in transport decarbonisation.

# The Vision: Open, Green & Fair...



Credit: Camden Council



Credit: UK.motor1.com



Credit: Cycle Hoop



Credit: crossriverpartnership.org



Credit: Irish Cycle

# Policy context

Climate **Emergency**

Nature **Emergency**

Health **Emergency** and  
inequalities

Spatial Planning

Our declared emergencies & priorities,  
plus commitments within:

- Corporate Plan
- Climate Emergency Action Plan
- Joint Local Transport Plan 4 (JLTP4)
- Active Travel Strategy
- Health & Wellbeing Strategy
- Local Plan
- Annual Directorate  
Statements/Performance Indicators



# Joint Local Transport Plan 4 (JLTP4) (March 2020)

<https://travelwest.info/app/uploads/2020/05/JLTP4-Adopted-Joint-Local-Transport-Plan-4.pdf>

- Adopted in March 2020 – “This JLTP4 sets out to **decarbonise and promote and transform cleaner and greener and sustainable forms of transport**” p6
  - ...but mostly written pre-climate emergency and all pre-pandemic
- Includes major transport schemes to improve connectivity...
  - ...but schemes not carbon tested & need reviewing
- Includes recognition of requirement for demand management - “To encourage people to move away from cars, we will **need to provide transformational alternatives...**”
  - ...but does not commit to specific proposal or package of measures

# JLTP4 & the Transport Decarbonisation Study (TDS)

<https://travelwest.info/app/uploads/2020/05/JLTP4-Adopted-Joint-Local-Transport-Plan-4.pdf>

As a result...

- **JLTP4 committed to an ‘immediate review’** committing to further work to **build up the evidence base and establish what will be required to reach the 2030 target** and this will set the basis for the next JLTP.”
- This review is the **Transport Decarbonisation Study (TDS** – see next slide)

# What is the Transport Decarbonisation Study (TDS)?

- Transport Decarbonisation Study (TDS) covers the West of England area;
- Commissioned by WECA (consultants WSP are undertaking study);

Three main outputs from the study will be:

1. **Establishing the gap** to 2030 net zero (May22)
2. **Test options to close the gap** (Jun/Jul22)
3. **Make recommendations** for policy and delivery (Jul/Aug22)



# 1. Establishing the gap...

(in projected carbon emissions at 2030, compared to carbon neutrality 2030)

Study has built a forecasting model, with three scenarios for emissions trajectories to 2030 and beyond...

- 1) **Business as Usual - ('Do Nothing' scenario)**
- 2) **Central Scenario - ('Do Minimum')  
(National Government commitments only)**
- 3) **Current Commitments (WECA and partners)  
- ('Do Something' scenario)**

# 1. Establishing the gap to 2030...

Business as Usual - ('Do Nothing' scenario)

## Business as Usual

- Assumes no central govt. or local transport decarbonisation commitments

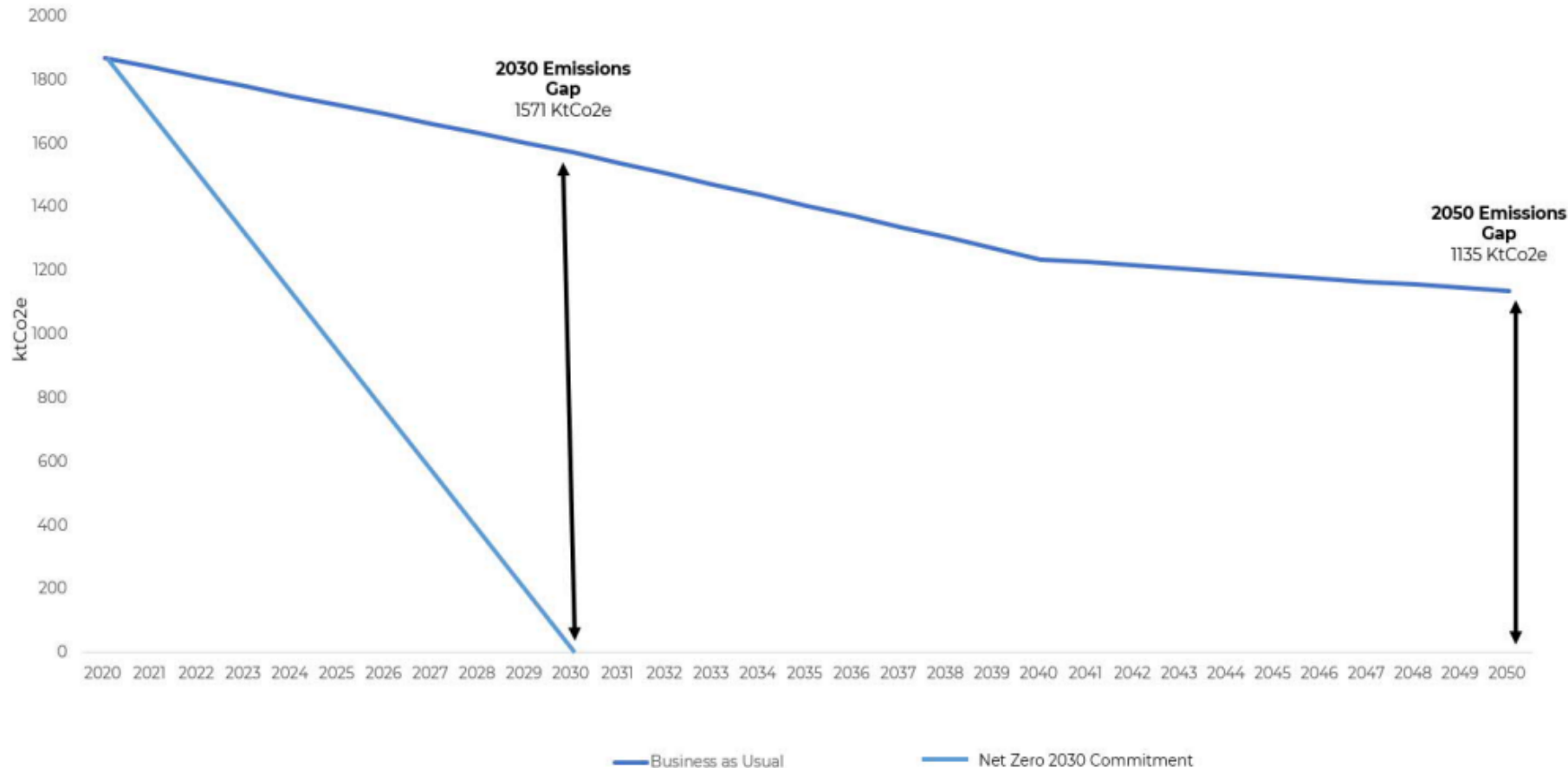
### Results:

- Growth in car use (9% by 2030)
- Slow electrification of the fleet (only 30% by 2030 and 44% by 2050) – doesn't include ban on ICE vehicle sales in 2030.
- Modest carbon reductions achieved through EV uptake and ICE efficiency improvements

Result: emissions fall by:

- 17% by 2030

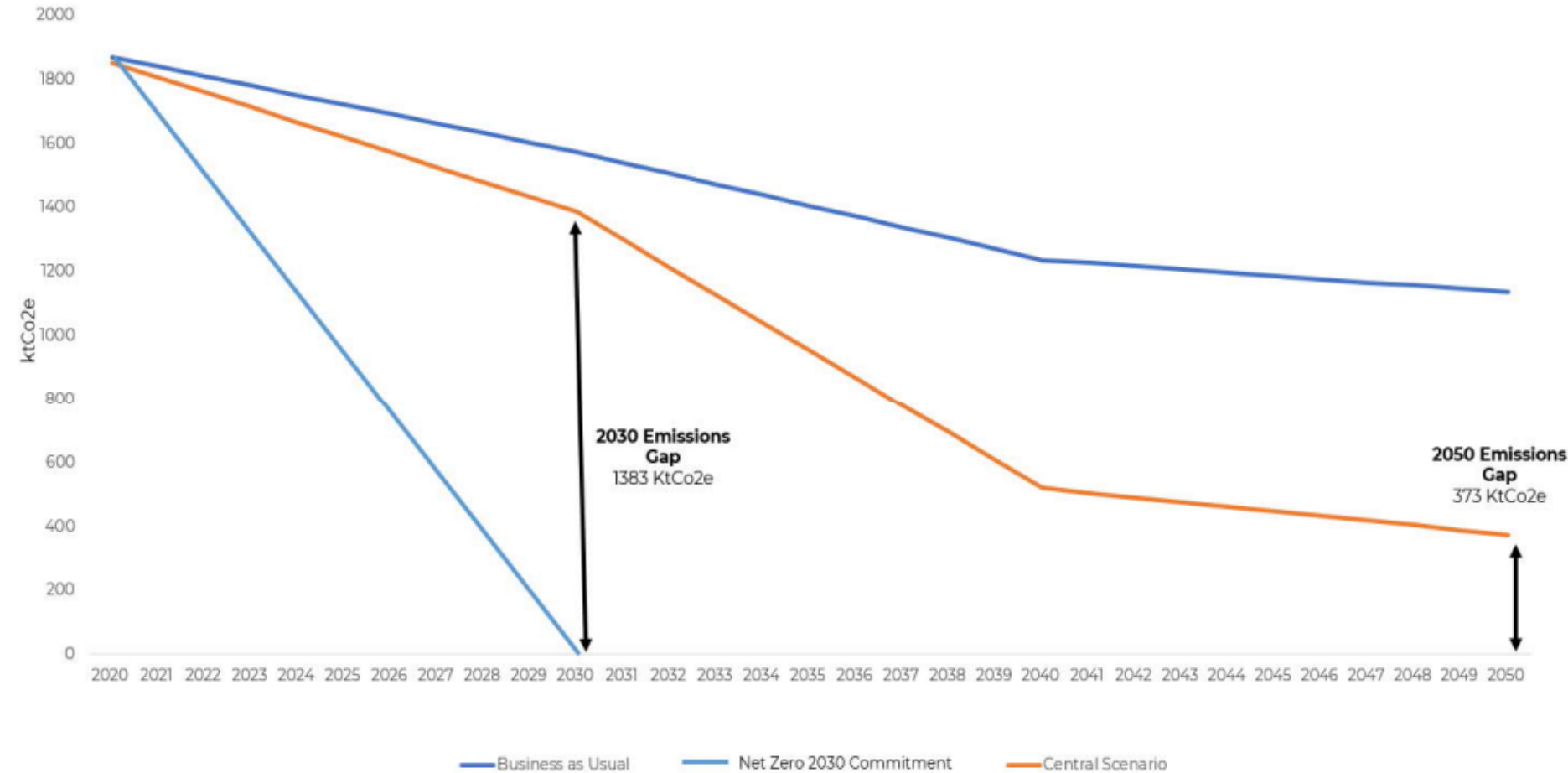
## RESULTS AND ANALYSIS - 2030 TRANSPORT USER EMISSIONS



# 1. Establishing the gap to 2030...

Central Scenario - ('Do Minimum') - National Government commitments only

Figure 4-2 -Central Scenario Decarbonisation Pathway



## Central Scenario

Assumes:

- Ban on sale of new petrol and diesel cars in 2030 and hybrids 2035, HGVs 2040.
- No demand management measures

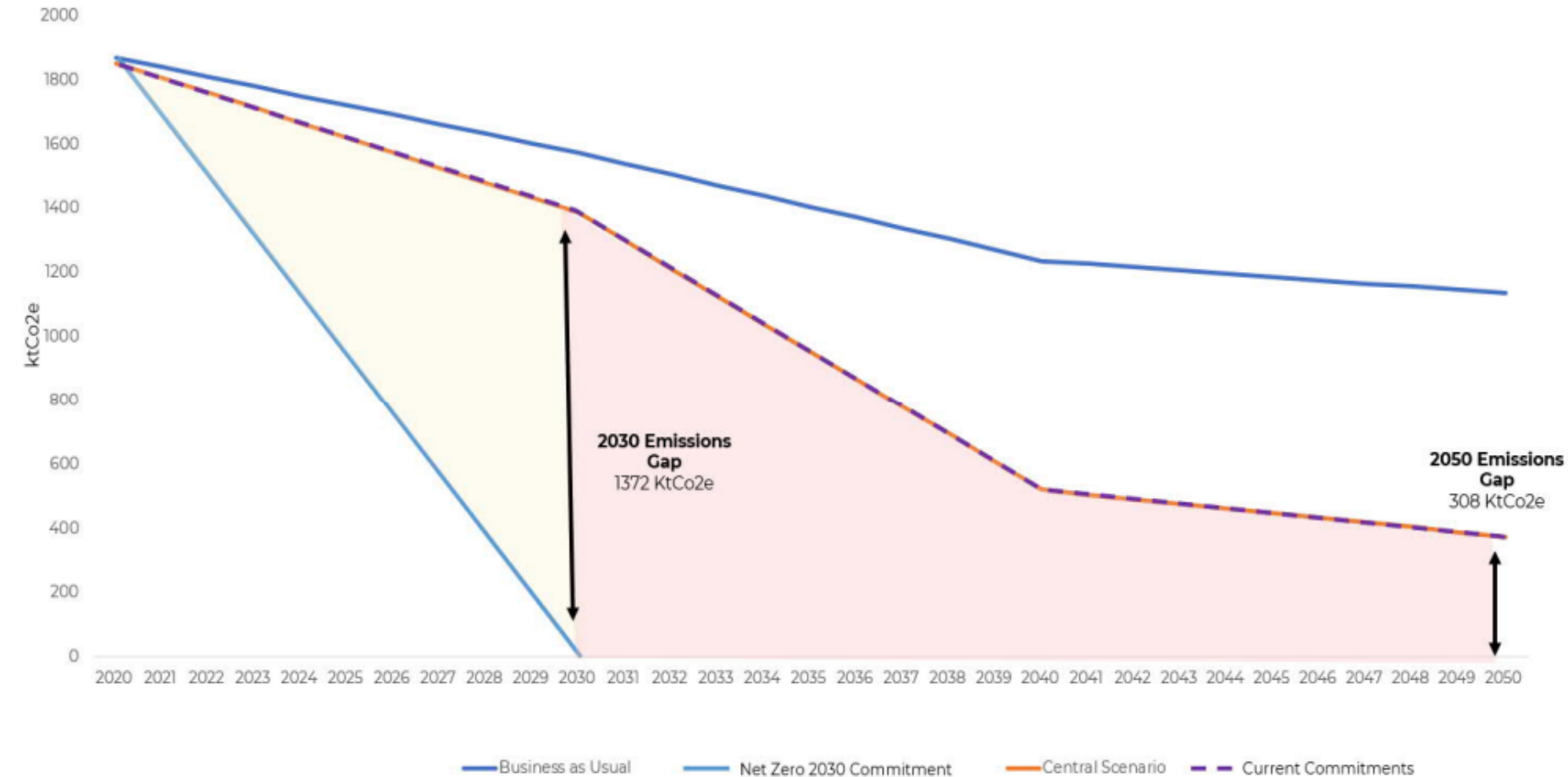
Result:

- emissions fall further by 2040 & 2050, but still similar to the BaU (Do Nothing) scenario at 2030
- 30% less emissions 2020-50 than BaU (Do Nothing scenario)
- Still not on track for Net Zero 2050 as ICE vehicles remain in circulation (plus HGVs etc)
- Exceed carbon budgets as continue emitting for too long
- Fundamental changes to

# 1. Establishing the gap to 2030...

## Current Commitments (WECA and partners) (‘Do Something’ scenario)

Figure 5-1 - WECA Current Commitments Trajectory



### Current Commitments

- Includes committed schemes that encourage mode-shift such as CRSTS, BSIP and Clean Air Zones
- Some demand management measures e.g. Bristol WPL
- Includes schemes that may induce additional traffic demand (e.g. new bypasses)

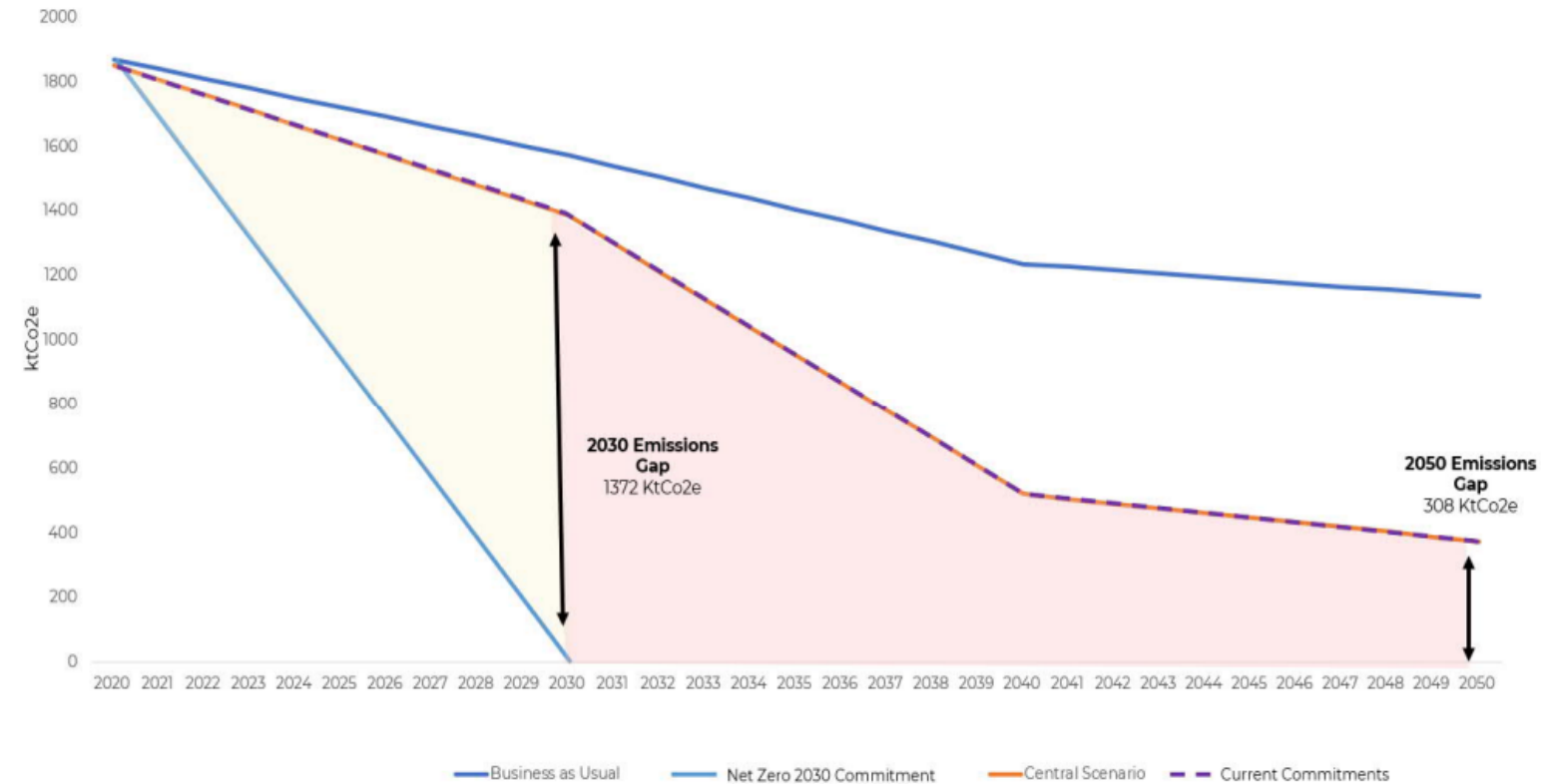
### **Result:**

- Expected modest reduction in emissions - 29% less emissions 2020-50 than BaU (Do Nothing scenario) & only 1% less emissions than the Central Scenario
- Modal-shift estimated against BaU levels of demand typically modest
- Scale of intervention likely not enough to fill size of gap - need demand management measures alongside infrastructure improvements

**BUT** - necessary interventions to provide sustainable travel alternatives

# 1. Establishing the gap to 2030...

Figure 5-1 - WECA Current Commitments Trajectory



## Gap for additional action to fill by 2030:

- Likely approx. **50 - 75% of fleet still petrol and diesel**
- Demand for car, HGV and LGV use (i.e. distances travelled) growing
- Likely absence of national behaviour change incentives
- Current commitments will provide sustainable travel choices and encourage mode shift, reducing emissions, but significant scale of further change likely still required
- WECA's £540m 5-year CRSTS scheme package projected to only deliver <1% annual emissions reduction
- **Infrastructure alone is not sufficient** - it is an enabler that **must be supported by demand management measures**
- Construction not decarbonised
- Emissions outside WECA and partners direct control - SRN, through-trips (28% of WofE emissions), diesel rail (2%)
- Aviation & maritime emissions not included in study

# 1. Establishing the gap...

The study is recommending a transformational approach is required: All local levers will be needed

- ISSUES report now shared with us but final OPTIONS report to September 2022 WofE Joint Committee (will be ready late July 2022)
- **Significant reduction in car usage will be needed (~17% annually)** for Net Zero Carbon by 2030
- 2020 saw 19% reduction - need that every year
- The type of transformation required will be disruptive to the existing system and norms.
- Some **parts of the network are outside our control** (e.g. 28% of emissions for WofE area is through trips on motorways; 2% diesel trains). So we **must work with and influence partners & Government**
- Aviation, maritime emissions not included in study
- **Electric vehicles part of the solution** but other, major interventions will be necessary
- **Will need a range of measures including demand management**

## 2. Test options to close the gap to 2030

**Demand  
Management  
Tools Testing –  
underway now**

### Spreadsheet Model development - May

- Confirmation of policy levers
- Literature review of case studies and elasticity factors
- Development of appraisal tool for testing impact (intensity, scale and time)

### Carbon Model Analysis - June

- Results driven analysis – Theory of Change approach (significant year on year car use reduction to 2030)
- Vehicle km reductions from spreadsheet model assigned to carbon model
- Total CO2 impact per lever
- Testing options and timescales to reach net zero.

### Reporting – July - Sept

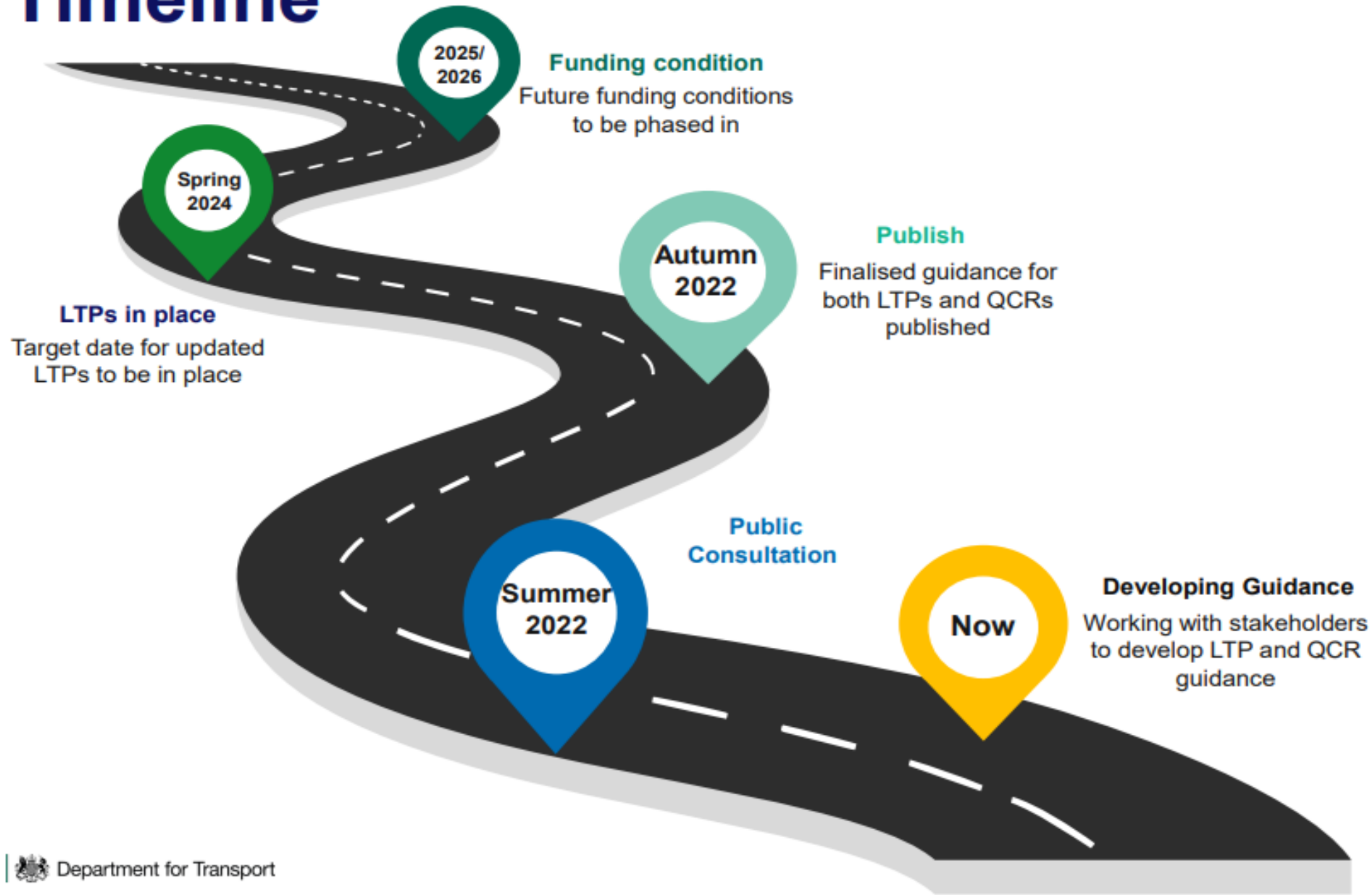
- Technical note with results.

# Local Transport Plan Changes

- Government are currently updating their Local Transport Plans (LTP) guidance:
- Consultation summer 2022 & Publication in Autumn 2022
- Government to provide one holistic guidance document (all objectives for local transport e.g. carbon, levelling up), so **LTA's develop one overarching plan for local transport**
- We will be required to **embed decarbonisation into transport planning.**
- Government guidance paper describes **Quantifiable Carbon Reductions (QCRs)** - a method to evaluate/report carbon impacts/benefits of transport schemes against pathway.



# Timeline



...timeline

Next steps:  
Short – Medium  
Term  
2022-24

What?	When?
<b>WoE Transport Decarbonisation Study: Options Testing for Demand Management measures</b>	July-August 2022
<b>Joint Local Transport Plan 4 Addendum</b>	September 2022
<b>Big Conversation on Transport – Challenges &amp; Choices</b>	Autumn 2022 – summer 2023
<b>NSC EV Strategy &amp; LEVI Bid</b>	By Dec 2022
<b>Joint Local Transport Plan 5 (JLTP5)</b>	By March 2024