

Provisional assessment of airport-airline engagement on new runway capacity at Heathrow airport – February 2018

Advice to the Secretary of State for Transport under Section 16 of the Civil Aviation Act 1982

CAP 1638

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Gatwick Airport South
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About this document

This document is our penultimate report to the Secretary of State for Transport (SoS) on how well Heathrow Airport Limited (HAL) has engaged with, and responded to, the airline community on the appropriate scope, design and costing of the proposed new runway and additional capacity at Heathrow Airport.

The Terms of Reference (ToR) for this work require us to provide reports to the SoS on a regular basis. This report describes the progress that HAL and the airlines have made since we provided our last update in September 2017 and sets out our overall findings on a provisional basis. We will provide our final report to the SoS on these matters in April 2018.

This report also sets out our provisional views for a process to follow on from our Section 16 reporting that will support effective airport-airline engagement and protect the interests of consumers. We invite stakeholder feedback by no later than Thursday 29 March 2018.

Summary and Next Steps

Introduction

1. In October 2016, the Government announced that its preferred location for the expansion of airport capacity in the South East of England was the Heathrow north-west runway. Shortly afterwards, the SoS requested, under section 16 of the Civil Aviation Act 1982, that we review and advise him on how well HAL is engaging with, and responding to, the airline community on the appropriate scope, design and costing of the new runway and capacity at Heathrow Airport.
2. The ToR ([see here](#))¹ for this “Section 16” work envisaged that we would report on the following three phases of airport-airline engagement:
 - a. a review of the engagement process, including factors such as the scope and content of the discussions, the quality and maturity of the engagement as well as whether recommendations made by us to improve the process had been implemented;
 - b. the identification and evaluation of the outputs from the engagement process, by critically assessing the extent to which the engagement process has delivered tangible changes to the scope, design and cost of the scheme; and
 - c. an assessment of the overall effectiveness of how well HAL has engaged with, and responded to, the airline community. This covers a number of dimensions including the involvement of consumers, cost efficiency, acceptability and any risks that remain unresolved.
3. The engagement process began in earnest in December 2016 with HAL organising a series of airline immersion events and gathered further momentum during 2017. Throughout the process we have been involved, observing and reporting on the format and quality of engagement, and making recommendations on how the process could be improved. We provided the SoS with an ‘initial-health’ check in February 2017,² followed by further updates in May 2017³ and September 2017.⁴
4. We are now using this report to provide our provisional views on the overall effectiveness of airport-airline engagement as required by the ToR. For the avoidance of doubt, this penultimate report does not represent our final assessment and it will be updated to take into account stakeholders’ views and any further developments in the remaining period. We will continue to monitor the engagement process and welcome stakeholder

¹[Terms of Reference](#)

²[February report](#)

³[May report](#)

⁴[September report](#)

feedback ahead of our final Section 16 report in April 2018. Our final report should help inform the SoS's decisions on seeking parliamentary approval for the designation of the Airports National Policy Statement (NPS), which we understand is scheduled to be laid in parliament in the first half of 2018.

5. In parallel to the Section 16 process, we have been consulting on the core elements of the regulatory framework to support capacity expansion at Heathrow airport. Our latest consultation in December 2017 (CAP 1610)⁵ discussed issues around:
 - the relationship between the regulatory framework and alternative delivery mechanisms;
 - the cost of capital;
 - financeability;
 - financial resilience;
 - the regulatory treatment of early construction costs; and
 - the further extension of the existing Q6 price control period.
6. Our next update on the regulatory framework will be published in April 2018 in parallel with our final Section 16 report.
7. As the airport-airline engagement process gathered pace in 2017, it became clear that the airlines wanted to discuss and challenge key aspects of the overall scheme design, including issues such as the length and position of the new runway. The Government has also consulted on successive drafts of the NPS during 2017. The detailed discussions between the airport and the airlines and the advantages in adopting a coordinated approach to consultation with the draft NPS meant that HAL did not produce its public consultation on the overall scheme until 17 January 2018.
8. In order to take in to account the results of this public consultation and the finalised NPS, HAL has said it will not be practicable for it to produce a preferred masterplan for capacity expansion before Q3 2018. This is important context to the timetable and our Section 16 reporting, as it will limit our ability to report on the outputs from and the overall effectiveness of the process, as envisaged in the original ToR.
9. To address these challenges, we set out initial proposals in this report for a process to follow on from our Section 16 reporting that will support effective airport-airline engagement and protect the interests of consumers. Before we discuss these next steps, we summarise the views of both HAL and airlines on the key issues before providing our provisional assessment of the engagement process and its overall effectiveness.

⁵ See [CAP 1610](#)

10. In our September Section 16 report, we asked HAL and airlines to produce a joint statement on the outputs from the engagement process and its overall effectiveness. Appendix 1 of this document sets out, in full, the sections of the joint statement that relate to the outputs from the engagement process and the effectiveness of the engagement process and, as such, provide further details of HAL's, and the airlines', views on capacity expansion.

HAL's views

11. HAL has stressed that expanding Heathrow is a unique opportunity to address the airport capacity and connectivity shortage of the United Kingdom. It notes that the benefits of Heathrow expansion should flow to airport users (i.e. future passengers and cargo owners) and the wider economy.
12. It also said that building momentum in the first year since the Government announcement supporting Heathrow expansion was critical to setting the foundations for successful delivery of the programme. It has needed to make substantial progress to mobilise the programme, engage openly and constructively with the local community, the airline community and other stakeholders, and to identify the key issues for its January 2018 public consultation. HAL has said that, only once it has considered the responses to this consultation and the implications of a finalised NPS, will it be able to produce its preferred masterplan for overall scheme design in Q3 2018.
13. HAL has explained that it has created a well-resourced engagement framework, which is addressing key challenges and putting airlines', passengers' and cargo owners' interests at the heart of its approach to capacity expansion. After listening to, and taking on board, the concerns of the airlines regarding affordability, it has brought forward an option (the Westerly Option) that it estimates could reduce the costs of capacity expansion by approximately £2.5 billion. It has also told us that it is committed to delivering expansion affordably, as demonstrated by the development of this capital plan, which it considers to be consistent with a path of airport charges close to current levels. HAL defines "current levels" as being consistent with the timing of the SoS's announcement on expansion (i.e. October 2016).
14. HAL has welcomed the participation of airlines in the engagement process, but expressed reservations about some aspects of the approach taken by airlines to engagement, including whether they have too narrow a focus on their own commercial interests, and whether certain media interventions might unnecessarily distract from the process of capacity expansion.

Airlines' views

15. Airlines acknowledged that progress has been made through the engagement process. Nonetheless, they have also said that HAL's proposals, the assessment of affordability, and information on cost efficiency, are all at a relatively immature stage of development. Noting that more detailed information on these issues will not be available until later in the process, airlines have told us that they are unable, at this stage, properly to assess the risks and costs and, ultimately, the affordability and viability of HAL's proposals for capacity expansion.
16. Citing the above difficulties, airlines have recently requested that the process for capacity expansion should include an additional gateway, designed to provide them with a formal opportunity to express views on (i) whether sufficient comfort is available on overall scheme affordability, and (ii) whether the scheme should proceed, before HAL incurs significant early construction costs or submits a DCO (Development Consent Order) application.
17. The airlines have also retained a sharp focus on affordability. Shortly before we issued this report, airlines made a submission that they currently consider affordability to mean no real increase in airport charges (charges rising by no more than inflation in any year) measured from the end of the current price control period, rather than from 2016 (when Heathrow was chosen as the Government's preferred location for capacity expansion and airlines raised their initial concerns on affordability).
18. Some airlines have also indicated that HAL should not be the sole developer of the expansion programme, citing ongoing concerns regarding the scope for third party development at Heathrow airport which they consider could introduce greater competition in delivery.
19. Finally, airlines have also expressed reservations about the timelines to reach a single preferred and properly costed masterplan by Q3 2018, which they consider to be very ambitious.

CAA's initial assessment

Approach to assessing airport-airline engagement

20. Since the Section 16 process began, we have tried to adopt an evidence based approach with a view to producing a balanced assessment of the effectiveness of airport-airline engagement. In developing our views and monitoring progress for this update, we have relied upon information from a number of sources including:
- a. our own observations of the key meetings and the associated papers and discussions;
 - b. a joint statement provided by HAL and the airlines;
 - c. other submissions made by the parties;
 - d. regular bilateral discussions that we have held with both HAL and the airlines;
 - e. feedback from discussions with DfT officials;
 - f. reports prepared by the Independent Funds Surveyor (IFS); and
 - g. our own analysis (including financial and affordability modelling, and advice that we have received on cost efficiency from our expert consultants (Arcadis).
21. Based on the above information, we set out below our provisional views on how well HAL has engaged with and responded to the airline community on the appropriate scope, design and costing of capacity expansion at Heathrow airport.

Phase (i) a review of the engagement process

22. HAL has worked hard to engage in good faith and respond to the requirements and challenges set by the airlines. It has shown flexibility and a willingness to listen, and invested significant resources in its efforts to make the multilateral engagement process effective. HAL has also engaged with airlines on a bilateral basis, including those with a significant presence at Heathrow airport.
23. Overall the quality, maturity and intensity of the engagement process has improved markedly since the process started in December 2016. HAL and the airlines have been on an iterative engagement journey characterised by an initial phase of mobilisation followed by a process of learning by trial and error and ongoing improvement.
24. In response to feedback from airlines, our May 2017 Section 16 report highlighted a number of areas where HAL could improve its governance arrangements and engagement processes. HAL responded positively to these recommendations and introduced a number of changes and improvements to its approach.
25. The governance arrangements are now working better, with a regular rhythm of meetings across the key topic areas. We anticipate that the engagement framework will continue to evolve, and that it should remain flexible to accommodate developments in the capacity expansion programme.

26. The scope of engagement has been extensive, particularly through the Airline Working Groups (AWGs), which were convened on a fortnightly basis from August 2017. These have covered a wide range of topics, including capacity and efficiency, land use, runway operations, sustainability, surface access, terminals and satellites, the sub-masterplan assembly process, resilience and airline requirements. The AWGs have been the forum at which HAL has gathered airlines' and cargo carriers requirements on key aspects of the scheme design.
27. Our September 2017 report acknowledged that HAL had made significant progress on governance issues, but said that further progress was necessary on how consumer interests are being represented in the process and in relation to information on cost efficiency and affordability. Since our September report, HAL appears to have made only limited further progress in addressing these recommendations, particularly on cost and affordability. This has restricted the ability of airlines to engage across a full range of issues, and means that consumers' views will need to be better represented in the process as HAL formulates its preferred masterplan.
28. In January 2018, we wrote to HAL requesting that it provide a detailed timetable for producing estimates of the costs for its masterplan options. These estimates were to be developed as soon as possible, in a way consistent with best practice, and in a way that allowed the identification of both the risks and choices available, and the degree of confidence that can be derived from what may be relatively early cost estimates.
29. HAL responded to this request on 16 February 2018 and has highlighted two key stages of the process that will support the provision of enhanced cost estimates: its Q3 2018 target for producing a single preferred masterplan; and its Q3 2019 target for further developing its masterplan to support the submission of its DCO. It has estimated tolerances for its various cost estimates, with estimates provided in Q1 2018 having tolerances of -25% to +45%, those in Q3 2018 -20% to +35% and those in Q3 2019 -15% to +30%. Its full response is set out in Appendix 2, and we would welcome stakeholders' views on the information that HAL has provided on these matters.
30. In February 2018, HAL also provided us with a copy of the IFS report on the costs of the Westerly Option. This IFS report built upon an earlier, more detailed, review of HAL's cost estimates for an earlier version of the expansion scheme. It provided a review of the high level adjustments between these earlier costs and HAL's plans for the Westerly Option. We welcome this increase in transparency, but note that the provision of this report at such a relatively late stage means that its impact on the engagement process ahead of this report is necessarily limited. As we explain further below, the IFS report expresses some reservations about HAL's cost estimates.
31. We recognise that HAL has made efforts to engage with non-incumbent carriers and look to HAL to explore further how this might be taken forward and developed as the processes to support capacity expansion continue.

Phase (ii) Identification and evaluation of the outputs

32. The projections that HAL has made in support of the Westerly Option envisage reconfiguration and re-phasing of the plans as well as early lifting of the air transport movement (ATM) cap at Heathrow to stimulate passenger growth during runway construction. Alongside this, HAL developed a revised illustrative passenger scenario in the light of its discussions with airlines on the prospects for growth in the numbers of passengers. HAL stated this results in materially higher traffic demand forecasts that are relatively ambitious.
33. HAL's high level cost estimate indicates that this option could reduce:
- the overall cost of expansion from its July 2016 revised Airports Commission estimate of £16.5 billion by over £2.5 billion; and
 - the total capital expenditure across the airport (i.e. including business as usual capital expenditure) up to 2035 by over £6 billion.
34. HAL has calculated that this revised capital plan could result in a 20% reduction in the maximum level of forecast airport charges per passenger from £29.1 on average to £23.3 on average during the H8 period, all expressed in 2014 prices.
35. The airlines have broadly welcomed the emergence of this new option, but continue to have a number of material concerns, particularly around cost and the consequential impact on airport charges.
36. The ToR for our Section 16 reporting note that we should identify proposals advocated by HAL or the airlines which are not taken forwards. Airlines have noted there are two specific proposals they have advocated that HAL is not taking forward as part of its masterplanning process. These are options for:
- a runway location that would avoid crossing the M25 motorway; and
 - aviation fuel storage that are located far away from the airport.
37. The information that we have available suggests that HAL has analysed and assessed these options carefully, and shared its analysis with airlines. In relation to runway location, we note that HAL has focused on options consistent with the recommendations of the Airports Commission and draft NPS.
38. HAL has provided relatively little detail on its cost estimates for the Westerly Option and there is currently a lack of information on cost efficiency and the risks and uncertainties around its estimates of the costs of the Westerly Option. HAL has said that because of complexity and challenges of the wider programme, its work towards a preferred masterplan is not due to be completed until Q3 2018 and, until then, only limited information will be available on costs.
39. We recognise the requirements of the wider expansion process and that HAL is working hard on options for scheme design to support the development of its masterplan. We also welcome the progress that has been made on airline engagement and that HAL has embraced changes to the overall scheme design to promote the Westerly Option.

However, as noted above, we consider there is a lack of detail in the information on costs and that airlines have legitimate remaining concerns about cost efficiency, affordability and the overall scheme design. These matters are discussed further below.

Phase (iii) Assessment of the effectiveness of the engagement process

40. Significant progress has been made on engagement and developing the Westerly Option, as well as developing various options for different components in HAL's masterplan. Nonetheless, much remains to be done both between now and when the Section 16 process concludes in April 2018, and in the period until HAL formulates its preferred masterplan in Q3 2018.

Consumers

41. In our role as economic regulator of HAL, our primary duty is to further the interests of consumers. In our September report, we noted that HAL had recently issued its draft strategy for engaging consumers during its processes for both capacity expansion and wider business planning (including for our next review of HAL's main price control). While we viewed this as a step in the right direction, we considered there remained much for HAL to do to bring the consumer voice (passengers and cargo users) more directly into the capacity expansion process. Since then, we have explained to HAL that the first version of its strategy did not have enough focus on capacity expansion, and did not clearly set out the steps HAL was going to take to address this. HAL has subsequently issued a revised strategy that reflects our feedback and that from the Consumer Challenge Board (CCB) and airline community, which has improved the quality and content of the strategy.

42. HAL has also provided us with its high-level timeline for engaging consumers on expansion, through existing and planned research and engagement during 2018. HAL's planned activities include passenger priority and trade-off research, the recruitment of a consumer community which HAL has said will represent key passenger segments to co-create the future passenger journey, as well as additional engagement with cargo carriers.

43. We welcome the progress HAL has made on improving its consumer strategy and the information provided on its plans for 2018. HAL should now ensure that it provides an audit trail and the underlying evidence showing how it has translated the key outputs from its consumer research and engagement into its masterplan and price control business plan. This should provide assurance that consumers' priorities and preferences have been reflected in HAL's approach to key areas including resilience, terminal design and surface access. The CCB should also play a major role in scrutinising HAL's consumer research and engagement and how this is translated into its masterplan and business planning processes.

Cost information

44. We said in our September 2017 Section 16 update that, without substantial further information on costs and benchmarking, (i) airlines would not be able to judge the cost efficiency of HAL's proposals, and (ii) there would be a significant gap in the information

we require to be able to report to the SoS that the engagement process has been a success. For these reasons, we recommended that HAL should prioritise these matters over the coming months by working closely with the IFS, our technical advisors (Arcadis) and the airline community urgently to develop a new work stream that focuses on the cost assessment issues set out in the ToR.

45. HAL has made good progress in optioneering and evaluating components as part of the masterplanning process. In particular, HAL has provided further information to airlines, principally through the governance groups, on its component level reviews. These reviews look at options and costs for key items such as the runway, M25 alignment and junctions, local roads, rivers and flood storage, and terminals, satellites and aprons. These costs have also been scrutinised in some detail by the IFS and by our technical consultants, Arcadis.
46. The findings of Arcadis on the component reviews can be summarised below. We also note that these findings are broadly consistent with those made by the IFS:
- the current design for each of the options within the key components is at a very high level, making cost assessment challenging. Nevertheless, HAL’s approach to the “base cost” elements is generally in line with industry standards;⁶
 - the majority of the “add-on” costs⁷ used by HAL are in line with industry standards. However, there are some allowances for “project specifics”⁸ which appear insufficient and should be carefully considered for each option to ensure the allowance reflects the nature of the works. HAL has also applied different approaches for the evaluation of risk;
 - a further review of HAL’s approach to risk is required to ensure a robust risk management structure is in place, which should also incorporate appropriate mitigation measures; and
 - HAL’s estimates are currently expressed in 2014 prices to enable direct comparison to the Airports Commission report: adjusting them to current prices scheme should be carefully considered at the next stage of the review.
47. In addition to the component review, Arcadis carried out an assessment of HAL’s cost estimating processes and has made some further recommendations for how these could be improved e.g. to review the depth, breadth and maturity of benchmarking. We are in the process of finalising these reports with Arcadis and intend to publish them on our

⁶ The “base cost” is the cost of undertaking the works excluding on-costs, project specifics and risk. Which then allows normalised benchmark rates from similar projects to be applied.

⁷ “Add-On” costs comprise On-Costs (i.e. Internal management, design, planning and survey costs etc). These are generally applied as a percentage of the base construction cost at early stages of design.

⁸ “Project Specifics” are the adjustment made to the ‘Ideal’ base construction cost to reflect what is likely to be encountered on the bespoke piece of work being considered Further information is available in the Arcadis report.

website shortly. We will expect HAL to take account of the recommendations being put forward by Arcadis as it develops its masterplan over the coming months.

48. In terms of the Westerly Option, we accept that the level of information currently available is constrained by the overall timetable for capacity expansion and the implications of this for the timing of HAL's preferred masterplan (which is due in Q3 2018). Nonetheless, HAL's high-level cost estimates for the Westerly Option were first produced in summer 2017. The further supporting information was not provided by HAL until February 2018, which consists of a short report by the IFS focusing only on the reconciliation of the cost estimates provided in the Westerly Option to early cost estimates provided by HAL.
49. The IFS report raises a number of concerns about HAL's cost estimates, including that:
- there needs to be a more detailed explanation of the scope of amendments envisaged in the Westerly Option and the rationale behind them;
 - there needs to be an evidence base to support the revised terminal design so that there is confidence that it will support the necessary throughput of passengers and appropriate levels of passenger services;
 - information on cost benchmarks needs to be provided to better support the cost estimates, particularly with respect to the revised terminal design; and
 - more clarity is required on the allowances for contingency and this should be properly integrated with the approach to affordability modelling.
50. In light of these concerns, we have also commissioned Arcadis to review these costings further, but given the limitations of the base data Arcadis will require significant input and assistance from HAL. Without such assistance, it is not clear that Arcadis will be able to narrow the range of uncertainty that is associated with current cost estimates in the short time between now and April 2018.
51. Looking forward, it is important that stakeholders can have confidence in the processes and information that HAL provides on cost efficiency. As noted above, HAL has now provided a timetable for the provision of further information (as set out in Appendix 2) and we would welcome stakeholders' views on this timetable. We also set out below, in the section on next steps, further action we could take that would create clearer obligations on HAL to prepare and provide information in support of the timely delivery of capacity expansion.

Other issues raised by airlines

52. In addition to general concerns about cost efficiency and affordability, airlines have also identified a number of major areas of outstanding concern. These include:
- a. the costs and risks of alterations to the M25 and bridging the new runway over the motorway;
 - b. the treatment of planning and early compensation and construction costs;

- c. facilitating third party development at Heathrow to introduce competition to HAL;
- d. the treatment of risk and contingency;
- e. operation of terminals and airfield and how this drives demand, particularly with regard to automation;
- f. the objective to improve resilience compared to today;
- g. issues around surface access, including passenger and colleague modal shift and congestion charging (and the impact of these measures on passengers and passenger traffic scenarios); and
- h. night flights and respite options including the concern that HAL does not appear to have considered airlines' proposals for increased respite for local communities

53. HAL should clarify its position on these issues as soon as possible and, where practicable, make substantial further progress on these matters to inform our final Section 16 report in April 2018.

Further information on affordability

54. In our September 2017 update to the SoS, we said it was imperative that HAL builds on its overall vision for affordability by providing more information on the key building blocks of its affordability calculations, and carries out additional robust and compelling analysis where appropriate. While HAL has run various Costs and Benefits Working group sessions with the airlines on the building block model, we consider HAL has made limited progress in addressing our recommendation.

55. To support the wider discussion on affordability, and to inform our own work for the price review, we have developed a financial model. As part of the process for testing the model and exploring scenarios, we have shared some of our preliminary analysis with HAL and with airlines. We have also provided them with our spreadsheet model.

56. Over the coming month, HAL should work with us and with airlines to improve the evidence base so that we can collectively develop analysis on affordability and financeability to inform our final Section 16 report in April 2018. We expect HAL to provide further supporting information and evidence on key assumptions (passenger traffic scenarios, likely ranges for capital expenditure, net non-aero revenues, and regulatory depreciation) and urgently work with us to provide greater assurance on the robustness of these assumptions. This would greatly help our initial assessment of the prospects for capacity expansion being affordable and financeable and whether the assumptions necessary to support these conditions appear credible.

Next steps

57. The process of airport and airline engagement at Heathrow has significant advantages for consumers, with airlines being able to input into the process for overall scheme design and make clear their priorities and share their expertise. It has also focused attention on some of the key challenges associated with capacity expansion and revealed that much remains to be done to secure the delivery of capacity expansion in a way that is in the interests of consumers, is affordable and financeable.
58. We want to build on the success of the current Section 16 reporting and create a process that is sufficiently agile and focused fully to support airport-airline engagement through the next review of HAL's price control including the period during which HAL prepares its DCO application.
59. Our initial view is that this process should be based around the following high-level considerations:
- we should continue to be actively involved in the engagement process, facilitating discussion and ensuring that the interests of consumers are fully reflected in the plans for capacity expansion;
 - in order to protect consumers' interests, it is necessary that capacity expansion is both affordable and financeable, which are key considerations for the development of the regulatory framework and the discharge of our statutory duties. Bearing this in mind, our approach to facilitating engagement should be fully integrated with our approach to developing the regulatory framework for HAL;
 - the process should reflect the national importance of infrastructure development at Heathrow airport, and we should continue to report to the DfT and ensure that the process is sufficiently transparent, including in relation to the tracking of risks and risk mitigation strategies. To the extent practicable, the process should be responsive to any concerns the DfT may have;
 - HAL should commit appropriate resources to the engagement process, engage constructively with airlines, and continue to respond to their reasonable concerns including in relation to the provision of detailed cost information;
 - airlines remain central to the success of capacity expansion at Heathrow and, without affordable airport charges, it will not be possible to capture the benefits of expansion either for passengers or the wider economy. Nonetheless, airlines also have responsibilities including: committing appropriate resources to the engagement process; not seeking to obstruct the reasonable interests of potential new entrants; engaging constructively in the process (including respecting confidential information and not seeking to create unnecessary distractions by the premature or inappropriate release of information); and accepting that cost efficiency and the consumer interest will not always be about the lowest possible cost since matters such as developing passenger facilities of an appropriate quality and a resilient airport are also important objectives;

- there should be no decline in the current level or quality of engagement, but the arrangements should be fully flexible to reflect changes in the capacity expansion programme. Engagement should be tailored and proportionate and encompass “business as usual” matters as well as capacity expansion;
 - bearing in mind the limited amount of information that is available on cost efficiency and affordability, we should respect the suggestion by airlines that the process for capacity expansion should include a formal opportunity to express their commercial views on whether sufficient comfort is available on overall scheme affordability before HAL incurs significant early construction costs or submits a DCO application. We would take these views carefully into account in developing the regulatory framework for HAL, but our approach would continue to be guided by our statutory duties and, in particular, our duty to protect the interests of consumers;
 - we will also continue to publish updates on airport-airline engagement, financeability and affordability, and our approach to developing the regulatory framework on a regular basis; and
 - other stakeholders are also important to the engagement process and should have appropriate roles in it. The IFS should continue to report to HAL and airlines on cost efficiency, with stakeholders taking steps to ensure that its draft and final reports are circulated to all relevant parties in a timely manner. The process for finalising these reports should be transparent. The CCB should also have an active role in the process, helping ensure that HAL’s masterplan and subsequent price control business plans are based on, and fully reflect, good quality consumer research and engagement.
60. We will continue to consider whether there are further steps we should take to create clearer obligations on HAL to prepare and provide information in support of the timely delivery of capacity expansion. In our June 2017 consultation on the regulatory framework we noted that:
- HAL does not have a licence condition to develop, maintain and operate its assets in an economical and timely manner; or
 - a licence condition incorporating clear processes for constructive engagement.
61. We are considering revisiting these issues in a future consultation on developing the regulatory framework, and could take that opportunity to consider whether any new obligation on HAL could usefully be expanded. For instance, we could consider developing obligations specifically to address particular aspects of the preparations for capacity expansion, including the preparation and provision of information on cost efficiency and information properly to support affordability modelling. We consider that there are clear advantages to HAL to providing airlines and other stakeholders with the information that they need without being required to by a licence obligation. We will, however, continue to monitor HAL’s response to help us determine whether we should prioritise taking steps to formalise these arrangements in the future.

62. In addition, HAL should keep an open mind on the benefits that can derive from alternative delivery mechanisms. We will expect HAL to stand by the comments it made in its response to our June 2017 Consultation that it will engage in good faith with airlines and third parties coming forward and wishing to discuss and develop such arrangements.
63. As well as the high level considerations for building on the current Section 16 process described in Paragraph 59 above, the recommendations we have made in this report are summarised below:
- we recognise that HAL has made efforts to engage with non-incumbent carriers and look to HAL to explore further how this might be taken forward and further developed as the processes to support capacity expansion continue;
 - HAL should ensure that it provides an audit trail and the underlying evidence showing how it has translated the key outputs from its consumer research and engagement into its masterplan and price control business plan;
 - HAL's CCB should play a major role in scrutinising HAL's consumer research and engagement and how this is translated into its masterplan and business planning processes;
 - we will expect HAL to take account of the recommendations being put forward by Arcadis as it develops its masterplan over the coming months;
 - we have also commissioned Arcadis to review the costs of the Westerly Option further and HAL should provide Arcadis with all the assistance it reasonably can to support Arcadis in producing a high-quality report;
 - HAL should clarify its position on the outstanding concerns identified by airlines and summarised in paragraph 52 above;
 - over the coming month, HAL should work with us and with airlines to improve the evidence base so that we can collectively develop analysis on affordability and financeability to inform our final Section 16 report in April 2018. We expect HAL to provide further supporting information and evidence on key assumptions (passenger traffic scenarios, likely ranges for capital expenditure, net non-aero revenues, and regulatory depreciation) and urgently work with us to provide greater assurance on the robustness of these assumptions; and
 - HAL should stand by the comments it made in its response to the June 2017 Consultation that it will engage in good faith with airlines and third parties coming forward and wishing to discuss and develop such alternative commercial arrangements.
64. We now expect HAL urgently to take forward the actions and recommendations summarised above and to report to us on their progress no later than Thursday 29 March 2018. We also invite views from all stakeholders on the issues set out in this report and would welcome submissions by no later than Thursday 29 March 2018.

Appendix 1 – HAL and airline joint statement

Introduction

In our September 2017 Section 16 report, we noted that Phase (ii) requires us critically to assess the extent to which the engagement process has developed tangible changes to the scope, design and cost of the runway scheme and that Phase (iii) is about assessing the effectiveness of the engagement process.

To help inform our assessment for this update and our final report to DfT in April, we invited HAL and the airline community to work together to produce a joint statement setting out their views on the 9 key deliverables specified in Phase (ii) of the ToR and 7 key deliverables in Phase (iii).

The parties had some difficulties in developing the joint statement due to a mis-alignment of the detailed points in the ToR and the wider expansion timetable. HAL and airlines also noted that the process was time and resource intensive for both parties at a very busy stage in the engagement process.

Nonetheless, they have worked together to identify areas of common ground as well as highlighting areas of difference such as on costs and affordability. We are encouraged that both parties engaged in good faith and put in considerable effort to agree the joint statement at a very busy time in the expansion process.

The following statements represent the joint viewpoint (of both HAL and the airline community) on the current status of airport-airline engagement on the appropriate scope, design and cost of new runway capacity as of January 2018. These statements specifically relate to phases (ii) and (iii) of the ToR for the present Section 16 process.

Phase 2 - evaluation of the outputs from the engagement process

This section involves a critical assessment of the extent to which the engagement process has delivered tangible changes to the scope, design and cost of the runway scheme

Key changes made to the scheme design as a result of airport-airline engagement

Since the beginning of the current engagement process in December 2016, HAL has acknowledged feedback that the original North-West runway scheme submitted to the Airports Commission did not represent a capital plan that the airline community could support.

In addition, as part of the government's preferred option announcement in favour of Heathrow Expansion in October 2016 the SoS challenged HAL to "deliver a plan for expansion that keeps landing charges close to current levels".

In summer 2017 HAL, prompted by airline engagement, developed a new masterplan option known as "the Westerly Option" in response to the affordability challenge.

The proposed changes to the scheme that could underpin this new developing capital cost plan include:

- The early lifting of the ATM cap to stimulate early passenger growth during runway construction. In principle the airline community supports early lifting of the ATM cap if airline concerns can be addressed. These include if HAL were to go ahead with an early introduction of the ban on scheduled night flights, this could limit the benefits of an early lifting of the ATM cap and negatively impact resilience levels. Moreover, the Airline Community has not yet seen evidence that the impact on airport resilience and punctuality associated with more intensive use of the airfield will be acceptable. HAL has committed to sharing more information with the Airline Community on the early lifting of the ATM cap.*
- The development for consideration on request of the airline community of a westerly option to deliver additional early capacity*
- A plan to share a reconfiguration of infrastructure phasing to better align to passenger demand*
- A substantial reduction in baggage and track transit requirements.*

HAL have said that the capital envelope has now been set by the costs attributed to the Westerly option (as a proxy) and they have committed to work within it. HAL's high level cost estimate indicated that this option could reduce the forecasted cost of expansion by over £2.5bn and the total capital expenditure of the airport expansion up to 2035 by over £6bn. The airline position is that capital only represents one element of the overall expansion programme – there are significant gaps on scope, risk, passenger forecasting as well as other key elements of the price control in addition to cost and affordability alone. Therefore,

the affordability cannot be fully assessed and signed off by airlines until this is provided by HAL.

As expansion is in the early stages of development including passenger forecasts, airlines are not in a position to yet agree the passenger forecasts that are being applied to inform expansion masterplan development. Work is ongoing in relation to passenger forecasts. The airlines understanding is that HAL themselves wish to re-visit passenger forecast used so far to inform expansion development to date.

This includes the cost of expansion and for the running of the airport, including a defined amount of surface access contribution. The airline community continues to challenge HAL to continue to reduce the costs of expansion beyond their commitments so far, and HAL has committed to work with them to identify further capex savings where appropriate.

HAL believes that this reduction in capital spend could result in a 20% reduction in the forecasted peak airport charge from £29 to £23. HAL considers this is close to meeting the expectations set out by the Secretary of State. HAL also note that there is further potential to reduce the charge with additional passenger throughput.

Airlines believe that this HAL position does not go far enough and that there is still scope to reduce the charge for expansion further other than just through increased passenger numbers.

Airlines welcome the progress made to date but continue to have concerns about costs. HAL has not yet reached the planning gateway where it has a single preferred masterplan, therefore there is not yet clarity on what will be built and at what cost. Therefore, at this point the Airline Community believe that they have insufficient evidence to say whether the plan is affordable or not or whether it delivers appropriate scope and benefits.

Key changes made to delivery and implementation plans, particularly any changes to the approach to construction or to the phasing of the project or knock-on effects on the passenger

Proposals to build infrastructure closer in line with passenger demand has meant that the planned delivery of new terminal infrastructure has changed and is now phased over a longer period of time.

The airline community have said that they will be seeking assurance that they will be provided with additional capacity and growth opportunities as well as acceptable levels of service for passengers in order to secure their support.

As the masterplanning process moves into the next phase with HAL developing a preferred masterplan, both HAL and the airlines will better understand what is required to maintain the levels of service that passengers experience at Heathrow today.

With an agreed CAA model and sufficiently robust data, i.e. a single costed masterplan, the airlines will be able to evaluate whether expansion at Heathrow is affordable.

HAL has also noted that it will retain its own modelling capability for investment case purposes.

To further reassure the airlines on affordability, a portfolio governance approach will be developed and agreed with the airlines. This approach will put in place Go, No/Go decision gateways post NPS designation to provide additional reassurance to the airlines on the affordability of the scheme before major investment decisions are taken.

How these changes are expected to impact on the service offered to existing and future passengers and cargo owners

Both HAL and the airlines have said they are committed to ensuring that expansion delivers for the needs of future passengers and cargo owners. In Autumn 2017 HAL developed its draft consumer engagement strategy for both H7 and expansion outlining its plans to engage with consumer groups on expansion.

Once there is a preferred masterplan HAL will begin to implement this strategy and commence detailed engagement with consumers to design services and facilities in their aligned to their interests and needs.

Airlines engaging in this process reiterate their desire to ensure that their own comprehensive consumer research is fully taken into account.

Areas where there is agreement over scheme design assets, but significant differences of opinion on the costs and efficiency of these elements of the scheme. This should cover the costs, procurement and delivery methods proposed

The areas of the scheme where there remains significant differences are the affordability of expansion, length and location of the runway. Additionally, differences remain on surface access project contributions, the impact of any congestion charging or solutions to meet HAL's surface access commitments and community compensation. Efficient capital spend also remains a concern to the airlines, this will be considered further throughout 2018.

At present the Airports National Policy Statement remains in draft but has been through consultation. On the runway location airlines have accepted HAL's position that the new runway should be in accordance with the NPS. This is in terms (in the draft NPS) of both a full-length runway and to the north-west of the current airport campus. Where disagreement arises is over the definitions of both "full-length" and "north-west".

The airline community have welcomed HAL's offer to engage with them on the principles for a procurement strategy via a Procurement Strategy Group that they will initiate in Q1 2018. Both HAL and the airlines agree that there must be efficiency in the procurement and delivery of all capital projects across Heathrow in order to ensure value for money for customers.

The airline community remain very concerned over the cost risks of the proposed alignment. If the final scheme proves to be too costly, or undeliverable. Airlines will then wish HAL to consider a review of a non M25 bridging scheme.

Key issues identified and discussed during the engagement process, noting any issues which were particularly controversial

In Summer 2017, HAL and the airlines entered into a detailed engagement process over specific areas of the expansion programme. This took (and continues to take) the form of a bi-weekly full-day workshop to which both parties have committed significant resource to ensure this process proves successful

In addition, through various other fora, issues have arisen in the following areas over the course of the airport-airline engagement process. Each of these areas is covered by consultation 1 and so views are being sought by HAL from consultees at large, nevertheless this document summarises the views on these points that have been expressed by the airlines so far:

Surface access costs and contributions:

- 1. On the mode share targets, The Airline position is that the targets in the NPS were arrived at without consultation, and must not result in any form of punitive congestion charge for passengers to access the airport. Employees must also be able to reach work conveniently and affordably, and freight movements must be allowed to grow with demand.*
- 2. The airlines believe that they have already invested significantly in the Heathrow rail infrastructure (which forms over £1billionn of the RAB) which will be used by proposed schemes, including the spare station box and track stubs for Western & Southern access at T5. A contribution to Crossrail (c £70million) will also become payable during Q6. The need to commission the 'spare' station box at T5 when required is acknowledged.*
- 3. Further investment should be consistent with the CAA 'user pays' principle: to this end new schemes should be designed to deliver wider economic benefits, e.g.by supporting services running 'through the airport'. Schemes that provide the best value for money and access the strongest airport catchments should be prioritised.*
- 4. That being said, some form of fair contribution, regulated by the CAA, is likely for future schemes, and has already been committed to in principle by HAL. The main issue for airlines is that these costs are unknown, and no figures have been included in HAL's affordability calculations for the 'Westerly' or any other schemes.*
- 5. Airlines are also concerned about HAL's eventual contribution to the necessary bus and coach service expansion*
- 6. HAL believes that in order to both deliver for the expectation of the future passenger, and to meet the requirement of the draft NPS to have at least 50% of passengers travelling to and from the airport via public transport by 2030, the airport must have a robust surface access strategy. The airlines do not believe the airport should make any contribution to the currently proposed public transport infrastructure upgrades (e.g. western rail access to Slough and the great western main line and southern rail access to Clapham Junction and the south-western railway).*

HAL and the airlines have discussed at length the requirements for airspace change and are aligned to the urgent need for this to facilitate expansion as soon as possible.

Additionally, the airline community have identified the following priority issues:

- 1. Affordability in totality including cost efficiency*
- 2. Affordability; where the definition of affordability differs between HAL and the airlines*
- 3. Runway length and location*
- 4. Treatment of the M25 motorway bridging cost risk*
- 5. Night flights respite options*
- 6. Category B and Category C costs*
 - a. Whilst the structures are in place we have not reached a common position on Cat B costs. Agreement was made between HAL and the airline community on the detail, timing and reporting of information for Cat B costs but there continues to be a gap in this area from the airline perspective. The airlines also feel that HAL should provide a clearer picture of overall Cat B spend rather than managing on a quarterly basis. This is also being highlighted by the IFS.*
- 7. Passenger and colleague modal shift*
- 8. Congestion charging vs. other London airports*
- 9. Risk contingency*
- 10. Cost efficiency*
- 11. Compensation where the airlines feel HAL have committed unilaterally to compensation in excess of legal requirement and norms*

Whilst the airlines acknowledge that they have only engaged CAA and not HAL in discussions on the ability to facilitate third party development of Heathrow at this juncture, they will further expand this requirement in their supporting letter to this Section 16 report that they will send to the CAA.

Any implicit or explicit trade-offs between types of passenger interests (business, leisure, existing, future), or types of airlines (low-cost, full service etc)

As the masterplanning process to date has been considering the building block components in isolation, design of the expanded airport has not yet reached a level of detail to be able to consider specific passenger trade -offs, however the following broader trade-offs have been identified.

There could be a tension between passenger requirements and local-community impacts. While HAL as scheme promoter is committed to delivering an expanded airport that meets the needs and expectations of future passengers, it is also dedicated ensuring that the

expansion of the airport limits any impacts to the local community as much as possible. The boundary of the future airport is a prime example of this trade off.

Both HAL and the airlines agree that local community impacts need to be fully evaluated to understand the impact they may have on the expansion programme.

Furthermore, in delivery of the commitment to the local community, both parties agree that subject to the final NPS draft, it should be possible to offer highly valued respite periods of 6.5 hours without scheduled flights during the night period. While the exact timing of this has yet to be determined, any reduction in operating hours will inevitably have impacts to different passenger interests and types of airline. The early part of the operating day is a crucial period for both passenger and cargo airlines to ensure timely onward connections for both passengers and freight. In addition, key to the low-cost model of operating is to ensure high utilisation of aircraft, meaning that an extended night-period is likely to directly impact the cost base of future low-cost airlines, thus reducing the value to the consumer that these future airlines will bring to the airport.

Airlines are concerned that the draft NPS is overly prescriptive and thereby overlooks an invaluable opportunity to develop more innovative and less restrictive solutions that would still provide local communities with 6.5 hours or more of respite. The airlines have suggested an amendment to the draft NPS that could deliver better respite for local communities, whilst also safeguarding UK hub connectivity and competitiveness, and preserving the delivery of consumer benefits by way of increased competition and improved resilience. The airlines' view is that HAL is not considering these alternate options sufficiently which airlines believes give a "winwin" situation for both airline passengers and communities.

In addition to public transport infrastructure upgrades (as outlined above) in order to reach a public transport mode share of at least 50% by 2030, it is likely that the airport will have to further restrict the number of car parking spaces available to both passengers and colleagues. This is likely to disproportionately impact those passenger segments that make most use of Heathrow's car parks.

Any explicit trade-offs made by HAL and the airlines

There is consensus amongst HAL and the airlines that the future airport should provide more resilience to disruption than today, however any additional resilience must inevitably be traded-off between the cost of delivering it (e.g. through the provision of additional resilience facilities and infrastructure) and its resultant impact on the airport charge. Discussions of this nature between HAL and their airlines are still in their infancy and clarity on the level of trade-off in the area will come later in the planning process. Resilience prior to expansion must also be safeguarded.

Any proposals advocated by HAL or the airlines which were not included in the final design and the rationale for not including them

As part of HAL Consultation 1 HAL published and shared with the airlines the scheme development report, within which the evaluation process for each of the component options is detailed and discontinued options are highlighted.

HAL has not taken forward in the masterplanning process any options for runway location that avoids crossing the M25 motorway, something that the airline community had advocated. As detailed in the Consultation 1 documents HAL believes that the additional impact that would be caused to the local community would be unacceptable in terms of the compulsory purchase of residential properties and noise due to aircraft being lower over west London.

HAL has also not taken forward any options for runway length of less than 3,200m. This is because HAL believes that a runway shorter than 3,200m is not capable of accommodating the heaviest aircraft on the most weather disrupted days. Both HAL and the airlines are in agreement that the final length of the runway is subject to further work.

Additionally, the airlines view is that until they have assurance on the costs of bridging the M25 with the runway and can be confident that it can be delivered feasibly without incurring disproportionate risk, the ability to re-visit the idea of a runway located to the east of the M25 should remain open.

HAL has also not taken forward any options for aviation fuel storage that are located far away from the airport. This is due to the additional infrastructure required to access and service such facilities.

A summary of outstanding concerns of the CAA, promoter or airlines about the revised scope, design and cost of new runway capacity

The airlines' major concern remains the overall cost of expansion. While the new capital plan has the potential to deliver an airport that the airlines consider affordable, they consider that HAL has yet to provide sufficient detail about the underlying assumptions and elements that make up the capital plan and other regulatory building blocks to give confidence in the numbers shared.

Airlines also remain concerned by HAL's proposal and the associated costs of building a runway that crosses the M25 motorway. Their position is based on the risk factor on the M25 as highlighted by Highways England report and the IFS.

In addition, the airline community does not believe that HAL's plans include a sufficient amount of risk provision for such a large and complex Programme.

HAL has said that it fully recognises the airlines' desire to ensure the delivery of an affordable expanded Heathrow. However, HAL remains concerned that the airlines do not fully appreciate the importance of the local community within the debate and the need to deliver expansion in a way that limits impacts to this group as much as possible.

HAL acknowledges that there remain concerns within the airline community around the overall cost of expansion. However, HAL believes the manner in which some airlines have chosen to publicise these concerns in national media has served to undermine the process of airport-airline engagement as well as political support for Heathrow Expansion (regardless of cost).

Phase 3 – effectiveness of the engagement process

The extent to which the reasonable interests of existing and future passengers and cargo owners were reflected in the engagement process

Delivering an affordable expanded Heathrow is a key objective for both HAL and the airlines.

HAL believes expansion that delivers charges close to current levels would ultimately stimulate increased competition at the airport, having a direct benefit to the consumer (both passenger and cargo owner) by driving down airline fares in real terms. HAL considers that the updated capital plan, incorporating the Westerly Option, sets out a plan for expansion that can deliver on this promise.

HAL has also developed a draft consumer engagement strategy for H7 and expansion to ensure that the infrastructure and services that will be provided at an expanded Heathrow, also genuinely reflect the future interests and expectations of different consumer groups.

The airline view is that airlines already face intense competition for passengers across the South-East England airports, many of whom are expanding, for point to point traffic. Against this backdrop Airlines consider increased HAL airport charges will prevent airlines from attracting more passenger to use an expanded Heathrow.

According to internal airline analysis, on the transfer flows Heathrow airport charges are already up to 65%² more expensive than other major hubs for equivalent airport charges so further cost increases there will also jeopardise traffic. Airlines flying from Heathrow already face significant cost disadvantages stemming from HAL's high charges. Further cost increases are therefore likely to make it even harder for airlines at Heathrow to compete, which will jeopardise future growth and may even damage existing traffic levels. HAL has developed a draft consumer strategy which lays out the potential actions HAL could take post-NPS designation to gain further insight into passenger requirements. This strategy was developed as part of the H7 regulatory process.

The airline community note that the first draft of this was produced solely by HAL without airline input.

A second more substantial draft of the consumer strategy has since been produced which the airlines are reviewing with HAL. The process of garnering information from airline passengers, the methods of analysis and interpretation of this information and the translation of this into development proposals are a crucial dimension of the H7 and Expansion process. Therefore, we welcome the CAA noting that much work remains to be done by HAL in this area and the need for HAL to secure the support of airlines for the Consumer Engagement strategy as a matter of priority.

As recorded by the CAA, the last Section 16 input from the airlines had noted that HAL had been relatively slow to engage with the airlines on the production of an agreed Consumer

Engagement strategy. Progress has been slow in the interim period. Both parties are now scheduled to begin a joint review of the HAL draft at the end of January.

One of the reasons for the limited progress in this area has been the disagreement between HAL and the Airlines on the nature and scope of the Outcomes Based Regulation which could emerge from the consumer research. Several months were spent seeking common ground. We are pleased to report that this common ground has been agreed and signed up to in December 2017 by both HAL and the Airlines and is set out in an MoU on the scope of Outcome Based Regulation of Heathrow Airport Limited in H7.

The airline community is keen to progress the consumer engagement work and feed in their specific research of their passengers.

The extent to which any steps taken to involve consumers/consumer representatives in the process aided in identifying, clarifying and implementing those interests

HAL considers that a comprehensive research and engagement strategy has been developed that defines the menu of consumer research and engagement options covering both the H7 regulatory period, and the period of an expanded Heathrow. This strategy builds upon and is specifically focussed on consumer engagement for an expanded Heathrow, and sets out the options and proposed approach to be taken during 2018 to engage meaningfully with customers at the very early stages of the design process.

During 2018, HAL plans to set up a “customer community” that aims to represent current and future customer segments, and, after a period of orientation, will seek to engage customers on masterplanning options using preference analytics techniques to determine the relative perceived value of each option, and of the trade-offs between service provision such as comfort, travel time, cost, level changes, and connectivity.

Airlines engaging in this process reiterate their desire to ensure that their own comprehensive consumer research is fully taken into account.

The cost efficiency of the scheme design, with reference to cost benchmarks of other airports and comparable infrastructure projects

The IFS have conducted benchmarking work on expansion on behalf of HAL and the airline community under a joint commission. They have extensively reviewed HAL’s Purple Book on expansion costs for the initial scheme and their work continues at this juncture. On conclusion, both parties will have a better handle on the relativity of expansion at Heathrow to other comparable schemes.

This IFS review for specific elements of the scheme has resulted in a range of 10 – 15% for the base construction costs. They recorded different views on the project specific costs, preliminaries and risk contingency which are recorded in the reports. IFS view on risk was initially the single largest difference. This topic was debated at length and supported the view that the contingency should be viewed in the context of viability (i.e. within an

'Affordability Model') and recognising the significant variables that remain across the programme to control the budget.

This approach may facilitate a lower contingency given the overall position. To date, the airlines have not seen the result of modelling the capital cost estimate in this manner and await further detail on the Westerly Option to enable us to complete our review. It is therefore not yet possible for us to move beyond the principle suggested for risk.

Cost efficiency, in particular the treatment of programme risk remains a major concern for the airlines.

The overall effectiveness of the airport-airline engagement process and any outstanding airline or other stakeholder concerns about the engagement process

Both HAL and airlines have committed substantial resource since December 2016 to the engagement process for expansion. They have engaged together to work towards the ultimate goal of improving the plans for the future of Heathrow airport. HAL has developed a comprehensive airline communications strategy to ensure that all airlines are given the opportunity to get involved in the programme at the level that suits their needs.

The creation, re-development and continuous updating of the airlines SharePoint site (with material that is provided in an appropriate manner with regard to competition law and confidentiality obligations, and where it is strictly necessary for the purposes of ongoing engagement) has also aided the engagement process. The structures that have been co-created for the programme have also ensured the right level of governance has been put in place.

HAL is of the opinion that while concerns remain around the level of detail that has been shared about the capital plan, in general HAL has openly shared, in detail, the emerging plans around each area of the programme and each component of the masterplanning process. HAL believes that this has enabled the airlines to scrutinise and challenge HAL on each topic leading to a far more robust evaluation process to the benefit of the whole programme.

The airlines have said that at this stage of the process significant concerns remain about the lack of assurance on costs around the capital plan for expansion. They acknowledge that HAL is working to address these concerns but note that HAL will not have a fully costed capital plan until it has settled on a single preferred masterplan post NPS designation. Airline support for expansion will remain conditional on achieving this cost assurance and modelling the viability of the scheme against their own affordability criteria.

In addition, airlines have identified the following areas for further progression:

- 1. Runway length (3200mts-3500mts) and micro positioning*
- 2. Surface Access strategy, notably around costs, impacts and freight*

3. *Operation of terminals and airfield and how this will drive demands in the masterplan and infrastructure, particularly with regard to automation*
4. *Stand capacity, demand and pier service levels*
5. *Definition of resilience*
6. *Further requirement capturing and prioritisation including building the ‘Musts’ into the programme*
7. *Progression of the preliminary masterplans, understanding the analysis of each and the process to reach the M3 Gateway*

The extent to which reasonable airline preferences for the scope, design and cost of new runway capacity have been incorporated

The resounding challenge from the airlines at the beginning of the engagement process was to deliver expansion at an affordable cost to the airlines.

HAL considers that it has listened and responded to this feedback through its scrutiny of the Airports Commission capital plan and development of the new capital plan incorporating the “westerly option”. This capital plan shows an indicative price path that delivers a passenger charge close to current levels in real terms every year until the end of the H9 regulatory period.

The acceptability to the airlines, investors and other stakeholders of the revised scheme design (i.e. the level of agreement reached)

HAL believes that the updated capital plan represents an acceptably affordable and financeable plan for the expansion of Heathrow. Airline concerns around this plan arise from their lack of confidence that this capital plan will result in an equally affordable masterplan and ultimately that the outturn capital expenditure of the programme will align to this plan.

The early part of 2018 will see the engagement process turning to the detail of the capital plan to help build the required confidence in the revised capital plan.

While HAL and the airlines are not jointly able to comment on the acceptability of the revised scheme design to investors or other stakeholders, the airlines however, stress that their own investors want to ensure the financial viability of expansion.

Any key risks that HAL and its investors, the airlines, the CAA and Government could be exposed to as a result of the engagement process or the revised scheme design

HAL is of the view that, while the planning process requires it as the scheme promoter to give all stakeholder groups equal consideration, it does not believe this has unduly hindered open and meaningful dialogue with airlines, new and current.

HAL considers that the engagement has been appropriate given the requirements of the planning process. Nonetheless, it is important that this detailed level of engagement with the airlines is conducted in a disciplined way so that it does not constitute, nor is it perceived

as constituting, any undue preference to the airline community in the development of its expansion plans.

The airline community maintains that airlines are central stakeholders in the expansion programme and it is critical that the business case for expansion stacks up in order that airlines can afford to fly from Heathrow and have passengers who want to use their services. The airlines remain very concerned on the costs of expansion and the risks still held within the programme to this cost assurance.

Appendix 2 – HAL expansion cost timetable

Estimating Maturity Model						
Masterplan Portfolio						
Programme Gate	M1	M2	M3A	M3B	M4	M5
Indicative Dates	Q2 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q3 2019
Design Stage Definition	Strategic Definition	Component Options Development	Short List of Masterplan Assemblies	Evaluated Short List	Single Masterplan	Masterplan Finalisation
Purpose	Strategic Brief, Component Identification, Future Forecasts & Capacity Book, Future Requirements, Evaluation Criteria	Preferred Options Selection	Business Case Appraisal	Identify Masterplan Options	Preferred Masterplan Selection	Develop Masterplan for EIA & Consultation / NPS feedback for DCO submission
Estimate Type	Order of Magnitude (Facility level Capital Investment Plan)	Development of Key Component costings only	Order of Magnitude (Capital Investment Plan with learnings from Key Component costings)	Order of Magnitude (Capital Investment Plan with Evaluation of Key Components and wider masterplan studies)	Order of Magnitude (selected masterplan)	Pre DCO Portfolio Cost Estimate
Scope	100% of scope at facility level (£/m2 / £/item etc.)	As M1, (+) Key Components at greater level of detail, with IFS Review (53% of Cost) Plan: 1. Runway & Earthworks 2. M25 alignment & Junctions 3. Local Roads (A4, A3044, SMU) 4. Rivers and Water Storage 5. Terminals, Satellites & Aprons	Key Components remain at masterplan level of design detail and HEP Estimating Team begin evaluation of remaining masterplan assembly components. IFS engaged	Evaluated shortlist of masterplans with IFS review incorporated. Further cost maturity anticipated to include: 1. Property Cost Estimate (detailed PCE) 2. Airfield Infrastructure 3. Demolition / Enabling works (part) 4. Landside Infrastructure (Part) 5. Ancillary Facilities (part) 60% of cost at masterplan design	Further design development anticipated to support up to 80% of the Costs	Pre DCO Portfolio Cost Estimate representing a masterplan with best practice levels of masterplan design maturity
Capital Investment Plan Scope (less mature)	100%	47%	Same as previous as this is Evaluation Stage to inform M3B	32%	20%	5%
% of scope with masterplan design detail to support facility pricing		53%		68%	80% * Indicative Target	95% * Indicative Target
Baseline Capital Investment Plan	Purple Book B/L v.0.61 - 0.63 (Guloker / Cheaper to Westery Option)			Assemblies evaluated against Westery Option (Capex Affordability Envelope)	Baseline 1.0 New Purple Book	Baseline 2.0 Updated Purple Book
Key Outputs	Cost Plan Report	Component cost Plan Report	Cost Plan Report	Cost Plan Report	Cost Plan Report	Cost Plan Report
	Benchmark Report (Facility)	Benchmark Report (Component & Facility)	Benchmark Report (Facility & selected Components)	Benchmark Report (Facility & selected Components)	Benchmark Report (Facility & selected Components)	Benchmark Report (Facility & selected Components)
	Annual Cash Flow	-	Annual Cash Flow	Annual Cash Flow	Annual Cash Flow	Annual Cash Flow
	Assumptions Report	Assumptions Report	Assumptions Report	Assumptions Report	Assumptions Report	Assumptions Report
Risk Approach	Basic QRA supported by simple risk register	Risks assessed in component scope	QRA's for Key Components, expanding to full masterplan QRA @ M4			QRA Update for full masterplan to M5
Estimate Tolerance	-30% to +50%	-25% to +45%	-25% to 45%	-20% to +40%	-20% to +35%	-15% to +30%
Benchmarked by IFS	Capital Investment Plan at facility Level	Key Components	Key Components	75% of Masterplan (Facility Level) and supported by component benchmarks	100% of Masterplan (Facility Level) and supported by component benchmarks	100% of Masterplan (Facility Level+H10) and supported by component benchmarks

Transition from Portfolio Masterplan into Programmes and Projects, to be managed through the Heathrow Gateway Lifecycle (HGL) G - G6 Process Flow and Method Guidance