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DEADLINE D7

In so far as the facts in this statement are within my knowledge, they are true. In so far as the facts in this statement are not within my direct knowledge, they are true to the best of my knowledge and belief.

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1 INTRODUCTION

- 1 This submission provides the ExA with the rolling position statement on the *Boswell* legal case as requested in the ExA’s question ExQ3_Q2.1.1.
- 2 The final section (section 8) of this submission provides a response to the Applicant’s [REP6-094] “9.136 Applicant’s Response to Comments Made by the Climate Emergency Policy and Planning at D3 to D5”. I appreciate that the Applicant merged their comments into one document which assists in responding, and hopefully assists the ExA, and SoS, in a complex area. I have followed the same sequence.
- 3 Before the response to the Applicant, I am providing “the essence of my case on the LTC scheme” at section 3. This draws together my case into a single section: it explains where it is now at D7, and how the case has been built on previous submissions. I explain the evolution from the relevant representation and the written representation, all self-consistent. This section is provided to clarify some issues, to maximally inform the ExA and the SoS, and to provide the basis of the responses to the Applicant in the final section.
- 4 Sections 4 and 5 introduce new relevant policy material: the November 15th 2023, the House of Commons Committee of Public Accounts (“PAC”) report “*Support for innovation to deliver net zero*”, and the October 17th 2023, the House of Commons Transport Committee published a report on the *Draft revised National Policy Statement for National Networks* (“DrNNNPS”). These are important context for the SoS decision, as explained.
- 5 At section 6, I provide an update to the risk assessment data from the CCC 2023 Progress Report, and also provide a more detailed explanation of how I derive the indicative contextualisation benchmark data which I use from the CCC data.
- 6 At section 7, I provide information on the traffic modelling and cumulative carbon assessment. This is provided for the situation of a judgment on the *Boswell* appeal case emerging after the examination closes, and before either the examiner’s report expected on March 20th 2024, or the SoS decision expected on June 20th 2024.

**2 POSITION STATEMENT (D7): *R (Boswell) v Secretary of State for Transport [2023]*
*EWHC 1710***

- 7 This section is the rolling position statement on the *Boswell* appeal case as requested in the ExA’s question ExQ3_Q2.1.1.
- 8 On November 6th 2023, the Court of Appeal Civil Division advised parties that the Court had scheduled a one-day hearing for this case for 16th January 2024.
- 9 Please note further related comments (but not updates) made under the later section “Traffic Modelling and Cumulative Carbon Emissions”.

3 THE ESSENCE OF MY CASE ON THE LTC SCHEME

- 10 It is evident in [REP6-094], that the Applicant misunderstands and mischaracterises the case which I am making concerning the carbon emissions of the LTC scheme. As it will be helpful to the ExA and to all parties, I lay out my case out now.
- 11 The overall case has, in the detail of indicative contextualisations presented, been responsive to the policy and legislative framework, especially risk assessment information, as it has evolved since my Relevant Representation on February 16th 2023. However, the overall principles have been consistent throughout in responding to the question posed in my RR “*to what extent does the project contribute, or undermine, securing the Net Zero Strategy (“NZS”) and the net zero target?*”. And the need identified in my RR, to assist the ExA and the SoS, for ‘*a robust risk assessment of the related policy delivery, and a robust assessment methodology of the significance of the greenhouse gas emissions (“GHGs”)*’.
- 12 I provide an explanation of this evolution at a later section so that it is absolutely clear how my different submissions have built on each other, and how they are all mutually consistent.
- 13 First, I explain the case as it is now at D7.

3.1 *The position now at D7*

- 14 In brief, the essence of my case for the LTC is that:
- (A) I start with national policy. The NNNPS provides, at 5.18, a test for the decision maker as to whether the increase in carbon emissions resulting from the proposed scheme are so significant that it would have a material impact on the ability of Government to meet its carbon reduction targets (including near-horizon targets such as the 2030 NDC and the 5th and 6th carbon budgets).
- (B) Under the policy, the Secretary of State has to reach a reasoned conclusion on this test. However, it is only possible to reach a clearly reasoned conclusion on the NNNPS 5.18 test under these conditions:

- **Condition (i) : IF the risks to the delivery of those carbon targets and budgets are fully understood**. This requires a quantified risk assessment for the delivery of those budgets and targets to be available to the decision maker. The quantified risk assessment provides a wider context relating to the test and the decision. If there is no satisfactory quantified risk assessment, nor full understanding of the delivery risks to the carbon budgets and targets, then the decision maker is not in a position to reach the necessary reasoned conclusion on NNNPS 5.18.
 - A. This is about whether the budgets and targets are achievable in practice. It is not about intentions and aspirations (for example, in the policies and proposals of the CBDP which are enumerated as if they each are assured to be 100% delivered) that may exist in strategy documents but do not necessarily correspond to reality (eg: the risks to delivery to each policy and proposal in a complex policy environment).
 - B. In a nutshell, the situation is that the NNNPS requires for the scheme under consideration, via the 5.18 test, that the Government is legally required to meet its obligations within the national carbon reduction strategy (currently, the CBDP). Yet, as of today November 17th 2023, the Government of the day in its own CBDP has acknowledged that it cannot demonstrate (as opposed to making aspirational statements¹) that it can meet these obligations. And that acknowledgement is before any credible risk assessment has been undertaken.
 - C. In order to determine if the budgets and targets are achievable in practice, the policies and proposals in the CBDP cannot just be assumed to be 100% deliverable across the board. For each quantified policy and proposal within each sector, a risk assessment of its delivery should be associated with the quantified emissions reductions figure for its full delivery. For example, if a policy is proposed to deliver 10MtCO₂e of emissions reductions per year in the 6CB, but its risk assessment is that it will only be 80% deliverable by the 6CB, then in reality it will only deliver 8MtCO₂e savings. For this example, currently the CBDP conclusions, for each policy and proposal, are based on the 10MtCO₂e being delivered (ie full 100% delivery) when this is clearly not the case. The same applies to all policies and

¹ For example, this statement quoted by the Applicant at [REP6-094]/2.1.23 from the CBDP is, in the absence of proper quantified risk assessment, aspirational – it has not been demonstrated to be achievable in practice. “*We have quantified emissions savings to deliver 88 Mt or 92% of the NDC. We are confident the delivery of emissions savings by unquantified policies detailed in this package will largely close this gap and the government will bring forward further measures to ensure that the UK will meet its international commitments if required*” (emphasis added).”

proposals across the board. Note that understanding the risk to delivery is non-trivial: for example, there are 35 policies underlying the CBDP Domestic Transport sectoral residual emissions trajectory [REP1-323/70].

- D. Proper risk assessment of delivery of the carbon targets and budgets (as required in the context of whether NNNPS 5.18 can legitimately be applied) therefore provides different, more realistic, quantifications of delivery to that given in the CBDP and its sector residual emissions trajectories. This additional risk assessment information is not currently available in the CBDP although undisclosed Risk Tables are available to the Government [REP4-361/section 3.1].
- E. In the lack of full disclosure of delivery risk data for the CBDP (ie the Risk Tables), the CCC 2023 Progress Report remains the best information in the public domain upon which to understand the risk to delivery.
- F. This poses a conundrum for the SoS because the current policy (the NNNPS) assumes that the Government will meet its legal requirements. However two key pieces of information provide evidence to the contrary:
- (1) The Government's own CBDP demonstrates that it is off track to meet its legal requirements. It has only been able to provide non-risk-assessed aspirational statements as to how to fill the gap.
 - (2) The CCC Progress Report confirmed earlier in 2023 that Government is substantially off-track meeting its legal obligations with the headline statement that four times the rate of emissions reductions were required in all sectors except the electricity supply sector². The CCC analysis of individual sectors provides extremely valuable risk assessment data (the Industry and Domestic Transport sectors being relevant to the LTC scheme).
- G. As I have stated previously, it has been the practice in recent road DCO decisions for the SoS to underwrite the decision letter on the assumption that the delivery of NZS is fully secured when quite clearly it is not [REP1-323/27]. This is no longer credible given

² The CCC 2023 Progress report states: "The rate of emissions reduction will need to significantly increase for the UK to meet its 2030 NDC and the Sixth Carbon Budget. If the UK is to achieve its NDC, the rate of emissions reduction outside the electricity supply sector must almost quadruple, from 1.2% annual reductions to 4.7%."

the delivery risk information which has recently become available.

H. At this point in time, the NZS/CBDP is not fully secured, full stop. Similarly at the point of the SoS decision, there may have some progress, but the NZS/CBDP will not have been fully secured, full stop.

I. Therefore this **condition (i)** is not met.

- **Condition (ii)** *IF the risks to the delivery of those carbon targets and budgets **being compounded by the development** of the scheme are fully understood.* This is where contextualisation of the scheme within the current risk information is required to provide vital information for decision making. The current situation for the SoS is that the delivery of (the policies and proposals within) the CBDP is not secured, and the UK carbon budgets, and UK NDC are not secured (failure on condition (i) above). Condition (ii) addresses the question - **in that situation does the LTC scheme make things worse or better?**

A. In [REP4-361], I addressed this question via IEMA compliant contextualisations of the LTC in three scenarios (“section 4.2: Risk assessed sectoral reduction strategies: Industry and the 2030 NDC”; “section 4.3: Risk assessed sectoral reduction strategies: Industry in the 5th carbon budget”; and “section 4.4: Risk assessed sectoral reduction strategies: Domestic Transport in the 5th and 6th carbon budgets”).

B. For example, on the first of these, the CCC 2023 Progress Report shows that emissions savings of 22.9MtCO₂e per year remain to be secured in the Industry sector in 2030, the NDC year. If these emissions reductions are not secured before 2030, then the NDC can logically only be delivered if greater than planned emissions reductions are made in other sectors.

C. The Applicant then proposes to add approximately³ a further 300,000 tCO₂e from LTC construction activities in 2030. The only logical condition under which these additional emissions will not risk the sector trajectory at 2030 being met is **IF both** (1) the missing 22.9MtCO₂e emission reductions are secured in 2030 AND (2) a further 300,000 tCO₂e of Industry emissions

³ Please see response to “CEPP D3: [REP6-094]: “Ballpark estimates” for construction emissions [2.1.14]” later

reductions are secured in order to accommodate the additional emissions for the LTC construction in that year.

- D. Whilst meeting the sectoral trajectory is not a hard statutory target, from the information available, as of today, the SoS is not in a position to demonstrate that it can be met with the clear implication that this means other sectors would be required to make compensatory emissions cuts (beyond their existing residual emissions trajectory). This is serious, as it is clear from reading the CCC 2023 Progress Report that delivery of emissions reductions in all sectors are challenged. (I have expressed this situation elsewhere as “*will the sector who can go beyond their existing sectoral residual emissions, please stand up*” – volunteers will be noticeably lacking.)
- E. A further requirement to ensure that the carbon budgets and targets (and in this case the NDC) can be met is then for the SoS to enter into discussions with ministers from all the departments with major emitting sectors to decide which department will commit to making emissions reductions beyond the scale of their current CBDP sectoral residual emission trajectory. This step is required to ensure that the law, in the statutory carbon budgets and targets, and international obligations, is not going to be breached by the decision. This is a crucial issue that the Government should be addressing, yet no one in Government is doing so currently. As a result, the SoS at the point of considering the carbon emissions from the scheme is left without the help from the rest of his/her Government.
- F. Further the Applicant, in the example, has not provided any explanation of how the further c.300,000 tCO₂e of emission savings could be found, and then secured, in the Industry sector to accommodate its project.
- G. On the basis of all this, **this condition (ii)** is not met.
- CEPP submit that the decision maker must then (1) proceed with a precautionary approach, and (2) that the legislation, in any case, requires the SoS to do so.
 - The SoS is required to do so because condition (i) and condition (ii) are not met, and therefore, a reasoned conclusion cannot be reached on the carbon “decision making” test at NNNPS 5.18. The Secretary of State is then obliged under Planning Act 2008 section 104(3) to consider if subsections (of s104) (4)-(8) apply.

- (C) Sections 104(4)-(6) of Planning Act 2008 do engage for the LTC scheme as there is a realistic and serious possibility that approval of the Scheme would lead to a breach of its international obligations (the breach of the 2030 NDC as illustrated in the example above), breach of any statutory duty or be unlawful. This is what I have laid out in my other submissions and also what I have briefly described for the 2030 NDC above. The current data before the examination, and which will be before the Secretary of State (unless there is further data produced) shows that:
- A. There is a potential breach with very high probability in international obligations, as the current figures in the CBDP show that the NDC will not be achieved. As far as the scheme is concerned, the additional construction emissions from the LTC will increase the amount by the which the NDC is not achieved. The Applicant's only recourse here would be to (a) provide information based on risk assessed data of the Industry sector showing how the emissions can be accommodated, or (b) secure emission reductions from another sector (and minister) beyond the scale of their current CBDP sectoral residual emission trajectory, which each demonstrates conclusively that it is certain that the NDC will not be breached (ie the probability of the breach is zero). The Applicant has not provided such information.
 - B. There is a potential breach with very high probability of statutory duty and/or following the law from construction emissions in the 5th carbon budget. Here the CCC has identified a 114.8 MtCO_{2e} shortfall in securing the residual emissions for the Industry sector in the 5CB, so condition (i) is not met. The Applicant has not provided any explanation of how the further c. 1,322,733 tCO_{2e} of emissions saving could be found, and then secured, in the Industry sector to accommodate its project (condition (ii) is not met). The Applicant's only recourse here would be to (a) provide information based on risk assessed data of the Industry sector to show these emissions can be accommodated, or (b) secure emission reductions from another sector (and minister) beyond the scale of their current CBDP sectoral residual emission trajectory, which each demonstrates conclusively that it is certain that the 5CB will not be breached (ie the probability of the breach is zero). The Applicant has not provided such information.
 - C. There is a potential breach with very high probability of statutory duty and/or following the law from operation emissions in the 5th

carbon budget. Here the CCC has identified 96⁴ MtCO₂e (5CB) and 228.6 MtCO₂e (6CB) shortfalls in securing the residual emissions for the Domestic Transport sector, so condition (i) is not met. There is a complication here⁵ that the Applicant should be comparing cumulative operation emissions whilst the Applicant has only ever assessed solus emissions. Although these are not in CEPP's view the lawful enumeration of the scheme operation emissions for comparison and contextualisation purposes, I take the solus emissions enumeration forward for the purpose of the example: the solus operation emissions for the 6CB are 462,173 tCO₂e. The Applicant has not provided any explanation of how the further 462,173 tCO₂e of emissions saving could be found, and then secured, in the Domestic Transport sector to accommodate its project (condition (ii) is not met). The Applicant's only recourse here would be to (a) provide information based on risk assessed data of the Domestic Transport sector to show how the emissions could be accommodated, or (b) secure emission reductions from another sector (and minister) beyond the scale of their current CBDP sectoral residual emission trajectory, which each demonstrates conclusively that it is certain that the 6CB will not be breached (ie the probability of the breach is zero). The Applicant has not provided such information.

- 15 Again, the further requirement to ensure that the carbon budgets and targets, and international obligations, can be met without s104 (4)-(6) breaches is for the SoS to enter into discussions with ministers from all the departments with major emitting sectors to decide which department will commit to making emissions reduction beyond the scale of their current CBDP sectoral residual emission trajectory. This step is required to ensure that the law, in the statutory carbon budgets and targets, and international obligations, is not going to be breached by the decision⁶.
- 16 A failure to address whether the GHG emissions from the LTC scheme would create breaches under s104 (4)-(6), as contextualised within the CBDP and its currently known risk framework, and then on the basis of all the evidence give reasons why such breaches would be zero probability, would amount to a breach of statutory duty under s104(4), s104(5) or s104(6); alternatively a failure to give an adequately 'reasoned conclusion' under regulation 21 of the EIA Regulations, including in respect of the up-to-date position and/or a breach of the public law duty to give reasons.

⁴ Note that this figure is taken from the updated table provided in this document "Table 2: Summary of relevant benchmarks [updated Nov 17th 2023]" following the October 12th "CCC assessment of recent announcements and developments on Net Zero". The previous figure of 122.6MtCO₂e was used in my previous submissions.

⁵ Which awaits resolution in the Boswell appeal case

⁶ As above, this is a crucial issue that the Government should be addressing, yet no one in Government is doing so currently. As a result, the SoS at the point of considering the carbon emissions from the scheme, is left without the help from the rest of his/her Government.

17 I now show how the above case, as laid out now at D7, has built on my earlier submissions.

3.2 *The case and GHG contextualisation in my WR*

18 Although risk assessment was highlighted in my Relevant Representation, more up-to-date information on risk did not become available until later.

19 In my WR [REP1-323/section 10], I made comparisons of the LTC GHG emissions from construction and operation against (a) the national carbon budgets; (b) the residual emissions sectoral trajectories for the Industry and Operation sectors. The data with the comparisons is tabulated in [REP1-323] Table 3 and Table 4.

(a) is the standard comparison with national carbon budgets as made by the Applicant on every DCO application and with which I have no disagreement⁷ (see my response later section “CEPP D4: [REP6-094] IEMA Policy Guidance [2.1.43-46]” on the ‘merits’ of this comparison).

(b) is actually the same comparison as the applicant recently made in another DCO examination for the A12 Chelmsford to A120 widening scheme, and as documented at [REP-323/112-114]. I have no disagreement with this as a comparison for one possible contextualisation. I do disagree with solus enumerations for both the construction emissions and the operation emissions being the only enumeration of GHGs used for the comparison as per the *Boswell* case.

20 I extended the contextualisation beyond the Applicant’s A12 scheme one in these respects:

(1) For the operation emissions, I also made a cumulative assessment based on a cumulative enumeration of GHGs based on the DS values [REP-323/Table 4]. This did show that the modelled traffic system for the LTC consume 4.31% of the economy wide national budget and 16.38% of the CBDP Domestic Transport Residual Emissions. The scale of these figures is concerning in themselves.

(2) I included the CCC 2023 Progress Report data on “Credible plans” and “To be secured” in the Tables and used the relevant figures in the narrative. For example, I made the point that “*LTC scheme brings with it a traffic system, as modelled, with a very high carbon footprint (16.4% of the residual surface transport emissions for the whole UK in the 6CB) at the same time as the country needs to find 228.6 MtCO₂e of as yet unsecured emissions reductions.*” [REP-323/129].

⁷ To be clear, I have no disagreement with national budget as a comparison, and as IEMA say as “starting place” contextualisation before more contextualisation is undertaken. I do disagree with solus enumerations for both the construction emissions and the operation emissions being the enumeration of GHGs used for the comparison as per the *Boswell* case.

(To assist the ExA and other parties, I explain in more detail how I derive the “Credible plans” and “To be secured” data, and also, I update it following the Prime minister’s speech on September 12th under the later section in this D7 submission “Update Following New Data from CCC”).

- 21 At all stages, I made it clear that the indicative exercises which I presented in [REP1-323/section 10] were contextualisations. And at no stage did I refer to the material as making a comparison against a “sectoral target”, nor did I claim that there was any legal requirement to make such a comparison against a sectoral “hard target”. In another instance of mischaracterising my case, the Applicant has suggested that I might be attempting a comparison against a hard sectoral target (see also discussion under the later section “CEPP D4: [REP6-094] IEMA Policy Guidance [2.1.43-46]”).
- 22 The aim of the exercise(s) was to engage the question of whether there was “sufficient emissions space” available for the LTC scheme. This is completely different to making a comparison against a hard target which just generates a percentage figure for which it is then not clear how it relates to the assessment of significance. Exploring the available emissions space much more directly addresses the issue of whether the carbon budgets and targets are achievable in practice, both with and without the scheme.
- 23 I stand by this initial contextualisation although I have extended it as described below. At the REP1-323 stage, having engaged the question on availability of sufficient emission space, I concluded that the LTC scheme is “Major Adverse” when using the IEMA Guidance significance thresholds.
- 24 I then made two critical points in discussion of this which I repeat now because of their importance:
- (A) the use of “sectoral reduction strategies” contextualisation can change the value of the significance assessment made. *“For example, a scheme identified as “Minor Adverse” by comparison with only a national carbon budget may be found to be “Major Adverse” when contextualisation with sector residual emissions is a holistic part of the overall significance assessment and contextualisation process.”* [REP1-323/137-138]
- (B) *“The Applicant’s approach of treating contextualisation as an afterthought after significance assessment has been made by comparison with national budgets actually equates to the Applicant predetermining the significance assessment.”* [REP1-323/139]

3.3 *The case and GHG contextualisation evolution from WR to D7*

- 25 [REP3-148] submitted important material on two key assumptions [see: REP3-148/41 and REP3-148/48] which involved “magical thinking” and undermined the legitimacy of the SoS decision making process in the context of new information on the CBDP and its risk assessment (and lack of risk assessment). There is no place for magical thinking in considering “whether the budgets and targets are achievable in practice”.
- 26 [REP3-148] also provided further narrative on contextualisation including non-sectoral approaches, for example, at REP3-148/35 “*Given the current 8MtCO₂e shortfall on the UK NDC for 2030, this is a significant amount of carbon to budget for. The applicant has given no evidence for how first the 8MtCO₂e NDC shortfall can be eliminated, and then how an additional 300,000 tCO₂e can be accommodated, and still meet the NDC.*”
- 27 In [REP4-361] I noted that the SoS has also purported to use and follow the IEMA guidance, and make IEMA significance assessments, in other recent DCO decisions. The point is that if the SoS uses the IEMA guidance and significance assessment methods in the decision on the LTC, then the SoS must provide reasoning for his/her conclusions. On recent DCOs this has not been done, and the IEMA assessment has been vague. To assist with this, I provided additional information for the SoS from the contextualisation sources advocated by IEMA. I started by giving more detail on IEMA Contextualisation, and the relevant IEMA sources [from IEMA Table 1] of “sectoral reduction strategies” [REP4-361/section 4.1] and “existing and emerging national and local policy or regulation” [REP4-361/section 4.6], emphasising that these do not involve making comparisons with “hard sectoral targets” [REP4-361/23] (as it is agreed that these do not exist in any case).
- 28 Then in [REP4-361], I extended the contextualisations to the IEMA compliant contextualisations of the LTC in three scenarios, as referred to above, (“section 4.2: Risk assessed sectoral reduction strategies: Industry and the 2030 NDC”; “section 4.3: Risk assessed sectoral reduction strategies: Industry in the 5th carbon budget”; and “section 4.4: Risk assessed sectoral reduction strategies: Domestic Transport in the 5th and 6th carbon budgets”).
- 29 These use the same contextualisations approach as the example at Condition (ii)/B-C above. Again, this contextualisation is not a comparison against a sectoral hard target.
- 30 Rather it takes a very different approach which is to ask the legitimate question of under what logical conditions is it possible for (a) the Secretary of State to reach a clearly reasoned conclusion on the NNNPS 5.18 test for the LTC GHGs, and (b) to reach the reasoned conclusion that probability of the breaches under Planning 2008 section 104 (4)-(6) is zero.
- 31 This D7 has laid out the logical conditions involved with this in more detail, making it clear how the NNNPS 5.18 test and the Planning 2008 section 104 (4)-(6) breach relate to the scheme and its Environmental Statement.

32 As described above, the Applicant has provided no information that demonstrates that any of the logical conditions described in this section have been met.

3.4 Case and GHG contextualisation conclusions

33 Therefore I conclude that the LTC scheme is “Major Adverse” on multiple legitimate applications of the IEMA guidance, including IEMA contextualisation sources and IEMA significance assessment thresholds. None of the indicative IEMA contextualisations described has provided anything other than a “Major Adverse” result.

34 Further, the LTC scheme does not pass the NNNPS 5.18 test and condition (i) and condition (ii) are not met.

35 Currently there is no evidence to support the Secretary of State in reaching a reasoned conclusion that Planning Act section 104 (4)-(6) are not breached (by approval of the LTC scheme). Therefore the scheme cannot lawfully be approved.

4 UPDATE: PAC REPORT: SUPPORT FOR INNOVATION TO DELIVER NET ZERO

36 On November 15th 2023, the House of Commons Committee of Public Accounts (“PAC”) produced a report “Support for innovation to deliver net zero”. The PAC press release on the same day was entitled “*Net zero target in jeopardy through lack of long-term planning from Government*”.⁸

37 Dame Meg Hillier MP, Chair of the Committee, is quoted as follows:

“Our Committee has warned time and again of the damage that can be done to delivering policy by the lack of long-term planning and funding from government. There is no more critical area where this is true than on net zero. If the Government continues to leave businesses to peer through a haze of uncertainty, then that investment will not be forthcoming. Businesses and consumers need certainty.

On supporting innovation for net zero, the Government needs to agree with itself on what success looks like, what failure looks like, and report transparently on progress. Such basic building blocks being absent four years after a pledge critical to our very way of life was made is disappointing. The Government must call an end to this faltering approach, or risk spelling out to industry, the public and the world that the UK is simply not serious about tackling climate change.”

38 Key evidence to PAC report was provided from an earlier report from the Comptroller and Auditor General (National Audit Office, “NAO”), also entitled “*Support for innovation to deliver net zero*”⁹.

4.1 Why is this relevant?

39 In [REP6-094], the applicant has suggested that material which I have submitted at previous submission “*extend beyond the scope of this Examination*” (for example, REP6-094/2.1.16).

40 I submit that I do not agree with this. I have outlined above that having the fullest understanding of the risks to the delivery of the carbon budgets and targets, especially imminent ones, such as the 2030 NDC and the 5th and 6th carbon budgets is essential to the decision-making process for the SoS. This forms the condition(i) for whether the NNNPS 5.18 test can be made. All contextual information is important and helpful.

41 From the outset, I made this clear – the first point in my Relevant Representation was stated thus:

⁸ UK Government website, PAC Committee Press Release, 15th November 2023 <https://committees.parliament.uk/committee/127/public-accounts-committee/news/198453/net-zero-target-in-jeopardy-through-lack-of-longterm-planning-from-government/>

⁹ National Audit Office, “Support for innovation to deliver net zero” Report, 19th May 2023, <https://www.nao.org.uk/reports/support-for-innovation-to-deliver-net-zero/#downloads>

“The most important question is “to what extent does the project contribute, or undermine, securing the Net Zero Strategy (“NZS”) and the net zero target?”. It requires contextualisation within a robust risk assessment of the related policy delivery, and a robust assessment methodology of the significance of the greenhouse gas emissions (“GHGs”). Neither exist in the environmental statement (“ES”).

42 In response to REP6-094, I submit that most of what I have submitted at every deadline related to having the fullest understanding of the risks to the delivery of the carbon budgets and targets, and how that relates to the development. **It is vital that this information is before the ExA and the SoS.**

43 The PAC report is submitted as further relevant evidence which is relevant to analysing and understanding the LTC scheme’s construction and operation emissions in the context of the risks to the delivery of the carbon budgets and targets.

4.2 Risks found by PAC and NAO for carbon budgets and targets

44 Paragraph 6 of the PAC report says:

"A well-run innovation programme always carries with it the risk of failure, but government has yet to define what failure is tolerable overall before its net zero objectives are jeopardised."

45 At page 13, the related NAO report says:

“Without clearly defined outcomes, and a clear assessment of its risk tolerance, it will be difficult for DESNZ and the Innovation Delivery Board to assess whether individual innovation challenge areas are making sufficient progress to contribute to the UK achieving net zero within the expected timescales (paragraphs 2.28 and 2.29).”

46 The point here is that this is yet another perspective on the issue of whether the UK can achieve net zero, and the imminent budgets and targets before that, within the expected timescales. Sectors where the PAC report finds innovation lagging include Industry and Domestic Transport (which relate to the LTC scheme), and the delays affect the sectors in which the LTC scheme emissions would contribute further lost emissions reductions. This is essential context for deciding upon the very large emissions from the LTC scheme.

5 TRANSPORT COMMITTEE: DRAFT REVISED NATIONAL POLICY STATEMENT FOR NATIONAL NETWORKS

47 On October 17th 2023, the House of Commons Transport Committee published a report on the Draft revised National Policy Statement for National Networks (“**DrNNNPS**”). This is provided at Appendix A.

48 The one sentence take-away is that the committee strongly stated¹⁰ that planning policies for major roads (ie in the DrNNNPS), and rail schemes, need clarifying against Net Zero laws.

5.1 Recommendations

49 In summary, key recommendations of relevance to this examination were:

- (A) The Government should introduce five-year review periods for the NNNPS, with a shorter term where changes in policy decisions or policy drivers warrant it¹¹.
- (B) The Government should respond to the Climate Change Committee’s recommendation on reviewing the roads programme and explain why this recommendation will or will not be taken forward¹². (The short comment in the Government response to the CCC progress report does not satisfactorily explain why the Government is making no positive commitment to undertake a review so this committee recommendation has not been met by the publication of that document).
- (C) The draft revised NNNPS should be amended to provide a definition of, and clear and comprehensive guidance on, “residual” greenhouse gas emissions. This definition must make it possible to distinguish clearly between “residual” and unacceptable increases in emissions from an NSIP¹³. Recommendation 6 of the report is:

“The draft revised NNNPS should be amended to provide a definition of, and clear and comprehensive guidance on, “residual” greenhouse gas emissions. This definition must make it possible to distinguish clearly between “residual” and unacceptable increases in emissions from an NSIP”.

¹⁰ The Transport Committee published a statement on its website for the report’s publication under the headline “*New planning policies for major road and rail schemes need clarifying against Net Zero laws, says Transport Committee*”, October 20th 2023, <https://committees.parliament.uk/work/7087/national-networks-national-policy-statement/news/197978/new-planning-policies-for-major-road-and-rail-schemes-need-clarifying-against-net-zero-laws-says-transport-committee/>

¹¹ Recommendation 2 from the section “Conclusions and recommendations” in the report

¹² Recommendation 4 from the section “Conclusions and recommendations” in the report

¹³ Recommendation 6 from the section “Conclusions and recommendations” in the report

- (D) The draft revised NNNPS should be amended to explicitly state the Government's understanding of the legal precedent for permitting major infrastructure schemes which result in an increase in emissions, where that increase is judged as not likely to harm the achievement of a national target¹⁴.
- (E) The Department for Transport must do more to provide transparency on its approach to assessment and decision making. Specifically, it should: "... *publish the National Transport Model ... publish its own estimated congestion forecasts for the Strategic Road Network ... be more transparent in the decision-making process for potential alternatives to NSIP scheme choices ...*"¹⁵

50 Recommendation 6 of the report (C above) is of particular relevance to this DCO examination. The recommendation highlights that the level of acceptable residual emissions is not clear in the DrNNNPS (nor in the NNNPS) and needs to be clarified in any eventual revised NNNPS. This issue of determining the level of residual emissions grapples with the question which I pose about the construction emissions: "*however much emissions are squeezed from the construction footprint, even under legally binding commitment, is the construction emission footprint still too great?*"

5.2 Next steps towards publication of revised NNNPS

51 Section 9 of the Planning Act 2008 lays out the Parliamentary requirements for a DrNNNPS to proceed to being legislated as the revised NNNPS. s9(5) and s9(4)(b) require that ministers make a formal response to the Transport Committee report. This must happen before a revised NNNPS may be voted on by MPs. The recommendations above, and other ones not listed, require a substantive response from ministers, and at the minimum substantive delay can be expected now before the adoption on statute of a revised NNNPS.

5.3 Implication for this DCO examination

- 52 It is clear that an immediate question is "*following the Transport Committee report, what weight should be given to the draft NPS NN published 14 March 2023?*".
- 53 Given the substantive recommendations in the Transport Committee report which require a substantive ministerial response, and most likely significant changes to a further draft revised NNNPS, especially on residual GHG emissions which are a key issue of this examination, I submit that the draft NPS NN can no longer be considered a relevant planning consideration.

¹⁴ Recommendation 7 from the section "Conclusions and recommendations" in the report

¹⁵ Recommendation 9 from the section "Conclusions and recommendations" in the report

6 UPDATE FOLLOWING NEW DATA FROM CCC

6.1 Clarification of Climate Policy Risk Assessment Data from the CCC 2023 Progress Report

- 54 In my WR [REP1-323], Table 1, I provided a “summary of relevant benchmarks”. These benchmark figures were derived from the CCC 2023 Progress Report for the surface transport and industry sectors.
- 55 They are “relevant” because they provide valuable contextualisation data for reaching a reasoned conclusion about the risks to the carbon budgets and targets, and the additional risk compounded to those carbon budgets and targets should the LTC scheme be constructed.
- 56 I realise that I previously “short-handed” my explanation of how I derived the data, and that a fuller explanation may be helpful for the ExA and parties. I provide that here.
- 57 Following on from the “relevant” point above, these benchmarks have been provided, specifically, as indicative sources of contextual information for the two IEMA contextualisation “sources” of (1) “sectoral reduction strategies” [REP4-361, sections 4.1-4.4] and (2) “existing and emerging national and local policy or regulation” [REP4-361, section 4.5], as from the IEMA guidance Table 1.
- 58 Further, these benchmarks are not provided as a particular form of contextualisation, which I claim to be the only viable contextualisation which is compliant with the IEMA guidance. I am merely submitting that some form of contextualisation for significance assessment is required for the EIA assessment to be IEMA compliant.
- 59 My benchmarks are submitted as serious, well founded, but indicative, sources of contextual information. I use them for my own assessment in my previous submissions which is “Major Adverse” using an IEMA aligned process. Again, I am not saying that “my way” is the only way to do this. However, the point is that for the applicant to be IEMA compliant, it is down to the applicant to provide a legitimate and IEMA compliant significance assessment and contextualisation, and it has not done so.
- 60 I now explain the source of the CEPP benchmarks. To start, and for context, I reproduce below the benchmark table from [REP1-323].
- 61 In fact, the provenance of the data was already described in [REP1-323], although in a short-hand form. The data was explained in my [REP1-323] WR as being from:
- CBDP, Table 2, as stated in my Table 1 itself for these rows “Domestic Transport Residual Emissions (DTRE, CBDP, Table 2) - 5 years” [row B_2], and “Industry Residual Emissions (IRE, CBDP, Table 2) - 5 years” [row B_7];
 - and as stated in the footnotes under my [REP4-043] Table 1: data for figures in the CCC spreadsheet “Progress in reducing emissions - 2023 Report to

Parliament - Charts and data” which accompanied the 2023 Progress Report and was provided at this URL: <https://www.theccc.org.uk/wp-content/uploads/2023/06/Progress-in-reducing-emissions-2023-Report-to-Parliament-Charts-and-data.xlsx>.

62 For the latter data, the sourcing of data is canonical for each sector, so I will illustrate the precise steps just for the Surface Transport sector. First, here is the table, as previously submitted:

Code	tCO2e	Fourth (2023 to 2027)	Fifth (2028 to 2032)	Sixth (2033 to 2037)
B_1	National Budget - 5 years	1,950,000,000	1,725,000,000	965,000,000
B_2	Domestic Transport Residual Emissions (DTRE, CBDP, Table 2) - 5 years	546,000,000	422,000,000	254,000,000
B_3	Surface Transport (Credible plans - CCC) - Annual average	9,164,654	16,600,000	28,700,000
B_4	Surface Transport (To Be Secured - CCC) - Annual average	3,955,384	24,520,000	45,730,000
B_5	Surface Transport (Credible plans - CCC) - 5 years	45,823,269	83,000,000	143,500,000
B_6	Surface Transport (To Be Secured - CCC) - 5 years	19,776,919	122,600,000	228,650,000
B_7	Industry Residual Emissions (IRE, CBDP, Table 2) - 5 years	340,000,000	207,000,000	111,000,000
B_8	Industry (Credible plans - CCC) - Annual average	1,243,741	1,100,000	1,100,000
B_9	Industry (To Be Secured - CCC) - Annual average	2,301,741	22,973,854	39,148,353
B_10	Industry (Credible plans - CCC) - 5 years	6,218,707	5,500,000	5,500,000
B_11	Industry (To Be Secured - CCC) - 5 years	11,508,707	114,869,270	195,741,764

Table 1: Summary of relevant benchmarks [original]

63 The CCC Spreadsheet Tab “Figure 4.10” provides the data behind Figure 4.10¹⁶ (for surface transport) of the CCC 2023 Progress Report. The relevant part of the spreadsheet Tab is reproduced below.

	CB4 average (2023-2027)	CB5 average (2028-2032)	CB6 average (2033-2037)
Residual emissions for plot	99.9	75.3	44.2
Unexplained emissions reductions	0	0	0
Credible plans	9.16465378	16.60020366	28.70673659
Some risks	0.722	10.81	30.3
Significant risks	3.225383833	8.953737467	8.426005039
Insufficient plans	0.008	4.758	7
Government pathway	99.9	75.3	44.2
Baseline	113.6	116.8	118.8

Figure 1: Extract from CCC Progress Report 2023, “Fig 4.10” spreadsheet tab

¹⁶ This was reproduced as Figure 4 “CCC Progress Report 2023, Fig 4.10 reproduced” in REP4-043.

64 These figures are for an average year in each 5-year carbon budget (ie they are annual figures) expressed a MtCO₂e (millions of tonnes of CO₂).

65 Row B_3 “Surface Transport (Credible plans - CCC) - Annual average” is taken from the “Credible Plans” line from the CCC data. For example, for the 4CB, “9.16465378” has been taken from the spreadsheet and converted to tCO₂e (from MtCO₂e) as displayed in row B_3 as 9,164,654 in my Table 1.

66 Row B_4 “Surface Transport (To Be Secured - CCC) - Annual average” is the sum of the “to be secured” emissions reductions, this is the sum of the CCC categories: “Some risks”, “Significant risks” and “Insufficient plans”. For example, for the 6CB: 30.3 + 8.426005039 + 7 = 45.73 (MtCO₂e). This is displayed in my table as 45,730,000 when concerted to tCO₂e.

67 The corresponding 5-year figures for each whole 5-year carbon budgets, are given at rows B_5 and B_6. These are merely the annual figures multiplied by 5.

68 The same is done for the Industry sector (based on CCC Progress Report Figure 6.5 and CCC spreadsheet tab “Figure 6.5”).

6.2 *Update to Climate Policy Risk Assessment Data from the CCC 2023 Progress Report [October 12th 2023]*

69 On October 12th, the Climate Change Committee published “*CCC assessment of recent announcements and developments on Net Zero*” on their website¹⁷. This updated the data from the CCC’s progress report to Parliament in June 2023 which I had used in my previous submissions as described above. So I now update the relevant tables in the previous submissions, accordingly with the new CCC data. No changes to my conclusions result from this data update. The implications for the Secretary of State’s decision-making process, if it were to be claimed to be IEMA compliant, also remain the same as in my previous submissions, and as above.

70 The underlying data has now been updated by CCC for the surface transport and industry sectors, for the 5th carbon budget period (2028-2032). The CCC webpage with the update contains two diagrams with the underlying data provided as a spreadsheet. The second diagram “By sector: changes in the level of risk in Government plans”, and its spreadsheet¹⁸, is relevant here, and this is the data which I have used in this submission.

71 I now reproduce a revised version of the “Table 1: Summary of relevant benchmarks” for the CCC updated data. The new data is presented in red font, and only applies to the fifth carbon budget.

¹⁷ [REDACTED]

¹⁸ blob:<https://www.theccc.org.uk/a5ff67ee-1530-4994-8819-189d0d23cc9a> – please note, it may be best to download this spreadsheet directly from the figures in CCC webpage at the above link.

Code	tCO2e	Fourth (2023 to 2027)	Fifth (2028 to 2032)	Sixth (2033 to 2037)
B_1	National Budget - 5 years	1,950,000,000	1,725,000,000	965,000,000
B_2	Domestic Transport Residual Emissions (DTRE, CBDP, Table 2) - 5 years	546,000,000	422,000,000	254,000,000
B_3	Surface Transport (Credible plans - CCC) - Annual average	9,164,654	16,600,000 22,000,000	28,700,000
B_4	Surface Transport (To Be Secured - CCC) - Annual average	3,955,384	24,520,000 19,200,000	45,730,000
B_5	Surface Transport (Credible plans - CCC) - 5 years	45,823,269	83,000,000 110,000,000	143,500,000
B_6	Surface Transport (To Be Secured - CCC) - 5 years	19,776,919	122,600,000 96,000,000	228,650,000
B_7	Industry Residual Emissions (IRE, CBDP, Table 2) - 5 years	340,000,000	207,000,000	111,000,000
B_8	Industry (Credible plans - CCC) - Annual average	1,243,741	1,100,000	1,100,000
B_9	Industry (To Be Secured - CCC) - Annual average	2,301,741	22,973,854 (underlying data changes, see below)	39,148,353
B_10	Industry (Credible plans - CCC) - 5 years	6,218,707	5,500,000	5,500,000
B_11	Industry (To Be Secured - CCC) - 5 years	11,508,707	114,869,270 (underlying data changes, see below)	195,741,764

Table 2: Summary of relevant benchmarks [updated Nov 17th 2023]

72 Some risk has been taken out of the surface transport sector for the 5CB, and this is due to the Zero Emission Vehicle (ZEV) mandate having now been implemented in legislation. **However, there is still very considerable risks as identified the Table above as “To Be Secured” emissions - 96 million tonnes of CO2 over the 5-year 5CB period, and 228 million of CO2 over the 5-year 6CB period – which impose a very serious risk to meeting both the UK National Determined Contribution (NDC) under the Paris Agreement for 2030 and the fifth and sixth carbon budget (5CB/6CB).**

73 Please note that following the ZEV mandate going on the statute, my statements in [REP5-115]/section 2 have been superseded.

74 Given the ZEV mandate is one of the key policy instruments for decarbonisation of the surface transport sector and is now secured in principle, the risks associated with the remaining policies for emissions reductions still remain very considerable. These are quantified by CCC, **for each year in the 5CB**, as: “some risk” 3.8MtCO2e; “significant risk” 9.7MtCO2e; and “insufficient plans” ie no existing policy 5.7MtCO2e.

75 In this situation, a decision to introduce additional operation emissions from a new LTC road scheme from increases the risks of not achieving the sector trajectory for surface transport. Whilst this trajectory is not a “hard target”, the risks associated with its delivery is relevant information for contextualisation to inform significance assessment and decision making for the scheme. **The fact that large amounts of required emissions reductions remain unsecured, at the time of the SoS decision, is highly material, and must be considered in the decision-making process.**

76 The 4CB and 5CB data for the Industry sector remains unchanged in Table 2 above, so my conclusions on the construction emissions are not affected by these changes. The same applies for the Industry sector construction emissions for the LTC in the 4CB and the 5CB - the fact that large amounts of required emissions reductions remain unsecured, at the time of the SoS decision, is highly material, and must be considered in the decision-making process.

7 TRAFFIC MODELLING AND CUMULATIVE CARBON EMISSIONS

77 This section provides the ExA with information on the cumulative carbon emissions which are in the traffic modelling.

7.1 *Reasons for this material*

78 This is presented now for these reasons:

- (A) I have provided above the requested D7 update on *R (Boswell) v Secretary of State for Transport [2023] EWHC 1710*, now with permission for a full hearing at the Court of Appeal on January 16th 2024.
- (B) For the LTC scheme, the examiner's report is expected on March 20th 2024, and the SoS decision on June 20th 2024. Whilst it is not possible to second-guess the delivery date for the appeal court judgment, it is reasonable to assume that there is some likelihood that it will be available before the examiner's report, and that it most likely will be available by the SoS decision. Therefore, it is necessary to lay out the situation should the appeal succeed.
- (C) The EIA regulations require the assessment of the likely significant impacts of the cumulative emissions from the scheme. The DS enumeration is a cumulative representation of the emissions in the scheme, and it is the applicant's chosen traffic modelling scenario for the "with scheme" case. DS is therefore the only data in the Environmental Statement which enumerates the cumulative case. It is therefore helpful to understand what DS is in terms of elements in the traffic modelling, and also the same for DM.
- (D) The carbon emissions from other related and locally committed developments are expressed in both the DS and DM forecasts; however, these carbon emissions are subtracted out before the significance assessment which is based solely upon a carbon emissions figure based on the DS-DM subtraction. The explanation below will help the ExA, and the SoS, understand the issues involved, and significance of the data lost by this subtraction procedure. And why my position is that the significance of GHGs in Chapter 15 is assessed solely on "scheme-only" (DS-DM) estimates [percentage figures in Table 15.17]. And why this does not comply with the Infrastructure Planning (Environmental Impact

Assessment) Regulations 2017 which require that the applicant must provide the cumulative impacts of the project and other existing and/or approved projects.

7.2 Overview of elements in the traffic forecasting

79 In order to understand what is being modelled, I start with a brief summary of the DS scenario, below.

80 The Applicant gives the history of the traffic model in [APP-518] “7.7 Combined Modelling and Appraisal Report” and confirms that a new model was developed specifically for the development and appraisal of the Project. This model is known as the Lower Thames Area Model (“LTAM”). The LTAM covers the whole of England, Wales and Scotland. The model was developed on a baseline year of 2016 [APP-153/15.4.1]. It is this model that was used to calculate the greenhouse gas emissions at subsequent years too.

81 At a simple breakdown, the **DS** scenario contains these elements:

- (1) **The baseline traffic model**, comprising the adjoining Strategic Road Network and local road network, calibrated against actual traffic counts and other data. Originally, the base (or calibration) date was 2016 as above.
- (2) **Other schemes promoted by National Highways** in the near vicinity of the proposed scheme with “that have a high degree of certainty to be constructed in the future”. For the LTC, the selection is described at APP-518/section 6.2.1 “Highway networks”. Plates 6.1-6.3 show roads and junction schemes for both National Highways and the local authorities.
- (3) **Local land based and road developments** in the study area. This is referred to by me as ‘other locally committed development’ in the study area.

For the LTC, this is discussed at APP-518/section 6.3.6 onwards “New developments” which states “[t]he developments explicitly included in the future year trip matrices are listed in the Uncertainty Log which is provided in Appendix C: Transport Forecasting Package (Application Document 7.7).” Plates 6.4-6.6 show the development locations.

Plates 6.1-6.3 show roads and junction schemes for both National Highways and the local authorities (with local schemes selected as described in APP-518/section 6.2.1 “Highway networks”).

- (4) **Future year travel demand** based on national government regional growth rates which include a representation of likely growth rates excluding known planning developments already included in the traffic model. This is described at APP-518/section 6.3.1 onwards “DfT traffic growth forecasts”.

(5) The scheme itself.

82 It can be seen from the above, and the underlying referenced data, that across the LTAM Study Area and Fully Modelled Area, there is a very significant amount of related cumulative development occurring with the scheme under categories (2) and (3) above. The applicant has decided which related developments to include in the traffic modelling by the uncertainty log and other processes, briefly described above.

83 When the carbon emissions for the scheme are enumerated, the cumulative carbon effect from these related, and included in the traffic model, developments is subtracted out (via the DS-DM calculation) before any assessment is made. The assessment carried out is therefore not cumulative and does not meet the requirements of the EIA Regulations 2017.

8 RESPONSES TO APPLICANT'S RESPONSES IN [REP6-094]

8.1 CEPP D3: [REP6-094]: Greenwash in the context of geophysical tipping points [2.1.1-2.1.3]

84 The applicant claims that it is not greenwashing the project due to the existence of the Applicant's "Carbon and Energy Management Plan" and "Net zero highways: our 2030 / 2040 / 2050 plan (National Highways, 2021)", and making a legal commitment to achieve a reduction in emissions.

85 In relation to these points, I note with some irony that having acknowledged "*the scale of the global climate change challenge referred to by CEPP in section 2 of its Deadline 3 submission*" that the Applicant proceeds to attempt to theorise that the project Carbon and Energy Management Plan, its legally binding commitment, and the Net Zero highways plan ("NZHP") are serious responses to the challenge described. This could not be further from reality: in the "Prelude" section in [REP3-148], I described how scientists have been shocked in 2023 that climate change is happening "much faster than we expected" and that there is a wide scientific discussion on whether the planet is currently undergoing some geophysical tipping point, or tipping points. Since I wrote this brief overview of the issue, 3 months ago, there is daily more information on this. None of this would suggest that complacency can be a credible position to take, and thankfully this is now receiving some attention at senior political levels.

86 As just one example, the need for the very opposite of complacency was highlighted by President Macron this week¹⁹:

'The world, Macron said, is witnessing "the collapse of the cryosphere under the impact of climate change," referring to parts of the Earth where water is in solid form, including glaciers.

¹⁹ "France's Macron says melting glaciers are 'an unprecedented challenge for humanity'", Associated Press News, November 10th 2023,

“The most immediate and visible effect is the melting of the ice caps ... it represents an unprecedented challenge for humanity,” Macron said.’

This is major geophysical impacts of climate change unfolding in real time before our eyes, and President Macron’s comments links to “Figure 1: Antarctic Sea Ice Extent Anomaly” in [REP3-148] (ie his comments are based on sea ice, and other ice-based research, at the polar regions).

- 87 The irony is that in the context of this information, that Applicant is suggesting that because they have developed an innovative CEMP, and a NZHP, that it is somehow OK to generate (a legally bound) 1.7 MtCO₂e in construction emissions and annual solus operation emissions of scale of 95,000 tCO₂e per year on the scheme opening. In other words, the Applicant considers that it is OK to go on generating, at large scale, the very carbon emissions which are creating the huge impacts now being observed and will continue to make the situation worse.
- 88 The CEMP may provide “a genuine and binding commitment to reduce emissions” from construction, but that is the answer to the wrong question. The right question is, *“however much emissions are squeezed from the construction footprint, even under legally binding commitment, is the construction emission footprint still too great?”*
- 89 I wish to say, and with respect to the Applicant, that I am not saying that these documents are not professionally produced, and they may well contain innovative civil engineering proposals and plans. However, the point is that however innovative the construction is proposed to be, as described by these documents, it does not give cover for the massive remaining carbon emissions associated with the scheme. The construction carbon footprint must be assessed and contextualised in its own right.
- 90 As such, these documents do not provide “cover” for the scale of climate impact of the LTC scheme, assessed and contextualised in its own right, which as described elsewhere cannot be proved to not breach UK international obligations, statutory duty or law, and assesses as “Major Adverse” on climate impacts under an IEMA compliant assessment.
- 91 The irony is that in quoting these documents as somehow giving “cover” to the huge carbon emissions from this scheme, I regret to say that the Applicant is again engaging in greenwashing.
- 92 Critically, the UK NDC when set was symbolic of the ambition that the UK had committed to on climate change. (Regrettably that ambition is now already widely questioned due to changes in Government policy and commitment since the NDC was set). The scheme seriously risks the UK NDC in 2030, only 6 years away, as the evidence which I have presented shows. It will be massively discouraging to both to the UK, and other countries worldwide, if the UK fails to meet the NDC, and fails on our ambition. It will do nothing less than set back progress globally on achieving necessary emissions reductions and climate action into the next decade.

93 You don't get much passion from me in these submissions usually, but I put on record that I am passionately concerned about the UK meeting its NDC, both for the UK itself as a citizen, and also for the world and the future. It would be a disaster for the UK to miss our NDC, but sadly, with the evidence from the CCC 2023 progress report, and the CBDP itself, it seems likely that we will. Construction of the LTC scheme is highly likely to compound that failure further.

94 Greenwash doesn't help when we are concerned with whether the carbon budgets and targets, and international obligations, are achievable in practice. The CEMP (legally binding or not) and the NZHP give no reassurance on, nor assistance in, meeting the carbon budgets and targets, nor our commitment to the Paris agreement, in practice.

8.2 CEPP D3: [REP6-094]: False claims for Net Zero highway plan [2.1.3]

95 At 2.1.3 the Applicant claims "... *the further measures which the Applicant is itself implementing across the strategic road network under Net zero highways: our 2030 / 2040 / 2050 plan (National Highways, 2021), these measures ensure that the Project is aligned with the required trajectory to net zero and that the Project's emissions would not therefore be significant, in accordance with relevant guidance and policy.*"

96 This statement is misleading as follows:

- The "Net Zero Highways plan" ("NZHP") is not a statutory document produced for the purpose of aligning the UK economy with the UK Carbon Budgets, or the required trajectory to net zero. It is the applicant's in-house company plan, and is of very limited scope and value, and is not part of the legislative and policy frameworks relevant to this DCO examination. It primarily addresses carbon emissions from National Highways "own direct emissions" and from "maintenance and construction" ie emissions from National Highway's own operations.
- For emissions from vehicles using National Highways infrastructure, the NZHP itself says the document is merely *setting an ambition* and that "*many of the actions that will deliver this ambition are out of our direct control, but that does not mean we cannot play our part.*" So the NZHP does not lay out a serious and quantified approach to reducing operational emissions from the UK road system as part of the relevant legislative and policy framework – for that one must look elsewhere.
- The statutory plan for meeting the legislated carbon budgets under the Climate Change Act 2008 ("CCA 2008") is the Net Zero Strategy, updated in March 2023 as the Carbon Budget Delivery Plan (CBDP). This has been described in overview at section 3 of my WR [REP1-323]. Sections 13 and 14 of the CCA 2008 impose linked duties on the Secretary of State respectively to prepare and to report on proposals and policies for meeting the legislated budgets. The

CBDP has the intention to fulfil the duty, at section 13 of CCA 2008, to “prepare such proposals and policies” that will enable the carbon budgets under the CCA 2008 to be met. The CBDP does purport to lay out a quantified approach to reducing emissions across all sectors including the domestic transport sector although it is currently under legal challenge relating to the risk assessment made on the relevant proposals and policies being inadequate and not fit for purpose.

- Basing the claim that “*the Project is aligned with the required trajectory to net zero and that the Project’s emissions would not therefore be significant*” on the applicant’s own in-house NZHP is therefore false, as the NZHP provides no statutory basis for such claims. The subsequent conclusion that, based on this false claim, the scheme is “*Minor Adverse*” in accordance with the IEMA guidance is therefore also false.

8.3 CEPP D3: [REP6-094]: “Ballpark estimates” for construction emissions [2.1.14]

97 In order to enumerate, then assess, and then decide on the construction emissions, it is necessary to have figures for the construction emissions in (1) the 4CB, (2) the 5CB, and (3) the 2030 NDC year.

98 I made a fair estimate of them from the data provided by the Applicant on the proposed changes in construction and opening years. I appreciate the Applicant may not be able to comment yet. However, I consider that my estimates, logical and fair, on the information available are fit for purpose for my indicative contextualisations.

8.4 CEPP D3: [REP6-094]: Legal commitment on construction emissions [2.1.20]

99 I understand that the Applicant has committed to capping the construction emissions at 1.7MtCO_{2e}.

100 On re-examining [REP3-148], I believe that the sentence at bullet 39 should have read “No amount of greenwashing alters the basic fact that the scheme emits over **1.4 MtCO_{2e}** in a period of 5 critical years for national climate targets and international climate obligations as described elsewhere.” This is because it is referring to the 5th carbon budget, and not the rescheduled 5-year construction period for the scheme 2027-2031 (which is 1.7MtCO_{2e}). The applicant has enumerated the solus construction and solus operation emissions for scheme as 1,416,952 tCO_{2e} in Table D1.2 of [REP2-040].

101 It is important that I correct this error now, because it is a mischaracterisation of my position to suggest that I don’t accept that the Applicant has made a legal binding commitment for the 1.7MtCO_{2e} construction emissions. Neither have I “consistently overlooked” the legal binding commitment. Quite the reverse, I have used the 1.7MtCO_{2e} figure consistently, and my “ballpark figure” annual breakdown of it for all my contextualisations, and other discussion.

102The error on my part, noted above, has caused confusion at this point, and I apologise for that.

103However, greenwash still remains an issue for the reasons given at section “CEPP D3: [REP6-094]: Greenwash in the context of geophysical tipping points [2.1.1-2.1.3]” above, namely that “*however much emissions are squeezed from the construction footprint, even under legally binding commitment, is the construction emission footprint still too great?*” and that the CEMP and the legal commitment do not give cover for the massive remaining carbon emissions associated with the scheme.

8.5 CEPP D3: [REP6-094]: Science-based carbon budgets [2.1.21]

104The Applicant quotes from *R (Boswell) v Secretary of State for Transport* [2023] EWHC 1710 (Admin) para 70. It should be noted that *Boswell* case was not concerned about whether the UK carbon budgets are science-based or not, and any matters of law relating to that. The quoted section is generic background narrative. The Court would not assume to be expert on the science of such matters, so it is an unfortunate use of this legal judgement to be quoted as a supposed authority in this context.

105The answer to this issue can come from two sources. First, the CCC itself, and secondly, from scientists who challenge the CCC budgets because they do not downscale the global carbon budget in a “fair²⁰ and equitable” way under the Paris agreement, and therefore are not fully compliant with the Paris Agreement. In my narrative at REP3-148/31, I refer to both these sources.

106As far as the CCC is concerned, I state “*the CCC do not show anywhere how the 6th Carbon Budget (6CB), and other budgets, can be derived directly by a stepwise downscaling from a scientifically established global carbon budget*”. Please note also this is different from “*based on scientific projections and global carbon budgets*” as quoted from the judgement. I have not said that the CCC budgets bear no relationship to global carbon budgets, but rather that they are not derived by a very specific stepwise downscaling process from them which is also compliant with the Paris agreement.

107What I have said is the “*6CB is focussed more on meeting the national, politically set, net zero-target of 2050 ... rather than fitting the UK economy into a specific global carbon budget, or via a clear sequenced of derivation steps from an IPCC budget*”. This statement, in fact, is also not contrary to the generic narrative from the judgement. I was referring to specifically how budgets are derived via a precise, and Paris compliant, stepwise process, not whether they related generally to global carbon budgets.

²⁰ “Fair” has a technical meaning here under the Paris Agreement and the United National Framework Convention of Climate Change (UNFCCC). ‘fair’ means equitable under the Paris Agreement equity principles between developing and developed nations, known as “*Common but Differentiated Responsibilities and Respective Capabilities (CBDR-* [REDACTED]

108 Then going to the science, I quoted the definitive scientific paper²¹ on this from Professor Anderson and colleagues at the Manchester Tyndall Centre. I also provided this paper at Appendix 4 of [REP3-148] and quoted its key conclusion that “*The UK and Swedish governments’ emissions pathways imply a carbon budget of at least a factor of two greater than their fair contribution to delivering on the Paris Agreement’s 1.5-2°C commitment.*”

109 To reach this conclusion, the Tyndall Centre scientists make the very “*clear sequence of derivation steps from an IPCC budget*” and “*a stepwise downscaling*” being referred to above which are absent from the derivations of the CCC and national carbon budgets. The sequence and stepwise downscaling are carried out to ensure a fair and equitable, and demonstrable, split of the global carbon budget which complies with the equity principles of the Paris Agreement and the UNFCCC framework, see footnote.

110 I maintain my position that “*the reliance placed by the Applicant on the notion or concept of “the budgeted science-based 1.5°C trajectory set out through the UK carbon budgets” is “scientifically naïve in several respects*”. I refer the ExA and the SoS to the Anderson paper, as provided, and respectfully suggest that the Applicant would benefit from reading it too.

111 The supposed issue raised by the Applicant here is null.

8.6 CEPP D3: [REP6-094]: Unquantified policies and further measures (to save the NDC?) [2.1.23-24]

112 I have already addressed this at Condition(i)B above (para 14(B)B), and the footnote in that paragraph. The statement referred to by the Applicant at CDBP, paragraph 29 is aspirational and not risk assessed. It gives nothing to help determine if the budgets and targets are achievable in practice, as the policies and proposals in the CDBP cannot just be assumed to be 100% deliverable across the board.

113 I regret to call this out as greenwashing too. The ExA and SoS are being expected to believe because there exists a non-risk-assessed aspirational statement, which by its own admission depends upon unquantified policies, and even policies that do not yet exist, that the NDC will magically be met. It is magical thinking. Magical thinking, and the projection of magical thinking (in this case to the ExA and the SoS) is the underbelly of greenwashing.

114 The same applies to 2.1.24 – the existence of a plan, in this case the CDBP, does not address anything until it is fully risk assessed. Again, it is magical thinking to suggest that because a plan document exists that it will be fully 100% delivered.

²¹ Kevin Anderson, John F. Broderick & Isak Stoddard (2020): A factor of two: how the mitigation plans of ‘climate progressive’ nations fall far short of Paris-compliant pathways, Climate Policy, DOI: 10.1080/14693062.2020.1728209

8.7 CEPP D3: [REP6-094]: (No) (hard) sectoral targets [2.1.25]

115I have explained (endlessly) above that I agree that there are no hard sectoral targets. I have also explained that contextualisation on sector residual emission trajectories (and critically, the CCC risk assessed “Credible plans” and “To be secured” elements of them) is not an exercise in pursuit of making an assessment against a supposed sectoral target. My extended indicative contextualisations, as described in detail above, consider whether “sufficient emissions space” is available for the LTC scheme. These contextualisations do not make a percentage calculation²² (ie a comparison) of the LTC scheme emission against the residual emission trajectories, so they are not treating, nor attempting to treat, the trajectories as a target.

8.8 CEPP D3: [REP6-094]: Legal commitment on construction emissions [2.1.27]

116On the applicant’s legal commitment, please see “CEPP D3: [REP6-094]: Legal commitment on construction emissions [2.1.20]” above.

8.9 CEPP D3: [REP6-094]: NNNPS 5.17 and net zero mechanisms [2.1.30-31]

117The NNNPS 5.17 was written in 2014 and is out-of-date. This is recognised by the Transport Committee in their recent report on the DrNNNPS and by the then roads minister himself.

118The Transport Committee report on the DrNNNPS clearly identified the current NNNPS, and paragraph 5.17, as being “out of date” (applicant’s third bullet), and stated:

“The review of the NNNPS was overdue. It was launched to bring the policy framework for major infrastructure schemes up to date, and as a response to legal challenges to schemes prompted by the introduction of significant net zero legislation. The Government should have been proactive and reviewed the NNNPS upon the introduction of net zero targets, and should do so when any changes are made to the net zero target policies.”

119The minister giving evidence to the Committee, Richard Holden, MP, then Parliamentary Under Secretary of State for Roads and Local Transport also confirmed this stating:

“... the key thing is that when major Government policy changes that is when we need to review the NNNPS”

120The requirement to determine if the carbon budgets and targets are achievable in practice, as the policies and proposals in the CBDP cannot just be assumed to be 100% deliverable

²² With the exception of the REP1-323. Table 3 and Table 4 percentages. Even in this narrative, the emissions space and the “To Be Secured” shortfall was a primary consideration. As explained in the main text, these percentage calculations followed the Applicant’s A12 approach, and are now superseded by the approach laid out at section “3.1 The position now at D7” which makes no reliance on percentage calculations of the sector residual emission trajectories.

across the board has been discussed at length. In order to determine if the budgets and targets are achievable in practice, the policies and proposals in the CBDP cannot just be assumed to be 100% deliverable across the board. For each quantified policy and proposal (within each sector), a risk assessment of its delivery should be associated with the quantified emissions reductions figure for its full delivery.

121 At present, I submit that the CBDP cannot be considered to constitute a robust ‘plan-do-check-act’ mechanism for the UK to keep on track for net zero. It needs to be fully risk assessed for this to be true.

122 The applicant refers to the 2021 “Net Zero Strategy: Build Back Greener” document. This is the NZS document that was found unlawful by the High Court in July 2022, leading to it being superseded by the CBDP. The CBDP is itself under a second round of legal challenge, and as I submit above requires a full risk assessment.

8.10 CEPP D3: [REP6-094]: CCC assessment of deliverability [2.1.33]

123 Whilst the CCC 2023 progress report does not conclude that that carbon budgets and the NDC 2030 cannot be achieved, the CCC make a very strong statement that there are huge challenges to do so in stating:

“The rate of emissions reduction will need to significantly increase for the UK to meet its 2030 NDC and the Sixth Carbon Budget. If the UK is to achieve its NDC, the rate of emissions reduction outside the electricity supply sector must almost quadruple, from 1.2% annual reductions to 4.7%.”

8.11 CEPP D3: [REP6-094]: Construction emissions [2.1.34]

124 The applicant suggests that the carbon intensity of the construction emissions for the LTC can be reconciled with a statement on page 24 of the IEMA guidance. The purported reconciliation is oblique at best, and it is not really clear what the Applicant means. It is accepted that the Applicant has set itself a legal commitment on construction emissions (and that this may reduce the carbon intensity against the original construction plans). However, the applicant, once again, does not address the question *“‘however much emissions are squeezed from the construction footprint, even under legally binding commitment, is the construction emission footprint still too great?’”*

8.12 CEPP D3: [REP6-094]: Construction emissions: hydrogen [2.1.34]

125 I note also that the Applicant has never given a satisfactory response to the issues which I raised in my WR [REP1-323] on hydrogen. The applicant has not made clear what type of hydrogen it intends to purchase, nor clarified upstream methane leakage, downstream hydrogen leakage or full lifecycle carbon intensity of hydrogen used.

126 The applicant has not demonstrated that its proposed use of hydrogen will comply with its own legally set cap of 1.7MtCO₂e for the construction of the project.

8.13 CEPP D3: [REP6-094]: Operation emissions [2.1.34]

127The Applicant may not control policy, but it can avoid bringing forward a scheme which introduces additional solus operational emissions of the scale of 95,000 tCO₂e into near-time critical carbon budgets period. The risk assessed contextualisations approach of my submissions shows that this has a “Major Adverse” impact, and currently there is no evidence to support the Secretary of State in reaching a reasoned conclusion that Planning Act section 104 (4)-(6) are not breached (by approval of the LTC scheme) by these emissions.

8.14 CEPP D4: [REP6-094] IEMA Policy Guidance [2.1.43-46]

128At para 2.1.43, the Applicant mischaracterises my position. Nowhere do I claim that there is no merit in assessing the project emissions at a national level. Quite the reverse, I quote the IEMA guidance on this being the starting place for IEMA aligned EIA assessment at [REP4-361/21]. The point is, and this is what IEMA says quite clearly, the national budget comparison is a context which “*will have limited value*”. It then follows that further contexts are required to add value to the assessment process.

129The narrative at 2.1.44 adds nothing for the applicant as nowhere do I claim that there is no merit in assessing the project emissions at a national level.

130The issue of the LTC construction emissions and their carbon intensity at 2.1.45 is dealt with at “CEPP D3: [REP6-094]: Construction emissions [2.1.34] above.

131At para 2.1.46, the Applicant states there are no statutory sectorial budget (or targets). This point is not in dispute, as I have emphasised several times. The Applicant is not being asked by me, and has never been, to carry out assessment against statutory targets which do not exist.

I have laid out carefully above in the section “The Essence of my Case on the LTC Scheme”, and elsewhere [eg REP4-361/section 4], how the “sectoral reduction strategies” (an IEMA source for contextualisation) and “existing and emerging national and local policy or regulation” (an IEMA source for contextualisation), combined with up-to-date risk assessment information, can provide contextualisation which adds value for the assessment.

The value of additional precision from these contextualisations is that IEMA aligned significance assessment of the impact of the emissions is changed, from “Minor Adverse” to “Major Adverse” in the case of the LTC scheme, as discussed above and at REP1-323/137-138].

8.15 CEPP D4: [REP6-094] Prime Minister's speech [2.1.48]

132 Postponing the ban of new sales of petrol and diesel cars from 2030 to 2035 will not affect the modelling of GHG emissions for the scheme. This is because the road traffic forecasts published in Sheet A1.3.9 version 1.17 of DfT's TAG Databook, which were used in the development of the Emissions Factor Toolkit v11 (EFT, published by DEFRA), did not currently allow for the introduction of the Zero Emissions Mandate. Therefore, the proposed delay to the ban to 2035 would not affect the traffic fleets in the TAG Databook, which in turn would not affect the fleets in EFT and consequently nor would it affect the modelling.

133 Based on this, my position aligns with the Applicants at paras 2.1.48.

8.16 CEPP D4: [REP6-094] Cumulative carbon emissions [2.1.55-2.1.66]

134 At 2.1.55-2.1.66, the Applicant makes comments on cumulative carbon assessment. The difference between the applicant's position and CEPP's position will be resolved at the Appeal Court, as discussed. In the meantime, I have provided further information on my position, please see the earlier section "Traffic Modelling and Cumulative Carbon Emissions".

**Dr Andrew Boswell,
Climate Emergency Policy and Planning, November 17th 2023**

<END OF DOCUMENT, APPENDICES FOLLOW>

**9 APPENDIX A: House of Commons Transport Committee report, Draft revised
National Policy Statement for National Networks**

17th October 2023

135 Provided as a separate document.

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