

<b>Author Contact Details</b>	
Title	<b>Dr</b>
First Name	<b>Andrew</b>
Last Name	<b>Boswell</b>
Job Title (where relevant)	<b>Independent Scientist &amp; Consultant</b>
Organisation (where relevant)	<b>Climate Emergency Policy and Planning (CEPP)</b>
Address	<b>23, Havelock Road Norwich Norfolk</b>
Post Code	<b>NR2 3HQ</b>
Telephone Number	<b>07787127881</b>
Email Address	<b>andrewboswell@fastmail.co.uk</b>

## Contents

1	INTRODUCTION.....	1
1.1	Previous submissions from CEPP .....	1
2	RECENT CHANGES IN NATIONAL POLICY: CLIMATE CHANGE .....	2
2.1	Net Zero Strategy .....	2
2.2	Net Zero Strategy: delivery pathways.....	3
2.3	Transport Decarbonisation Plan .....	6
2.4	New carbon pricing data.....	7
3	SIGN OFF.....	8
4	APPENDIX A: BEIS CARBON PRICING POLICY PAPER.....	9
5	APPENDIX B: NET ZERO STRATEGY.....	9

## **1 INTRODUCTION**

### ***1.1 Previous submissions from CEPP***

- 1 I (CEPP) have submitted in-depth representations to the GNDP since 2016 on the emerging GNLP. These are my submission at Regulation 19, and the previous ones listed in the footnotes<sup>1</sup>.
  
- 2 I note bullet 26 of the Examination Guidance Note that the representations made on the Plan at the pre-submission (Regulation 19) stage [ A11 and A12] have been provided to

---

i

- i. 2016 SA Scoping Report [http://bit.ly/CEPP\\_2016\\_SCOPING](http://bit.ly/CEPP_2016_SCOPING)
- ii. 2018 R18A Housing [http://bit.ly/CEPP\\_R18A\\_HOUSING](http://bit.ly/CEPP_R18A_HOUSING)
- iii. 2018 R18A Climate Change [http://bit.ly/CEPP\\_R18A\\_CC](http://bit.ly/CEPP_R18A_CC)
- iv. 2018 R18B HELAA [http://bit.ly/CEPP\\_R18B\\_HELAA](http://bit.ly/CEPP_R18B_HELAA)
- v. 2018 R18B IPCC Special report on 1.5 degrees [http://bit.ly/CEPP\\_R18B\\_CC\\_IPCC](http://bit.ly/CEPP_R18B_CC_IPCC)
- vi. 2020 R18C Climate Change [http://bit.ly/CEPP\\_R18C\\_CC](http://bit.ly/CEPP_R18C_CC)

the Inspectors and will be taken into account. This document therefore just provides some information on recent changes in national policy on Climate Change which is relevant to the GNLP.

## 2 RECENT CHANGES IN NATIONAL POLICY: CLIMATE CHANGE

- 3 The sections below introduce recent policy from Government which is relevant to climate change mitigation. Each of these policies has a direct relationship to the current lack of sound, coherent policy for Climate Change, under the Greater Norwich Local Plan, as explained below. I expect to refer to them at the Hearings and respectfully ask the Inspectors to consider them,

### 2.1 Net Zero Strategy

- 4 Published late in 2021, the Government's Net Zero Strategy (NZS) set out the urgent need for ambitious quantifiable carbon reductions across the economy, including on heat and building emissions, energy production and transport emissions which all relate to policies in the GNLP. I attached the NZS at Appendix B which I respectfully request that it is added to the examination library. The Strategy highlights that the planning system has a key role, for example under "Net zero in government decision-making" it states:

*"19. We will make sure that the reformed planning system supports our efforts to combat climate change and help bring greenhouse gas emissions to net zero by 2050. For example, as part of our programme of planning reform we intend to review the National Planning Policy Framework to make sure it contributes to climate change mitigation and adaptation as fully as possible."*

(I understand this to refer to a future review of the NPPF, and not the review that took place in 2021.)

- 5 Under "sectoral priorities at a local level, local energy", it states:

*"Decarbonisation will require strong co-ordination across electricity, heat, hydrogen, transport, and buildings. That means local actors can be strong drivers of change, enabling coordinated non-spatial planning and engagement with markets, and supporting cleaner, cheaper and more efficient energy whilst providing a significant contribution towards local economic strategy."*

- 6 And on heating in new builds:

*"New Buildings. We will introduce regulations from 2025 through the Future Homes Standard to ensure all new homes in England are ready for net zero by having a high standard of energy efficiency and low carbon heating installed as standard. This should mean that all new homes will be fitted with a low carbon heat source such as a heat pump or connected to a low carbon heat network. To reinforce this, we will consult on whether it is appropriate to end new gas grid connections, or whether to remove the duty to connect from the Gas Distribution Networks. As an interim measure to the Future Homes Standard, we plan to introduce an uplift in*

*standards, effective from June 2022, for England that would result in a 31% reduction in carbon emissions from new homes compared to current standards. We will also respond to our consultation for the Future Buildings Standard for new non-domestic buildings.”*

7 And on decarbonisation of transport at the local level:

*“We are driving decarbonisation and transport improvements at a local level by making quantifiable carbon reductions a fundamental part of local transport planning and funding. Local Transport Plans (LTPs) – statutory requirements that set out holistic place-based strategies for improving transport networks and proposed projects for investment – will need to set out how local areas will deliver ambitious carbon reductions in line with carbon budgets and net zero.”*

## 2.2 Net Zero Strategy: delivery pathways

8 Crucially, the NZS also sets out delivery pathways which link to existing carbon budgets and targets, and define indicative targets based on the pathways for each sector. For example, as far as the Paris Agreement and International Emissions Targets, the NZS Technical Annex states at page 307:

### ***“International emissions targets***

*7. The 2015 Paris Agreement under the UN established the goal of keeping the global mean temperature rise to well below 2°C, whilst pursuing efforts to limit the rise to under 1.5°C. Under the Kigali amendment to the Montreal Protocol, the UK has also committed to reducing F-gas emissions by 85% on 2011-2013 levels by 2036.*

*8. Under the Paris Agreement, the UK announced its Nationally Determined Contribution (NDC) in December 2020, which commits the UK to reduce net greenhouse gas (GHG) emissions by at least 68% by 2030 compared to 1990 reference year levels. This represents an increase of ambition on the fifth carbon budget, which covers the years 2028-2032.*

*9. The UK will therefore need to overachieve on the fifth carbon budget to meet its international climate targets and stay on track for the sixth carbon budget. Accordingly, the policies and proposals, delivery pathway, deployment assumptions and any other analysis presented in the Net Zero Strategy for the fifth carbon budget period are consistent with the action required to meet the UK’s 2030 NDC.”*

(my emphasis)

9 And for UK carbon budgets:

### ***“Climate Change Act***

... In 2019, on advice of the CCC, the UK committed to reaching net zero emissions by 2050 and consequently the target reduction in the Act was increased to at least 100%.

3. To keep the UK on a pathway to achieving the 2050 target, the Government is obliged to set legally binding, five-year caps on emissions – carbon budgets – twelve years in advance and then to publish a report setting out policies and proposals for meeting that budget and those budgets previously set.

4. **The Net Zero Strategy is the means by which we satisfy the requirements of the Act in relation to policies and proposals for meeting the current carbon budgets.**

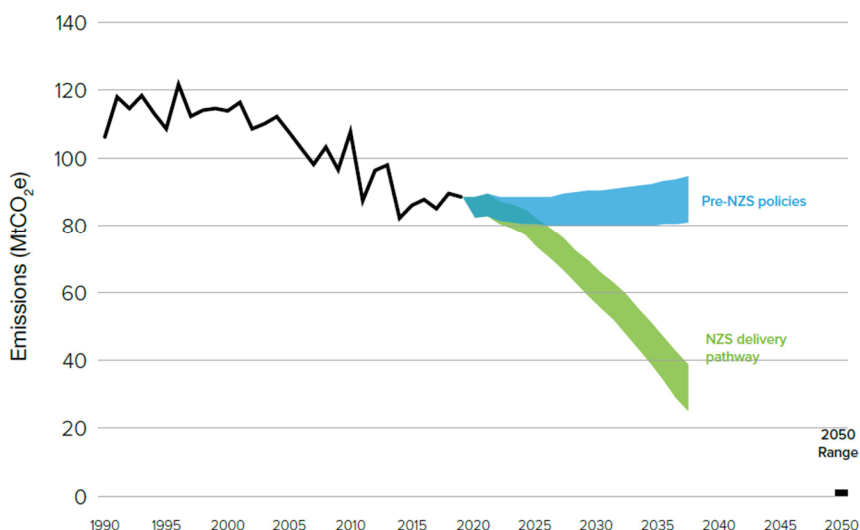
...

6. **To show how we will meet our climate targets, including legislated carbon budgets up to and including the sixth carbon budget, the Net Zero Strategy contains both an indicative delivery pathway and illustrative 2050 net zero scenarios. The pathway, which stretches to the end of the Sixth Carbon Budget period in 2037, provides an indicative trajectory of emissions reductions which we aim to achieve through the Strategy and through delivery of the policies and proposals outlined. It therefore indicates the timescales over which we expect those policies and proposals to take effect to deliver our targets.** The pathway is designed to be broadly consistent with all three of the illustrative 2050 scenarios set out in the Journey to Net Zero chapter of the Net Zero Strategy. There is uncertainty associated with our decarbonisation pathway through to 2037 and the 2050 scenarios – the exact path we take to meet our climate targets is likely to differ and must respond flexibly to changes that arise over time.”

(my emphasis)

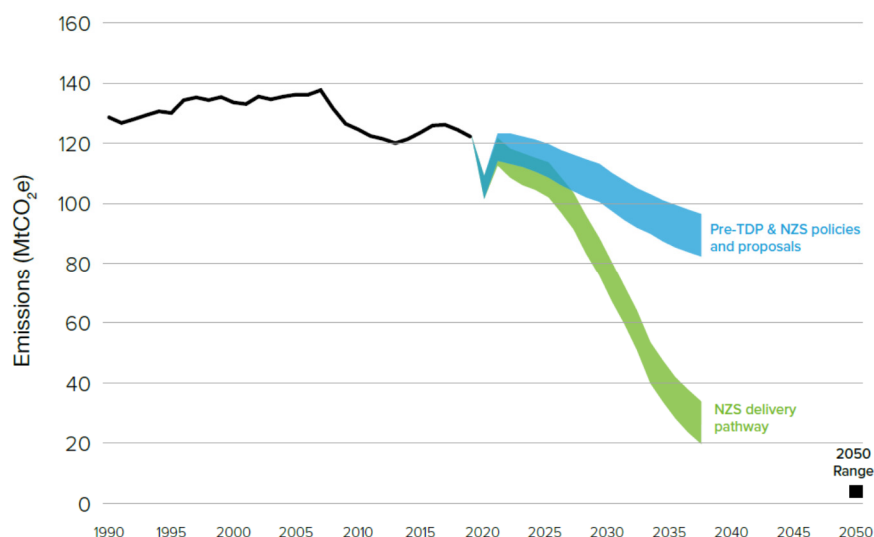
10 The NZS delivery pathway, related to heat and building, is shown in the Figure below

Figure 20: Indicative heat and buildings emissions pathway to 2037



11 The NZS delivery pathway, related to road transport, in the Figure below corresponds to a fall in residual emissions from domestic transport emissions (excluding aviation and shipping) by around 34-45% by 2030 and 65-76% by 2035, **relative to 2019 levels** (see Figure 21 from the NZS reproduced below).

Figure 21: Indicative domestic transport emissions pathway to 2037



Source: BEIS analysis

- 12 In my Regulation 19 submission, I describe how the GNLP does not make any serious or credible assessment of the carbon emissions associated with the plan against carbon budget and targets. The NZS delivery pathways provide further benchmarks beyond local and national carbon budgets on which to assess the GNLP on carbon reduction performance. The pathways/targets are on a similar timeframe to the GNLP – for example, there is a delivery pathway target for 2035 close to the end of the GNLP plan period.
- 13 It is clear that the NZS delivery pathways will be extremely challenging. Local plans must play a part, as must every other tool and strategy at the nation’s disposal.
- 14 As the plan stands, and as I submitted at Regulation 19, it is not sound on climate mitigation on all four soundness criteria. I submit also that the GNLP is not robust, or fit-for-purpose, to support via the planning system the hugely challenging objectives of the Net Zero Strategy.

### 2.3 Transport Decarbonisation Plan

- 15 On the 14<sup>th</sup> July 2021, the Government released its Transport Decarbonisation Plan<sup>2</sup> (TDP).
- 16 The Rt Hon Grant Shapps MP, Secretary of State for Transport states in the foreword:

*“But **we cannot, of course, simply rely on the electrification of road transport**, or believe that zero emission cars and lorries will solve all our problems, particularly for meeting our medium-term carbon reduction targets to 2035. Road traffic, even on pre-pandemic trends, was predicted to grow by 22 percent from 2015 to 2035 much of it in cities, where new roadbuilding is physically difficult and disadvantages communities. We cannot pile ever more cars, delivery vans and taxis on to the same congested urban roads. That would be difficult for the roads, let alone the planet, to tolerate. **As we build back better from the pandemic, it will be essential to avoid a car-led recovery.**”*

(my emphasis)

- 17 On local transport challenges, the TDP states:

*“We will drive decarbonisation and transport improvements at a local level by making quantifiable carbon reductions a fundamental part of local transport planning and funding. Local Transport Plans (LTPs) are existing statutory requirements that set out holistic place-based strategies for improving transport networks, proposed projects for investment and, ultimately, lay out how key objectives will be achieved. **Going forward, LTPs will also need to set out how local areas will deliver ambitious quantifiable carbon reductions in transport, taking into account the differing transport requirements of different areas. This will need to be in line with carbon budgets and net zero.**”*

<sup>2</sup> <https://www.gov.uk/government/speeches/transport-decarbonisation-plan>

- 18 This indicates that the Government consider it essential to avoid car-led delivery, and are aware that electrification of road transport is not sufficient to tackle road-use emissions.
- 19 The status and content of the Local Transport Plan 4 from Norfolk County Council is currently contested by environmental campaigners. The current LTP4 strategy has gone under an “adoption” process by the County Council in November 2021, but its resulting status is unclear as of writing. Further, it contains no quantifiable carbon reductions for transport, including for the Greater Norwich area, and is subject to an exchange of legal letters with the Council of which I am part. **As this situation may change before February 1<sup>st</sup>, I will update the Examination orally at the Hearing on this matter.**

#### 2.4 New carbon pricing data

- 20 New carbon pricing data from the HM Treasury Green Book supplement on quantifying and valuing emissions of GHGs<sup>3</sup>, was published in October 2021. The rationale for the change in carbon price had been given in the policy paper, from Department of Business, Energy and Industrial Strategy (BEIS) “Valuation of greenhouse gas emissions: for policy appraisal and evaluation”, published 2 September 2021. I provide the policy paper at Appendix A which I request is added to the examination library. BEIS has conducted a review and update of the carbon values because several factors have changed since the last review, the most significant of which are the following:
- i. Changes in international climate change targets, especially the Paris Agreement of 2015 and the new temperature target to limit global overheating to 1.5°C.
  - ii. Changes in national targets including the UK 2050 net-zero target.
  - iii. The introduction of a UK Emissions Trading Scheme (UK ETS) in January 2021 following Brexit.
- 21 The new central band carbon price at 2020 is £241/tCO<sub>2</sub>. This prices to £378/tCO<sub>2</sub> at 2050. (See the policy document in Appendix A).
- 22 My Regulation 19 submission contained an indicative carbon footprint exercise of the GNLP housing growth strategy with and without policy interventions of building standards, different housing growth models, and whole lifecycle carbon (WLC) assessment. I found that at least 3 MtCO<sub>2</sub><sup>4</sup> (million tonnes) of carbon savings could potentially be found if carbon emissions associated with the GNLP were properly modelled and investigated by GNDP (which they have not been). The economic cost of this quantum of carbon is c.£720million at the 2020 Treasury Green Book carbon price of £241/tCO<sub>2</sub>. This figure does **not** include the additional carbon from transport emissions where development locks-in car use.

<sup>3</sup> “Valuation of energy use and greenhouse gas: Supplementary guidance to the HM Treasury Green Book on Appraisal and Evaluation in Central Government”  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1024054/1.Valuation\\_of\\_energy\\_use\\_and\\_greenhouse\\_gas\\_emissions\\_for\\_appraisal\\_CLEAN.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1024054/1.Valuation_of_energy_use_and_greenhouse_gas_emissions_for_appraisal_CLEAN.pdf)

<sup>4</sup> CEPP, Regulation 19 submission, bullet 128.

- 23 This indicates that there are very significant economic benefits to reducing the carbon associated with the GNLP. It is my understanding that the GNLP have not considered this in their economic modelling of the GNLP, and I respectfully suggest that this should be interrogated in the examination.

**3 SIGN OFF**

A handwritten signature in black ink that reads "Andrew Boswell." The signature is written in a cursive style with a large, sweeping initial 'A'.

Dr Andrew Boswell, Independent Scientist & Consultant  
Climate Emergency Policy and Planning, January 2022



**4 APPENDIX A: BEIS CARBON PRICING POLICY PAPER**

Policy paper, Department of Business, Energy and Industrial Strategy (BEIS)  
**“Valuation of greenhouse gas emissions: for policy appraisal and evaluation”**  
Published 2 September 2021

Supplied as separate document for inclusion in the examination library

**5 APPENDIX B: NET ZERO STRATEGY**

Policy paper, Department of Business, Energy and Industrial Strategy (BEIS)  
**“Valuation of greenhouse gas emissions: for policy appraisal and evaluation”**  
Published 2 September 2021

Supplied as separate document for inclusion in the examination library

**<END OF DOCUMENT>**