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DEADLINE D12 SUBMISSION

I am an independent scientist and environmental consultant, working at the intersection of science, policy, and law, particularly relating to ecology and climate change. I work at a consultancy called Climate Emergency Policy and Planning (CEPP).

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

1.1 *Deadline 12 (D12)*

- 1 This is my submission for Deadline 12. I note “9.91 Applicant's response to the letter to the Examining Authority from Interested Parties submitted at Deadline 10” [AS-011], which was submitted between deadline 11 and deadline 12. I note its acceptance as an additional submission, and primarily respond to it here.
- 2 Having previously relied upon the recent decision letter on the M54-M6 scheme (decision letter referred to here as M54-M6-DL), the applicant also relies upon an additional recent decision letter by the SoS on the M25 Junction 10/A3 Wisley Interchange (decision letter referred to here as M25-J10-DL) in AS-011. In this document, I will extend my rebuttals on the applicant’s arguments, and cross-reference between the M25-J10-DL and the submissions previously at REP11-020 section 2 and Appendix A, and REP11-021 (corrected version of REP10-011) section 5 on the M54-M6-DL.
- 3 I note that during the course of writing this submission, the SoST has consented the M25 junction 28 improvements (decision letter referred to here as M25-J28-DL, May 16th 2022). The majority of the M54-M6-DL, M25-J10-DL and M25-J28-DL carbon emissions sections are identical. However, I have not had time to cross-reference between the M25-J28-DL and M54-M6-DL.

1.2 *Lack of clear intention by Applicant*

- 4 In their response to the ExA’s third written questions [REP11-010], Q8.1 on climate change, the applicant states that they will “*respond to the Deadline 10 submissions at Deadline 12*”. I have indicated that this is unacceptable at AS-008, and also in a joint letter with other IPs submitted at deadline 12.

However, the applicant made a further submission between deadline 11 and deadline 12 in a letter at AS-009 in which it is stated “*Unless otherwise indicated, National Highways has nothing further to add to its earlier submissions.*”

I understand this to mean that the applicant no longer wishes to respond to deadline 10 submissions at deadline 12.

However, if the applicant does respond to deadline 10 submissions at deadline 12, then consideration must be given to Infrastructure Planning (Examination Procedure) Rules 2010 (“the Rules”) as laid out in my letter with other IPs submitted at deadline 12. In particular, rule 10(8) engages and I request that the ExA gives serious consideration to disregarding the Applicant’s response at deadline 12 on submissions made at deadline 10 for reasons given in that letter.

1.3 Presumptions of inevitable success of national policy by the applicant

- 5 Again, a reminder that I previously provided in REP11-021 (corrected version of REP10-011) background on the current legal challenge to the Government, now with permission to proceed to a full Judicial Review hearing, against the Net Zero Strategy, and outlined a number of propositions, or presumptions, which occur in the Applicant’s submissions to the examination. I have summarised this issue in the next bullet.
- 6 The applicant relies upon the contention that because various national climate change policy documents and targets exist, it is guaranteed that the Government will meet its carbon reduction targets and targets set within them, and consequentially, the scheme will not have a material impact on the ability of the Government to meet its carbon reduction targets. This proposition is false on both counts (ie the general principle and its specific application to the scheme), although it is widely applied by the applicant, including with reference to the Net Zero Strategy (NZS), the Transport Decarbonisation Plan (TDP) and the UK’s National Determined Contribution (NDC) and international obligation under the Paris Agreement. The applicant’s statements with respect to the significance of the carbon emissions associated with the scheme and their material impacts on meeting Government’s carbon reduction targets relating to NN NPS 5.17 and 5.18 need to be re-examined in the context of this falsehood

2 RESPONSE TO AS-011

- 7 Starting at the bottom half of page 14 of AS-011, the applicant responds on “3. THE CARBON ASSESSMENT”. Note, the responses here are confused, as some responses seem to answer different bullet points to that which they say they are answering, as explained below.

2.1 AS-011 response to REP10-017, section 3, bullet 1 – only the evidence from this examination is relevant

- 8 The joint IP letter REP10-017, section 3, bullet 1, IPs stated:

*“There is **no** EIA compliant cumulative carbon assessment. The applicant keeps saying that “there is no set methodology for cumulative effects assessment” (eg: REP9-027/8.12.4). Notwithstanding whether this is true or not, the point is that the applicant has done **no** quantification, or assessment, of the cumulative effects of the scheme with other developments on carbon emissions.”*

- 9 This bullet is purely about whether a cumulative carbon quantification and assessment has been done which is compliant with the EIA Regulations. As above, it has **not**, and the lack of a cumulative carbon quantification and assessment has been laid out at REP8-029, section 7. I have noted at REP11-021 (corrected version of REP10-011) section 6.1, and REP11-010/40 that **the applicant has not responded to 60 bullet points in REP8-029 which lays out the substantive argument.**

10 The applicant's response in AS-011 is to refer instead to M54-M6-DL/52 and M25-J10-130. Each of these are a concluding paragraph from the sections on climate change and carbon emissions in each decision letter. However, my analysis of the applicant's traffic model, and the architecture in which it extracts quantifications of carbon emissions (by the differential DS-DM method) was not submitted to the relevant consultations on the M54-M6 and M25-J10 schemes.

Although the applicant's consultation responses to the SoST on these schemes appear to make the same errors, I was unable to provide evidence to the SoST consultations to point this out as I was not an interested party on these schemes. The consequence is that the SoST has not seen my evidence for the lack of an EIA compliant cumulative carbon emission assessment in the context of these two schemes.

The SoST has therefore made his decision of these two schemes on the basis of a different, and less comprehensive, set of evidence than is now available for the A57 scheme examination.

Clearly the recommendations to the SoST from this examination must be based on the evidence provided to this examination. Therefore, the conclusions made in each of these decision letters on different schemes, with different evidence, is not relevant.

11 It follows that to suggest that because the SoST "is satisfied" with the assessment on the M54-M6 and M25-J10 schemes, then the A57 scheme assessment must be "correct" is false.

The SoST must be satisfied that the material provided by the Applicant in the A57 scheme Environmental Statement, as scrutinised by the inquisitorial process of **this examination**, is sufficient for him to reach a reasoned conclusion on the significant effects of the proposed development on the environment, and that it meets legal, guidance and policy requirements, **on its own merits**.

12 REP8-029, section 7 challenges the idea that a cumulative carbon assessment has been done on this scheme in this examination, and the applicant has to date not engaged or responded to it.

2.2 AS-011 response to REP10-017, section 3, bullet 1 – proscribed methods are only useful as far as they work

13 The applicant says "National Highways has a mandated assessment methodology for its schemes so they are comparable for decision making purposes". The proscribed method is part of the problem for the applicant is achieving EIA Regulation compliance, not the solution.

I have discussed in REP8-029, section 7, the need to both extract data from the traffic model for "performance-oriented" and "EIA Regs compliance oriented" assessment in my

terminology. The applicant has only extracted data in a “performance-oriented” mode – see also REP8-029, section 7.5, and REP11-021 (corrected version of REP10-011) bullet 52.

This is important. I am not saying that implementing “performance-oriented” DS-DM traffic modelling is not important for assessing issues of network performance and road design. However, to meet the requirements of the EIA Regulations for cumulative carbon emissions assessment, “EIA compliance orientated” quantifications of carbon emissions are required as a first step (a different DS-DM calculation), and this simply has not been done, as I have shown in REP8-029, section 7.

14 In order for it **to work** in the context of the EIA Regulations, the applicant’s assessment methodology needs to be extended as I have laid out in REP8-029, section 7.

15 Once again, the applicant invokes PINS Advice Note 17 and DMRB LA 104. I have serially rebutted these points, most recently at REP11-020/section 5.7 (“The applicant does not follow the DMRB”) and REP11-021 (corrected version of REP10-011) section 6.2 (“Applicant is not engaging with arguments made”).

2.3 AS-011 response to REP10-017, section 3, bullet 2 – Net Zero Strategy

16 The joint IP letter REP10-017 is stating that no assessment of significance against the Net Zero Strategy 2021 has been done. The applicant’s response does not appear to respond to this point.

2.4 AS-011 response to REP10-017, section 3, response to bullet 3 under bullet 1 – local and regional assessment

17 In the final part of the applicant’s response to bullet 1, it continues “*With regard to the EIA Regulations and making an assessment against local and regional policy and targets*”. I believe this response was intended by the applicant to be made under bullet 3.

18 The response refers to M54-M6-DL/45 and M25-J10-122. Again, my material on this issue has not been presented to the SoST in his consultations on the M54-M6 and M25-J10 schemes. This quoted sentence is not applicable to the A57 scheme, and is false for the A57:

“Noting this and that there is no defined distance for assessing the impact of carbon emissions, the Secretary of State considers that the Applicant’s approach to assessing the impact of the Proposed Development on carbon is acceptable as it takes into account the Proposed Development and all other developments likely to have an influence on the Proposed Development and on the area the Proposed Development is likely to influence”

19 Embedded in this sentence is the notion¹ that because the traffic model contains all likely land-based and road developments in the study area, then any extraction of data from the traffic model will be cumulative. I have shown that this notion is incorrect at REP8-029/section7, see section 7.2.

20 The applicant has **not assessed** “*the impact of the Proposed Development on carbon*” taking “*into account the Proposed Development and all other developments likely to have an influence*”. The reason why is that the applicant generates a traffic model with the Proposed Development and all other developments in it, but for the purposes of assessment only removes the proposed development (in isolation, or in solus) from the traffic model to quantify the carbon emissions. This only quantifies the carbon emissions from the scheme, and not the carbon emissions of the scheme in combination with the other developments in the study area.

21 On the matter of the word “influence”, I have laid out that the “influence” of all other developments **is not the same** as **quantifying** their environmental impact, in this case on the EIA receptor of global GHG emissions, which is what the EIA Regulations require, see REP8-029/63A.

22 It is not relevant that the SoS has consented other schemes elsewhere. The application here is for the A57 scheme, and evidence has been provided that a cumulative assessment of carbon emissions has not been done for the A57 scheme.

2.5 AS-011 response to REP10-017, section 3, response to bullet 3 under bullet 1 – missed opportunities for local and regional assessment

23 On the issue of local and regional carbon budgets and policy. I note the ExA has stated that he is minded to consider local policies as “*important and relevant*” matters in determining the application.

24 I have laid out, previously, that the IEMA guidance strongly endorses and encourages making local and regional assessments of carbon emissions [REP8-029/section 4.2]. The EIA guidance does so too [REP2-064/4.1].

In REP9-038/section 2.3, I laid out further material on this, including how quantitative approaches to local and regional carbon emissions assessment, consistent with the IEMA and EIA guidance could be done. In the absence of carbon budgets from the local authority, the IEMA guidance (page 29) recommends Tyndall Centre aligned carbon budgets which are available at the local authority level. The IEMA guidance (footnote 9) notes that the Tyndall budgets align with a credible 1.5°C transition scenario, and are consistent with international commitments made at COP26 in Glasgow in November 2021. The applicant provides no

¹ This notion **is false**, as laid out in REP8-029: ‘*If the traffic model contains all known road and land developments in the study area, then it follows that any combination of data, and any differentiation of that data (eg DS-DM), extracted from the traffic model must also be “inherently cumulative”.*’

evidence that it has even investigated the Tyndall Centre budgets, although they have been available for some years now.

25 Further, I laid out a method based upon the existing data in the Environmental Statement, and making the assumption that the traffic model study area represents a proxy for a notional local and regional area. REP11-020/section 3.5 provides some indicative graphs based on this approach.

Critically, this analysis showed that transport carbon emissions in the study area have not been demonstrated to reduce to 2037 in line with the NZS with [REP11-020/35], or without [REP11-020/36], the scheme. Multiplying the carbon emissions (the wrong solus quantity) from the traffic model by an idealised factor based on the inevitable success of the TDP (ie the so-called TSP Sensitivity test, see below) does not demonstrate the required reductions to 2037. A ‘do-something-else’ sustainable package implemented without the current scheme in place is required [REP11-020/37].

2.6 AS-011 response to REP10-017, section 3, bullet 3 - local and regional assessment

26 The applicant’s response goes against guidance from IEMA and the EIA guidance as above. Further, the applicant’s method ignores IEMA’s strong steer that assessment of a project’s carbon emissions against the carbon budget for the entire UK economy is only a starting point of limited value [REP11-020/64].

27 A further fundamental point is that the applicant’s solus quantification of carbon is the wrong one and an underestimate [REP8-029/section 7], so the assessment made against national budgets is incorrect in any case.

28 The point made in REP10-017 that there are three possible ways to approach budgets for local and regional assessment [a) BEIS data b) Tyndall centre data c) Applicant’s own traffic model and study area] have been ignored.

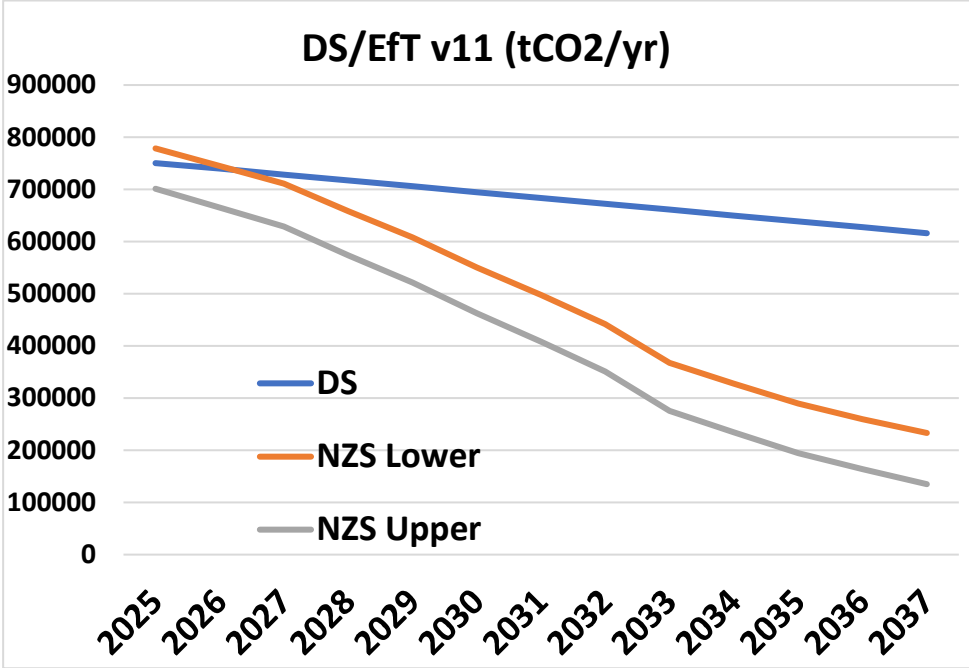
2.7 AS-011 response to REP10-017, section 3, bullet 4 – the so-called “TDP sensitivity test”

29 It appeared from REP9-027/8.14.3/4 (see REP11-020/24) that the TDP sensitivity test is not a sensitivity test at all, but is just a multiplication of the carbon emissions quantified from the traffic model by an idealised factor. The sentence “*The TDP sensitivity test was intended to give an indication of what the [the] carbon emission change with the Scheme for the TDP delivery pathway assumptions.*” confirms this.

30 The issue here is that the applicant is taking “TDP delivery pathway **assumptions**” and then applying logic that the TDP must succeed because the TDP document has been published, and therefore the carbon emissions in the TDP upper bound and lower bound figures for the A57 scheme must also be delivered. This logic is false and is based on proposition 3 [A57/REP10-011/9]: the “overarching assertion of TDP success”. It is helpful that the applicant has identified that the TDP delivery pathway is based on assumptions rather than any evidence that it can be actually delivered.

31 The applicant incorrectly says that the **uncertainty** in the delivery of the emission reduction commitments is bounded by the upper and lower bounds of the TDP (ie the factors implied by the graph in TDP Figure 2). These are idealised upper and lower bounds, and have not been demonstrated to be deliverable, nor to be designed to secure the NZS and TDP objectives, as is now being challenged in the NZS legal case.

32 A more realistic way to look at the uncertainty here is given by my narrative under the graphs in REP11-020/3.5. The DS graph is reproduced below with narrative.



“Where TDP policies are successful, the blue line will move towards the orange and grey upper/lower NZS lines, but as there is no carbon quantification of TDP policies, nor data supporting that they are designed to secure their emission reduction objectives, it is impossible to make any claim about how much the blue will move towards the orange and grey lines.”

33 Where the applicant says *“The emission change with the Scheme for the TDP delivery pathway assumptions would be **anticipated** to fall between the upper and lower bound values given in REP5-026.”*, this is the proposition 3 of the “overarching assertion of TDP success”. No evidence has been provided that the TDP will inevitably succeed, and therefore it cannot be anticipated to do so. The applicant is making the leap of blind faith not just that the blue

line will move towards the orange and grey upper/lower NZS lines, but that it will move all the way to lie between the orange and grey upper/lower NZS lines. No evidence has been provided that this is realistic, or that the TDP and NZS have been designed to secure this outcome.

34 It is not relevant that the SoST has accepted this elsewhere (ie M54-M6 and M25-J10) as these counter arguments have not been presented at the relevant consultations. Weight can only be given by the SoST in deciding the A57 scheme to the evidence presented at this examination for the A57.

2.8 AS-011 response to REP10-017, section 3, bullet 5 – non-road alternative sensitivity test

35 There is a strong case for a non-road alternative which we have also call do-something-else to be modelled. The applicant’s statement here reflects on its attitude concerning fully investigating the case for the scheme with alternatives rather than “availability” of relevant traffic models. If the applicant had been willing to investigate this alternative option, then it would have produced the relevant traffic model scenario.

2.9 AS-011 response to REP10-017, section 3, bullet 6 – update of BCR and case for the scheme

36 The point being made in REP10-017 is that an up-to-date economic appraisal of the scheme is relevant to the planning process and the case for the scheme presented in the planning application. The applicant has ignored the point completely.

2.10 AS-011 response to REP10-017 “Being led by the Science”

37 The applicant responds on the basis of proposition 3: the “overarching assertion of TDP success”; and related proposition 1: the “overarching assertion of NZS success”. However, as I have laid out, these policy documents have not demonstrated that they are designed to secure their emission reduction objectives. As a result, the NZS is under a legal challenge at the High Court.

38 Therefore statements like “*that through implementation of the TDP carbon emissions are expected to continue to fall in the future*” are completely untrustworthy, as is the so-called TDP Sensitivity test which is merely a numerical version of proposition 3. No serious demonstration has been made that carbon emissions will continue to fall or by how much based on a serious quantified evaluation of the policies in the TDP and the NZS.

39 In the context of the IPCC reports, and the science, this is simply not robust enough. The quote from Professor Skea is clear “*without immediate and deep emissions reductions across all sectors, **it will be impossible***” (to limit global warming to 1.5 degrees). The immediate and deep emissions reductions have not been demonstrated for either the TDP or NZS policies. The mere existence of the policy documents provides no guarantee that they will secure their objectives.

40 The applicant invokes M54-M6-DL/31 and M25-J10-109 to support its case. I have previously stated at REP11-020/11 that it is premature for weight to be given to any claims based on the notion that the NZS, or TDP, will inevitably succeed in securing the Government’s carbon emissions reduction targets (see also REP11-020/Appendix A/5.1): this applies to M54-M6-DL/31 and now M25-J10-109. Further, it is the evidence in this examination, which is relevant to the A57, not decisions made elsewhere.

41 Similarly on the UK’s international obligations, REP11-020/12 states that it is premature for weight to be given to any claims based on the notion that the NDC will inevitably succeed, and the UK will deliver its international obligations (see also REP11-020/Appendix A/5.2): this applies to M54-M6-DL/37 and now M25-J10-115.

42 Requirement 12 of the draft DCO and the Carbon Management Plan (CMP) largely apply to construction emissions, and do not address the scale of reductions required on operational emissions. The point remains that the applicant is relying on two unproven propositions: the “overarching assertion of NZS success” and the “overarching assertion of TDP success”. The science makes it clear that deep reductions are required on a very short timescales (“immediate and deep reductions”). The NZS states domestic transport emissions need to fall in the UK by around 34-45% by 2030 and 65-76% by 2035, relative to 2019 levels. The TDP (unproven) aspirations figures are closer, but close enough, to what the science requires but the applicant has not made even the first step in demonstrating that the scheme aligns with them.

43 The National Highways’ Net Zero Plan is not part of the relevant legal and policy framework.

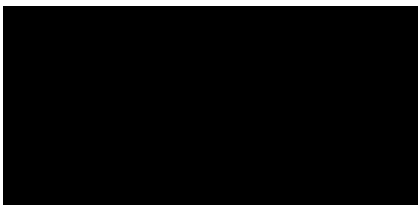
3 CONCLUSIONS

44 The applicant makes six key assumptions or propositions [REP11-021 (corrected version of REP10-011)/section 2] that the carbon reduction targets implied by the NZS, TDP and NDC will inevitably be achieved (the propositions are six-fold, as they are applied **both** in general and specifically to the scheme across the three policies). However, the existence of these targets and policy documents is insufficient. Evidence is required that the NZS is designed to secure the required outcomes for the NZS itself, and the TDP and NDC. This evidence does not exist, and the NZS is being legally challenged on this basis. Therefore, no weight, or credibility, can be given to projected reductions in carbon emissions which rely on these propositions.

These propositions, which are false, underlie many of the applicant’s arguments on carbon emissions including the so-called TDP Sensitivity test.

45 There is **no** EIA compliant cumulative carbon assessment. The applicant has not responded to my substantive arguments on this and has missed the deadline for doing so given in the ExA’s third written questions. My substantive argument thoroughly dismisses the notion that extracting data from a traffic model which contains all the likely land-based and road developments will inevitably provide cumulative carbon quantification and assessment.

- 46 The decision, and recommendation for the decision, has to be based on the evidence provided at this examination on the A57 scheme specifically. No weight should be given to decisions made elsewhere (ie the M54-M6, M25-J10 and M25-J28 schemes), especially as the same evidence (ie my substantive evidence) has not been submitted on those schemes.
- 47 The application does not follow the IEMA guidance and the EIA guidance for local and regional carbon assessment.
- 48 The reduction in carbon emissions from the DS traffic model for the scheme have not been demonstrated to comply with the delivery pathways in the TDP and NZS. The idealised and so-called TDP Sensitivity test which simply multiplies carbon outputs from the traffic model by a factor does not provide the required demonstration of compliance.
- 49 The DS-DM carbon quantification in the assessment is the wrong solus calculation and underestimates even the differential emissions associated with the scheme in isolation.
- 50 The application does not follow the science, particularly the three recent IPCC sixth assessment working group reports for which the UK Government drafted and signed each policy document (“Summary for Policymakers”).
- 51 The application should not be consented as the applicant has not demonstrated compliance with the EIA regulations, the Net Zero Strategy, IEMA and EIA guidance, and uses an underestimate of the carbon emissions, as well as the false assumptions of the inevitable success of various policies.



Dr Andrew Boswell,
Climate Emergency Policy and Planning, May 16th, 2022