A57 Link Roads TRO10034 - Deadline 8, 13th April 2022
Written representation from Anthony Rae - unique reference: 20029740

1. In this final submission I wish to return to the three themes which I have been setting out in previous representations, both during and preceding this examination: that

• the quantification of the schemes carbon impacts should not be the difference between DS minus DM (which, if I've understood this correctly, Dr Andrew Boswell is describing as the **solus** quantification) but rather the absolute and also cumulative change between 2025-2040.[1]

• the test to be applied to the change in absolute emissions from the scheme (which it is accepted are upwards rather than downwards *see footnote 1*) should be compliance with and contributory to NZ targets, or not? This would follow the IEMA guidance: 'The crux of significance therefore is not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050'.[2]

• the guidance provided and the test set by NPS 5.16-18 is based on assertion[3] - rather than quantification, or evidence - and that therefore when the impacts of a particular scheme come to be considered by an ExA it is therefore essential for them to undertake a quantified assessment in the circumstances that they find at that time, which will include the current policy framework. In this connection I'm grateful to Dr Andrew Boswell for pointing, during ISH3 last week, to the precise wording of NPS footnote 69 (attached to 5.16), and to the reference in 5.18 to carbon 'targets' (rather than budgets), neither of which I had noted before.

2. In relation to footnote 69 – '*The Carbon Plan – reducing greenhouse gas emissions* (December 2011) and successor documents'- Dr Boswell points out that the climate policy framework referred to is 11 years old. So surely the ExA needs to make a judgement about whether it is appropriate in April 2022 to attach much weight, or alternatively significant qualification, to a framework that predates both the 2015 Paris Agreement and the adoption in 2019 of a Net Zero policy framework and targets. However, as Dr Boswell also pointed out, the NPS requires reference to 'successor documents' and frameworks, of which the most recent and relevant must be the government's Net Zero Strategy (NZS) published in October 2021. In addition to NZS figure 21, which displays its emissions pathway for domestic transport (of which the overwhelming majority is from road mode), the NZS also includes a dataset which quantifies that pathway with annual emission tonnage numbers (see dataset[4] *tab3v transport, rows 43-44 titled 'NZS delivery pathway'.*) This therefore provides a precise quantification for the 'carbon reduction targets' referred to in NPS 5.18 which the government is required to meet.

3. As an example: the central estimate within that dataset for UK domestic transport emissions was: in 1990 128.6m tonnes; in (pre-Covid) 2019 122.3Mt; and with targets for 2030 of 73.7Mt (range 67.3-80.1Mt); and of 26.8Mt (range 19.7-34.0Mt) at the 2037 NDC date. From the 2019 level (which is only 5% below the Climate Change Act 1990 baseline), national policy as set out

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[1] Anthony Rae **REP4-013** paragraph 7-8 passim, and particularly '…the main point to make is about the increase in emissions between the 2025 and 2040 year: I take that as being between the 2025 DM of 737,485 tonnes and the 2040 DS of 792,072 tonnes. … instead what we see is an increase in emissions in 2040 around 7.5% between the 2025 DM and the 2040 DS.'

[2] *Assessing Greenhouse Gas Emissions and Evaluating their Significance* February 2022. I'm grateful to Keith Buchan for this reference.

[3] Anthony Rae **REP2-059** 'NPS 5.17 is out of date and its asserted proposition about assessing the climate impact of a single road scheme 'in isolation', which in 2014 was not supported by quantified verification, is undermined by two basic contradictions which the applicant has not resolved with evidence. … It surely can be reasonably argued that 2020's adoption by government of an NZ target and then 2021's *Transport Decarbonisation Plan* (TDP) requires that more limited weight in general should be applied to what is essentially an assertion by a dated NPS that is not in itself supported by quantified evidence.'
And **REP4-013** ' I merely wish to reiterate that, as can be seen from the text of NPS 5.16-18, it does not provide any quantified guidance as to what should be understood by the ExA as a 'significant effect' or 'material impact'. In which case it should be for the ExA itself, in the context of developing scientific evidence.'

[4] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1066450/nzs-charts-tables-v1.1.xlsx

in the NZS requires that domestic transport emissions (almost entirely road vehicles) are reduced by 40% by 2030 and 78% by 2037. It therefore has to be incumbent on the applicant to at least explain their argument and analysis, with quantified evidence, as to how this scheme - in combination with all the other road infrastructure schemes within the RIS programme, where carbon impacts are all likely to be similar in terms how they will be generated - can be compliant with that target if it is increasing rather than reducing emissions. But the applicant hasn't done this and has simply reverted to reliance on the asserted *de minimus* position of NPS.

4. Ultimately the point I want to make concerns whether the decision of the ExA relating to climate change impacts is required to be irrational, and also irresponsible, or alternatively rational and responsible, as could be independently judged. The components of an irrational and irresponsible decision include that: the test set by NPS 5.16-18 in December 2014, on the basis of a Carbon Plan produced in 2011, is apparently immutable and does not allow for taking account of subsequent developments, either in policy or climate science; is based on assertion without corroborating evidence; contains no requirement to test for dynamic and quantifiable elements which could demonstrate compatibility with other aspects of current policy; and where the test is designed such that in theory it cannot be failed[5]; and that - in relation to 'irresponsibility' - that it takes no account of the scheme's consequences in relation to designated carbon pathways and targets, or worsening climate change. The 2011 Carbon Plan stated that 'By 2030 we project that current policies could mean that transport emissions *[defined as domestic transport]* reduce to around 116 MtCO2e'. This would have involved a decrease of just 6Mt from the 2011 actual of 122Mt to be achieved over a period of 19 years, whereas the current requirement is for a reduction of 48.6Mt - from 122.3Mt to 73.7Mt - with only 8 years remaining to reach that goal. In 2022 we are clearly in a completely different set of circumstances compared to those envisaged in 2014 or 2011.

5. Surely a decisionmaker should be both rational and responsible. Just 10 days ago, on publication of the IPCC AR6 Mitigation report, one of its lead authors said: 'I think the report tells us that we've reached the now-or-never point of limiting warming to 1.5C. We have to peak our greenhouse gas emissions before 2025 and after that, reduce them very rapidly'. The latter was defined as -43% by 2030 [at the global level]. Is it really possible for decision-makers - such as the ExA in the case of this particular scheme – to continue to trudge, step after step, towards the edge of the cliff simply because a test which had been 'set and sealed' in 2014 still instructs them to do so?

Anthony Rae
13th April 2022

[5] NPS 5.18 '…for road projects applicants should provide evidence of the carbon impact of the project and an assessment against the Government's carbon budgets. … any increase in carbon emissions is not a reason to refuse development consent, unless 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.'