BJE Walker, M.Sc.

By email to: economicregulation@caa.co.uk **18 February 2020**

Subject: RESPONSE TO CAA CONSULTATION

Ref: CAA CONSULTATION, Early Costs Of Capital Expansion, CAP 1871, Dec 2019

https://consultations.caa.co.uk/cmg/early-costs-of-capacity-expansion/

Overview

The consultation focuses on regulatory treatment and regulatory governance arrangements for early Category C costs. (p.7, para. 5)

The July 2019 Consultation highlighted that HAL's current estimates suggest that total capital costs (including both Category B and early Category C costs) to facilitate the opening of the new runway will be in the region of £14 billion (in 2014 prices). (p.9, para.8.)). (P.9 and P.63, Appendix B, Table B.1.

HAL requests:

Spend over £500 million on Category B costs (planning costs; DCO application), before HAL obtains a DCO. (p.6, para. 2) (p.28, para 2.1)

Spend £2.4 billion (in 2014 prices) on early construction Category C costs, before HAL obtains a DCO. (p.6, para.2; CAP 1610, p.55, para.5.10)

CAA policy:

For Category B costs (established in 2017) HAL can spend up to £265 million (in 2014 prices) (p.35, para.2.30). Policy remains unchanged to avoid undermining the stability of the regulatory framework by retrospective action. (p.11, para.14), (p.28, para 2.1)

Early Category C costs. £1.6bn incurred prior to HAL obtaining DCO. HAL's Scenario 2a to be in the best interests of consumers. Lower levels of early Category C costs and a modest delay to the opening of the new runway (of around six to eight months). (p.10, para.11). Scenario 2a, p.17, para. 1.13, Fig. 1.3., (p.28, para 2.1).

IAG policy:

IAG has consistently supported an approach that minimises spending on early Category C costs. (p.18, para 1.6)

Heathrow West policy:

The CAA should put an immediate stop to any Category C expenditure by HAL. (p.18, para 1.17).

Chapter 1, Analysis of scenarios.

I agree, providing it is fundable, p.27, para. 1.39 …. "that given the information currently available Scenario 2a is likely to result in the best outcome for consumers".

Subject to my comment:

With regard to p.20, para. 1.25. "It would be more straightforward to assess the relative merits of the scenarios if we knew the probability of a successful DCO application" and "we cannot at this stage know the probability of HAL making a successful DCO application" (p.24, para 1.34)".

The is a high risk (bordering on 100% probability) that the **first** DCO application documentation made by HAL will be rejected by the independent DCO review committee. This will result in the need for a substantial revision of the initial DCO documentation, resulting in additional Category B costs and additional total project cost due to overall project delay.

My comment, regarding the DCO, is based upon the following evidence:

To date, after a period of approximately 10 years, HAL have not been able to produce a basic design and therefore have not been able to produce a defendable and reliable total project cost estimate or project schedule. HAL are still in the conceptual design stage, and this is particularly the case for the crossing of the M25 refer my comments on this document page 9.

Overall Observations.

There have been two NPS documents, due to the low quality of the first NPS, and there have been several HAL public consultation documents, due to the low quality and content of the previous consultation documents by HAL, and there have been many public meetings and judicial challenges.

Refer letter to CAA, from AIG addressed to Stephen Gifford, Consumer & Markets Group, dated 6th July 2018, Re. Economic regulation of capacity expansion at Heathrow: policy update and consultation (CAP 1658).

Refer the history of the Manston Airport expansion and the delay to the DCO.

https://www.supportmanstonairport.org/manston-airport-dco-decision-by-government-delayed-until-may/

The above web reference states: “while frustrating, the delay is not unexpected - last five decisions on DCO applications have all been delayed and none have yet been made”.

Chapter 2, Regulatory treatment of HAL’s early costs

Category B costs: CAA policy decision

CAA policy agreed to. p.35, para 2.30…. “Our policy for Category B costs incurred up to £265 million will remain unchanged”……..

Scrutiny and reporting of Category B costs above £265 million.

CAA policy agreed to. p.36, para 2.31. In particular because….. “in part because of previous concerns that HAL was not monitoring these costs closely enough.” I am very concerned about this observation by CAA, however, unfortunately it appears to be symptomatic of the lack of rigour by a HAL.

Essential that reporting is “▪ at quarterly intervals, and within one month of each quarter end. HAL will provide an update on the actual Category B costs incurred to date, compared to both its original budget and subsequent forecasts with commentary;

“subsequent forecasts” should read “subsequent forecasts of costs and time schedule to completion”. Forecast of cost, only, without consideration of a time plan does not mean much. “within one month of each of each ¼ end..” to be removed, there is no need for this given delay. Delivery dates are know well in advance and so should “subsequent forecasts of costs…” etc must be known.

However, note that the first such report and audit is overdue as of Jan 2020. HAL will only have to submit about two/three such reports before they actually submit their DCO application. (Current HAL target end of 2020). Final report must be on the same date as that of the submission of the DCO document.

Recovery cap for Category B costs

P.37, para. 2.33/2.34/2.35 …. “initially setting the recovery cap at £500 million” and relevant statements in Appendix D. **NOT ACCEPTABLE.**

Delete p.37, para. 2.34

Re-word p.37, para. 2.35 as follows:

The setting of the recovery cap is at £265 million (in 2014 prices) (p.35, para.2.30). Policy remains unchanged to avoid undermining the stability of the regulatory framework by retrospective action. (p.11, para.14), (p.28, para 2.1). The CAA do not expect to change the level of the cap unless there is a material change in circumstances that suggests a compelling reason for change and where HAL can demonstrate that increasing expenditure is both efficient and in the interests of consumers.

Any change to the £265 million recovery cap will be judged under p.37, para 2.36. This para 2.36 covers all eventualities. We look forward to the first report from HAL in accordance with p.36, para 2.31 as per my comments above.

Risk sharing arrangements for Category B costs above £265 million. p.37/38

Agreed p.37 para 2.37. However, note my comments above where I consider that there is a high probability that the first rendering of the DCO application, by HAL, will not be successful as the DCO review committee will require substantial revision in order to meet the detailed requirements of a DCO airport expansion.

"The risk sharing mechanism for costs up to £265 million was initially implemented to encourage HAL to develop a high quality DCO application."

I do not understand why HAL needs to be encouraged, by some form of passenger funded financial incentive, "to develop a high quality DCO application." It is HAL who insist on the 3rd runway and expanding their private business and any risk sharing should be with the HAL shareholders, and it is wholly and exclusively within the interests of HAL to "develop a high quality DCO application", to ensure the earliest opening date of the 3rd runway.

However, in view of the previous work of the CAA and "to avoid undermining the stability of the regulatory framework by retrospective action" and taking into account the operating mechanism of the RAB I have no alternative but to agree with the CAA current policy in CAP1871. Otherwise, I would insist on a maximum of a 50/50 risk sharing arrangement.

After approximately 10 years of HAL working on the 3rd runway project I would expect that the HAL DCO application documentation would today, Feb. 2020, be almost complete and ready for submission at the earliest opportunity in view of the overall project time scale, refer Fig 1.3, Scenario 2a.

The CAA must be very "hard nosed" on this category of cost and insist on a costed delivery programme (including evidence of debt funding which does not rely upon government support (for such items as the M25 crossing) and schedule for the DCO application documentation. After all, without a successful DCO application, and real evidence of debt funding, the CAA efforts put into CAP1871 will be frustrated.

p.38 para 2.38. Do not agree that… "that a better approach would be to align the treatment of these costs with the treatment of early Category C cost"

Category B costs are distinctly different from Category C costs. Between the two categories there is a completely different scope of work, timeframe and risk scenarios.

Agreed that….. "we are now proposing a lower rate of return if HAL is not able to obtain a DCO." To be generous, if beyond the control of HAL the DCO is not granted, one may agree to HAL recovering their costs only, though I believe recovery of such costs is unprecedented. As mentioned elsewhere, it is unlikely that HAL will succeed on their first submission for a DCO and their whole application will need to be substantially revised

p.38 para 2.39. Agreed …….. (CAA) "we reserve the right to decide whether HAL should be able to recover less than 85% of its efficiently incurred Category B costs", but as stated above even 50% recovery would be generous.

Recovery of Category B costs , p. 38, para. 2.40

Agreed, however,…… "would simultaneously arrange separate debt based financing (on the basis of a guaranteed stream of revenue from airport charges)". Seems to imply a guarantee to the supplier of debt finance and seems to imply that such guarantee is provided via a guarantee to increase air passenger duty (APD). CAA must not imply such guarantee.

Early Category C costs

p.43 para 2.49…….. Do not agree with…….. "We remain of the view that there are advantages to adopting similar governance and regulatory arrangements for each category of costs incurred in advance of HAL obtaining a DCO" . As stated above Category B costs are distinctly different from Category C costs. Between the two categories there is a completely different scope of work, timeframe and risk scenarios.

If the DCO is not granted, for whatever reason, the majority of document CAP 1871 becomes irrelevant and Category C costs become "sunk".

Generally I agree with the intent of the paragraphs under "Early Category C costs", subject to my comments above, and that the CAA must carry out in-depth surveillance and auditing of all costs, by an independent professionally qualified party, not a "big name" accountancy company.

p.46 para 2.63……. Agreed and noted that……. "Nonetheless, as with Category B costs it will be important that HAL's early Category C costs are reasonably *and actually* financeable". My comments added in italics. Not only reasonable but really financeable through debt finance. Including the true and total cost of the M25 crossing.

p.47 para 2.65. Agreed. But CAA should note cost of revised DCO application.

Chapter 3 - Implementation

p.59 para 3.23. I agree that ….."it would be in consumers' interests to also introduce a modification to HAL's licence that works alongside our policy statement". I agree that it is essential that a "separate modification to Condition F.1.1 (a)(i) in HAL's licence is needed in respect of consultation requirements on early Category C costs.

P.82 to P.85. The modification to HAL's licence needs to be carried out immediately. I am concerned that a CAA policy statement, though agreed by all parties, may not have the same power as a modification to the licence, which will be enforceable by the CAA.

Page 42 Figure 2.1 and page 50 Figure 2.2 succinctly summarises the CAA policy. I would suggest that the "policy" in an appropriate form of Figure 2.1 and 2.2 should be embedded in the modification to HAL's licence; Appendix F.

Add to the modification to HAL's licence - that in case the DCO is not granted HAL, shall undertake to pay compensation damages to all those affected by the 3 runway and to reinstate all effected properties etc.

Overall Observations

Project Cost

p.66 para 9. …… "costs included within HAL's estimate are based on 2014 prices".

p.66 para 11…….. "We note that the £14 billion estimate includes a number of assumptions about the costs of the expansion programme. There remain significant uncertainties about these assumptions……."

The total project constructed costs given by HAL are not realistic and in reality at the year 2020 prices are more in the region of £24 billion. As commented by Arcadis …….. "that this could be improved for some actives including utilities and enabling works as the design develops and more detail becomes available". It should be noted that HAL have been working on the third runway expansion for 10 years and there is still no basic design available and therefore the HAL cost estimate (and time schedule) is far from correct. HAL are always promising to provide details of their design, but the details never materialise.

December 12, 2019, http://www.airportwatch.org.uk/latest-news/ states that "Heathrow is already spending over £3 billion on enabling work, before even starting to build. The total cost could be £31 billion, not the alleged £14 billion. In its latest analysis of Heathrow's business case, Standard and Poor revealed that there is significant concern about construction costs of a 3rd runway.

HAL's estimates are based on 2014 prices then the true cost of the diversion of the M25 through tunnels constructed through lakes and old river beds and the third runway crossing over the M25, is not in the HAL 2014 cost estimate (p.63, Table B.1). HAL only included about £1 billion, (HAL estimate made prior to 2014) for the third runway to cross the M25 and have been consistently told by the government that the government will not pay for this item of work, which will cost at least £5 billion. The New Civil Engineer is highly critical of the initial design of this crossing. Refer additional remarks at the end of these comments.

Figure 1.3: HAL's revised scenarios (in 2018 prices) scenario 2a in 2018 prices adds up to about £14 billion and HAL's estimate based on 2014 prices is also about £14 billion. Is this a coincidence and does it include the true cost of the third runway across the M25?

IAG response to CAP 1658 (July 2018); p.2, para.4: …."and preventing HAL rewarding its shareholders (£2.8bn paid in dividends over the past 5 years)2 at their expense – and that of the UK economy".

See also IAG response to CAP 1658 para 21 and para 29 . Moreover, it clearly demonstrates that HAL places returns for investors ahead of any other consideration.

To the £2.8bn paid in dividends over the past 5 years I would also ask the CAA to note that HAL has a pension deficit of the order of £350 million and on past experience this will only increase throughout the life of the third runway project, as more staff are employed for Category B and C.

DCO

Refer the required contents and level of detail of an Airports DCO. HAL are aware of the requirements, refer:

https://www.heathrowconsultation.com/wp-content/uploads/2018/01/39434-Bri05e-DCO-Process-Information-Paper.pdf

The PDF paper states:

….."in our Consultation Report which will accompany our DCO application……..."

The Consultation Report is one of the documents that will be submitted with HAL`s DCO application.

The Examining Authority has up to six months to carry out the examination [6 months]

Following completion of the examination the Examining Authority have up to three months to prepare a report for the relevant Secretary of State [3 months]

The Secretary of State then has up to a further three months to make the decision [3 months]

Once a decision has been issued, there is a six-week period in which an application to challenge it in the High Court on legal grounds may be submitted [6 weeks]

High Court challenges (environmental, noise et cetera) [3 months]

Total of [ ] governmental/departmental time period = 17 months

Delay to DCO

https://www.bdbpitmans.com/blogs/planning-act-2008/850-delay-for-sixth-dco-decision-in-a-row/

"On 16 January 2020 the decision on the Manston Airport DCO application, due on 18 January 2020, was delayed for four months" ……which have been delayed for six months in one case. That marks the sixth delay in a row for decisions on DCO applications….(ie to an until as yet unspecified date) in the other four cases. [6 months]

The delay statements sometimes admit that the election was the cause but mostly don't, and say that further information is required,

There is no evidence to suggest that this ministerial/departmental delay of six months will be reduced, and there is a high risk that the delay may in fact increase.

17 months + 6 months DCO departmental delay = 23 months ~ 2 years providing HAL are successful in obtaining the DCO on the first attempt.

Page 17 Fig 1.3 Scenario 2a implies that the DCO will be granted Jan 2022

If HAL submit their DCO in Jan 2021, then 2021 plus 2 years = Jan 2023.

The HAL Jan 2021seems optimistic as HAL Consultation Report will not be open to the public until about April 2020 at the earliest.

The evidence shows that the time frame on Page 17 Fig 1.3 of Scenario 2a cannot be achieved. There are not sufficient governmental/departmental resources to deal with anything less than a first time perfect DCO submission from HAL, even if the current back-log is cleared.

Conclusion (and refer detail comments below on 3rd runway crossing of M25)

Throughout the document, CAP 1871, there appears to be a thread of disappointment with HAL caused by HAL`s lack of timely and cogent response to the questions and concerns raised by the CAA. We have all suffered with this disappointment throughout the years as the NPS consultation and various versions of the HAL consultations had to be repeated.

I foresee, unfortunately, that the HAL`s first DCO documentation will be rejected by the review committee and the submission will need substantial revision; followed by a repeated DCO application; followed by delay by the government in making the final decision. Figure 1.3: scenario 2a completion date of 2027 is quite unrealistic and the project costs, on which the CAA base their regulatory efforts, are also unrealistic.

As per CAA CAP 1871, page 33, paragraph 2.20, Highways England are fully aware of the great difficulty in designing and therefore costing, financing and project planning the third runway crossing the M25. Refer comments below concerning the third runway M25 crossing.

3rd Runway M25 Crossing Update (made 13 March 2019)

The important phrases are underlined and bolded. Comments by the writer John Walker are in bold italic.

Refer (article dated 20 Feb 2019)
https://www.newcivilengineer.com/latest/highways-england-concerned-by-heathrow-runway-over-m25/10040382.article

Note to view full content of this article type into Google search "highways England and third runway crossing of M25"

https://www.geplus.co.uk/news/highways-england-concerned-by-heathrow-m25-tunnel/10040398.article

Type into google Search
"M25 Heathrow Tunnels Delivery Report December 2017" to see pdf of report published by Highways England.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/781894/EIR_768_483_Information_005.pdf

Type into google Search
"M25 Heathrow Tunnels Delivery Report December 2017" to see pdf of report published by Highways England.

As per CAA CAP 1871, page 33, paragraph 2.20, Highways England are fully aware of the great difficulty in designing and therefore costing, financing and project planning the third runway crossing the M25.This is evident from the quote below. To date, 2020, HAL have not provided any acceptable design. On current evidence the HAL DCO application will fail. (Note: this comment was added to the original document in February 2020).

Quote

Highways England is **"concerned" about the durability of a tunnel** proposed for the M25, which will run beneath Heathrow's planned third runway.

In its initial deliverability report, Highways England has raised **"concerns about several aspects of the design"** of the proposed tunnel.

The report, obtained by *The Times* (Graeme Paton, Transport Correspondent February 25 2019, The Times) through a **freedom of information** request and seen by *New Civil Engineer*, **raises concerns about the durability and robostness of the tunnel designs**.

Heathrow's proposal suggests moving the M25 150m west and dropping it 7m into a tunnel beneath the new runway. Highways England's concerns over the plans include the **durability of the tunnel structure, complex temporary supporting works, and drainage in the high water table area.**

The report examined **two design options** for the six-lane M25 tunnel; a buried ground bearing multi-cell concrete "box" and a buried pile supported concrete multi-span portal frame 'bridge'. ***(Comment by the writer John Walker: the M25 crossing is still at the conceptual design stage whereas by now, after 10 years of consideration of this very important element, the design and therefore the cost should be known).***

Both tunnel designs would feature a roof slab / bridge deck comprised of a post-tensioned concrete slab with void formers to minimise the dead load of the concrete roof.
The designs also propose fully integral connections between deck/top slab superstructure and box walls/piers and abutments substructure which would negate the need for bearings. But the report suggests that this could complicate future repairs.

The tunnel will be 600m long and will house 14 lanes of motorway.

Heathrow specified that **neither design should have expansion joints**, in order to reduce the need for structural maintenance. However, the report says that that **the lack of expansion joints over such a long length and span was "untested" and would require a "specialist review team […] to ensure both its short-term constructability and its likely long-term performance".** ***(Comment = OMG; by the writer John Walker)***

The structure will also need to be able to support code F aircraft, weighing 900t, but Highways England suggests that the structure will have to be **able to support loads of up to 1,800t from the dynamic and cyclic pressures associated with aircraft take-off.** ***(Comment by the writer John Walker; this design specification is agreeable, and consideration of the dynamic shock load is mandatory)***

These loads mean that "fatigue of the post-tensioned tendons at mid-span and hogging regions over intermediate supports should be of key concern," the report states. **The design's durability must be "robustly challenged and proven" as a result.** ***(Comment by the writer John Walker; this must be mandatory and can only be proven by the building and dynamic testing of a representative section of the bridge on ground identical to that on which the actual bridge will be built. Where is the cost and the timescale for this design to be "proven"?)***

Highways England also raised concerns about the "complex temporary works" which would require a cut-off wall around the site to prevent water ingress due to a high water table. It suggests that either a bentonite slurry wall or a steel sheet pile wall would have to be used. Temporary retaining walls will also be need during the tunnel construction, which will be complicated by their proximity to the existing M25 route in places. ***(Comment by the writer John Walker; agreed, but how will the rerouted M25 be connected to the existing M25 in both directions with minimum disruption to existing traffic flow??)***

The high water table will also complicate the design as well as the supporting works, the report recommends that extra care be paid to how drainage systems in the tunnel will work and be maintained, as well as ensuring that run off from the slab/deck, which could be contaminated with hydrocarbon fuels and detergents, be kept out of the tunnel structure. ***(Comment by the writer John Walker; agreed and absolutely essential as part of the design criterion)***

"The options we've proposed for crossing the motorway are tried-and-tested at other airports around the world," said Heathrow Airport spokesperson.
(Comments by the writer John Walker; this is an untrue statement because as the New Civil Engineer states:

"the lack of expansion joints over such a long length and span was **"untested"** and would require a "specialist review team […] to ensure both its short-term constructability and its likely long-term performance"

and no such bridge exists at any airport elsewhere in the world, particularly in the ground conditions existing at the M25 crossing).

"Highways England has reviewed our early design and confirmed that our plans are robust and deliverable. ***(Comments by the writer John Walker; the review above, by the New Civil Engineer, indicates the exact opposite and does not confirm anything except many worrying items about this untested design).***

Unquote