Draft Airports National Policy Statement - new runway capacity and infrastructure at airports in the South East of England

Consultation Response from Campaign for Better Transport

May 2017

Campaign for Better Transport is a leading charity and environmental campaign group that promotes sustainable transport policies. Our vision is a country where communities have affordable transport that improves quality of life and protects the environment.

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Response conclusions: 87.5per cent of the proposed Heathrow North West Runway carbon impacts are emissions from flights generated by its additional capacity. The proposed Aviation National Policy Statement, to be reviewed by Parliament later this year, has to be determined within a legal framework set by the 2008 Planning Act, which particularly requires that it should 'take account of Government policy relating to the mitigation of … climate change'. Because the draft NPS does not adequately meet that requirement, for the following reasons:

- It does **not provide within the DNPS text a quantified assessment prepared directly by the government of the HNWR carbon impacts**, comprehensively defined, - which the government therefore has to stand behind - so as to allow Parliament to understand their future scale and implications.

- There is in place **no government aviation carbon policy framework** within which such emissions forecasts can be first assessed and then managed and if necessary constrained.

- Neither is there in place - as part of such a government aviation carbon framework - any **commitment to mitigate both the increased Heathrow and also total UK emissions** to a level consistent with the UK's climate mitigation framework (the 2008 Climate Change Act) and its adopted carbon budgets; nor, it is believed, is there an intention to provide and implement any such framework.

- Nor is there in place an **overall government aviation policy framework** which would allow an assessment of the consequences of the HNWR proposal for other UK airports and air passengers in general, whilst proposals to produce a new aviation strategy at a date later in 2017 have been deliberately sequenced so as to prevent parallel consideration of both in Parliament.

- The information that should have been provided within the DNPS in order to allow consultees and Parliamentary decision-makers to reach an informed judgement about the NPS itself, the HNWR proposal being promoted by the government, and its consequences has been **inaccessible, ambiguous and misleading**.

… it therefore **cannot be approved** its current form. The deliberate decision of the Department for Transport not to enact or adopt key components of a policy framework governing aviation carbon emissions means that, in practice, there exists no upper limits to which aviation emissions - either from Heathrow (with or without a third runway), or for UK aviation as a whole - could be restricted within the NPS.

To correct these deficiencies will require:

- the government itself to provide a quantified forecast of those carbon impacts (rather than relying on forecasts prepared by the Airports Commission);

- A government aviation carbon policy framework to be in place (in order to ensure that the UK's overall climate mitigation framework is not destabilised, and other economic and social sectors disadvantaged by an accelerated exhaustion of the UK's cumulative carbon budget to 2050, caused by increasing, rather than decreasing, aviation emissions);

- A government overall aviation strategy also to be in place (in order to ensure that a Heathrow capacity decision does not have consequences which disadvantage other airports, or air passengers in general).

Since such deficiencies cannot however be corrected within the immediate period, any attempt to act on an NPS approved by Parliament which had nonetheless ignored these issues might be susceptible to legal challenge.

1. This is a submission by Campaign for Better Transport solely concerning the aviation[1] carbon impact issues relating to the Heathrow North West Runway (HNWR) proposal. It does not cover the carbon emissions associated with surface access proposals, which is a separate and detailed assessment. It is a companion document to a separate consultation response concerning the fairness of the consultation process which has been submitted to the independent consultation adviser Sir Jeremy Sullivan.[2]

2. The structure of this submission is as follows:

A) Requirements for NPS frameworks
B) The government case on carbon impacts as set out in the draft NPS
C) Review of Airports Commission analysis on carbon impacts
D) Three questions for the draft NPS assessment
   - What is the policy framework for HNWR and UK's aviation carbon impacts?
   - What are HNWR and UK's forecast aviation carbon impacts?
   - What are the government's commitments to provide mitigation for these carbon impacts, and will they be implemented?
E) Conclusions and Recommendations
Appendix: NPS consultation questions relating to carbon impacts

A) Requirements for NPS frameworks

3. The requirements that the draft Airports National Policy Statement (DNPS) should meet in order to make it legally valid for planning purposes need to be identified, and complied with in the Draft. The DNPS is brought forward under the provisions of Part 2 of the Planning Act 2008. Section 10 of the Act places a specific duty on the Secretary of State, when preparing an NPS, to do so with the objective of contributing to the achievement of sustainable development and (in particular) to have regard to the desirability of mitigating and adapting to climate change. Then Sections 5-8 of the Act set out its requirements in relation to the 'specified description of development', and these include 'S5) The policy set out in a national policy statement may in particular … (c) set out the relative weight to be given to specified criteria', and then Ss7-8 7) 'A national policy statement must give reasons for the policy set out in the statement. 8) The reasons must (in particular) include an explanation of how the policy set out in the statement takes account of Government policy relating to the mitigation of, and adaptation to, climate change.' The Planning Act therefore requires that the DNPS be specifically clear about and responsive to the various HNWR carbon impacts.

4. In connection with a response relating to carbon impacts, the following paragraphs of DNPS relate to its approach to assessment and have been reviewed: Purpose and scope of the Airports NPS paragraphs 1.11, 1.12, 1.15 and 1.16 Appraisal of sustainability 1.23-25 Relationship between NPS and Aviation Policy Framework 1.34 General principles of assessment 4.4-4.5 and 4.9-10 Environmental impact assessment 4.13-15 Climate change adaptation 4.37-38 chapter 5 Specific impacts and requirements - carbon emissions 5.68-82.

5. As a starting position - in relation to the DNPS' General principles of assessment, which require that both the potential benefits of the proposed development, and also 'its potential adverse impacts (including any longer term and cumulative adverse impacts) as well as any measures to avoid, reduce or compensate for any adverse impacts.' DNPS 4.4; and also sections 5c) and 8 of the Planning Act - **CBT believes that the potential for the additional capacity of HNWR to generate additional climate change emissions is one of, if not the most important 'potential adverse impacts' against which the DNPS should be assessed**; that therefore its explanation around government policy on aviation carbon needs to be clear and substantiated; and the weight to be attached to that policy should be substantial. In 2013 Heathrow

[1] That is, throughout this document, airside CO2 emissions generated by domestic and international flights.

[2] www.gov.uk/government/people/jeremy-sullivan

emissions represented 57per cent of total UK aviation carbon impacts from flights. Permitting and implementing HNWR would see these Heathrow-only emissions rising from 18.8MtCO2 in that year to a high spot approaching 25MtCO2 in 2035.[3] The Airports Commission chair Sir Howard Davies has stated that: "By 2040 the Commission estimated aviation would comprise around 24per cent of national emissions."[4]

6. In connection with such assessment responsibilities, and also reflecting the major debate over airport/ aviation policy from the 2003 Air Transport White Paper onwards, CBT has identified the following tests to be applied to the DNPS to assess whether it is fit for purpose under the Planning Act, and for both stakeholders and decision-makers:

Does it provide clarity about -

Test 1 the relative importance of the climate change 'issue' (both globally and nationally), and the significance of UK aviation carbon and then Heathrow capacity expansion to the UK carbon framework established by the Climate Change Act (CCA) 2008?

Test 2 the policy and legal framework within which aviation carbon impacts need to be located?

Test 3 the quantification of aviation carbon impact, both for HNWR and the UK as a whole? Also is the information and analysis relating to HNWR carbon impact assessments accessible, properly referenced and trustworthy?

Test 4 any required mitigation to or constraint of aviation carbon impacts, and whether this is expressed as necessary conditioning that will be imposed on the development in order to secure approval, or alternatively an activated government aviation carbon policy framework?

7. The Airports Commission assessed carbon impacts in relation to both carbon-capped and carbon-traded scenarios. CBT supports only a carbon-capped approach to managing the carbon impacts of additional runway capacity for two reasons: because this secures fundamentally important alignment with the 2008 Climate Change Act (whereas carbon-traded does not); and because carbon-traded relies upon the use of offsetting mechanisms, which have been substantially discredited.[5]

8. A further point relating to the principles of the DNPS process concern how the consultation responses received from stakeholders will be reviewed for the purposes of potentially amending the Draft.[6] The extent of the information about this aspect of the process provided in the consultation document appears to be: "Once the consultation has closed, the Government will consider all responses received.' NPS consultation document (NPSCD) table after 11.4 and there is no provision for any independent review of consultation

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[3] DfT UK aviation forecasts of January 2013 Annex G.2; and Airports Commission *Business Case and Sustainability Assessment* (BCSA) figure 16.2. After 2035 forecast emissions drop back due to "a predicted reduction in carbon per ATM across the assessment period due to a combination of aircraft fleet changes and alternative fuels."

[4] EAC 2015 report para.9 "Sir Howard told us that, without mitigation, the construction of a third runway would increase the projected carbon dioxide (CO2) emissions of UK aviation by a little under 10per cent. He observed that, at present, aviation comprised around 6per cent of emissions, but that over time the proportion would increase because of specific challenges involved in converting jet engines to low carbon fuels. By 2040 the Commission estimated aviation would comprise around 24per cent of national emissions."

[5] See WWF *Grounded: Ten reasons why international offsetting won't solve Heathrow's climate change problem* May 2017; and also www.transportenvironment.org/press/aviation-offsetting-deal-weak-start-per centE2per cent80per cent93-now-countries-must-go-further October 2016 and www.transportenvironment.org/press/eu-publishes-damning-report-emissions-offsets-calling-question-euper centE2per cent80per cent99s-aviation-climate-strategy April 2017, citing https://ec.europa.eu/clima/sites/clima/files/ets/docs/clean_dev_mechanism_en.pdf

[6] In order to give effect to section 7/6 of the Planning Act: '(6) The Secretary of State must have regard to the responses to the consultation and publicity in deciding whether to proceed with the proposal.'

responses. Furthermore, the remit of the independent adviser for the consultation process appointed by the government, Sir Jeremy Sullivan, explicitly precludes his consideration of 'any issue relating to government policy on airport expansion'. CBT is not satisfied with the situation where the absence of any independent element in the scrutiny of responses means that the DfT will be both 'judge and jury' in the revision of on its own promoted proposal prior to submission to Parliament .

To summarise: The 2008 Planning Act and DNPS's own assessment principles prescribe a particular requirement for the National Policy Statement to mitigate HNWR's carbon impacts. The process examining the draft NPS must therefore test whether those impacts have been validly quantified; whether they are compatible with the Climate Change Act framework; and whether an aviation carbon policy framework to impose mitigating actions exists or is proposed.

B) Government case on carbon impacts as set out in the draft NPS

9. The Draft NPS sets out its treatment of carbon impacts in two locations, with these significant statements:

paras 3.58-66: After referencing both the carbon-traded and carbon-capped analyses undertaken by the Airports Commission (the latter incorporating the CCC's 37.5MtCO2 planning assumption) DPNS then states: "The Airports Commission then assessed whether the needs case could be met under each of these scenarios … [It] concluded that any one of the three shortlisted schemes could be delivered within the UK's climate change obligations, 94 as well as showing that a mix of policy measures and technologies could be employed to meet the Committee of Climate Change's planning assumption.95" 3.62-63

It also states that "Of the three shortlisted schemes, the Heathrow Northwest Runway scheme produces the highest carbon emissions in absolute terms. However, this is in part due to the greater additional connectivity provided by the scheme …" with "emissions from air travel, specifically international flights, [being] by far the largest of these [four categories of carbon] impacts." 3.64, 3.59

This section concludes: "The Government has considered the Airports Commission's conclusions, and agrees both that expansion via a Northwest Runway at Heathrow Airport (as its preferred scheme) can be delivered within the UK's carbon obligations, and that the scheme is the right choice on economic and strategic grounds regardless of the future regime to deal with emissions from international aviation."96

paras 5.68-82: Having referenced in a single sentence the DfT's policy preference for managing aviation's carbon impacts within a global framework – "The Government's key objective on aviation emissions, as outlined in the Aviation Policy Framework [para.12], is to ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions." - this section then devotes much more space - the next four paragraphs - to outlining the requirements for managing those impacts within the national framework set by the Climate Change Act paras.5.71-74 . The subsequent paragraphs on the 'Applicant's assessment' and 'Mitigation' 5.75-80 do not include any explicit reference to actions required to mitigate 'emissions from air travel, specifically international flights'. Instead they list possible mitigation measures applicable to the other three impact categories: airport operations, surface access, and construction. 3.59

10. The separate NPS consultation document (NPSCD) repeats at 4.84-56 paragraphs paras 3.58-66 from DNPS verbatim, and then in a second section (6.33-39) restates the position that "The Government has considered the Airports Commission's conclusions, and agrees that the Heathrow Northwest Runway scheme can be delivered within the UK's carbon obligations, and represents the best choice regardless of future policy to address emissions from international aviation" 6.37. Once again aviation flight emissions are excluded from 'the ambitious measures Heathrow Airport will need to take to limit carbon emissions from its scheme' 6.38-39. In its foreword the Secretary of State remarks: "Climate change is one of the most serious

risks to our economic and national security, and we are committed to our climate change obligations. I am confident that the Heathrow Northwest Runway scheme can be delivered within these limits."

Comments

11. The language and approach that the government is taking in DNPS/NPSCD to its treatment of aviation's carbon impacts is immediately visible in these quoted statement, so we need to describe what that is. It can be characterised as follows: rather than stating directly that 'the government case in support of the NPS proposed development is X, Y and Z', with the provision of appropriate substantiating analysis and evidence, instead it is sayng 'we have reviewed the assessment of the proposal prepared by another body [in this case the Airports Commission] which we are claiming concluded in support of X, Y and Z'. The particular 'X, Y and Z' CBT is concerned about is the proposition that 'expansion via a Northwest Runway at Heathrow Airport can be delivered within the UK's carbon obligations'.

12. This approach has a number of consequences for the robustness, even the validity, of the DNPS, and the transparency of the analysis/evidence base upon which it is founded, that can be illustrated in relation to two central assertions of the Draft NPS document:

A - "The Airports Commission concluded that any one of the three shortlisted schemes **could** be delivered within the UK's climate change obligations [94], as well as showing that a mix of policy measures and technologies **could** be employed to meet the Committee of Climate Change's planning assumption. [95]"
footnotes [94] Airports Commission: Final Report, pp203-205
[95] www.gov.uk/government/publications/airports-commission-final-report-economy-impacts Airports Commission: Economy: Carbon Policy Sensitivity Test. This does not imply any Government position on future carbon policy (DNPS para.3.63 our emphasis)

B - "The Government has considered the Airports Commission's conclusions, and **agrees** both that expansion via a Northwest Runway at Heathrow Airport (as its preferred scheme) **can** be delivered within the UK's carbon obligations, and that the scheme is the right choice on economic and strategic grounds regardless of the future regime to deal with emissions from international aviation.[96] footnote [96] Further Review and Sensitivities Report, p47 DNPS para.3.66 our emphasis)

i) It means that the DNPS itself **does not contain an assessment and associated analyses in support of its proposal made directly by the government** - which is therefore required to stand behind those assessments etc - but rather is relying on what it is claiming to be the findings of a separate assessment, to which reference is made usually in footnotes.

ii) The reliance on this separate assessment (the Airport Commission's) means that the DPNS does not contain - nor do DNPS consultees have presented directly to them - any **quantified** and current (2017) assessment prepared by the government of any aspect of what is a complex carbon impacts analysis. It has to be axiomatic that a government claim that '[airport] expansion via a Northwest Runway at Heathrow Airport … can be delivered within the UK's carbon obligations' must be capable of quantifiable demonstration, and yet the DNPS does not contain that quantifiable demonstration in the form of forecast emission tonnages, data tables or figures. Instead the approach is to imply that another assessment has done so although the DNPS does not reference specific AC quantification to support that implication. **The fact that the government has not quantified its own case directly within DNPS must be a critical failure.**

iii) Are the footnote references to the Airports Commission findings sufficiently comprehensive, precise and accurate such that the evidential chain back to the AC being implied can be proven to be actually there? For example:

- footnote 95 refers to an entire AC report, but which bit is relevant? Consequently the onus is placed on consultees, and NPS decision-makers/Parliament to work their way back through the evidence base to which a general reference has been made in order to reassess its validity for the purposes of DNPS. Furthermore, if a consultee takes issue with a particular aspect of the separate analysis (made by the Airports Commission) what is the validity of that criticism rather than that of a direct statement made within DNPS?

- DNPS's principal positive statement on carbon impacts (quotation B) above) appears to be referenced in footnote 96 to Further Review and Sensitivities Report, p47, and yet the section on that report page that appears to be relevant to this point ('The impact of alternative carbon policy scenarios', paragraphs 8.11-13) contains no such statement by the Airports Commission about deliverability within carbon obligations. It is obviously important that such references to the claimed findings of the Airports Commission are definitive in order that they can be checked by consultees and decision makers alike, for example, to establish whether those findings are contextually limited, qualified or conditioned in any way.

iv) The qualification contained in footnote 95 ('This does not imply any government position on future carbon policy') illustrates the difficulty in which consultees have been placed when trying to assess the validity of the government claim that HNWR 'can be delivered within the UK's carbon obligations', and prompts a series of further questions:

- Is the interpretation and implication of those 11 words sufficiently clear for their bearing on DNPS to be judged?
- Should 'future aviation carbon policy' have been determined before the Draft NPS in order to provide a proper policy framework context within which the NPS needs to be located, in order that its compliance with that framework can be demonstrated as a necessary conditionality for NPS approval - rather than after either the DNPS consultation process, or even NPS approval?
- What are the consequences of the government aviation policy process, including HNWR/DNPS, being sequenced in this order, and has it been so sequenced deliberately in order to prevent the DNPS being scrutinised against the future aviation strategy, and an accompanying carbon policy framework, if any?

These are not questions expressed in the abstract, because the Environmental Audit Committee in their inquiries leading to their 2015 and 2017 reports around the Airports Commission's findings repeatedly put the government on notice about the need to ensure that the aviation carbon policy framework was in order and active before HNWR authorisation was considered.[7]

v) Particular attention has to be paid to the language in which the DNPS is couched. What do the above two quotations mean for the purposes of providing formal certainty in relation to a planning application, conditioning and authorisation?

Quotation A) What meaning and interpretation should be attached to the word 'could'? Does it just mean 'might', which is only a statement about a potential scenario? It cannot mean 'will', which would more clearly establish a commitment that the government directly would have to implement. What does the distance created by this formulation between a direct government commitment on the one hand, and an agreement with a proposition that it is claimed another organisation made on the other, mean for issues including carbon mitigation that require conditioning by the NPS? Finally, how should consultees respond to the ambiguity in the government position consequently created, and should they conclude that this ambiguity has been introduced for a purpose?

Quotation B) - 'Agrees' with what, because no reference is provided to an Airports Commission finding, but

[7] Environmental Audit Committee reports on *the Airports Commission report: carbon emissions, air quality and noise* November 2015 and February 2017

the implication is that the Commission has indeed stated this. Is that the case? The statement that HNWR 'can' be delivered within the UK's carbon obligations is not the same as a commitment made directly by the government, supported by conditioning, that it 'will' be.

13. We have already seen that the approach and language of DNPS contains a great deal of ambiguity and uncertainty, with the possibility that this has been introduced deliberately. The rest of this CBT submission analyses analyses this situation in greater detail.

To summarise: The approach taken by the government in the draft NPS not to set out its own assessment, analysis and quantification directly, but instead to make general and ambiguous references to the assessment of another body has placed consultees in an uncertain and disadvantaged position, but must also undermine the validity of the DNPS as a properly formulated planning document - for the applicant, the government as consenting authority; and for Parliament in terms of its task of scrutinising and approving the DNPS. Its principal claim that "expansion via a Northwest Runway at Heathrow Airport … **can** be delivered within the UK's carbon obligations" relies upon semantic ambiguity: 'can' is not the same as 'will'.

C) Review of Airports Commission analysis of carbon impacts

14. The consequence of the government seeking to rely on what it claims are the findings on carbon impacts of the Airports Commission (AC) is that this requires consultees to re-examine the full extent of the Commission's analysis of that subject, whilst also considering whether the fact that the relationship now being established between the NPS and the AC findings is an indirect one has some bearing on the latter's formal planning status. The question of whether the Airports Commission's findings were consistent with meeting carbon obligations was the subject of debate at the time of their publication in July 2015.[8]

15. The Airport Commission's (AC) carbon analysis was very extensive, and from it CBT will summarise the following points:

i) The Commission accepted that its carbon analysis and findings had to be compatible with the 2008 Climate Change Act (CCA) and the Committee on Climate Change's (CCC) subsequent development of an aviation carbon framework and inserted within the UK carbon budgets submitted to and approved by parliament.[9] The implication of the government now relying on the Commission's findings ought to be that it too accepts that same framework related to the CCA and CCC, and we have noted that it was indeed set out at length in DNPS paragraphs 5.71-74.
ii) The Commission undertook both carbon-capped and carbon-traded analyses[10], with the former accepting the CCC's planning assumption of 37.5MtCO2. [11] Its modelling of the government's preferred North West

[8] See for example *Is the Airports Commission Report compliant with a Committee on Climate Change emissions framework?* Anthony Rae Foundation www.anthonyrae.com/wp-content/uploads/2011/12/ ARF-DaviesCCCcompliance.pdf

[9] Airports Commission *Final report* "As well as reviewing the performance of the UK airports system, the Commission has incorporated the Committee on Climate Change's (CCC) advice on climate change emissions from aviation at the centre of its analysis of the need for new capacity." *para.2.60*; and "The CCC, which was established by the Climate Change Act 2008, has a responsibility to set and monitor carbon budgets. As part of its work, it has identified a planning assumption for aviation emissions which is consistent with the UK's overall targets, but which also recognises aviation's value to the economy and society and the particular challenges of decarbonising in the sector." *para.2.63* and Airports Commission *Business Case and Sustainability Assessment* "The carbon assessment uses a carbon-capped scenario, with the exception of the specific carbon-traded sensitivity, which implies that increases in carbon production due to the scheme would need to be offset by reductions elsewhere to allow the UK to meet the CCC's planning assumption of 37.5MtCO2 (a carbon-traded scenario would imply increases due to the scheme would need to be accommodated within an overall carbon funding mechanism)." *16.4*

[10] ibid "To understand the implications of the UK's climate change obligations for its analysis of the need and options for additional aviation capacity in the UK, the Commission has integrated the CCC's planning assumption into its approach to forecasting aviation demand. It has developed two sets of forecasts, one assuming that emission reductions will be made where they are most desirable or

Runway (HNWR) option, using both carbon scenarios, was presented in quantified detail and displayed visually in figures which demonstrated their carbon performance in relation to the 37.5 MtCO2 planning assumption. The Commission recognised that the consequence of not respecting that assumption tonnage would "require commensurate reductions elsewhere in the economy."[12]

iii) Whilst accepting that carbon emissions generated by additional flights were by far the largest component of an additional runways carbon impacts[13] AC also developed within its analysis an approach that the **emissions from this source would not count against a measurement of HNWR's total carbon impacts, and introduced modelling assumptions designed to test and generate that outcome**: 'in either a carbon-capped or carbon-traded situation, these emissions will not be additional at the national or global level.'[14] This is obviously a crucial modelling assumption which needs to be highlighted for the process of DNPS's consideration, in order first to test its validity and then to examine how the conclusions that have been drawn from it have then been deployed within DNPS.

For this reason: it's essential to understand that the AC statements about this topic – e.g that 'these emissions will not be additional at the national or global level' – were **simply describing modelling outputs generated by the technical scenario assumptions the AC had introduced specifically for the sole purpose of constraining these forecasts so that they did attain the 37.5MtCO2 planning assumption** by the 2050 year.[15] It will always be possible to introduce constraining assumptions into a model designed to ensure that its end output attains a preset target, and in order to demonstrate or test a scenario. Differing baskets of constraint assumptions or possible 'policy measures' can be tested in this way to establish their individual relative effectiveness and the total amount of constraint achieved. [16]

Consequently it is not at all legitimate for such AC textual statements about scenario outputs to now **be cited or construed by the government in the NPS process as being either findings of likely real-world carbon outcomes, or to suggest that a scenario basket of constraint assumptions somehow has an**

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efficient across the global economy, which is described as a carbon-traded scenario, and one with a firm aviation emissions cap in place of 37.5 MtCO2." *2.68*

[11] ibid "The CCC's planning assumption requires that gross CO2 emissions from UK aviation in 2050 should not exceed 37.5Mt, the level seen in 2005. On that basis, the economy-wide target of reducing emissions by 80per cent below 1990 levels could be achieved through other sectors reducing their emissions by around 85per cent on average. The CCC considers that a realistic but ambitious goal, at the upper end of what is currently expected to be deliverable." *2.64*

[12] AC *Strategic Fit Forecasts* para.6.130

[13] AC *Final report* "Air Transport Movements (ATMs) and ground movements are by far the largest sources of total emissions from aviation. The emission levels from this source in the carbon-traded case are higher from the Heathrow schemes than from a second runway at Gatwick, as Heathrow sees a larger proportion of long-haul flights, which have higher carbon impacts." *9.111*

[14] AC *Business Case and Sustainability Assessment* "The largest factor by far is the carbon associated with an increase in flights at Heathrow Airport. … However, in either a carbon-capped or carbon-traded situation, these emissions will not be additional at the national or global level." *16.6*

[15] *Topic-based schemes assessment draft AoS for Airports NPS A-9 Carbon* "The carbon-capped scenario was developed to explore the case for expansion under each of the schemes presented even in a future where aviation emissions were limited to the CCC's planning assumption. The UK's emissions from flights are therefore not presented as, by design, they meet the CCC's planning assumption of 37.5 MtCO2 in 2050 in both the no expansion baseline and the expansion scenario." *9.13.6*

[16] The measures tested are described in AC *Final report*: "Second, an indicative set of policies was identified that could enable aviation emissions for each short-listed scheme to be restricted to a level consistent with the planning assumption, which were then used as the basis for sensitivity testing. For the Gatwick option, the changes required are modest, an increase in the carbon price (to around £330 per tonne in 2050) and a level of biofuels usage below the CCC baseline are sufficient to constrain emissions to 37.5MtCO2. For the two Heathrow schemes, a more substantial package of measures would be needed, including for example the same carbon price and significantly higher biofuels usage, plus a range of operational efficiency improvements, all of which represent technologies or practices understood today but as yet to be implemented on a wide scale." *7.18*

actual existence as a framework of carbon policy measures that will implement these constraints, which in turn might be available to an NPS in order to act as recommendations for possible conditioning that would have to be applied before planning approval or government authorisation can be given. The AC statements are simply reporting outputs from a theoretical modelling scenario, and nothing more. As the DfT Director of Airport Capacity stated in an EAC evidence session: "… the carbon capped and carbon traded models were effectively **artificial modelled scenarios** run off a carbon price rather than actual policies." [17] The modelling of a 'scenario basket of constraint assumptions' would only have relevance for the purpose of DNPS if the basket of assumptions was the content of an actual policy framework. But **that is not the case** (see paragraph 41 onwards below).

For their part "The former Airports Commissioners told [EAC] they relied heavily on the work of the Committee on Climate Change when undertaking their work. **They denied that their modelled carbon prices and policies were policy recommendations** - feeling that the CCC were better placed to take on this role." our emphasis[18]

iv) However, the consequences of the above for subsequent stages of the Commission's modelling sequence and the approach they derived from it are highly significant: "… the increases in emissions from flights are not additional and are not monetised in the Commission's economic analysis of carbon impacts, which focuses on the Commission's objective to reduce carbon emissions from the construction and operation of the airport itself."[19] As a result of this approach or device the treatment of the vast majority of HNWR carbon impacts (87.5per cent[20]) were removed from the analysis, including from the Commission's appraisal framework for environmental impacts[21], and now from the DNPS Assessment of Sustainability.[22] **DNPS consultees needed to be aware of the significance of these quite technical and mostly inaccessible modelling interventions, but they will not be.**

What that would have led to is a much greater focus upon the effectiveness, validity and consequences, both of the individual measures inserted within constraint baskets and the baskets as a whole, in order to assess their likely future deliverability and then upon the same effectiveness, validity and consequences of a wider range of carbon restraint factors including 'demand management by price' which the DfT has never been prepared to explore, despite the fact that it is the increasing dominance of the low-cost business model and the secular downward trend in air fares which resulted that has produced the claimed capacity 'crunch' to which HNWR is the claimed solution. Since the amount and type of carbon constraint has significant consequences for the HNWR business case - as we can see argued by CCC in their letter to the DfT of 22nd November 2016 (see below paragraph 20) - it is obviously important that this apparently technical factor should be disclosed transparently.

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[17] Caroline Low, DfT Director of Airport Capacity, EAC evidence session 30th November 2016 Q56

[18] EAC 2015 report para.14

[19] AC *Final report* "All of the Commission's forecasts incorporate measures to ensure that carbon dioxide emitted by UK flights and ground movements does not lead to increased emissions overall either at international level (in the carbon-traded forecast) or within the UK economy (in the carbon-capped forecast). Therefore, the increases in emissions from flights are not additional and are not monetised in the Commission's economic analysis of carbon impacts, which focuses on the Commission's objective to reduce carbon emissions from the construction and operation of the airport itself." *9.112*

[20] AC BCSA table 16.1 total carbon impacts measured over the 60 year appraisal period.

[21] AC *Final report* "The *Appraisal Framework* incorporated a number of objectives relating to the environmental impacts of the shortlisted schemes, reflecting the significant importance the Commission attached to them. … [BP4] to minimise carbon emissions in airport construction and operation …" *para.9.2*

[22] The DNPS AoS carbon objective (14) is defined as 'To minimise carbon emissions in airport construction and operation'. Even though it notes that 'The [AC] assessment shows that ATMs are by far the biggest source of emissions' 6.11.6, that it discusses why CO2 emissions are included but non-CO2 emissions are not, and records in table 6-4 the quantity of emissions associated with 'Air travel at the expanded airport (not included in the monetised assessment)', the AoS provides no explanation or justification as to why it limited its own assessment just to emissions from airport construction and operation

v) **The Commission's final report does not contain any statement to the effect that 'expansion via a Northwest Runway at Heathrow Airport can be delivered within the UK's carbon obligations'**, and the list of its principal findings (Box on page 10 'A balanced approach to expansion'; and list on page 31) makes no reference to the issue of carbon impacts.[23] Nor is there is any reference in the 'Next Steps' section on page 33 to the need for the government to provide a policy or conditioning framework for carbon restraint - e.g. in order to be incorporated into an enabling NPS - as an essential prerequisite or conditioning for planning permission/project authorisation.[24] These omissions do not support the government assertion in DNPS that "The Airports Commission **concluded** that any one of the three shortlisted schemes could be delivered within the UK's climate change obligations …" our emphasis

vi) However the Commission's fundamental analysis does require that mitigating measures will be necessary to mitigate the carbon impact generated by additional runway capacity[25], and that these in turn would have to be the subject of government action[26], and that consequently aviation's carbon budget would 'shrink'.[27]

Airport Commission's quantified findings of Heathrow Northwest Runway carbon impacts

16. CBT maintains that the DNPS must contain within it a **quantified** assessment of the aviation carbon impacts associated with HNWR - of which additional flights are 87.5per cent[28] - if it is to be judged 'fit for purpose' and meeting the requirements of the 2008 Planning Act section 10. . This must be provided by the government directly, so that at any future date/situation it is the government and DfT that are held accountable for the validity of the emissions statements upon which NPS approval was given. So textual statements within DNPS, not supported by data/graphic figures etc which evidentially prove an assertion, cannot be sufficient. At present DNPS does not include such a quantified assessment.

17. To establish what these carbon impacts **might be** in quantitative terms requires a review principally of three technical Airports Commission reports: Economy: Carbon Policy Sensitivity Test (54 pages), Business Case and Sustainability Assessment – Heathrow Airport Northwest Runway (235 pages), and Strategic Fit: Forecasts (264 pages), together with appendix A9 'Carbon' of the Draft Assessment of Sustainability for Airports NPS (38 pages) - so nearly 600 pages in total. CBT believes it is **quite unreasonable to require DNPS consultees to have first to identify these specific reports, and then review their contents with the necessary technical understanding, in order to reach a conclusion about the validity of its headline statements** (such as DNPS 3.66), rather than for the government itself to provide a concise and

[23] The 'headline' conclusion of the AC Final report was different: "Based on a balanced and integrated consideration of these assessments, the Commission has unanimously concluded that the proposal for a new Northwest Runway at Heathrow Airport, in combination with a significant package of measures to address its environmental and community impacts, presents the strongest case." *p.19, r*epeated *p.30*

[24] And note that this section is entitled 'Respecting the needs of local community', so 'environmental impacts' as against community ones are ostensibly omitted. The *Final Report's* conclusions contained the same emphasis, with carbon impacts still omitted: "Accompanied by ambitious measures to address its local impacts, an expanded Heathrow can be a better neighbour for local communities than the airport is today, while delivering significantly enhanced connectivity and substantial long-term economic and strategic benefits for the UK as a whole." *page 34*

[25] Airports Commission *Economy: carbon policy sensitivity test* table 3.7 lists the measures they modelled.

[26] AC *Business case and sustainability assessment* "While expansion at Heathrow certainly concentrates emissions, **national policies** and international management schemes will be key to ensuring that this concentration is contained within levels consistent with limiting the impacts of climate change. *146 our emphasis*

[27] AC *Final report* "The relative case for expansion at Heathrow is strengthened as tighter constraints are put upon carbon emissions from aviation." *13.37* and "In the Commission's view, the more that aviation's 'carbon budget' shrinks, the more important it becomes for this budget to be used as efficiently as possible." *13.38* The implications of this textual language are an absolute reduction in the size of the aviation carbon budget, although that is not what the Airports Commission's modelling actually demonstrated.

[28] see footnote 17

substantiated quantified assessment relating to carbon impacts within the NPS and supporting documentation. Additionally there is a need to relate the analysis/data of the AC reports to the last publication produced by the government itself relating to aviation carbon impacts: the DfT's UK Aviation Forecasts of January 2013 (but note that these are now more than four years old).

18. In the three AC reports the following paragraphs/pages(pdf) and figures have been examined: **BCSA** chapter 16, including paragraphs 16.6-8, 16.16, 16.17 with the Commission's summarising assessment[29], and particularly figure 16.2; **ECPST** pages 33-34 and particularly figure 3.8; **SFF** paragraphs 6.129-131, related appendix 5[30] and particularly figure 6.8; alongside **DfT 2013** Annexes G.1-2. Our comments on these three AC analyses are as follows:

BCSA Figure 16.2 page 221: displays Heathrow-specific carbon emissions 2026-2050 (do minimum = no 3rd runway). Taken together with figure 16.1 (ATM numbers for the same period), this shows that **not** providing additional runway capacity will result in Heathrow-specific carbon impacts reducing in absolute terms as a result of increased carbon efficiency per ATM in a situation where the total number of ATMs is constrained by the absence of additional capacity.

ECPST Figure 3.8 page 34: displays UK (including Heathrow) carbon emissions 2010-50 with the modelling assumption constraining 2050 end year emissions to attain the CCC's 37.5MtCO2 planning assumption[31], via the application of a basket of abatement policy measures (as specified in table 3.7[32]) to both the Do Minimum (no HNWR) and HNWR options. This shows that carbon impacts exceed the CCC planning assumption in either scenario throughout the period to 2050, with emissions rising continuously until around 2035 when (presumably) the model run starts to apply the constraining planning assumption in order to reduce emissions to the prescribed 37.5 MtCO2 by 2050. Note however that the start date for the figure is 2010 and not either 2005 (i.e the commencement year of the CCC's planning assumption) or 1990 (i.e. the commencement year specified by the Climate Change Act).

SFF Figure 6.8 page 193: displays UK (including Heathrow) carbon emissions 2010-50 in both carbon-traded and carbon-capped versions, for the five scenarios tested by the AC including 'Assessment of Need'. This shows that, in the carbon-capped version, all five scenarios are constrained very close to the CCC 37.5 MtCO2 planning assumption throughout the period to 2050 by the application of varying carbon pricing as specified in appendix A5.2 page 259.[33] For the 'Assessment of Need' scenario this reaches £634 per tonne CO2 by 2050 (and at its highest £1361 for the 'Global Growth' scenario). This compares to £221 at year

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[29] "Given the large increase in carbon compared to baseline and the limited extent to which these can be minimised, the Commission has determined that the carbon impact of the scheme is **ADVERSE** with respect to the Commission's objective ***to minimise carbon emissions in airport construction and operation***. The only reason this is not **HIGHLY ADVERSE** are some of the system wide surface transport impacts, which show a comparative carbon "saving" of developing at Heathrow as opposed to airports with higher surface access carbon impacts."

[30] Figure A5.2: Heathrow Airport Northwest Runway option CO**2** price required to cap to 37.5Mt in 2050 And see para.3.16 "The carbon capped case assumes that carbon is capped to the 2005 level. It is implemented by raising the price of carbon until UK departing aircraft CO2 emissions fall to 37.5Mt in 2050."

[31] AC *Assessment of sustainability* "The analysis concludes that , in the carbon-capped policy scenario, even under the highest demand scenarios assessed by the Airports Commission, the UK could meet its carbon obligations under each of the expansion options. through a combination of mitigation measures, carbon prices and specific abatement measures." 6.11.20

[32] These were however mostly focused on increased penetration of biofuels use (together with an operational efficiency component), which must mean that there will be delivery risks associated with them.

[33] And as explained in *Strategic Fit* report "Figure 4.3 shows the effect of increasing carbon prices to achieve the carbon cap and demonstrates that the forecasts end within 0.1Mt of the 2050 target in all demand scenarios. In each demand scenario the 37.5MtCO2 target level is exceeded before the target is achieved in 2050." *para.4.17*

2050 in the Treasury Green Book appraisal guidance.[34] Furthermore for the planning assumption cap to be achieved 'in 2050' requires a steady escalation of the carbon price over the preceding decades: to £117 in 2025, £221 in 2030, £325 in 2035, and £428 in 2040. The 'policy measure' modelling assumption used to achieve this outcome is solely an increase in air fares (thus demonstrating the potential effectiveness of a demand management approach).[35]

For the carbon-traded version, despite carbon pricing also been applied, carbon impacts for all five scenarios remain above the CCC planning assumption including at the 2050 end year. For the 'Assessment of Need' scenario the 2050 output is 43.3MtCO2.

19. These three figures, and the analyses behind them, demonstrate the complexity of attempts to model the possible carbon impacts of HNWR, with all the attendant qualifications and conditionalities that rightly attach to such exercises. None of these however are included, referenced, or even mentioned within DNPS so the question has to be asked as to whether its highly generalised and summary treatment of the AC's analysis of carbon impacts (as in "expansion via a Northwest Runway at Heathrow Airport … can be delivered within the UK's carbon obligations" 3.66) is sufficient or adequate. The root cause of this problem lies in DfT's determination to rely on the AC's work - as a stratagem for DNPS process management - rather than incorporate its own consolidated and current carbon impacts analysis **within** DNPS. It is also a way of evading its responsibility to integrate the various policy frameworks for aviation strategy and UK carbon - so that carbon constraint is actively used to (if necessary) limit capacity expansion - which, as it happens, is the same stratagem the Department pursued in the development of the 2003 Air Transport White Paper.

20. Having reviewed in necessary detail - which the DNPS does **not** do - the basis of the AC's quantification for assessing HNWR carbon impacts, which is then deployed by the government in critical statements in DNPS, two important observations should be made:

i) Some four months before DNPS publication CCC questioned the use that was being made by DfT of the Airport Commission's modelling outputs.[36] It said: "The Committee is now concerned that there is scope for some misunderstanding of DfT's position based on the business case for a third runway at Heathrow published in October 2016. In particular, the business case concentrates on a central case which has emissions in 2050 that are about 15per cent higher than the planning assumption. A full business case is only presented for this central case. Using the government's publications it is not possible to assess whether the investment makes sense when emissions conform to the planning assumption."[37]

The letter continued with explicit clarity: "If actual aviation emissions (i.e. without international credits) are still anticipated to be at 2005 levels, the National Policy Statement should clarify how the business case supports the favoured option in this case." Alternatively "if emissions from aviation are now anticipated to be higher than 2005 levels (i.e … higher than assumed when the fifth carbon budget was passed)" the consequences for the UK carbon budget as a whole are spelt out: "all other sectors would have to prepare for correspondingly higher emissions reductions in 2050".[38]

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[34] AC *Strategic Fit Forecasts* figure A5:2 Assessment of Need case, compared to DBEIS spreadsheet table 3 carbon prices and sensitivities 2010-2100 for appraisal central case www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal

[35] ibid "In the carbon capped case, the target emissions level (37.5Mt CO2 in 2050 from departing flights) is assumed to be met solely by increasing fares and reducing demand until the carbon cap is met." 4.12

[36] www.theccc.org.uk/wp-content/uploads/2016/11/CCC-letter-to-Rt-Hon-Greg-Clark-on-UK-airport-expansion-November-2016.pdf

[37] Also cite the DfT business case reference

[38] This point was also incorporated into the airport commission's analysis: BCSA "The carbon assessment uses a carbon-capped scenario, with the exception of the specific carbon-traded sensitivity, which implies that increases in carbon production due to the scheme would need to be offset by reductions elsewhere to allow the UK to meet the CCC's planning assumption of 37.5MtCO2 …" 16.4 And see AC *Strategic Fit* "If these emissions were not accounted for as part of a liberal global carbon market (as envisaged in this

So CCC were requesting that Draft NPS should state whether, with carbon impacts necessarily constrained to 37.5 MtCO2 in 2050, HNWR still had a positive business case. This must, CBT believes, also imply that DNPS would specify how that constraint would be implemented (i.e by what policy measures), and include a government commitment to their implementation. **But DNPS does not do this**.

The derivation of CCC's 'about 15per cent higher than the planning assumption' figure is the difference between 43.3MtCO2 from the Assessment of Need scenario and 37.5 MtCO2. A similar and equally unresolved situation, but with different numbers, had already been created by the DfT 2013 Aviation Forecasts. These had identified Annex G.1 central case 2050 emissions - in a 'maximum use/ constrained' scenario, **which did not include an additional runway at Heathrow** - as 47.0MtCO2; that is to say 25per cent above the CCC planning assumption. These forecasts were produced just before the Aviation Policy Framework (in January 2013), but the latter document made no attempt (or even reference) to resolve the problem not just for the CCC's aviation carbon planning assumption, but consequently for the government's own adopted overall UK carbon budgets.

ii) For the HNWR business case to remain positive requires it to capable of absorbing an escalating carbon price up to a level almost 3 times the level of government assessment guidance. Alternatively constraint would be applied by a broader basket of measures.[39] What this would mean for overall UK aviation policy, and the relative balance between London system and regional airports, is considered below in paragraphs 35-44.

To summarise: Contrary to the claim represented in DNPS, the Airport Commission's final report does not contain any statement to the effect that 'expansion via a Northwest Runway at Heathrow Airport can be delivered within the UK's carbon obligations'. To construe – as DNPS does - the Commission's 'artificial modelled scenarios' as being in themselves findings of likely real-world carbon outcomes, or to imply that a scenario basket of constraint assumptions somehow has an actual existence as a policy framework that will implement these constraints, is invalid. DNPS must contain within it a quantified assessment of HNWR carbon impacts prepared directly by the government so that its compliance with the requirements of the Planning Act can be tested. An substantially escalating carbon price to achieve the constraint to the extent required by CCA appears to be necessary, but its consequences across UK aviation policy are not described.

D) Three questions for the draft NPS assessment

CBT has identified three questions that the DNPS process must scrutinise.

Q1 What is the policy framework for HNWR and UK's aviation carbon impacts?

21. In addition to the technical complexity involved in assessing and quantifying many aspects of aviation's carbon impacts (as testified by the above) the other significant characteristic of the position of the aviation carbon policy framework within its two other superior policy frameworks - the aviation policy framework, and

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forecasting approach) and needed to be accommodated within any UK specific target this would see aviation emissions account for a larger share of the total and require commensurate reductions elsewhere in the economy." *6.130*

[39] AC *Strategic Fit* "Analysis by the CCC and the DfT has demonstrated that this target could be achieved by mechanisms other than the carbon price. In addition to the effect of controlling UK airport capacity, this analysis assessed the effectiveness and costs and benefits of levers such as: mandatory CO2 standards for aircraft; further investment in fuel efficiency and the modernisation of the fleet beyond that in the base assumptions; changing operational practices (e.g. further air traffic management measures, or flying at different altitudes and velocities); encouraging a greater uptake of biofuels; and, limiting demand through effecting behavioural change in the public. *4.6* It's not clear what the AC meant by 'limiting demand through affecting behavioural change in the public'. Presumably that could include demand management by price.

the overall UK carbon framework set by the 2008 Climate Change Act - is that it has been left unresolved for the last decade. The absence of a clear and accessible policy framework has the consequence that all DNPS stakeholders (including consultees) and decision-makers/Parliament are confronted with uncertainty and ambiguity where instead there needs to be precision.

22. Although the CCA set an initial deadline of December 2012 for the formal determination of how aviation (and shipping) emissions should be treated within UK carbon budgets to be formally determined[40], in practice that decision has been persistently put back. At the 2012 due date the government announced its deferment, that continues to this day [41] , but at the same time confirmed no alteration to the way in which aviation emissions had been taken into account in carbon budgets 1-4, and that they 'should be treated the same as emissions from all other sectors, in order to reach our long-term climate goals."[42] Of course under CCA section 10.2(i) aviation emissions are required to be taken into account in setting future UK carbon budgets, but nonetheless **the effect of this deferment has been to create and leave in place an ambiguity that continues to potentially destabilise the entire CCA framework**.

23. Then shortly afterwards in March 2013 the DfT Aviation Policy Framework (still current in 2017) included a similar 'postponement of adoption'[43], this time to the 'national target' announced by the previous government in 2009 'to reduce emissions from UK aviation to below 2005 levels by 2050 (the 2050 aviation CO_2 target)'. This 2005-50 'target' is the derivation of CCC's 37.5MtCO_2 'planning assumption'. In January 2017 the government confirmed that it "has not taken a view on whether to accept the CCC's planning assumption".[44] This means that, **for the purposes of DNPS, the 37.5MtCO_2 planning assumption does not have a formal status when used as a 'national aviation target'** (as against its use by CCC as one of the formulas to construct the UK carbon budgets as a whole). Whilst CBT is amongst those believing 'that the Government should use all the mechanisms available and a national target would signal a strong commitment to tackling climate change'[45], the problem remains that there was no basis in science to select a 2005 baseline, which was then translated into an emissions threshold of some kind to which aviation emissions would need to return by 2050.

24. The consequence of these two deliberate deferments must be that, **for the purposes of now determining the approach of DNPS, there is no established policy framework set by government within which the approach of DNPS to aviation carbon impacts can be located**. That is to say specifically: no baseline year (although the 2050 end year is a given), and no target threshold which should not be exceeded. A second consequence therefore follows: that there is **no upper limit whatsoever set by a government policy framework to the level to which aviation emissions are able to increase throughout the period to 2050, or even at 2050**. The fact that this situation concerning the formal status of critical components of the aviation carbon policy framework has not been disclosed, and is not widely known, must be a key issue for the DNPS process to engage with.

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[40] Section 30/3 provides that 'The Secretary of State must, before expiry of the period ending with 31st December 2012 (a) make provision by regulations as to the circumstances in which, and the extent to which, emissions from international aviation or international shipping are to be regarded for the purposes of this Part as emissions from sources in the United Kingdom, or (b) lay before Parliament a report explaining why regulations making such provision have not been made.

[41] DECC *International aviation and shipping emissions and the UK's carbon budgets and 2050 target* December 2012: "Due to the degree of uncertainty over the future shape of international agreements affecting international aviation, in particular aviation's treatment within EU-ETS, we are deferring a firm decision on whether to include international aviation and shipping emissions within the net carbon account at this time." *Part 2 para.3*

[42] ibid paragraphs 6 and 8.

[43] DfT *Aviation Policy Framework* March 2013 *2.35 "*Therefore, before making a decision on whether the UK should retain a national emissions target for aviation, the Government believes that it is important to have greater certainty over the future scope of the EU ETS and await the outcome of the ICAO negotiations towards a global deal on aviation emissions."

[44] DfT Secretary of State to EAC chair 9th January 2017

[45] Ibid 2.34

25. (There is also an important secondary consequence to this deferment. Because the government has not exercised the provision under S30/6a of CCA to specify a baseline year for accounting purposes that is different from the rest of the Act, then it should be the case that the provisions of CCA section 1/1 will instead apply: 'It is the duty of the Secretary of State to ensure that the net UK carbon account for the year 2050 is at least 80per cent lower than the **1990** baseline.' But because the origins of this situation lie in deliberate decisions by government to not put securely in place a transparent and secure aviation carbon framework **before** DNPS comes to be considered, the regime for calculating increases or reductions to aviation carbon emissions which has consequently to be applied has to be that of the CCA itself: that is to say reductions against its 1990 base towards the 2050 target.)

26. Although the DfT might maintain that this situation is a consequence of a number of external factors (such as global disagreements over the jurisdiction and reach of the EU aviation ETS, and the protracted development of an ICAO framework) an alternative interpretation would be that those are convenient pretexts disguising a long-term policy unwillingness to apply a carbon restraint to the promotion of UK aviation growth, and reflecting also the clear DfT preference for responding to aviation's carbon impacts within an international framework rather than a national one - notwithstanding the apparent conflict that this creates with the CCA carbon budgets framework.

27. Grounds for believing this interpretation have become more visible in recent months; for example in the verbal evidence[46] given by the Secretary of State (and Caroline Low,
Director of Airport Capacity, DfT) on 30th November 2016 to the Environment Audit Committee inquiry into environmental aspects of the Airports Ccommission[47], which :

i) repeatedly misrepresented the formal legal status of aviation emissions within the 2008 Climate Change Act[48]

ii) refused to accept that there is a necessary linkage between the Heathrow runway decision (the subject of draft NPS) and a government decision to provide and implement an aviation carbon policy framework[49]

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[46] http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/environmental-audit-committee/the-airports-commission-reportcarbon-emissionsair-quality-and-noise/oral/44113.html

[47] Environmental Audit Committee reports on *the Airports Commission report: carbon emissions, air quality and noise* November 2015 and February 2017

[48] See Q49 "It is worth saying of course that international aviation is not within the current climate change legislation"; Q59 "…in the case of carbon emissions, there is no law of the land that requires us to meet any particular target"; Q60 "It is a matter of fact that international aviation is not in the legislation"; and Q86 "Of course the issue is that international aviation is not contained within the current legal limits for carbon emissions. It has always been expressly treated as an international matter. We could perfectly well say, 'Nothing to do with this. We will leave aviation to its own devices'. We don't do that." These misrepresentations were then corrected in the second paragraph of the Secretary of State's reply to the EAC chair of 9th January 2017. However note the continued inaccuracy of "the UK does not have a legally binding target for international aviation emissions *due to uncertainties around how to allocate these emissions to individual countries*." *our emphasis* The absence of a 'legally binding target' for the purposes of constraining aviation carbon is due to the failure of the government to activate S.30/3 of CCA 2008.

[49] Q65 **Chair:** But you are going to expand demand and capacity at one airport, and you are going to do that policy statement before you have put out a strategy on what we are going to do on aviation emissions. Doesn't that seem like putting the cart before the horse? ***Chris Grayling:*** No, because what we have done is we have taken proper independent advice on can we deliver the expansion of airport
capacity in the south-east and keep that within our emissions targets, given the factors that we have discussed this afternoon, and the answer was yes.

iii) seemed to indicate that aviation's carbon impact should be dealt with only at a future date[50], or around 2030[51], or even towards 2050[52], rather than in decisions made by the current government, or linked to the Heathrow runway decision through the DNPS.

iv) cherrypicked the CCC advice by repeatedly citing the close connection between the CCC and approach on carbon impacts,[53] but then in the next question response setting aside CCC's concerns about how the AC's carbon analysis was now being applied by DfT.[54] In one answer the role of CCC was actually misrepresented.[55]

v) continued his department's standard approach that demand management measures were not under consideration by DfT,[56] even whilst accepting that the ICAO agreement of October 2016 was purely voluntary.[57]

vi) confirmed that a new aviation strategy document (to replace 2013 Aviation Policy Framework) would only be provided after - rather than alongside - DNPS[58], and would probably be simply another discussion paper about marginal abatement measures[59]; and also hinting that the separate government carbon reduction plan might not include aviation emissions.[60] This approach was then confirmed in the Secretary of State's response letter of January 2017.[61]

28. The frustration evident in this committee session is understandable given that in their November 2015 report on the AC's work EAC had clearly recommended that there had to be an integration and alignment of the aviation and carbon policy frameworks before a decision on HNWR came to be taken: "We recommend that any Government decision on airport expansion should be accompanied by a package of measures to demonstrate a commitment to bringing emissions from international aviation within the economy-wide target set by the 2008 Act. They should also, as a minimum, commit to accepting the Committee on Climate Change's advice on aviation in relation to the fifth carbon budget, introducing an effective policy framework to bring aviation emissions to 2005 levels by 2050 no later than autumn 2016 and pressing for the strongest

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[50] Q50 "We have not taken a policy decision yet on whether we will go for a hard target or whether we will include offsetting. My point was that of the options available to us **for the future**, that is one of them." Q55 "…my belief is that we will **in due course take a policy decision** that will provide the right balance between the different tools and options available to us." *our emphasis*

[51] Q67

[52] Q57 "**If we find ourselves in the year 2050** where technology has not moved as fast as we expected, where other factors come into play, inevitably that will have an impact on the cost of flying." *our emphasis*

[53] Q53, and see Caroline Low Q49 "In summary, we stand by the work that the Commission did on carbon, which was accepted by the CCC."

[54] Qs50-51, and 69-70.

[55] Q53 "The Airports Commission conclusion has taken into account all the factors available to them and taken into account the Committee on Climate Change's modelling that we could deliver a third runway at Heathrow or a second runway at Gatwick within our overall carbon goals." This implies that CCC modelling supports Heathrow expansion within carbon goals, whereas of course they have undertaken no such work. It was AC that did this.

[56] question 75

[57] question 52

[58] questions 62-63 answer by Caroline Low

[59] questions 54, 72, 76

[60] question 71, answer by Caroline Low: "There is a phased carbon reduction strategy, which is due out early next year. As I understand it, that is not about aviation, because as we have been discussing, aviation is not included in those targets at the moment." This is understood to be a reference to the cross government Carbon Reduction Plan, still unpublished in May 2017.

[61] "… We have begun work on an Aviation Strategy to replace the 2013 Aviation Policy Framework and this will include a more detailed consideration of available policy measures to address the climate change impacts of aviation. We look forward to publishing a series of green papers this year as part of this process."

possible international measures at the International Civil Aviation Organisation next year."[62]

29. The positions set out in the EAC November 2016 evidence – that the government did not intend to produce its own carbon impacts analysis for Heathrow, but would instead rely entirely on that of AC (which it claimed is closely supported by CCC); with the sequencing of prospective government aviation frameworks being arranged so that there will be no revised aviation carbon framework available whilst DNPS is being considered; and that there is no need at the DNPS decision point (in 2017) for the government to have an active set of carbon management measures agreed and available to be implemented e.g as part of the NPS conditioning – did indeed characterise DNPS when it was published some four months later, and allow us to understand that they represent the settled view of the Secretary of State and the government.

30. The Aviation Environment Federation's written evidence to the same inquiry drew the same conclusions about the policy trajectory of DfT: "This [the DfT report Further review and sensitivities report: Airport capacity in the South East October 2016] makes clear that the Government is no longer even considering the carbon capped case (the only scenario consistent with delivering the CCC planning assumption) and is instead looking only at the carbon traded case (that assumes that no policy interventions are made to meet the Climate Change Act and only that aviation is included in a fully functioning global carbon market)."; whilst also commenting that "… this move away from the requirements of the Climate Change Act as set out by the CCC has been hidden as well as possible from public view and political discussion …"[63].

31. The recent EAC 2017 report was trenchant in its criticisms of the inconsistencies and lack of alignment within the DfT's position and frameworks. It:

- pointed to the pressures that unconstrained aviation emissions are and will be having on overall UK carbon budgets and other sectors para.63 whilst talking about a "a black hole in the 2050 carbon budget that other sectors, such as energy or industry, would have to fill." para.59

- highlighted the inadequacies in the headline statements now repeated in DNPS: "The Government claims that Heathrow expansion can be delivered within "the UK's climate change obligations". The Government has not set out what it means by "obligations", let alone how it will meet them. It has not decided whether to accept the Committee on Climate Change's recommendation on limiting emissions from international aviation." para.60 and

- set out a timetable explicitly linked to the DNPS process for such deficiencies to be rectified: "This [aviation] strategy should be available well before the end of the scrutiny period for the draft National Policy Statement and consultation on it should be completed before the National Policy Statement is finalised. para.63 and "The business case for Heathrow expansions must be assessed against a cost/benefit analysis which uses realistic carbon policy assumptions, in line with the Government's aviation strategy, and takes account of the resulting impacts on other airports and other sectors of the economy. These must be the headline figures in future Government publications, including the final National Policy Statement." para.59

32. There is one more inconsistency, indeed contradiction, in the aviation carbon framework to deal with, but this time as a result of CCC's own application of the '2005-50' national target, which originated in 2009 with

[62] EAC 2015 paragraph 30

[63] http://data.parliament.uk/WrittenEvidence/CommitteeEvidence.svc/EvidenceDocument/Environmentalper cent20Audit/Theper cent20Airportsper cent20Commissionper cent20ReportCarbonper cent20emissions,airper cent20qualityper cent20andper cent20noise/written/43804.html AEF quotes this from the DfT *Further Sensitivities* report: " 'The AC's carbon-traded assessment is consistent with cross-government guidance and is therefore viewed by the department as robust.' In contrast, in relation to the carbon capped scenario that assumes the planning assumption is in place, the report says: 'The carbon-capped scenario is helpful for understanding the varying effects of constraining aviation CO2 emissions on aviation demand and the impact on the case for airport expansion, but was described by the AC as "unrealistic in future policy terms"."

the Labour government and which CCC then translated into the planning assumption for building aviation emissions into UK carbon budgets[64]. When the AC, in preparing their carbon modelling scenarios, required that emissions return to the 37.5MtCO2 only in the 2050 end year and not before[65] - thus allowing aviation emissions to exceed the planning assumption throughout the period to 2050, without any upper limit - it was doing so with the advice of CCC. In setting this guidance CCC has created an internal contradiction within its own framework: whilst it is an essential characteristic of the CCC overall carbon budgets that any exceedance of their limits in one year counts to reduce the total remaining carbon budget (which is a fixed amount) for all future years, in the case of aviation carbon every year's emissions up to 2049 is permitted to exceed the 37.5MtCO2 planning assumption, without any upper limit, and thus cumulatively eat into the UK total carbon budget to 2050. So not only is the cumulative 'area under the graph' of the UK carbon budget left eroded, but also there are no internalised reduction incentives built into the aviation carbon framework.

To summarise: The DfT's deliberate decisions not to determine CCA S.30/3 prescribing how aviation emissions should be incorporated within UK carbon budgets, or to adopt the 2009 '2005-50 national aviation target', has now created the consequence that **there is in fact no formally established policy framework set by government within which the approach that DNPS should take towards aviation carbon impacts can be established.** Instead the Secretary of State has clearly signalled his intention not to provide such a framework, which could be utilised within the NPS to mitigate HNWR's carbon impacts.

Q2 What are HNWR and UK's forecast aviation carbon impacts?

33. These absolutely need to be quantified, but the truth is **we just don't know precisely what they are** - principally because the government has not gone through the exercise of presenting its own calculation of what they might be specifically for the purpose of this DNPS. None of the Airports Commission's figures we have cited above employ all the set of criteria that are required: carbon capped scenario; UK emissions including Heathrow; Do Minimum (no HNWR) v. HNWR; growth unconstrained v. constrained by 'carbon policy measures'. But one of them ECPST figure 3.8 does use the first three, but only in a version which applies a constraint assumptions (apparently after around 2035, bringing emissions back to the 37.5MtCO2 planning assumption by 2050). This is presented below but with one important modification: its baseline year is not 2010 (as per the original) but instead 1990, consistent with CCA S.1/1

[Please note: this figure will be submitted separately after 25th May]

Sources: AC Economy: Carbon Policy Sensitivity Test figure 3.8, as modified by CCC aviation emissions data 1990-2010 from www.theccc.org.uk/charts-data/ukemissions-by-sector/aviation/

34. The quantification provided by this graphic illustration is only an approximation but it is of positive use for the purposes of DNPS:

i) it utilises the modelling undertaken by the Airports Commission, supplemented by data from CCC, to quantify aviation emissions that rise from around 18MtCO2 in 1990 to a first peak of 37.5MtCO2 in 2005, then dropping back to a small extent as a result of the 2007-8 financial crash before resuming upward growth all the way to 41.5MtCO2 in 2037 (at which point the AC modelling 'carbon policy measures' assumption probably begins to apply its constraint).

ii) It records total UK aviation carbon impacts, both before and then with augmentation by HNWR, against the only carbon baseline formally recognised by statute: 1990. And it demonstrates that whereas CCA S. 1/1

[64] as required by CCA 2008 S.10/2(i)

[65] See e.g. strategic fit "The carbon price adjustment only aims at hitting the emissions target in 2050, as achieving the target earlier would require further transitions of the fleet and operational practices beyond those included in the baseline. It therefore follows that in all cases emissions can be expected to exceed 37.5MtCO2 at some point prior to 2050." para.*4.4*

stipulated –80per cent from 1990 baseline for the UK as a whole, the aviation emissions are forecast to increase by +122per cent without HNWR, and +130per cent with HNWR - even after the application of constraining carbon policy measures. Both scenarios exceed the 37.5MtCO2 planning assumption upon which the adopted UK carbon budgets have been constructed.

iii) Displaying the full emissions dataset from 1990, rather than the abbreviated set (from 2010) used by AC in figure 3.8, reveals the perverse operation of the '2005-50' mechanism when used in the form of a 'national aviation target' (as against its proper use by CCC for the purposes of incorporating aviation emissions within the larger UK carbon budgets framework). Aviation emissions are permitted to breach their specified 'carbon budget' limit (the 37.5MtCO2 planning assumption) for the entire period 2018-49 without consequence, or any financial/regulatory penalty, in a manner quite contrary to the operation of the overall UK carbon budget and even though that continuous exceedance is increasing the rate of reduction of the overall UK budget. Secondly the reduced emissions achieved during the approximately 8 year period from 2005-13 are allowed to rebound back upwards rather than being permanently locked in.

Test of 'real world versus theoretical emissions'/ consequences of carbon impacts for aspects of UK aviation

35. This submission has previously pointed out (para.15iii) that the DfT claim in DNPS that HNWR 'can be delivered within climate change obligations' is based on a theoretical construct: an AC model run which incorporates constraint assumptions specifically designed to achieve a CCC planning assumption compliant outcome. In such a situation it is therefore important that the DNPS review process additionally applies a real-world test, to balance this theoretical counterpart: what are actual UK aviation (plus HNWR) emissions forecast to be in say 2025, the likely date of opening?

36. A previous version of this test[66] calculated that - in the context where CCC 2009[67] had identified that there could be an ATM increase of 60per cent within their planning assumption - this '60per cent headroom' would already have been taken at the year of additional runway opening by emissions growth at all the other London system competitor airports, and strong regionals (such as Manchester, Birmingham, Edinburgh, Newcastle, Liverpool, Bristol), therefore leaving no headroom space available for a new London system third runway to occupy.

37. Now however we have noted that the design of that test cannot apply in a situation where i) the 37.5MtCO2 planning assumption threshold has no formal status within the government policy framework, and ii) it doesn't represent an upper limit to aviation emissions in any case: at 2025, and all the subsequent years between 2025-50. But at least DNPS can require that the government produces a **forecast for UK aviation emissions at the HNWR opening year, quantifying the situation with/without HNWR, and identifying what will be the consequences for ATMs and passenger MPPAs at all major London system and regional airports**.

38. Whilst the AC did consider what would be the positive opportunities and benefits that a London system additional runway might provide to regional airports (e.g in terms of maintaining regional connectivity into the London hub) what it didn't do was either to assess what the disbenefits to regional airports of (what is now) HNWR might be, and the consequences for them if there was some kind of a cap - such as an ATM or emissions totals cap - the application of which caused a rebalancing of percentage allocations in favour of a dominant Heathrow within the UK system.

39. But AC did prepare forecasts of ATM allocations across UK airports consequent to an additional London runway. In the case of HNWR by 2040 (when expanded Heathrow is again at full capacity and therefore constrained again) total UK ATMs have increased by 32per cent 2011-40, but Heathrow ATMs as a

[66] *Friends of the Earth analysis of Airports Commission interim report relating to climate change headroom* letter to CCC 5th May 2014

[67] CCC report

proportion of UK have risen from 24per cent to 28per cent. There are marked differences in the distribution of changed allocations between other individual airports: in the London system Stansted ATMs increased by 27per cent, but Gatwick ones are modelled to have reduced by 5per cent and Luton by 15per cent - compared to Heathrow +54per cent. Across the major regionals Manchester and Edinburgh have forecast strong growth at +36per cent and +52per cent, respectively but most of the others show weak or negative growth: Birmingham (+6per cent), Bristol (+7per cent) and Glasgow (-9per cent).

40. Whilst this range of distributions might be a quirk of the allocation model, what seems clear is that actual ATM performance between 2011-16 of both London system (except Heathrow) and major regional airports appears to confirm that both categories are already eating into the emissions 'headroom' that an expanded Heathrow would require to remain compliant with UK climate obligations. By 2016 (CAA actual) a number of these two categories of airports, had already attained or surpassed the 2030 ATM level forecast by AC: Gatwick +16per cent and Luton +46per cent, whilst London City (+0per cent) and Stansted (-3per cent) were level with it. Manchester in 2016 is already approaching its 2030 forecast (-8per cent), as is Edinburgh (-6per cent), whilst Birmingham(+16per cent), Glasgow (+25per cent) and Bristol (+5per cent) have surpassed theirs - 14 years in advance.[68]

41. An explanation as to why the AC is forecasting considerably lower 2030 ATM performance at these airports than they have already achieved might be a consequence of the constraint assumptions - and particularly higher carbon prices/airfares - that have been introduced into the AC modelling in order to generate a carbon compliant HNWR scenario. But we can't know this because those assumptions will have been buried deep within models prepared solely to test Heathrow capacity expansion, rather than scenarios that secure a balanced and fair ATM distribution across all UK airports. This is an issue which the DNPS process ought to be able to interrogate but cannot, not only because the AC modelling 'black boxes' do not permit this but also because the question of UK-wide ATM distribution - an issue for the promised DfT aviation strategy, but only later this year - has been disconnected from the NPS decision about Heathrow capacity. This is yet another important issue that has been carefully hidden from view by the DfT's management and sequencing of its various policy processes.

42. Similarly the implications of the impact of these scenario assumptions for considerably increased carbon prices and air fares (see paragraph 18 above[69]) on passenger welfare and numbers, route structures, various aspects of viability etc, have not been assessed or examined for appropriateness in any forum, ignoring a recommendation from the 2015 Environmental Audit Committee report.[70] Again this is a consequence of disconnecting the DNPS and DfT aviation strategy processes from each other. But another reason for the absence of this topic might be because the DfT are not anticipating that those theoretical pricing constraint assumptions will actually be applied in practice; in which case of course the carbon impacts of HNWR could not be maintained within climate obligations as suggested by DNPS. At the moment, DNPS is only arguing the opposite: that the failure to provide additional Heathrow capacity will result in

[68] AC strategic fit Table 6.40: Heathrow Airport Northwest Runway ATM forecasts (thousands), carbon capped (revised) Assessment of Need scenario - for 2011 and 2030 ATMs; 2016 ATMs in www.caa.co.uk/uploadedFiles/CAA/Content/Standard_Content/Data_and_analysis/Datasets/Airport_stats/Airport_data_2016_annual/Table_05_Air_Transport_Movements.pdf

[69] And see *Topic-based schemes assessment draft AoS for Airports NPS A-9 Carbon* "Under the carbon-capped scenario, the planning assumption was met by raising the carbon price to reduce demand to a level that was considered consistent with meeting the target. The AC modelling showed this was technically possible although under the high demand scenarios it would require a very high carbon price." *9.9.5*

[70] paragraph 17 "The Commission's indicative carbon prices and policies were not intended as recommendations. Nonetheless, they give an indication of the scale of intervention likely to be required to bring aviation emissions within 2005 levels by 2050. *Before making any decision on Heathrow expansion, the Government should publish an assessment of the likely impact on the aviation industry - particularly regional airports - and wider economy of measures to mitigate the likely level of additional emissions from Heathrow."*

higher fares, whilst its provision on the other hand will produce lower fares.[71]

43. A report commissioned by CBT Air traffic controls: the hidden costs of a new london runway[72] has attempted to calculate what might be the costs and consequences of this situation, such as:

"Even assuming the Airports Commission's optimistic assumptions about efficiency improvements and patterns of future demand are correct, the additional carbon pricing likely to be needed if a new runway is built in London would mean that a return flight to New York for a family of four, from any UK airport, would be over £270 more expensive."

"The impact of this pricing would be felt most sharply in airports outside London and the South East, where passengers are generally more price sensitive. Expanding London's airport capacity would mean that passenger numbers in airports in the rest of the country would be expected to be lower than they would otherwise be." and

"If Heathrow, Gatwick, or another airport in the South East is expanded, there are two overwhelmingly likely outcomes: either there would be a large increase in ticket prices, with flying consequently more centred on London and the South East; or the UK would fail to meet its emission targets."

DNPS ought to be informed by such significant possible outcomes, but they have been excluded from consideration. These regional airports/passenger welfare impacts are also but a subset of the additional burdens that will be imposed on all other UK economic and social sectors as aviation emissions continue to rise as a proportion of total carbon budgets (see para.15ii and footnote 12 above).

44. Whilst the terms of reference set by the government for the Airports Commission required that 'It should maintain a UK-wide perspective, taking appropriate account of the national, regional and local implications of any proposals'[73], that consideration has been ignored in DNPS which makes no mention of possible consequences for regional airport ATM allocations or levels of air fares[74]. For this reason **the DNPS process must require DfT to provide a forecast of UK ATM allocations at/after the HNWR year of opening in order to test for regional distribution consequences, and consistency with climate impacts; and a quantification of the scale of forecast increases to air fares.**

To summarise: It is **not** known what are HNWR and UK's forecast aviation carbon impacts because the government has not quantified them for the purposes of DNPS. The best approximation (using AC and CCC data/forecasts) demonstrate that i) UK aviation carbon emissions increased since 1990 by +122per cent without HNWR, and +130per cent with HNWR - even after the application of constraining carbon policy measures; and ii) that the '2005-50 national aviation target' (as distinct from CCC's use of it as a planning assumption for UK carbon budgets) operates perversely to incentivise increased emissions. The implications of HNWR for regional airports and increased airfares have not been considered, and strong ATM performance recently at Heathrow's London system competitors and major regional airports appears to be occupying the 'headroom' in the ATM allowance that would need to be reserved for additional Heathrow

[71] AC *Final report* e.g para.2.15, 3.24-25

[72] www.bettertransport.org.uk/sites/default/files/research-files/air-traffic-controls.pdf August 2016

[73] AC *Final report* para.1.3. And see ibid 'Next Steps' "… it recommends that both national and local government recognise the crucial importance that regional airports will play in growing the nation's connectivity and economy in the coming decade, and takes this into account in future policy and planning decisions that pertain to those airports." *16.45*

[74] However, in the context of the need for the 'examining authority' to take account of both potential benefits and adverse impacts of DNPS (as referred to in section 1 above), DNPS paragraph 4.5 does state "In this context, environmental, safety, social and economic benefits and adverse impacts should be considered at national, regional and local levels."

capacity if its climate obligations are to be complied with.

Q3 What are the government's commitments to provide mitigation for these carbon impacts, and have they been implemented?

45. We noted in section 1 the specific duties placed on the Secretary of State by the 2008 Planning Act, when preparing an NPS, to 'have regard to the desirability of mitigating … climate change' (with the Act also requiring the provision of 'an explanation of how the policy set out in the statement takes account of Government policy relating to the mitigation of … climate change'); whilst the DNPS General principles of assessment specifies an assessment of the development's 'potential adverse impacts (including any longer term and cumulative adverse impacts) as well as any measures to avoid, reduce or compensate for any adverse impacts.' Does DNPS meet these requirements?

46. Although DNPS specifies in some detail the requirement to provide mitigation for carbon impacts relating to airport operation and construction, and surface access, which however make up just 12.5per cent of total carbon emissions forecast to be associated with HNWR, **it makes no specification whatsoever for the mitigation of international/domestic aviation emissions which amount to 87.5per cent of the total.**[75] Nor does DNPS in any place set out an intention or commitment by government to mitigate the latter emissions (although it does note that they are 'by far the largest of the impacts'), either by specific conditioning attached to a planning permission or government authorisation, or by a separate aviation carbon framework.

47. Instead, and as noted in section 3 above, the government is relying on a semantic ambiguity in the words 'can' and 'could' to imply that carbon impacts can be fully mitigated, without committing to a policy framework that precisely identifies that they **will** be mitigated - which is the crucial distinction - and how. In his letter of 9th January 2017 to the EAC Chair (where he had been pressed on this ambiguity) the DfT Secretary of State provided another version of this formulation: "… the AC also demonstrated, through its carbon policy sensitivity test, that measures are available to allow the planning assumption to be met even with higher demand growth than 60per cent" our emphasis. This is of course a theoretical truism: X, Y and Z measures will always 'be available' to constrain a growth trend, but at the moment the UK aviation carbon policy framework i) does not formally identify or commit to any such measures that would constrain the 87.5per cent of carbon impacts that will be generated by HNWR additional capacity, nor ii) has the government and Secretary of State indicated any intention of considering or introducing these. In fact the EAC evidence testimony indicated, CBT submits, the intention not to do so.[76]

48. The alternative approach to which the Secretary of State seems to be much more wedded, as demonstrated in his EAC testimony[77] - use of the ICAO voluntary mechanism, relying principally on offsetting, and also greater deployment of biofuels - appears instead to be strongly aligned with the proposed approach of Sustainable Aviation (which argues that "aviation in the UK can accommodate a more than doubling of passenger numbers by 2050 without significantly increasing CO2 emissions, and has the potential to halve emissions in the future"[78]) and, in relation to HNWR specifically, the proposals of the

[75] See AC BCSA table 16.1 total carbon impacts measured over the 60 year appraisal period.

[76] Note that the Secretary of State's statement in that letter (see footnote 42) concerning the Aviation Strategy to be consulted on later this year (so after and disconnected from the DNPS consultation) carefully follows this same formula. That it will include 'a more detailed consideration of available policy measures' does **not** provide a commitment to introduce and apply such measures in respect of HNWR and its NPS.

[77] See questions 51-52; and 57, 83 and 125.

[78] See www.sustainableaviation.co.uk/uk-aviation-can-meet-climate-committee-co2-recommendation-despite-new-runway-and-doubling-of-passengers/ and www.sustainableaviation.co.uk/wp-content/uploads/2016/12/FINAL__SA_Roadmap_2016.pdf Sustainable Aviation's own modelling is even more aspirational: "… the global industry's longer term goal of halving its net CO2 emissions by 2050 versus 2005 levels."

Heathrow 2.0 document which signals the promise of a 'carbon-neutral third runway'.[79] Almost all of the latter's detailed commitments relate to the 12.5per cent of HNWR emissions not linked to additional flights - and these will be useful in giving effect to the requirements of DNPS para.5.77-79 - but whilst acknowledging the existence and scale of the problems associated with the 87.5per cent other emissions[80] Heathrow 2.0 does not go beyond the ICAO approach and also contains some misleading half-truths.[81]

To summarise: There are **no** government commitments to provide mitigation for HNWR's carbon impacts from additional flights (87.5per cent of possible future emissions) which could be incorporated into DNPS, as conditioning or an enforceable separate policy framework.

E) Conclusions and Recommendations

50. The conclusions of each of the sections of this submission have been summarised at their respective ends. In terms of the four tests - considered to be reasonable - that CBT identified at the start of this submission (para.6) to assess whether DNPS is fit for purpose under the Planning Act, we judge the outcomes to be as follows: Does it provide clarity about –

Test 1 the relative importance of the climate change 'issue' (both globally and nationally), and the significance of UK aviation carbon and then Heathrow capacity expansion to the UK carbon framework established by CCA 2008? **Outcome** Whilst the significance and scale of the climate change issue itself is acknowledged, DNPS is ambiguous about how the contribution of UK and then Heathrow aviation emissions to the overall UK carbon framework should be treated.

Test 2 the policy and legal framework within which aviation carbon impacts need to be located? **Outcome** There is no clarity about either of these frameworks. On investigation it turns out that the two key parameters of the policy framework have no formal status, as a result of decisions deliberately taken by DfT, making it impossible to determine whether or not 'the policy set out in the [national policy] statement takes account of Government policy relating to the mitigation of … climate change.' 2008 Planning Act S.5/8

Test 3 the quantification of aviation carbon impact, both for HNWR and the UK as a whole? Also is the information and analysis relating to HNWR carbon impact assessments accessible, properly referenced and trustworthy? **Outcome** Whilst HNWR's carbon impacts have been quantified within Airports Commission scenarios shaped by their modelling assumptions this cannot be claimed by the government as evidence for likely real-world outcomes in the absence of parallel commitments to translate those assumptions (or equivalents) into implemented 'carbon policy measures'. Information/analysis about the carbon assessments is inaccessible and difficult to integrate to a certain conclusion.

Test 4 any required mitigation to or constraint of aviation carbon impacts, and whether this is expressed as necessary conditioning that will be imposed on the development in order to secure approval? **Outcome** There is no attempt, already in place or contemplated, to mitigate the 87.5per cent of HNWR carbon impacts generated by the provision of additional runway capacity.

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[79] http://your.heathrow.com/sustainability/world-worth-travelling/ and https://your.heathrow.com/wp-content/uploads/2017/01/Heathrow2.0.pdf

[80] E.g "We will play our part in tackling carbon emissions so we can all stay within 2.0 degrees of climate change, and work hard to support efforts to achieve the aspiration of a 1.5 degree world." *p.4* and "First and foremost, we have to address carbon; air travel is a growing contributor to global greenhouse gas emissions and therefore to climate change. As demand for flights grows, we must innovate and collaborate to find solutions to some of the problems our industry faces." *p.28*

[81] E.g the statement "Through investment in new technology, *UK airlines are already starting to reduce emissions where possible,* and meaningfully offset where not." *p.31 our emphasis* cannot be factually correct when assessed against long-term upward trend of aviation flight emissions. For environmental NGO comments on *Heathrow 2.0* see www.theguardian.com/environment/2017/feb/28/heathrow-aims-make-third-runway-carbon-neutral

51. Draft NPS therefore fails all four of these tests. To render DNPS credible the government itself needed to provide a quantified assessment of HNWR's carbon impacts, accompanied by substantiating analysis/data, and then identify how the scenario constraints it had employed to achieve an established level of carbon restraint would be turned into policy commitments which the NPS should incorporate. It has done none of these things. The test that should properly be applied to draft NPS is not whether a Heathrow or London system additional runway '**can** be delivered within the UK's carbon obligations' but rather whether it **will** be delivered within those obligations, and it is the responsibility of the NPS to ensure that that test is met with rigour and certainty.

52 . Ultimately DNPS appears to be founded in an act of carefully crafted dissimulation: headline claims that HNWR 'can be delivered within the UK's climate obligations' are in reality nothing more than exaggerated mischaracterisations of theoretical model runs undertaken by the Airports Commission, which the DfT Director of Airport Capacity has described as 'artificial modelled scenarios run off a carbon price rather than actual policies', with the former Airports Commissioners 'den[ying] that their modelled carbon prices and policies were policy recommendations'.[82] DNPS contains no promise these 'artificial modelled scenarios' will be turned into actual carbon restraining policies, whilst the DfT is relying on all this not being revealed for what it really is: a 'magic trick' based on misdirection.

53. CBT therefore submits that the **DNPS has not demonstrated that it fulfils the requirements of the 2008 Planning Act relating to the mitigation of climate change, or is consistent with UK carbon budgets adopted by Parliament under the Climate Change Act 2008.** Furthermore the technical complexity and the unresolved position of the various policy frameworks put DNPS consultees, decision makers and Parliament at a disadvantage in understanding what exactly are the assessment criteria to determine whether those requirements have been met.

Recommendations for the revision of draft NPS, and its Parliamentary scrutiny

- draft NPS revision

54a. The DfT should accelerate the publication of their draft new aviation strategy so that it can be considered in parallel to the Parliamentary scrutiny of NPS (as recommended by Environmental Audit Committee), so as to provide a clear policy framework within which the HNWR proposal can be tested, and to ensure that a Heathrow capacity decision does not have consequences which disadvantage other airports, or air passengers in general.

54b. Within the new aviation strategy DfT should secure the status and certainty of an aviation carbon policy framework by: determining S.30/3 of the Climate Change Act 2008 so as to formally incorporate aviation emissions within UK carbon budgets; and setting a ceiling of 37.5MtCO2 for UK's aviation carbon emissions to run **throughout** the period to 2050. This needs to be done to ensure that the UK's overall climate mitigation framework is not destabilised, and other economic and social sectors disadvantaged by an accelerated exhaustion of the UK's cumulative carbon budget to 2050, caused by increasing, rather than decreasing, aviation emissions.

54c. Also within the new aviation strategy, DfT must bring forward an aviation carbon policy framework setting out its commitment to use all appropriate (and cost-effective) measures to ensure that aviation carbon emissions remain within the above limits, and to implement those measures within carbon budget periods. The activation of this framework must be a condition of the authorising of the national policy statement.

54d. The DfT must bring forward its own quantified assessment of HNWR's carbon impacts, in consultation with the CCC, and accompanied by substantiating analysis/data, to test the proposals compatibility with the

[82] see footnotes 16-17

new aviation carbon policy framework, and so that the line of accountability for subsequent carbon performance is explicit.

54e. As part of that HNWR carbon quantification there should also be prepared: a revised business case for the development (as recommended by CCC) in order to inform Parliament's review of the NPS; a forecast of carbon emissions allocations across UK airports at HNWR's year of opening to determine whether there will be emissions 'headroom' for this additional capacity to operate with viability, and not to the detriment of other locations; and an assessment of the impact on airfares of any increased carbon prices required to secure adherence to the 37.5MtCO2 ceiling.

- Parliamentary scrutiny

55a. NPS should not be determined by Parliament until such time as the government's intended new aviation strategy is available, so that both can be considered side-by-side. The strategy must also resolve all the key components of the aviation carbon policy framework in a way which is consistent with the adopted carbon budgets under CCA 2008.

55b. DNPS should be reviewed by Environmental Audit Committee as well as Transport Select committee, with EAC taking the lead on the scrutiny of the proposal's carbon impacts.

55c. In considering whether to approve the National Policy Statement Parliament should establish whether the Secretary of State, when preparing the NPS, has met the requirement of S.5/8 of the Planning Act 2008 that the policy set out in the statement should 'take account of Government policy relating to the mitigation of … climate change'.

Analysis prepared for Campaign for Better Transport by Anthony Rae

Appendix - overleaf

Appendix - NPS consultation questions relating to carbon impacts

CBT's response to the following questions are contained in the body of this submission:

Q1: The Government believes there is the need for additional airport capacity in the South East of England by 2030. Please tell us your views.
Q3: The Secretary of State will use a range of assessment principles when considering any application for a Northwest Runway at Heathrow Airport. Please tell us your views.
Q8: Do you have any additional comments on the draft Airports National Policy Statement or other supporting documents?

Q5: The draft Airports National Policy Statement sets out a package of supporting measures to mitigate negative impacts of a Heathrow Northwest Runway scheme. Please tell us your views. Are there any other supporting measures that should be set out? In particular, please tell us your views on: 5.3. Carbon emissions supporting measures. **Response** we point out that the wording of the question implies a limitation of the 'supporting measures to mitigate negative impacts of a HNWR scheme' to those contained in the document's 'package', which as we note in para.15iv above excludes the 87.5per cent of carbon impacts generated by flights. We believe the limitation of scope implied by this wording is represents poor practice.

Q6: The Government has set out a number of planning requirements that a Heathrow Northwest Runway scheme must meet in order to operate. Please tell us your views. Are there any other requirements the Government should set out? **Response** The planning requirements in relation to carbon emissions are set out in DNPS paragraphs 5.68-82. The same comment that we have just made in relation to Q5 also applies to this one. A much broader set of planning requirements are set out in the recommendations section of this submission.

Q7: The Appraisal of Sustainability sets out the Government's assessment of the Heathrow Northwest Runway scheme, and considers alternatives. Please tell us your views. **Response** essentially this is the same as that for Qs 5-6. As we point out in para.15iv above the definition of objective 14 has severely limited its scope by excluding the impact of carbon emissions from flights, although the AoS does not explicitly substantiate its justification for that exclusion. We believe this unexplained exclusion to be misleading to consultees and poor professional practice.