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DEADLINE D4 : ISH3 Post hearings submission

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 document provides written summaries of my oral case at the ISH3.

2 I draw Hampshire County Council's attention to section 4.

3 I usually restrict my submissions to technocratic matters relating to policy and law. However, due to the very disturbing events this year relating to planetary level climate disruption, I feel that I have a responsibility as someone with an active interest in these events and the scientific response to it, to provide a short Prelude section next, and put these matters on record before the examination. There was some discussion at the ISH3 about extreme weather events and adaptation measures; however, the issues go much deeper as explained next.

2 PRELUDE

4 This year has seen the Climate Emergency unfold before the world's eyes in real time. This has been shocking to many scientists involved in the field with a common response being this is happening "much faster than we expected". There is currently a wide discussion on whether the planet is currently undergoing some tipping point (or combination of tipping points).

5 The effects of climate change are usually seen by the public in terms of increasing extreme weather events. Examples abound such as the record-breaking temperatures in the UK last year, and temperature records being widely broken around the globe this year. We have seen widespread flooding events, and of course, we have all witnessed the distressing and devastating wildfires in Hawaii, Rhodes and Canada. All attributable to man-made climate change. However, shocking as these events are, they are superficial in comparison with some of the more unprecedented deeper geophysical signals being seen. I just highlight a couple of these very briefly below.

6 This year has seen, from the satellite record, a massive loss of sea ice reforming in this year's Antarctic winter. The signal (or "canary in the mine") of this is shown on the graph below[1]:

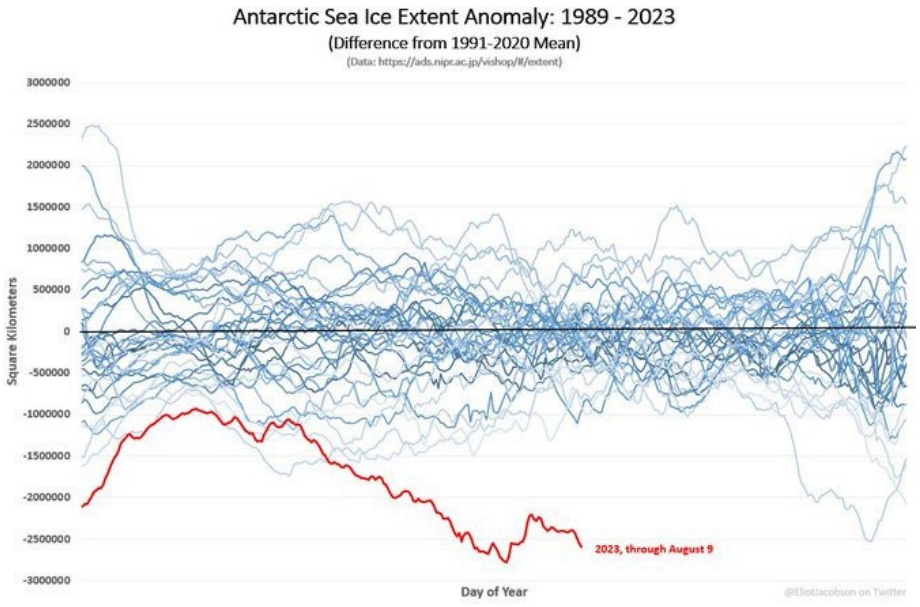

Figure 1: Antarctic Sea Ice Extent Anomaly

7 The graph shows the anomaly – the extent of sea ice loss compared to the recent average (1991-2020). In real terms, this is sea ice which would be expected to reform in a typical Antarctic winter is simply not reforming this year over a massive scale of area. Scientists are currently grappling to understand the causes for this large deviation this year which is statistically extremely unlikely. The loss amounts to an area around 10 times the size of Britain, and the impact could be to weaken land ice and glaciers on the Antarctica continental shelf itself. If this is the signal of a tipping point starting in which the sea ice around Antarctica ice is permanently lost at this scale, then this in turn would lead to land-based ice moving into and melting in the sea giving rise to very large sea level rises, and impacts to low lying cities around the world. Whilst this has always been a possible impact of climate change over centuries, the key takeaway concerning this year's data above is that scientists are shocked to see this happening now and it had not been predicted by modelling to occur at this stage of global heating.

8 This year has also seen sea temperatures rise unusually high, globally, and also in the North Atlantic, as shown on the next graph[2]. This has contributed to some of the marine heatwaves (for example off Ireland the UK earlier in the year) which have caused serious

[1] Source: https://twitter.com/EliotJacobson/status/1689651022862643200?s=20

[2] Source: https://twitter.com/LeonSimons8/status/1688188964027486208?s=20

impacts to marine life. Again, the sharp increase for the 2023 point is what is shocking and concerning.

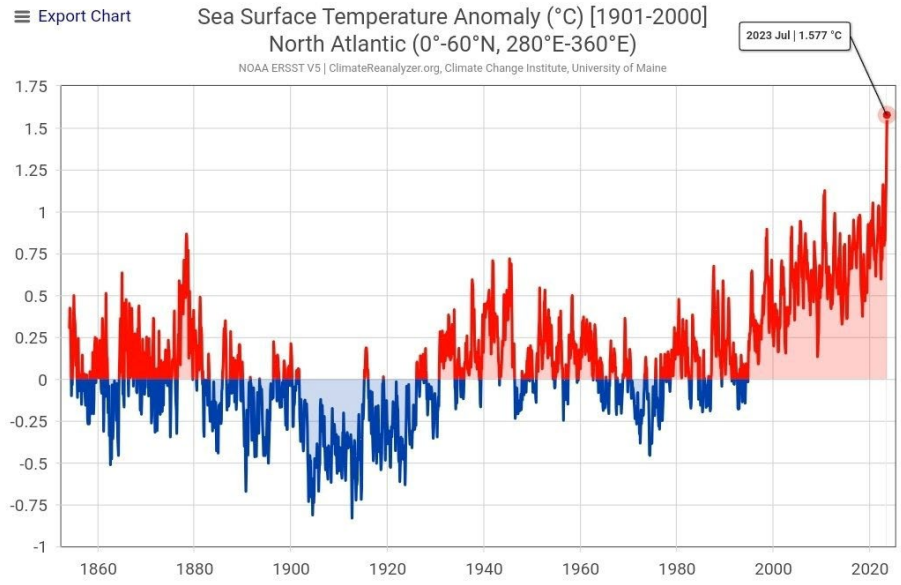

Figure 2: North Atlantic Sea Surface Temperature Anomaly

9 There are many other examples, and there is a very energised debate on-going in climate science circles about these geophysical scale climate events.

10 In terms of the examination, all parties should be in no doubt that that the Climate Emergency is here, and **it is crucial that the UK does not make decisions which make the build-up of atmospheric carbon dioxide worse**.

11 As the judgement in the first Net Zero Strategy legal challenge[3] says:

> *"Given the nature of the problems posed by climate change, the need for substantial changes across the country and the challenges involved, telling Parliament how the Secretary of State proposes to meet the carbon budgets does indeed require him to explain the thinking behind his proposals and how they will enable the carbon budgets to be met."*

[3] Para 233, R (Friends of the Earth) v Secretary of State for Business Energy and Industrial Strategy [2022] EWHC 1841 (Admin)

3 ISH3 / ITEM 2 (i) / POLICY AND NEED / NATIONAL POLICY AND THE NEED FOR THE PROPOSED DEVELOPMENT

3.1 ISH3 / Item 2 (i) / Bullet 1 / The National Policy Statement for National Networks (NPSNN) and the strategic need to improve the National Road Network

12 At EV-028/17.56[4], I referred to the recent report from the Transport Select Committee on "Strategic Road Investment" (Published 27 July 2023) [referred to TSC_SRI]. I provide the report as Appendix A.

13 I briefly verbally summarised two recommendation points from the report which relate to the increases in traffic in DfT forecasts, the demand for new roads (ie "need" under ISH3 Item 2i) and likely risk and impact of GHGs (ie ISH3 Item 3). Both points come under the TSC report section "Managing traffic demand on the Strategic Road Network". **Point 1** = Bullet 19 from TSC_SRI:

> ***"Transport remains the biggest greenhouse gas contributor in the UK and the Government's strategy for decarbonising transport by 2050 is reliant on a rapid switch to zero emissions vehicles. However, in all future scenarios modelled by the Department for Transport, traffic on the Strategic Road Network is forecast to increase, and there is a great risk that uptake of cleaner vehicles will not be fast enough to mitigate that increase. The Government's determination to accommodate demand for new roads through investment without also considering steps to manage that demand is a risky strategy."*** {bold emphasis in original}

14 To expand, this relates to, and supports, my WR where I submit that there is no evidence that delivery of the CBDP – a critical and statutory climate policy required by the Climate Change Act 2008 - is secured [AS-012 / section 10(1)(B)]. This also supports the Climate Change Committee 2023 Progress Report finding that "a pathway that is almost exclusively technology-dependent is likely to be less cost-effective, entails higher delivery risk" [see quote under AS-012 / bullet 39]. "Technology-dependent" refers primarily to the electrification of vehicles.

15 It is significant that this high-level body of MPs highlighted that accommodating demand for new roads in the context of increasing forecasts of traffic on the SRN as a risky strategy. The M3J9 is one of the projects generating the demand. This is an issue which the SoS must consider in the decision making in addition to those submitted at AS-012 / section 10(1) where I conclude, on my WR evidence, that there is not sufficient emissions space in the 4CB (Industry) residual emissions allocation for the project to be constructed, and there is not sufficient emissions space in the 4CB, 5CB and 6CB (Surface Transport) residual emissions allocations for the project to be operated.

16 The MPs then go further. My **Point 2** = Bullet 21 from TSC SRI:

[4] EV-028, https://youtu.be/IH5qcrT8rxM?t=1074

> ***"The Government should model and report on scenarios where traffic levels on the SRN are a) reduced and b) maintained at current levels, alongside the transition to a cleaner vehicle fleet, in order to assess the potential contribution of demand management to reaching net zero."*** {bold, italic emphasis in original}

17 This links to AS-012 / section 6.5 and supports the very point which I am making there that the CBDP identifies the risk that traffic demand may go beyond the Government's high-end projections, and critically that there has been no risk assessment of this. The M3J9 application quite clearly forecasts significant growth rates of traffic from the scheme [APP-166, Table 5-5] which would contribute to an increase in the (sector emissions trajectory) baseline. At AS-012 / section 6.5, I ask "*how does that fit in the overall risk assessment of not delivering on the new baseline and policies in the revised NZS?*".

18 Following the TSC report, I go further and submit that given the risks identified to net zero delivery, and the MP's call for modelling of scenarios with no or reduced traffic growth *"to assess the potential contribution of demand management to reaching net zero",* that there can be no justification to approve a scheme which forecasts significant traffic growth before such modelling has been undertaken and reported. The issue of increased traffic from the scheme, and its impact on delivery of net-zero must be given strong weight in the planning balance. Further the SoS must have all the relevant data, and that includes the additional traffic forecasts and understanding of demand management for reaching net zero.

19 At minimum, the decision on the scheme should wait until the additional modelling recommended by the MPs has been carried out, and the effects of demand management on the delivery of the UK's carbon budgets and net-zero is better understood.

3.2 ISH3 / Item 2 (i) / Bullet 4 / The economic and other benefits of the scheme including those in relation to the local economy, improved access to the SDNP and the connectivity of National Cycle Network Route 23.

20 At EV-028/1.04.48[5], I addressed the issue of how the GHGs are calculated in the economic appraisal and the BCR. The first point was that the applicant has not shown how they have calculated the cost of the construction GHG emissions from the scheme and how they have put that into the BCR calculation. I submit the applicant should provide these calculations to the examination.

21 The second point is that the GHG emissions from operation of the scheme are calculated from a very narrow definition of the GHGs which is just the difference in the traffic model outputs between the "with scheme" and "without scheme" scenarios. However, the economic benefits for the scheme are calculated by considering a "wider economic benefit"

[5] EV-028, https://youtu.be/IH5qcrT8rxM?t=3888

of the scheme: this includes other development in the long[6] and short[7] lists of cumulative development, and the housing, jobs and other transport schemes proposed[8].

22 The effect of this is that "benefits" of wider economic development are valued in the BCR, but the disbenefits and value from the GHGs associated with the wider economic benefits are not assessed and included in the economic appraisal. This produces a BCR which is incomplete and biased.

23 The applicant was asked by the ExA to respond to points made, but the applicant did not respond on this point. I submit now that a response should be made on this point by the applicant.

4 ISH3 / ITEM 2 (ii) / POLICY AND NEED / LOCAL PLAN AND OTHER POLICIES

24 At EV-030/12.29[9], an officer from Hampshire County Council (HCC) said "*As far as the County council is concerned, the scheme is consistent with the policies in the current local transport plan and the emerging local transport plan.*" **The statement is simply not credible for the reasons below.** There are profound implications of the emerging local transport plan for the SoS decision making in understanding whether the scheme can be consistent with local transport policy which I discuss below. It is essential that the correct information is before the examination and reported correctly to the SoS.

25 As background, the HCC website hosts a Draft Local Transport Plan 4 (dLTP4) dated April 2022, and provided in Appendix B. This is the relevant emerging local transport plan, and my comments relate to it, and the emerging guidance from DfT on "Quantifiable Carbon Reduction" ("QCR") in local transport plans (LTPs).

26 It is necessary for the ExA and SoS to be aware of the QCR guidance as it is being developed by DfT to enable transport authorities, like HCC, to implement the commitment made by Government in the July 2021, Transport Decarbonisation Plan (TDP)[10] "*we will drive decarbonisation and transport improvements at a local level by making quantifiable carbon reductions a fundamental part of local transport planning and funding*". As part of this, the TDP required:

> *"Going forward, LTPs will also need to set out how local areas will deliver ambitious quantifiable carbon reductions in transport, taking into account the differing transport requirements of different areas. This will need to be in line with carbon budgets and net zero."*

[6] [APP-150] "Appendix 15.1 - Long list of Cumulative Developments"

[7] [APP-149] "Appendix 15.2 - Short list of Cumulative Developments"

[8] And summarised in Tables 4.4 and 4.4 of [REP1-025], "7.10 Combined Modelling and Appraisal Report (Rev 1) Clean"

[9] EV-030, https://youtu.be/v1JnpFoowqM?t=749

[10] Transport Decarbonisation Plan, page 151.

27 Following the Transport Decarbonisation Plan (TDP, 2021) requirement as above, the DfT have published three bulletins of "Local Transport Plan Guidance", largely addressing QCRs, in May 2022, August 2022, and January 2023. The August 2022 bulletin is at Appendix C. To give an oversight of what HCC will be required to do to implement QCRs in the adopted LTP4, two sections from the August 2022 bulletin (which gives information on the process that QCRs will follow) are clipped below.

Quantifiable Carbon Reduction - at a glance

A separate technical guidance document will provide methodological advice to enable places to understand the baseline local transport emissions and estimate the carbon impacts of proposed interventions as part of the development of an LTP.

This is in line with the government's Transport Decarbonisation Plan (TDP) commitment to making Quantifiable Carbon Reductions (QCR) a fundamental part of local transport planning.

The QCR process outlined below sets out the evolving proposal for the key steps and outputs which authorities will be encouraged to follow (see diagram next page).

Step 1 - involves producing an estimate of current and future **user emissions** in the absence of the interventions outlined in the updated LTP - providing a 'baseline' against which the impact of an LTP can be measured. A tiered methodology will be provided to match the different analytical capability of different authorities.

Step 2 - involves identifying the local scale and pace of transport decarbonisation needed in line with carbon budgets and Net Zero in the form of a decarbonisation pathway.

Step 3 - involves meaningful and proportionate consideration of carbon as part of the process of establishing a longlist of potential transport interventions and policies and appraising these to produce a shortlist in line with what is being proposed in the main LTP guidance document.

Step 4 - involves estimating the carbon impact of the LTP intervention pipeline. A tiered methodology will be provided to allow the assessment to be proportionate to the authority's capability and to reflect the data likely to be available at various stages of the intervention.

In addition to user emissions, we also want to encourage the consideration of **infrastructure carbon emissions** associated with both interventions set out in the LTP and the maintenance of existing infrastructure.

Figure 3: DfT QCR outline information (reproduced)

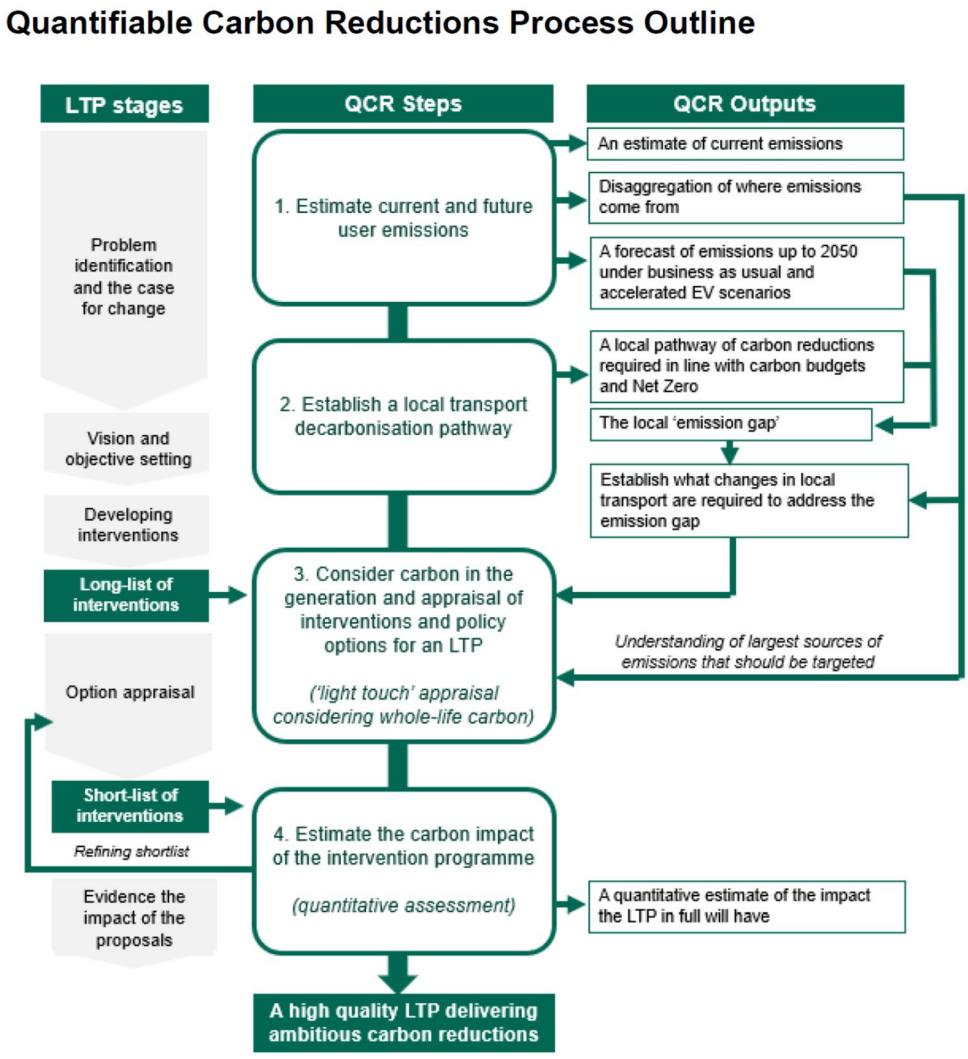

Figure 4: DfT QCR outline information (reproduced)

28 The LTP which applies to the period from 2027 when the M3J9 may be constructed and opened will be the LTP4 (ie: the current LTP may be extant, but it is backward looking at this stage and will be superseded by the LTP4). HCC have not provided any material to the examination on how the LTP4 has developed since the dLTP4 published in April 2022, now 15 months ago. Given the guidance from August 2022, a year ago, outlined the necessary process for completing the LTP4 with QCRs, an update to the examination from HCC of LTP4 progress (incorporating its QCR) should be provided to the examination.

29 With respect to the above guidance outline, the "QCR outputs" (ie the right-hand column in Figure 4 above) are required before any statement can be made on whether the M3J9 is consistent with the emerging LTP4. For example, there is no clearly quantified "local emission gap" yet identified by HCC based on following the QCR process. Without knowing the "local emissions gap", and whether the LTP4 can provide policies to remove

the gap, then it is simply impossible logically for HCC to know whether the M3J9 can be consistent with the LTP4. Yet they made the claim that it is.

30 By making the hand waving statement that the M3J9 and the emerging LTP4 are "consistent" quoted above, HCC is gambling its future credibility in meeting its local transport carbon and climate targets, as required by the TDP, in the LTP4. Whilst the credibility of HCC's climate policy may not be directly the matter under consideration at the examination, it is worth drawing the ExA's and SoS's attention to this point.

31 Having said this, some further points may be made by some analysis of the dLTP4 and these relevant sections from it, noting some errors in the dLTP4 along the way:

(A) Policy C4 of the HCC dLTP4 is "Place climate change at the heart of decision-making" Appendix B, page 66) and includes "*Implementation of Policy C4 will be supported by … seeking to estimate the impacts of transport schemes on carbon emissions (including CO2 generated during the construction of new infrastructure) and assess their vulnerability to climate change impacts;*"

(B) Page 14 of dLTP4 discusses current emissions baselines, and notes "*Transport emissions in Hampshire have not reduced in the last 5 years, whilst emissions from other sectors have reduced by nearly 25%.*"

(C) At dLTP4, Figure 2, page 14 it is stated "*Note - The Carbon Trust estimated that 37% of Hampshire's emissions came from transport in 2019, while the latest BEIS data claims this is 51%. The primary reason is due to the inclusion of domestic aviation and rail. While most of the rail network in Hampshire is electrified, until the grid is de-carbonised this will remain a substantial emitter. Domestic aviation in Hampshire adds considerably to the share of emissions attributable to all modes of transport.*" Both the percentages and the issue of domestic aviation in this statement is erroneous as explained below.

32 In Table 1, I reproduce the relevant elements of data from the latest DESNZ dataset (previously the BEIS data referred to) "UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2021"[11], the most up to date data published in June 2023. For each of Winchester City Council and Hampshire County Council, I display (a) the total Industrial sector emissions[12] (b) the road transport sub-sectors for A-roads, Motorways and Minor Roads[13], (c) the total roads transport sector emissions[14], (d) the total of all sectors[15], and (e) the total roads transport sector emissions as a percentage of the total.

YEAR	WIN-IND	WIN-TRANS-A-RD	WIN-TRANS-MWAY	WIN-MINOR	WIN-ROADS	WIN-TOTAL	WIN-ROADS%		HAMP-IND	HAMP-TRANS-A-RD	HAMP-TRANS-MWAY	HAMP-MINOR	HAMP-ROADS	HAMP-TOTAL	HAMP-ROADS%
2005	74	154	196	137	487	1,297	38%		2,633	1,399	969	1,214	3,582	12,477	29%
2006	71	151	197	135	483	1,268	38%		2,415	1,388	979	1,190	3,557	12,123	29%
2007	70	154	195	138	488	1,242	39%		2,657	1,383	972	1,214	3,569	12,080	30%
2008	64	151	188	135	474	1,232	39%		2,432	1,342	916	1,179	3,437	11,731	29%
2009	62	143	184	129	455	1,149	40%		2,329	1,290	900	1,126	3,316	10,929	30%
2010	70	142	183	125	451	1,184	38%		1,597	1,289	911	1,090	3,291	10,368	32%
2011	62	142	186	120	449	1,113	40%		1,309	1,281	901	1,059	3,242	9,478	34%
2012	65	143	179	118	439	1,148	38%		1,328	1,262	886	1,043	3,190	9,752	33%
2013	63	141	180	118	439	1,110	40%		1,285	1,252	882	1,032	3,165	9,462	33%
2014	60	144	182	122	448	1,049	43%		948	1,282	886	1,056	3,224	8,524	38%
2015	54	151	187	124	462	1,017	45%		840	1,327	923	1,065	3,316	8,244	40%
2016	52	156	188	129	472	984	48%		803	1,368	936	1,091	3,395	8,020	42%
2017	51	158	193	127	478	960	50%		796	1,376	950	1,080	3,406	7,745	44%
2018	71	156	191	124	471	953	49%		948	1,356	924	1,041	3,321	7,631	44%
2019	**69**	**151**	**182**	**123**	**457**	**909**	**50%**		**908**	**1,313**	**903**	**1,027**	**3,243**	**7,197**	**45%**
2020	71	115	145	102	362	790	46%		879	1,034	707	854	2,595	6,325	41%
2021	79	122	157	112	392	840	47%		921	1,127	789	890	2,806	6,749	42%

Table 1: DESNZ data : 2005-2021 : <u>all figures in units of KtCO2e</u>
(heading explained in footnotes)

33 This shows that the DESNZ (formerly BEIS) data gives in the pre-COVID year 2019 the road transport sector as 50% of the total reported for Winchester CC, and 45% for Hampshire CC. It is not clear where BEIS claimed the percentage was 51% for Hampshire as HCC state in the dLTP4. This data excludes domestic aviation <u>by definition</u> as it is not reported in the source data: the technical report provided with the data makes it clear that

[11] DESNZ, UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2021, spreadsheet 2005 to 2021 UK local and regional greenhouse gas emissions – data tables (Excel) (**updated 6 July 2023**)", downloaded 15th August 2023, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1168130/2005-21-uk-local-authority-ghg-emissions-update-060723.xlsx

[12] From Tab 1_1 in spreadsheet, "Industry Total" column

[13] From Tab 1_1 in spreadsheet, "Road Transport (A roads)", "Road Transport (Motorways)", and "Road Transport (Minor roads)" columns

[14] Sum of Road Transport sub-sector columns. **THIS IS NOT THE SAME AS THE "Transport Total" COLUMN WHICH INCLUDES "Diesel Railways" and "Transport 'Other'".**

[15] From Tab 1_1 in spreadsheet, "Grand Total" column

domestic aviation is not accounted for in the figures[16] as well as there being no data column for these emissions. **HCC need therefore to review and correct their erroneous statement at dLTP4, Figure 2, page 14 with respect to the BEIS data.**

34 At dLTP4, page 26, a sketch is given of "Hampshire's carbon reduction pathway to transport 'net zero' in 2050" at Figure 5, and the text above makes it clear that the graph shown is based on the "Sixth Carbon Budget – All sector pathway". **Using the "all sector" pathway is also erroneous.** In local transport planning, road transport emissions need to reflect[17] the Domestic Transport residual emissions in the Carbon Budget Delivery Plan (CBDP[18]) – and previously in April 2022 when the dLTP4 was published this would have been the Domestic Transport residual emissions in the TDP and original NZS (now superseded by the CBDP)

35 dLTP4, Figure 7, reproduced below, then gives an "indicative scenario" for achieving the required reduction in transport carbon emissions (excluding freight) between 2019 and 2030. In other words, high-level policy objectives for the dLTP4, as reproduced below.

36 High-level policy objectives **between 2019 – 2030** include:

(A) 35% reduction in transport carbon emissions (excluding freight).

(B) Reduction in total car kilometres travelled (by approx. 10%)

37 HCC have not explained to the examination how these objectives are consistent with the opening of the M3J9 planned for 2027 this period.

[16] DESNZ, June/July 2023, "2005 to 2021 UK local and regional greenhouse gas emissions – data tables (Excel) (updated 6 July 2023), as downloaded on August 14th 2023 from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1168163/uk-local-and-regional-ghg-emissions-2005-to-2021-technical-report.pdf,

[17] It is acknowledged that the residual emissions trajectories in the CBDP are not sectorial targets. However, each sector's trajectory reduces at its own rate and is different to the total decarbonisation rate too. Sector residual emissions trajectories are given as a strong guide for how sectors should decarbonise, so it is appropriate to reflect the sector rate for the purposes of QCR development in the LTP4.

[18] UK Government, Carbon Budget Delivery Plan, March 2023, see "Table 2 - Summary of sectoral residual emissions across carbon budgets ($MtCO_2e$)", document downloaded from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147369/carbon-budget-delivery-plan.pdf on April 3rd, 2023

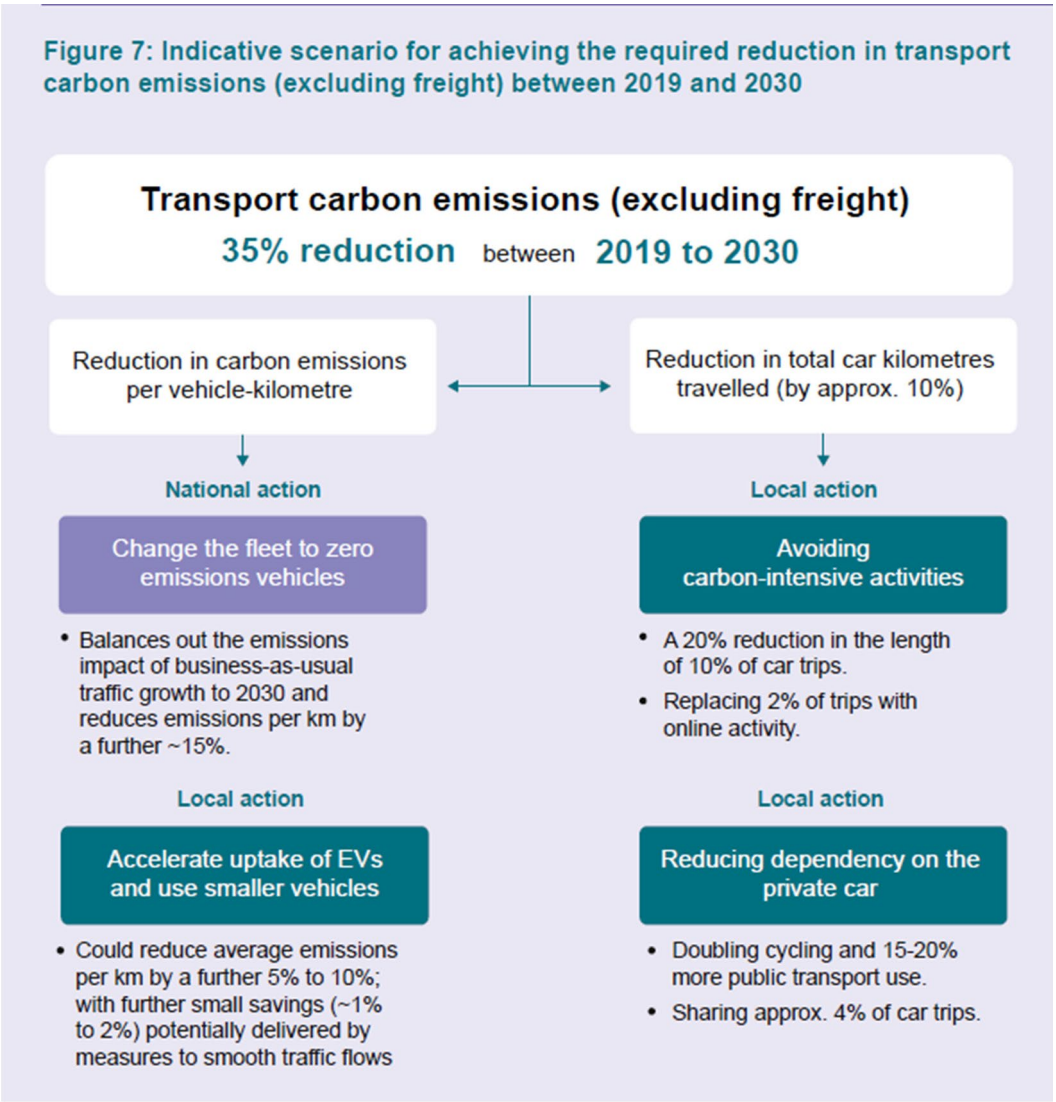

Figure 5: Figure 7 from HCC dLTP4 reproduced

38 Tying all this together with the HCC statement made at the ISH3, there are a number of facts and issues.

(A) The emerging LTP4 is the dLTP4

(B) However, before the LTP4 can be adopted, HCC are required to develop a QCR based approach (as required by the TDP). This will produce an LTP4 which necessarily will be a significant development on dLTP4. HCC has provided no evidence as to the Council's work and progress on this.

(C) The high-level policies may change once the QCR work has been done. For example, will the 35% carbon reduction figure remain or be altered? Is the total car kilometre reduction of 10% still correct? The possible changes in LTP4

policy due to QCR work and finalising the LTP4 were what I referred to at the ISH3 as giving rise to a "chicken and egg situation". However, for the moment we have the dLTP4, the emerging LTP4, with the 35% emission reduction and 10% car vehicle kilometre reduction objectives. This is the relevant version of the LTP4 to compare the M3J9 scheme with for consistency. And it was this emerging LTP4 that HCC claimed the M3J9 was consistent with.

(D) No evidence has been provided as to how the freight element can be removed so that the 35% emissions reduction figure for all non-freight movements can be determined. It is acknowledged that this will be a non-trivial task. HCC need to explain to the examination what the baseline freight percentage of emission are, and what target reduction they have for freight (if it is not 35%), and how they will deliver it.

(E) Related to the above, the total road transport emissions (DESNZ data table above at Table 1) for HCC in 2019 were 3,243 KtCO2e. If the 35% emission reduction in the dLTP4 was across all vehicle types, then the 2030 emissions would be 2,108 KtCO2e (a reduction of 1,135 KtCO2e). HCC must explain what the 2030 figure would be with freight excluded, and how they can achieve it with an M3J9 coming on-line in 2027.

(F) In the current examination, the ExA and SoS only have sight of the dLTP4, and it is the best evidence of the future, forward-looking transport policy of the HCC as the transport authority for the period with an M3J9 implemented (ie 2027-2042 and beyond). So the ExA and SoS must rely upon the dLTP4 is assessing compliance of the M3J9 with the local transport policy. So accepting that the final LTP4 may be different in substance, after QCR and other adjustments, the high-level policies may still be tested as they are in the dLTP4. And indeed, HCC purported to give evidence as to that compliance – which the above makes clear is not a credible evidence statement.

(G) At the ISH3, HCC made the hand waving, general statement that the scheme is "consistent" with their emerging LTP4. HCC have provided no evidence that (a) in the baseline situation without an M3J9 that they can deliver a 35% emission reduction by 2030 (excluding freight), and a reduction in total car kilometres travelled by approx. 10%, or (b) that with a M3J9 how that baseline situation on delivery of these high-level objectives of the LTP4 is affected. I submit that the ExA and the SoS cannot legitimately accept this state of affairs as satisfying the requirements for consistency of the scheme with local transport policy.

(H) What we know, as of today, is that the M3J9 increases emissions around 3,600 tCO2e (per year) in 2030[19] in a solus (scheme-only, DS-DM) calculation. The

[19] Linear interpolated data as prepared for my WR and discussed further in the WR

transport emissions increase in the Winchester area can be expected to be higher due to the housing, jobs and other transport schemes proposed[20]. Even without a proper cumulative assessment of the carbon emissions including the scheme, and other developments, it is clear that the 3,600 tCO2e figure for 2030 is an underestimate. HCC have provided no evidence of how these additional emissions will be contained within a background of needing to find an annual emission reduction of around 1,000,000 tCO2e (ie 1MtCO2e) from Hampshire's transport when the freight issue has been clarified.

(I) Further, HCC have provided no evidence of how the "Table 5-5: Growth rates – core scenario" in the [APP-166] "7.13 Transport Assessment Report" are consistent with the proposal to reduce car kilometres by 10%. This table gives growth (in PCUs/Hr) as {11%, 8%, 13%} for {Car Business, Car commuting, Car Other} for the AM Peak in 2027 rising to {20%, 17%, 27%} in 2042. The figures increase for all time periods. **Although, the applicant has not provided the corresponding car kilometer data, it is quite clear that the 10% car vehicle kilometre reduction by 2030 is an objective that is incompatible with support for the M3J9 scheme that will increase car kilometres.**

(J) It should be noted that HCC now has 7 years only (not 11 years from 2019) to achieve these emissions reductions and car vehicle-km reductions proposed in the dLTP4.

39 A lot more could be said. I have tried to summarise the relevant information that the ExA should consider in terms of local impact and how this is reported to the SoS. **The bottom line for this submission is that HCC made a statement to the ISH3 which fundamentally is not true as they have not tested even the high-level objectives of the dLTP4 against the M3J9. It is quite shocking that HCC made such an overarching and general statement without providing any evidence. (Some of) the information required to start actually genuinely assessing if the dLTP4 is consistent with the M3J9 is provided above. This must be done if the true local impacts are to be correctly determined and assessed, and critically understood by the SoS when making his/her decision.**

[20] And summarised in Tables 4.4 and 4.4 of [REP1-025], "7.10 Combined Modelling and Appraisal Report (Rev 1) Clean", and [APP-150] "Appendix 15.1 - Long list of Cumulative Developments" and [APP-149] "Appendix 15.2 - Short list of Cumulative Developments".

5 ISH3 / ITEM 3 (i) / CLIMATE CHANGE AND GHG EMISSIONS/ CLIMATE CHANGE EFFECTS AND THE ASSESSMENT OF GHG EMISSIONS

5.1 Cumulative carbon assessment

40 The ExA requested that I clarify my position on cumulative carbon assessment in the Environmental Statement following the recent judgement *R (Boswell) v Secretary of State for Transport [2023]* EWHC *1710 (Admin)*. I made a clarification at EV-030/25.14[21] in which I explained that I have done forensic analysis of the EIA Climate Change chapters provided by the applicant on a number of schemes: a common approach is used on all the DCO road applications. My analysis looks at how the numbers move "through the system" from the traffic modelling outputs to the tables published in the ES. The analysis has been both scientific and legal. In scientific terms, I remain completely convinced that no assessment of the climate change impacts of the cumulative carbon emissions associated with the scheme has been made in Chapter 14 for the M3J9.

41 With respect to legal matters, my lawyers and I have used the same forensic analysis to examine each step in the processing of the data and the presentation in the tables, and any assessment made, and also the associated decision-making process by the Secretary of State, against the relevant law and case law. On the basis of this, my lawyers have applied (on July 28th 2023) with an arguable case for permission to appeal the Boswell judgement above.

42 No evidence which I have provided on the M3J9 application depends upon the success of my appeal: a point confirmed as her understanding by the Lead Examiner.

5.2 Calibration of the traffic model and baselines

43 At EV-030/39:10, I noted that the application COMA report [REP1-025/3.1.4 and 3.4.2] indicates that the traffic model was calibrated at a "Base Year" of 2015. However, the application does not provide data on the GHG emissions associated with the 2015 calibrated traffic model. It is usual to report this Base Year figure. It also provides useful information which is currently missing as explained below. The baseline and with scheme GHG data is provided for the opening year and design year, although not in the same place, as shown below.

[21] EV-030, https://youtu.be/v1JnpFoowqM?t=1515

tCO2e	Baseline	With scheme
2015	???	
2027	4,157,875[22]	4,161,194[23]
2042	3,549,335[24]	3,554,026[25]

Table 2: Baseline and with scheme GHG figures

44 The missing data is shown as "???" above. It is important to see this data as it provides context for the changes since 2015 in the regions traffic, and from other developments in the area.

5.3 Significance assessment and decision making by the SoS

45 This is a complex area discussed in two parts of the ISH3 which I have "lumped together" below as they logically flow together. First, at EV-030/32.44[26] onwards, I made verbal submissions about the significance assessment, and related decision making by the SoS, of the climate change impacts from the GHG emissions of the scheme, summarised as follows:

- The Net Zero Strategy (or CBDP) being taken back into court for a second time is of major relevance to decision making on this application. This is because the Secretary of State has always made DCO road decisions on the assumption (**assumption 1**) that Net Zero, and/or previous climate budgets and targets, is going to be delivered (on time and as laid out in the NZS/CBDP) - not just the net zero 2050 target, but also the fourth, fifth and sixth carbon budgets going forward, and also the nationally determined contribution (NDC) under the Paris Agreement, which is of course an international obligation on the UK Government. My written representation lays out why meeting the CBDP, and therefore any of these targets, cannot be assumed, and the legal challenge to the CBDP also shows that any assumption of deliverability of the CBDP and polices within it cannot be taken for granted.

- Therefore an important consideration is how secure is the policy delivery of the policies with the CBDP. It is necessary to risk assess the policies within the CBDP to understand how secure policy delivery is. The fact that this had not be done is what the judge in the first NZS legal case found to be a material issue in finding the NZS unlawful (see my WR). Now, three NGOs have taken the CBDP back to the High Court, again, on the very same matter of risk assessment of policy delivery – because the risk assessment is still not fit for purpose, or legitimate, in the CBDP.

[22] 14.7.16

[23] Table 14.5 / B9 User Utilisation (end-users)

[24] 14.7.16

[25] Table 14.5 / B9 User Utilisation (end-users)

[26] EV-030, https://youtu.be/v1JnpFoowqM?t=1964

- This means that when the Secretary of State considers the significance of carbon emissions from the scheme, it is no longer credible, if it ever were, for him/her to consider that we will magically deliver Net Zero (and the CBDP). The logic has previously been that because the Government has published the statutory policy document under the Climate Change Act 2008, now the CBDP, and the UK has the Climate Change Act, that magically all the UK climate budget and targets will be delivered. This is magical thinking which is why I use the word here.

- It is important to understand what the carbon budgets and other targets are. They are potential outcomes. They are not predetermined. They are outcomes which may only be achieved by a complex set of well secured policies to deliver them. My comments in my WR on the scale and logistical impact of Net-Zero [AS-012 / section 2] should be taken for context here. Delivery of the carbon budgets is not some simple project: it is a hugely complex programme involving the delivery of many sub- programmes and projects.

- It is quite clear from the first NZS legal case, and the subsequent case, **that those complex set of policies do not fully exist yet, are not secure, and are not sufficiently risk assessed.** Further, the evidence from the Climate Change Committee, Green Alliance, and Professor Marsden presented in my WR all provide further evidence that the necessary, delivery-secured, body of policy does not yet exist.

- Contrast this with the way that the Applicant proposes that the SoS approaches significance assessment. This is given at section 14.5.33 of Chapter 14:

> *"Section 3.20 in the DMRB LA 114 Climate (Highways England, 2021) states that a significant effect occurs where the increase in carbon emissions resulting from the Scheme would have* ***a "material impact on the ability of Government to meet its carbon reduction targets"****. This is based on paragraph 5.17 of the National Policy Statement for National Networks (2014) that states* ***"It is very unlikely that the impact of a road project will, in isolation, affect the ability of Government to meet its carbon reduction plan targets"****.*

- First note that the paragraph confuses two things: (1) a definition of significance used by the Applicant, and (2) a further assumption (**assumption 2**) that it is "very unlikely" that any road scheme in isolation will affect the ability of the Government to meet its carbon reduction targets. (1) is said to be based on (2), but this cannot be logically correct as they are two different things (apples and pears etc). (1) is defining what a significant effect is, and (2) is an assumption around meeting carbon budgets. Further, even if the assumption at NNNPS 5.17 could help in defining thresholds for significance, the DMRB is only internal guidance published by the Applicant and is not a legally binding document, so it does not provide a legal definition of significance.

- Looking at the NNNPS 5.17 assumption, it was written in 2014: five years before the Net Zero target was legislated, seven years before the NZS, and nine years before the CBDP[27]. Paragraph 5.17 and the assumption that a road scheme in isolation will not affect the ability of the Government to meet its carbon reduction plan targets is simply no longer credible. The statutory plan required by the Climate Change Act is now the CBDP, and the NNNPS 5.17 is a completely outdated way of looking at things, and has not been updated against the CBDP.

- I have provided evidence in my WR that the delivery-secured policies to deliver the CBDP do not yet exist. The analysis of the CCC, Green Alliance, and Professor Marsden, all show large shortfalls in the necessary carbon reductions, and levels of policy security, and back this up. The second NZS legal challenge, based upon lack of risk assessment of the security of policy delivery of policies in the CBDP backs this up.

- The two assumptions: that no one project will have a material impact on meeting the carbon budgets, and that the carbon budgets are fully secured and will be met anyway, are used in conjunction with each other. They are both false as explained.

- The applicant is attempting to rely entirely upon the assumption at NNNPS 5.17 to reach a conclusion that the carbon emissions from the scheme are not significant.

- However, the SoS cannot depend upon the statement at NNNPS 5.17, written in a very different era, without knowledge of the current policy and legal framework, and its shortcomings with respect to security of policy delivery to conclude that the carbon emissions from the scheme are not significant. Further, the SoS cannot either rely on the further assumption that the carbon budgets will be magically delivered for the reasons given above.

46 The ExA requested later in the session at EV-032/00.52[28] that I respond to this paragraph from the applicant's comments on my Relevant Representation (RR) :

> *"There is no requirement in the CCA 2008, or in Government policy, for carbon emissions for all road transport to become net zero. A net increase in emissions from a particular policy or project is managed within the Government's overall strategy for meeting carbon budgets and the net zero target as part of 'an economy-wide transition'. As explained above, in March 2023, the Department for Energy Security and Net Zero published the Carbon Budget Delivery Plan which sets out how Government policy will enable the carbon budgets to be met. The plan utilises Energy and Emission Projections (EEP 2021-2040) which make assumptions for future economic growth that allow for investment in, and the build out of, new*

[27] I correct here a verbal error – I said eight years at the Hearing, it is in fact nine.

[28] EV-032, https://youtu.be/4Xf2Czege-A?t=52

infrastructure to come forward while still enabling the required trajectory toward net zero."

With respect to this paragraph:

- It is essentially repeating what I refer to as Assumption 1 above without taking any account of the many shortcomings of that assumption which I have laid out. The second sentence that a "net increase in emissions from a particular policy or project is managed within the Government's overall strategy for meeting carbon budgets" is clearly an aspiration: there is no evidence that such a state of affairs actually exists. Quite the contrary. The overall strategy for meeting the carbon budgets, namely the CBDP, has been shown by the Government's own advisors (the CCC) not to be delivering on many policy areas such that there are large shortfalls for policy to deliver the residual emission targets (which I laid out in my WR), especially for the surface transport sector.

- There can be no sense that this is actually being "managed" effectively when the CCC have shown the government's progress is hopelessly inadequate. This is backed up by the analysis from Green Alliance and Professor Marsden. Further, application to the Courts has been made for a further legal challenge to the CBDP for the very reason that there is inadequate (considered legally inadequate by the claimants) risk assessment of policy delivery.

- Then the third sentence expresses the same assumption that the CBDP sets out "how Government policy will enable the carbon budgets to be met". However, as laid out above there is absolutely no certainty or security that the carbon budgets will be met, or how Government policies enables that to occur. Quite the contrary, for the same reasons given in the previous paragraphs.

- I submit in response to the ExA that the applicant has not provided any rebuttal to my RR with the quoted paragraph. Rather the applicant has just re-expressed the central failing assumption of its position. In doing so, it has made even clearer how its approach to significance assessment is entirely dependent upon a false assumption. A false assumption that is not proven, and indeed is contested by the CCC, and others in the High Court.

47 I continued to discuss in verbal evidence a "sequentiality" relating to this issue. The sequentiality is that it is necessary first to establish that the UK carbon budgets and targets are secured before second being able to claim, as the applicant does, that a scheme, or this particular scheme, does not have significant impacts on climate and will not have a material impact on the Government being able to deliver the carbon budgets. It is not credible to do the second before the first, and further to attempt to do so opens up further legal issues under the Planning Act 2008, section 104 (as discussed below). The first step in this sequence cannot be considered to have been achieved until a point where the CCC is able to provide a progress report indicating a high degree of policy security, and the High Court has determined that the risk assessment of the policies in the CBDP have also been

achieved to a high degree of confidence and rigour. Both these are clearly far from being achieved at the moment based on all the evidence which I have provided.

48 The ExA also requested that I explain my WR comments on section 104 of the Planning Act, and I made my response in the context of the sequentiality issue as explained above. The point here is that at present the Government have not established that the NDC, UK carbon budgets and targets are secured. In fact, the Government's own CBDP makes it clear that policies do not exist yet to deliver the 2030 NDC or the 6th carbon budget – both have shortfalls. And these shortfalls, are before the issues of whether the known policies are actually secured or have actually been risk assessed properly. Therefore, the Secretary of State is in no position to work on the assumption (as he/she has done on previous DCO consents) that the NZS/CBDP and the carbon budgets and targets will be delivered. In other words, the first sequential step will not have been achieved at the point of decision by the Secretary of State for the M3J9 in around nine months time.

49 So the current position is that any additional emissions from the scheme may make the delivery of the 2030 NDC or the 6th carbon budget, even less achievable than they already are, as evidenced by the findings of the Government itself in the CBDP. It is at this point that section 104 potentially engages, and consequentially the SoS must consider whether approval of the scheme would lead to the UK being in breach of its international obligations (s104(4)); be in breach of any statutory duty (s104(5)); or be unlawful (s104(6)). I laid out in my WR, section 10 reasons why each of these sub-sections of section 104 may likely be breached by the scheme, especially given that the CBDP policies are currently not secured and not risk assessed properly.

50 It should be noted that this state of play is not likely to change over the period of the next nine months before the SoS may be in the decision-making process. Given the very poor assessment in the CCC Progress Report, and lack of progress in recent years, it is going to be years before the first sequential step of being able to establish that the UK carbon budgets and targets are secured can be achieved.

51 I noted that the High Court may need to consider this issue (section 104) in the future. And emphasised that the Secretary of State must very clearly consider whether approval of the scheme would be in breach of its international obligations (s104(4)); be in breach of any statutory duty (s104(5)); or be unlawful (s104(6)).

5.4 WCC's significance statement

52 Ms Wyse of WCC [EV030/45.56] stated that WCC consider that the GHGs from the M3J9 to be significant. I note that WCC also state this at 5.2.11of their LIR [REP3-083] stating:

> *"WCC therefore considers the increase in emissions arising from both the construction and operation of the scheme to be significant. The council requests the applicant reappraises its conclusion that the increase in GHG emissions is not significant and therefore puts in place the appropriate mitigation, offsetting and monitoring measures required."*

53 I pointed out verbally that in terms of the IEMA significance thresholds, this means that WCC consider the GHGs to be at minimum "moderate adverse". My submissions above make clear that the applicant is not even in the position to make a determination of "not significant" because to do so would rely upon the first sequential step of knowing that secured policies to deliver the CBDP and the carbon budgets existed. I, therefore, support WCC's call that the applicant should reappraise "*its conclusion that the increase in GHG emissions is not significant".*

54 I differ from WCC in that I do not agree that a significance assessment of "moderate adverse" or "major adverse" can be transmuted to "minor adverse" (and not significant) by "*mitigation, offsetting and monitoring measures".* There are two reasons why I disagree. First, for the reasons above, a realistic significance assessment cannot be made in the current situation in which the first sequential step has not been achieved of having secured policies to deliver the CBDP and carbon budgets. Second, in my WR, I analysed the shortfalls in delivering the CBDP residual emissions trajectories for the industry and domestic transport sectors against the construction and operation emissions from the scheme respectively. I concluded that given the very large shortfalls identified by the CCC that the emissions from the scheme were "major adverse". No amount of mitigation or offsetting is going to bring this assessment down to the level of "minor adverse".

55 I also made the point at the ISH3 that the discourse on mitigation only related to construction emissions, and the applicant appears to have provided no mitigation proposals for operation emissions.

5.5 WCC local carbon budgets

56 Ms Wyse also mentioned the Tyndall carbon budget for Winchester CC[29]. This advises that the Council "*stay within a maximum cumulative carbon dioxide emissions budget of 5.2 million tonnes (MtCO2) for the period of 2020 to 2100. At 2017 CO2 emission levels, Winchester would use this entire budget within 6 years from 2020*". NB: 3 years away and before the M3J9 scheme would even open.

57 The Tyndall centre provide[30] "*climate change targets for Winchester that are derived from the commitments enshrined in the Paris Agreement, informed by the latest science on climate change and defined in terms of science based carbon setting.*"

58 On this point, I referred [EV-032/48:41] to my responses to the ExQ1 [REP2-063] which explained why local and regional budgets provide not just helpful, but also essential, contextualisation in addition to the national carbon budget comparison. I noted, despite this, that the applicant refuses to engage constructively on the matter of local carbon

[29] "Setting Climate Commitments for Winchester", "Quantifying the implications of the United Nations Paris Agreement for Winchester", The Tyndall Centre of the University of Manchester, online, 17th August 2023 at: https://carbonbudget.manchester.ac.uk/reports/E07000094/

[30] "Setting Climate Commitments for Winchester", "Quantifying the implications of the United Nations Paris Agreement for Winchester", The Tyndall Centre of the University of Manchester, online, 17th August 2023 at: https://carbonbudget.manchester.ac.uk/reports/E07000094/

budgets. This was demonstrated by the applicant's dismissal at the ISH3 of the Winchester Carbon Neutrality Action Plan as not being relevant.

59 It would be very valuable for the carbon emissions from the scheme to be assessed in the context of the Tyndall Centre budgets, both for Winchester City Council and for Hampshire[31] as a whole. This would provide further context on the issue of the impact of the scheme on the UK's international obligations under Planning Act 2008 s104(4) as the Tyndall Centre budgets effectively provide a scientific breakdown into local carbon budgets of the global carbon budgets required by the commitments enshrined in the Paris Agreement.

6 ISH3 / ITEM 3 (ii) / CLIMATE CHANGE AND GHG EMISSIONS/ CLIMATE CHANGE PROPOSED MITIGATION/ADAPTATION MEASURES

60 No further comment at this stage.

7 APPENDIX A: TSC REPORT: Strategic Road Investment" (Published 27 July 2023)

HC 904, Published on 27 July 2023 by authority of the House of Commons

<supplied in a separate file>

8 APPENDIX B: HCC dLTP4, April 2022

61 Hampshire County Council, Draft Local Transport Plan 4, Full document, April 2022

<supplied in a separate file>

9 APPENDIX C: Local Transport Plan Guidance Bulletin 2 – 12 August 2022

<supplied in a separate file>

[31] The Tyndall Centre budget website allows the budgets to be easily aggregated over any combination of district councils