

Economic regulation of NATS (En Route) plc: Decision on licence modifications and guidance

CAP 2011

A large, abstract graphic composed of overlapping blue and purple shapes, resembling a stylized 'C' or a wing, occupies the lower half of the page. It features a gradient from light blue to dark blue and purple, with a white outline on the right side.

Published by the Civil Aviation Authority, 2020

Civil Aviation Authority
Aviation House
Beehive Ring Road
Crawley
West Sussex
RH6 0YR

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First published 2020
First edition

Enquiries regarding the content of this publication should be addressed to: rod.gander@caa.co.uk

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About this document

This decision relates to the price controls for NATS (En Route) plc's (NERL) regulated activities under its air traffic services licence for the period 2020 to 2022. It follows on from our August 2019 Reference Period 3 (RP3) price control decisions, the subsequent reference to the Competition and Markets Authority (CMA), the CMA's final report on NERL's price control arrangements, and our consultation on licence modifications to implement the CMA's final report. The decision is pursuant to the statutory requirements, under the Transport Act 2000 (the Act), to make licence modifications to give effect to a CMA determination.

The document encompasses:

- the modifications to the licence conditions required to remedy or prevent the adverse effects specified in the CMA's final report;
- the introduction of a new condition to NERL's licence, establishing processes and procedures to coordinate airspace modernisation (Condition 10a – Airspace modernisation);
- some minor licence modifications to improve the clarity of certain obligations created by the licence; and
- guidance relating to NERL's capital expenditure incentives.

If you have any questions on this document, please contact Rod Gander at rod.gander@caa.co.uk.

Summary and introduction

This document sets out the CAA's decision to modify the NERL licence and implement price controls following consultation under section 14 of the Transport Act 2000 (the Act). The Competition and Markets Authority (CMA) has informed us that it is content that the modifications notified to it on 18 November 2020 and set out below are those needed to remedy or prevent the adverse effects specified in its final report to the CAA in July 2020.

In autumn 2019, NERL rejected the CAA's proposals for new RP3 price controls and these matters were referred to the CMA to determine.

The significant impact on aviation of Covid-19 became apparent in spring 2020, after the CMA had conducted its substantive analysis on the RP3 reference. In response to a CMA consultation, the CAA, NERL and some other stakeholders suggested that the CMA could not reasonably take account of the impact of Covid-19 in its final report, as there would still be material uncertainty in relation to these matters.

The licence modifications in this document reflect:

- the CMA's final report to the CAA (which was substantively based on its pre-Covid-19 analysis but to reflect the ongoing uncertainty, the CMA determination covered only the period 2020 to 2022 inclusive, rather than the full five years of RP3 – 2020 to 2024);
- throughout our RP3 work programme we have been clear that NERL should have a key role in supporting the development and implementation of airspace modernisation in the UK. While the context has changed as a result of Covid-19, there remain benefits from an appropriately scoped strategy and programme. We are introducing a new licence condition to oblige NERL to set-up and manage an Airspace Change Organising Group (ACOG) and develop an airspace change masterplan; and
- a number of minor changes to NERL's licence to improve the clarity of certain obligations on NERL, created by the licence.

Our consultation on these modifications ended on 21 October 2020. We received three responses to our consultation. The respondents raised some questions and points on the clarity of our proposed Conditions and guidance. We have taken these into account in producing the revised Conditions and guidance in this document. Overall, however, respondents raised no points that have caused us to make substantial changes to our suggested modifications or guidance.

Introduction

1. NERL is the monopoly provider of en route and certain approach air traffic services (ATS) in the UK. NERL is currently subject to economic regulation of its en route services both under the European Union Single European Sky (EU SES) performance scheme, and the Act and licence conditions. We are required by the performance scheme regulation to set targets and incentives for NERL with regard to four key performance areas – safety, capacity, environment and cost efficiency – over five-year reference periods. The targets and incentives are part of the UK Performance Plan for RP3 and also inform the price control on NERL’s en route activities as set out in its licence. It is currently expected that when the implementation period for the UK’s exit from the EU ends, the Air Traffic Management (Amendment etc.) (EU Exit) Regulations 2020 will disapply the EU SES performance scheme regulation and so our economic regulation of NERL will be based solely on the provisions in the Act and the CAA’s licencing scheme. Where the UK and EU make an agreement encompassing ATM, we will need to consider what steps, if any, are appropriate to align the current regulatory framework with the agreed regulatory framework. NERL’s licence also includes a separate five-year price control for its charges for ATS for flights through airspace over parts of the Atlantic Ocean (Oceanic service).
2. The current Reference Period (RP3) started on 1 January 2020 and will end on 31 December 2024. On 29 August 2019 we published our price control decisions for NERL in the UK Performance Plan and Oceanic charges for RP3.¹ These decisions (our “RP3 decision”) were rejected by NERL² and on 19 November 2019 we referred the matter to the Competition and Markets Authority (CMA) under section 12 (s.12) of the Act for resolution.³
3. On 23 July 2020 the CMA sent us its final report on the reference.⁴ The CMA said that the price control licence modifications should:
 - allow an appropriate remuneration of NERL’s investments, properly reflecting the risks to which investors are exposed;
 - provide NERL with financial resources to achieve airspace modernisation while maintaining reasonable pressure to continue to deliver operational efficiencies;

¹ [CAP 1830 – ‘UK RP3 CAA Decision Document’ \(August 2019\)](#)

² [NATS \(En route\) Plc/CAA Regulatory Appeal – Final Report \(August 2020\)](#) – paragraph 2.65, page 30

³ [NATS En route Limited \(NERL\) Price Determination case page on CMA website](#)

⁴ [NATS En-route PLC/CAA Regulatory Appeal – Final report \(August 2020\)](#)

- provide appropriate incentives to protect the quality of service to airspace users;
 - strengthen NERL's accountability for carrying out its investment plans by putting in place appropriate incentive arrangements and encouraging NERL to develop new and improved governance arrangements; and
 - provide for technological enhancements in the Oceanic service necessary to create safety benefits.
4. The CMA determined that NERL's licence should be modified to provide:
- new price controls for NERL's Eurocontrol, London Approach and Oceanic services for three years from 2020 to 2022. The Oceanic price control allows NERL to recover the costs of using newly-introduced satellite surveillance data;
 - an enhanced role for the Independent Reviewer (IR) of NERL's capital expenditure (capex);
 - quarterly updates on NERL's Service and Investment Plans (SIPs);
 - a new capex efficiency incentive, with reference to a regulatory policy statement (RPS) on its operation; and
 - a new capex engagement incentive, with reference to CAA guidance on its operation.⁵

Licence modifications

5. Having regard to the CMA's final report, on 24 September 2020 we consulted on the modifications to the licence conditions that we considered would remedy or prevent the adverse effects specified in the final report, including:
- Condition 10 – Business Plans, Service and Investment Plans and Periodic Reports. This Condition sets out capex governance requirements on NERL;
 - Condition 21 – Control of Eurocontrol Service Charges;
 - Condition 21a – Control of London Approach Charges; and
 - Condition 22 – Oceanic Charges.
6. We also consulted on:

⁵ The CMA set out the licence modifications it expected us to make in appendix F of its final report.

- a proposal to introduce a new condition to NERL’s licence establishing processes and procedures to coordinate airspace modernisation (Condition 10a – Airspace modernisation); and
- some minor licence modifications to improve the clarity of certain obligations created by the licence.

Guidance

7. In its final report, the CMA said that it would be appropriate for the CAA to set out its approach to the capex efficiency incentive and capex engagement incentive in a RPS and guidance. Furthermore, the CMA noted that these should be available in draft at the same time as we consulted on Condition 10. While not subject to the statutory provisions of the Act with respect to consultation, in the September consultation we also sought stakeholder views on:
- the draft RPS for the capex efficiency incentive; and
 - the capex engagement incentive draft guidance.

Legal framework

8. The statutory requirements and processes for modifying NERL’s licence are set out in the Act. The requirements and processes are different for those modifications that relate to the reference to the CMA.

Licence modifications following a reference to the CMA – implementation of CMA determination

9. Under s.14(2) of the Act, following receipt of the CMA’s final report, we must suggest such modifications of the licence conditions as we consider are needed to remedy or prevent the adverse effects specified in the final report. Under s.14(3) and (4) of the Act, before making the suggested modifications, we must have regard to the modifications specified in the CMA’s final report and publish a notice setting out our suggested modifications, stating their effect and the reasons for proposing them, and stating a period of not less than 28 days within which representations may be made regarding the suggested modifications. Our consultation commenced on 24 September 2020 constituted the notice “s.14(4) notice”).
10. Following this consultation, under s.14(5) of the Act we are required to give notice to the CMA (“s.14(5) notice”) setting out our suggested modifications to

implement its determination and the reasons for the suggestions. We must also send the CMA any representations made in response to the s.14(4) notice.

11. Under s.15(2) of the Act the CMA may direct us not to make any or some of the suggested modifications notified to the CMA in the s.14(5) notice, but it may do so only if it thinks the modifications set out in our notice are not modifications which are needed to remedy or prevent the adverse effects specified in the CMA's final report. If the CMA does not direct us, we must make the modifications as set out in the s.14(5) notice.
12. If the CMA directs us not to make some of the modifications suggested in the notice, we must comply with this direction but we must make any remaining modifications to which the CMA's direction does not apply and were included in the notice.
13. If the CMA directs us not to make any or some of the suggested modifications, the CMA shall, under s.16(4) of the Act, publish a notice inviting representations on such modifications it thinks are needed to remedy or prevent the adverse effects specified in its final report. The CMA must, taking account of any representations it receives, then make such modifications to the licence conditions as it thinks are needed to remedy or prevent such adverse effects as are specified in its final report.

Other licence modifications – airspace modernisation and modifications to improve clarity

14. Under s.11(1) of the Act we may modify the conditions of a licence if its holder consents to the modifications. NERL agreed to the modification proposed to introduce Condition 10a and to the minor changes summarised in chapter 3 of the September consultation.
15. Under s.11(2) and (3) of the Act, before making modifications to a licence the CAA must publish a notice setting out the proposed modifications, their effect and the reasons for the proposal. The CAA must also state the period (of no less than 28 days) within which representations may be made regarding the proposed modifications. The September consultation document constituted such a notice.

CMA decision on our suggested modifications and next steps

16. On 18 November 2020, as required under s.14(5) of the Act we gave notice to the CMA setting out our suggested modifications to implement its determination and the reasons for the suggestions. We also sent the CMA the representations made in response to the s.14(4) notice. The CMA had until 16 December 2020 to direct us not to make any of our suggested modifications. On 30 November 2020, the CMA informed us that it would not be sending us any direction and that it was content that our suggested modifications are those needed to remedy or prevent the adverse effects specified in its final report to the CAA in July 2020.
17. We are now modifying NERL's licence by making the modifications to implement the CMA's final report, introducing the new Condition 10a as set out in chapter 2 of this document and making the modifications to improve clarity as set out in chapter 3 of this document.
18. After taking account of representations to our September consultation, we have made changes to two of our proposed modifications that are unrelated to the CMA's final report. NERL has consented to these modifications, which are to the definition of the business plan renewal date in Condition 10(18) and to a paragraph concerning operating leases in Condition 5(29).

Structure of this document

19. The structure of this consultation document is as follows:
 - chapter 1 discusses the responses to the September consultation on how we should modify NERL's licence to take account of the findings in the CMA's final report and determination and sets out our proposals on the way forward;
 - chapter 2 discusses the responses to the September consultation on how we should modify NERL's licence to take account of airspace modernisation and sets out our proposals on the way forward;
 - chapter 3 discusses the responses to the September consultation on how we should modify NERL's licence for the minor changes to improve clarity and sets out our proposals on the way forward;
 - chapter 4 deals with stakeholder comments on our draft RPS in relation to capex efficiency;
 - chapter 5 deals with stakeholder comments on our draft guidance for the capex engagement incentive;
 - appendix A sets out the revised licence conditions relating to the CMA's final report and determination;

- appendix B sets out the new licence condition and accompanying guidance in respect of airspace modernisation;
- appendix C sets out the minor licence modifications to improve clarity;
- appendix D sets out our RPS on the application of the demonstrably inefficient and/or wasteful capex incentive; and
- appendix E sets out our guidance on the application of the capex engagement incentive.

Chapter 1

Licence modifications to implement the CMA's determination

- 1.1 The modifications we consulted on in September to remedy or prevent the adverse effects specified in the CMA's final report and the representations we received on them are summarised below. We also explain any changes that we have made to the proposed licence modifications, in light of representations received. These modifications are designed to implement the CMA's determination (and achieve the outcomes set out in paragraph 3 of this document). Full versions of the modified conditions are in appendix A.

Condition 10 – Business plans, service and investment plans and periodic reports

Proposed licence modifications

- 1.2 In our September consultation we proposed to modify Condition 10 to:
- Require NERL to send us and users quarterly updates on its service and investment plans (SIPs) by the end of April and October each year.
 - Introduce a financial incentive on the efficiency of NERL's capex. The incentive shall be based on whether any of NERL's capex has been demonstrably inefficient and/or wasteful. The assessment shall be carried out following criteria in an RPS we produce. Any penalty shall be applied in the following regulatory period.
 - Introduce a financial incentive based on the quality of NERL's engagement with users on its capex programme. The incentive shall be based on the following assessment criteria:
 - timeliness;
 - user-focus;
 - proportionality;
 - optioneering;
 - responsiveness; and
 - mitigating/corrective actions.

- Specify that the process we would use to assess NERL's performance against the incentive shall be set out in guidance we publish and specify that any financial penalty should be related to NERL's return on equity on its actual capex in the reference period.
- Expand the role of the Independent Reviewer's (IR's) to include:
 - assessing whether NERL has sufficiently explained and justified its capex in its SIPs;
 - assessing and proposing scores for NERL's engagement with users against the criteria in the engagement incentive and published guidance;
 - tracking and assessing NERL's progress in delivering its capex programme and achieving the associated benefits; and
 - reporting on the cost efficiency of NERL's capex and its implementation.

1.3 Additionally, we proposed to modify Condition 10 to:

- Put back by one month the dates by which NERL has to submit SIPs and interim SIPs each year to 31 January and 31 July.
- Delete outdated requirements for NERL to produce detailed and outline technology programmes, a detailed airspace programme and an outline of options for implementing lower level airspace changes in London terminal airspace. These dates were specific to Reference Period 2 (2015-19).

Representations

1.4 We received the following representations on Condition 10:

- a) BA welcomed the increased role of the IR and the introduction of quarterly SIP updates.
- b) BA noted that the definition of the Plan Renewal Date of 1 January 2015 and every fifth anniversary did not appear to dovetail with the need for a new price review commencing 1 January 2023.
- c) IATA thought that the Independent Reviewer's role could be expanded to include whether NERL was providing a full ADS-B based Oceanic service.
- d) In response to our draft guidance, NERL said that the engagement incentive should only apply to capex begun after 1 January 2021.

CAA views on representations

1.5 The representations did not include any substantive comments on our proposed modifications. Our responses to the individual points are:

- a) We welcome BA's support for the increased role of the IR and for quarterly SIP updates.
- b) We agree that the current definition of the Plan Renewal Date does not include provision for price control reviews that do not coincide with the 5-year regulatory periods. As there may be benefits in shorter regulatory periods and the CMA determination set a price review covering three years, we consider that the definition should give us discretion to require NERL to provide Business Plans at other dates we reasonably specify. We will consult NERL before specifying another date.
- c) As noted in para 1.18(d) below we do not consider that there is significant uncertainty as to whether NERL is providing a full ADS-B service and so do not regard this as something that is appropriate for the IR to consider.
- d) The engagement incentive should commence on 1 January 2020 in line with the price controls, but we agree that it should apply to capex begun after 1 January 2021. This is because the guidance has not been in place so the expectations on NERL have not been clear until now. It is particularly important in light of the need for NERL to significantly review its capex plan because of the effects of Covid-19. Nonetheless, it will also apply to capex projects that began before that date that are subject to material changes after that date.

Licence modifications

1.6 After taking account of representations, we are making the modifications suggested in the September consultation, plus the following further minor clarification:

- Condition 10 (8) will start "From 1 January 2021, the Licensee..."; and
- modifying the definition of Plan Renewal Date in Condition 10(14) to:
 - means 31 December 2020, or such other date as the CAA shall reasonably specify after consultation with the Licensee, and every fifth anniversary thereof".

1.7 The modified Condition 10 is in Appendix A.

Condition 21 – Control of Eurocontrol service charges

Proposed licence modifications

- 1.8 In our September consultation, we proposed modifying Condition 21 to implement the CMA's control on Eurocontrol charges for 2020-22, including the level of determined costs, target values for the C1, C2, C3 and C4 service quality incentives, the number of exemption days for the C4 incentive and target values for the 3Di environmental incentive. We also proposed adding terms to return Innovation and Networks Executive Agency (INEA) funding and any unspent portion of the Future Airspace Strategy (FAS) Facilitation Fund to users and updating the list of exemptions from the C3 and C4 capacity incentives.

Representations

- 1.9 We received the following representation on Condition 21:
- a) NERL noted that we stated that we intended to enable it to recover the revenue difference between the CMA's decision and our decision on revenues for 2020 through our interim RP3 review. It suggested that including these adjustments in the price control decisions in the Licence for 2021 (or even 2022) would be the clearest way of establishing this intention and a clear baseline on which future consultations could be based.

CAA views on representations

- 1.10 In our next price control review we will consider how best to allow for any revenue corrections for 2020, given the extraordinary impact of Covid-19 on aviation. As set out in our September consultation, in conducting this assessment our assumption on the charges that NERL would have been entitled to recover will be the assumptions set out in the CMA's final report. We regard this as a clear policy position and do not consider that a licence modification would bring further clarity to these matters and so do not intend to modify the licence modification drafting to take account of these matters.

Suggested modifications

- 1.11 Bearing the above in mind we are making the licence modifications to Condition 21 set out in the September consultation. The modified Condition 21 is in Appendix A.

Condition 21a – Control of London Approach charges

Proposed licence modifications

- 1.12 In the September consultation, we proposed modifying Condition 21a to implement the CMA's determination for London Approach charges in 2020-22,

including determined costs and adding an 'other revenues' term to adjust for revenues collected from Biggin Hill.

Representations

1.13 We received the following representations on Condition 21a:

- a) As mentioned in paragraph 1.9(a) NERL said that we should include the difference between the CMA and our decision for 2020 in the licence.

CAA views on representations

1.14 As set out in paragraph 1.10 above, we do not consider it appropriate to modify NERL's licence in respect of these matters.

Suggested modifications

1.15 We are making the licence modifications set out in the September consultation for Condition 21a. The modified Condition 21a is in Appendix A.

Condition 22 – Oceanic charges

Proposed licence modifications

1.16 In the September consultation, we proposed modifying Condition 22 to implement the CMA's determination for Oceanic charges for the period 2020 to 2022, including:

- moving from one Oceanic charge to separate charges for transatlantic flights ("Atlantic flights") and flights through the eastern Atlantic area bordering Ireland, the UK, France, and Spain ("Tango flights");
- adding a charge for the use of satellite-based ADS-B data, with separate charges for Atlantic and Tango flights;
- introducing a requirement that NERL can only levy ADS-B data charges if it has certified that it is operating a fully ADS-B based service to 99% of all flights in the oceanic area; and
- establishing a requirement for NERL to commission an independent review of whether the benefits of providing ADS-B outweighed the costs of provision. The review should take place no less than two years and six months after NERL has certified it is providing a full ADS-B service.

Representations

1.17 We received the following representations on Condition 22:

- a) As mentioned in paragraph 1.9(a) NERL said that we should include the difference in revenues between the CMA and our decision for 2020 in the licence.

- b) IATA questioned whether the charges formulae correctly implemented the CMA's determination on correcting charges for differences between forecast and actual traffic levels in 2020 and 2021.
- c) BA and IATA asked some questions about NERL's certification of whether it was providing a full ADS-B service:
- Over what period is the 99% measured?
 - What does being provided with a full ADS-B service mean? BA said it should not include compromised or degraded service levels, which do not enable full application of the reduced separation standards ADS-B enables, and it should include the filing of user preferred routes.
 - If there is a lack of regulatory approval, for instance if ICAO withdraw the relevant approval, then can ADS-B be considered fully available?
- d) IATA also asked whether there should be an independent assessment of whether NERL was providing a fully ADS-B based service. It suggested that this might be a task for the Independent Reviewer.
- e) NERL said that as ADS-B measures were yet to be agreed between it, the CAA and users, it was unclear what benefits would form part of the independent review. It suggested that the that the review should be of its performance against measures agreed with users and the CAA, rather than whether the benefits of providing a full ADS-B based service outweighed the costs.
- f) BA said that the independent review did not appear to be a particularly strong incentive. It asked:
- By when must the report of the review be delivered? It said that airlines should be consulted prior to any agreement by the CAA to delay the timeframe for the delivery of the report.
 - Whether the scope, form and level of detail (at least), if not the full terms of reference for the review, could be specified more tightly in the Condition?
- g) BA noted that the CMA:
- Agreed with a need for the review to be concluded earlier than the end of RP3.

- Was satisfied that further detail on the scope and approach, including the potential outcomes, of the review would be provided in the near future.
- Recommended that the CAA, NERL and users should define more precisely the approach to be taken and that there should be a clear understanding of how the review would operate before it started. Furthermore, that it was important that airlines would be able to participate by providing reliable information on the flight efficiency changes that had occurred in practice.

CAA views on representations

1.18 In summary our responses to these representations are:

- a) NERL's point on revenues is dealt with in paragraph 1.10 above.
- b) We have checked the charges formulae and remain of the view that they correctly implement the CMA's determination.
- c) We consider that:
 - NERL should only certify that it is providing the service, if it expects that it will be providing the service to 99% of flights for the foreseeable future. If the service is not provided to a flight after it has provided a certificate, it should not charge that flight for the service. If NERL does not provide a service for 99% of flights for an extended time period (i.e. three months), it would need to provide a new certificate when it returns to providing a service to 99% of flights.
 - NERL would not be providing a full service, if its service included any significantly compromised or degraded service level, which would not allow the full application of the reduced separation standards that ADS-B is designed to enable. A full service should also include the filing of user preferred routes.
 - We note that while ICAO could make recommendations about the use of ADS-B it cannot itself mandate whether NERL could or could not provide the service.

- d) We consider that only NERL will know whether it can provide a fully based ADS-B service, so it should self-certify whether it is providing the service. Any independent assessment would have to rely on NERL to provide that information.
- e) The impact of Covid-19 has been to reduce transatlantic traffic to a very low level. As the reduced levels are continuing it is unlikely that measures of the effects of the introduction of ADS-B would produce meaningful data at present. Although this may delay work on the measures, it does not mean that we should alter the scope of the review or how this scope is specified in the licence modification. The review should involve consideration of both NERL's performance and whether the benefits of using ADS-B outweigh the costs of provision.
- f) When we made our RP3 decision in August 2019, our intent was that the independent review should report within two years and 6 months of NERL certifying it is providing a full ADS-B service. However, the usefulness of the review will depend on traffic levels in the period that the review covers and at present it is uncertain what the traffic levels will be in the coming years. If traffic remains at current levels over that period, we may need to reconsider the usefulness of any review at that milestone. However, it would be premature to revise the date of the review at present. In paragraph 9 of the draft Condition 22, consulted on in September, we gave ourselves and NERL the discretion to agree a different date for the review. We will consult users before deciding whether we should agree a different date. Given the current uncertainty, including the form, scope and level of detail of the review would also be premature, and we do not consider it would be sensible to constrain these details of the review by including them in the licence.
- g) We can confirm that we will discuss the form, scope and detail of the review with NERL and users and that there will be a clear understanding of how the review will operate before it is started. While we are not defining the arrangements for the review now, we are clear that reliable data and comments from airlines on their experience of using the ADS-B service will be an important part of the review.

Suggested modifications

- 1.19 We are making the licence modifications set out in our September consultation for Condition 22. The modified Condition 22 is in Appendix A.

Chapter 2

New Condition 10a: Airspace modernisation

- 2.1 A key strategic consideration in our RP3 decision was to enable NERL to support the implementation of the UK's Airspace Modernisation Strategy (AMS) to modernise critical national infrastructure and deliver a broad range of benefits to consumers, the aviation industry and local communities. We and the Department for Transport (DfT) co-sponsor airspace modernisation through setting the overall strategy and governance for the programme.
- 2.2 NERL's roles in supporting the AMS include:
- To develop a coordinated implementation plan for airspace changes (an airspace change masterplan) in the UK; and
 - To create a coordination group (the Airspace Change Organising Group (ACOG)).
- 2.3 While the context for airspace modernisation has changed as a result of Covid-19, there remain benefits from appropriately scoped strategy and programme. In our September consultation we included a draft new licence Condition 10a to underpin requirements on NERL. The draft condition set out our expectations of NERL to establish, maintain and manage ACOG, and create and maintain an airspace change masterplan.

Provisions in proposed Condition

- 2.4 In our consultation we proposed the following provisions in draft Condition 10a:
1. NERL to establish, maintain and manage ACOG;
 2. NERL to create and maintain UK airspace change masterplan;
 3. Masterplan must be consistent with the CAA's AMS, meet criteria set by the CAA and DfT, comply with any requirements or guidance from DfT or the CAA, and take into consideration stakeholder views;
 4. Masterplan to be assessed and accepted by the CAA in consultation with DfT;
 5. NERL to make changes to masterplan as reasonably proposed by the CAA;
 6. NERL to update masterplan as reasonably requested by the CAA;
 7. NERL to prepare and submit to the CAA airspace change proposals (ACPs) related to the airspace for which it provides en route air traffic control services. The requirement for these ACPs may be identified in the masterplan or other work undertaken by NERL in its activities under the licence;

8. NERL may provide support to ACPs proposed by other bodies with the agreement of the CAA;
9. NERL to report to the CAA progress against the masterplan by 1 November in each year and on request; and
10. NERL to be responsible for other activities identified in the masterplan which it is required to undertake under other legislation.

Representations

2.5 We received the following representations on Condition 10a:

- a) BA and IATA supported Condition 10a, which they regarded as a critical enabler to ensure steady progress is made on delivering the upgrades in the AMS. IATA disagreed that the impact of Covid-19 on traffic levels had reduced the urgency of the need for airspace modernisation.
- b) BA said we needed to ensure that ACOG maintains its independence, allowing the independence and impartiality of ACOG's Steering Committee to continue, and providing the best possible assurance that the masterplan is being delivered.
- c) IATA asked for clarity on:
 - the timelines for the creation of the masterplan and the approach to engagement with airline stakeholders during the development phase;
 - the management of conflicting priorities if airline customer requirements (expressed through the SIP process) did not align with specific upgrades required by the AMS; and
 - the management of funding, resources and opportunity costs should NERL be asked to revise its investment plan by the CAA to assist other stakeholders in their airspace changes at the expense of commitments made to airlines.
- d) IATA requested that the international airline community be offered representation within the governance arrangements that oversee ACOG's activities.

CAA views on representations

2.6 While the representations raised important points of context and policy, they did not include any substantive comments on our drafting of the licence modification. Our responses to the points raised is summarised below:

- a) We welcome BA and IATA's support for Condition 10a.
- b) Condition 10a, and the accompanying guidance, explicitly require the establishment of ACOG as a separate and impartial unit within NERL, as well as establishing the Steering Committee to oversee ACOG's work.
- c) In respect of IATA's comments:
 - Activities to progress the timelines for the creation of the masterplan and associated engagement are currently paused while the impact of Covid-19 is considered, in particular while airspace change sponsors consider their next steps. ACOG is engaged with co-sponsors on what will be required to resume the timely development of the masterplan.
 - In our further work on the RP3 price control we will seek to provide NERL with sufficient flexibility to meet the reasonable requirements of the AMS and the needs of users. If funding constraints were to create a conflict between airspace user priorities and AMS implementation requirements it would be for NERL to work with interested stakeholders – including AMS co-sponsors and airspace users – to work constructively to find a suitable way forward.
- d) Condition 10a establishes the requirement for at least one airline representative on the Steering Committee, as well as other independent members with appropriate experience. In conjunction with the Chair of the Steering Committee, it will be for airspace users to determine the most appropriate representative and for that representative to engage with other airspace users as appropriate. The ACOG governance arrangements also require structured engagement with a broad range of stakeholders, which will provide an opportunity for IATA and airspace user representatives to engage on ACOG's work.

Decision on Condition 10a

- 2.7 We will add Condition 10a to the licence as set out in our September consultation. Condition 10a is in Appendix B.

Chapter 3

Minor licence modifications to improve clarity

- 3.1 The September consultation included some minor modifications to improve clarity of NERL's obligations under its licence. In particular, these concerned the target level of gearing in Condition 5(26)(b)(ii), deleting a paragraph on leasing in Condition 5(28) and adding a definition of finance leases in Condition 5(29).

Representations

- 3.2 NERL agreed with us that the paragraph on operating leases in Condition 5(28) starting "At the time of the inception" is out of date. However, it disagreed that the whole paragraph should be deleted. Instead it said that as part of the paragraph remained relevant it should be retained and rephrased. Otherwise there would be a risk that the treatment of financial indebtedness would be misinterpreted.

CAA views on representations

- 3.3 We agree with NERL that part of the paragraph remains relevant and provides clarity on the treatment of operating leases in the definition of financial indebtedness used in the licence. We have agreed with NERL to replace the current paragraph with the following: "For the duration of the charge controls set out in Conditions 21, 21a and 22, the definition of Financial Indebtedness under the licence has not changed. This definition excludes liabilities relating to leases which were previously classified as operating leases but which have generally been classified as debt since 1 April 2019 as a result of a change to the accounting treatment of operating leases."

Decision on modifications to improve clarity

- 3.4 We will make the modifications to improve clarity of NERL's obligations, as set out in the September consultation, apart from the paragraph on operating leases in Condition 5(28) which we will modify as set out in paragraph 3.3 above.

Chapter 4

Regulatory policy statement (RPS) on capex efficiency

- 4.1 In its determination the CMA said that NERL should be subject to a financial incentive based on its capex efficiency. The CMA also said that we should publish policy on how we would apply the incentive to provide NERL with sufficient safeguards with respect to its application. In our consultation we invited comments on a draft RPS on the capex efficiency incentive.
- 4.2 This chapter summarises the draft RPS, the views of respondents and our decision on the guidance.

Proposed RPS

- 4.3 We proposed that NERL's capex should be assessed according to whether it was Demonstrably Inefficient or Wasteful (DIWE). This test would be similar to the arrangements for assessing the capex efficiency for Northern Ireland Electricity and previously endorsed by the CMA. We set out the draft RPS for consultation which explained the principles and procedure we would expect to follow in determining whether any of NERL's future capex should not be included in its RAB.

Representations

- 4.4 We received the following representations on the draft RPS:
- a) NERL said that the RPS was unclear on how we would decide whether expenditure was DIWE if there was no user consensus on whether it was required.
 - b) BA welcomed the RPS and encouraged us to draw on experience from our regulation of Heathrow Airport, other aviation entities and other regulated sectors to ensure that best practice is implemented to create clear efficiency incentives for NERL.
 - c) BA said that the DIWE test was a useful model to use although noted that the definition of efficiency was open to interpretation in the context of capex.
 - d) BA noted that assessments of capex efficiency in other regulated sectors typically incorporate a used-and-useful test or some form of assessment of the value of the assets created by capital programmes.

- e) BA also noted that any DIWE assessment may not take place for many years after projects commenced. As a result, it would be critical to ensure that the *ex post* assessment could make informed assessments based on quality information, as there is potential for inefficiencies to be hard to identify many years after decisions and processes have been undertaken.
- f) BA welcomed the strengthened role of the IR, especially where this would enable airlines to gain greater visibility and oversight of capex projects.

CAA view on representations

4.5 In summary our responses to the above points are:

- a) As we noted in paragraph 7 of our draft RPS while user support is desirable it is neither a necessary or sufficient condition in deciding on DIWE. We will take account of user support in our assessment and it will be an important factor, but we will also consider the full range of circumstances that NERL faced in making decisions on its investment and any information it provides that supports the efficiency of its spending.
- b) We will draw on wider experience and evidence, to the extent it appears relevant in our assessment of DIWE.
- c) Paragraph 13 of the RPS sets out factors that we will consider in our assessment of DIWE and so provides further guidance on how we will define efficiency.
- d) We will use concepts such as the used-and-useful test if they appear at the time to reasonably support an assessment of DIWE.
- e) We agree with BA that the longer an assessment of whether capex is DIWE is from the commencement of a project the harder it may be to identify inefficiencies. To ensure that NERL produces ongoing quality information on its capex, the IR will review the timeliness and accuracy of NERL's reporting and its explanation and justification of its capex in its SIPs. Part of this review will be about NERL's explanation of variations in the ongoing costs of its projects.
- f) We agree that the strengthened role of the IR will be important in ensuring that users have greater visibility of progress on projects.

Decision on RPS

- 4.6 Bearing in mind the comments set out above in finalising the RPS we have not made any modifications to the draft RPS on capex efficiency incentives. The final version of the RPS is in Appendix D.

Chapter 5

Capex engagement guidance

- 5.1 In its determination the CMA said that NERL should be subject to a financial incentive based on its engagement with users on its capex. The CMA also said that we should publish guidance on the principles and procedure we would use in operating the incentive to provide NERL with appropriate safeguards with respect to its application. In our consultation we invited comments on the draft guidance.
- 5.2 This chapter summarises the draft guidance, the views of respondents and our decision on the guidance.

Proposed guidance

- 5.3 Our draft guidance set out:
- the criteria we would use in measuring NERL's performance in its engagement with users;
 - the process and timings involved in the assessment of NERL's capex engagement; and
 - how we would calculate any financial penalties.

Representations

- 5.4 We received the following representations on our draft guidance:
- a) NERL said our text saying that we "may adopt a different approach if the facts of an individual case reasonably justified it" did not sufficiently constrain our assessment criteria in applying the incentive. It requested that we provide a clear list of the factors we would take into account when applying the incentive.
 - b) NERL asked us to clarify:
 - that the engagement incentive should only apply to capex projects started after 1 January 2021, after the licence had been modified and the new IR appointed;
 - that the penalty would be implemented by a RAB adjustment in the same way as the arrangements for the DIWE review of capex; and

- that the total capex referred to in paragraph 20 of our guidance on the weighting given to project scores means “the total capex of the projects subject to CAA scrutiny under this incentive” rather than the total capex planned during the current regulatory period.
- c) NERL and BA asked us to clarify the approach to ‘rounding’ we intended to apply in measuring engagement performance on each project and in aggregate. NERL said this should be to the nearest 0.1 decimal.
- d) NERL noted that the timeliness of feedback from us and the IR would be a crucial factor in the success of the new capex governance regime. The feedback should be delivered as soon as practicable to enable NERL to respond promptly to any identified shortfalls. It said that there had been delays in our feedback on SIPs during RP2. NERL requested a two-week turnaround for IR feedback and 30 days for the CAA’s initial views.
- e) NERL explained that it should be allowed to appeal our initial scores, as otherwise its only right to appeal would be at the following price control.
- f) NERL said that references to the ESO/Ofgem arrangements should be removed as the details of our RPS differed materially in principle and practice from those adopted by Ofgem for ESO, and their inclusion could cause confusion on how we would apply the scoring.
- g) NERL asked that we define what reasonable means on the target score of 3, and asked whether the IR would take a poll of all stakeholders involved in the consultation, or whether its judgement plus our views on that score would determine the outcome.
- h) NERL also made some minor drafting suggestions (which do not affect the meaning of the guidance nor the application of the incentive).
- i) BA said our assessment criteria did not appear unreasonable and broadly appeared to address how the incentive could be best implemented. It said it would like to be fully engaged in any future development of the incentive.

- j) BA considered that the scoring system appeared sensible, but cautioned that its use by Ofgem was part of a fuller outcomes based regulatory system with a fully defined outcomes basis upon which to mark performance.
- k) BA stressed the importance of always taking into account stakeholder views, and not just “where appropriate”.
- l) IATA said that the weighting of projects should be developed according to user priorities as users value projects in terms of the benefits they deliver as opposed to how much they cost. BA said that weighting should be amplified to reflect outcomes delivery.
- m) IATA and BA also said there should be no perverse incentive for NERL to descope or delay projects on which it was failing to engage on, in order to reduce the weighting and consequently any penalty they may face.
- n) IATA and BA said that the timing of steps 5 and 6 of our guidance (on the weighted average overall engagement score and calculation of any penalty) should be clarified. Currently the guidance says these steps would take place at the start of RP4 (i.e. 2025). IATA and BA said this should be amended to reflect that a new price control will be required to start in 2023 and that where the quality of engagement could be assessed in time for the regulatory period starting in 2023 it would be good to do so.
- o) BA said that it recognised that if the incentive covered all projects, including small projects, there would be a significant regulatory burden. This meant that the projects encompassed by the incentive must be representative of performance across the whole portfolio during the price control period.

CAA views on representations

5.5 In summary our responses to the above points are:

- a) We included the wording about adopting a different approach if the facts justified it, so that our guidance did not preclude us from taking relevant information, not specifically mentioned in our guidance, into account if that would be sensible. On reflection, we recognise that our guidance gives us quite a lot of flexibility to take relevant facts into account anyway and that this wording is not necessary – so we have now removed it.
- b) We clarify that:

- The engagement incentive will only apply to NERL's user engagement from 1 January 2021. It will apply to new capex and also to capex that began before that date that is subject to material changes after that date. We shall not amend the guidance but amend Condition 10(8) to say that the engagement incentive shall come into effect from 1 January 2021.
- The penalty will be implemented by a RAB or revenue adjustment in the next regulatory period.
- The total capex referred to in paragraph 20 of our guidance on the weighting given to project scores means "the total capex of the projects subject to CAA scrutiny under this incentive".

We have added the following clarifications to the guidance.

- c) We agree that the score rounding shall be to 0.1 decimal and have added this to the guidance.
- d) We agree that the timeliness of feedback from us and IR will be important in ensuring that NERL can take our and the IR's views into account in a timely manner. We will not amend our guidance but intend to provide this feedback significantly more quickly than in RP2.
- e) We and the IR will discuss projects with NERL when making our initial scores. NERL will be free to comment on our initial scores and we will consider these comments, however, as only the final scores will decide whether NERL shall face any penalty, we do not consider that there should be a formal review mechanism to our initial scores.
- f) We included the references to the Ofgem arrangements to show our guidance was based on established practice in another regulated sector. However, as its removal would not change our guidance we will remove the blue box referencing Ofgem from our guidance.
- g) We do not consider that at this stage we need to define the term 'reasonable' for scores of 3 (average), as the definitions of poor and good performance either side of average provide the context in which reasonableness will be determined. The IR will engage with stakeholders when scoring NERL's engagement, but we do

not consider that would normally involve taking a poll of stakeholders.

- h) We note the drafting points made by NERL and have made changes where we consider them appropriate.
- i) Any further development of the incentive is likely to be at the next price control period, so NERL has assurance about how we will measure its engagement in the period from 2020-2022. We would welcome BA's engagement in relation to these matters.
- j) We recognise that Ofgem uses a fuller outcomes-basis methodology to mark performance. We may want to explore developing our approach to NERL's capex at the next price control review.
- k) We accept that the IR and us should always take account of the views of stakeholders when assessing NERL's engagement. We will delete the qualification "where appropriate" from Step 2 of our guidance on the IR's initial scoring. We note that while we will always consider stakeholder views, we take into account a full range of evidence in reaching decisions.
- l) We consider the points made by IATA and BA about taking into account benefits and outcomes delivery when weighting projects are good points worthy of further consideration. However, we also see merit in the approach in the draft guidance of using weightings linked to the costs of the projects in consideration. This gives more assurance to NERL on how we will apply the weightings. Therefore, we will retain the approach as set out in the draft guidance but may consider these issues again when we review the guidance in the future.
- m) We recognise that basing weightings on costs could give NERL perverse incentives to descope or delay projects on which it is not engaging well with users. That is why we said in our guidance that we would not necessarily adjust weightings when the budget of a project is reduced, projects are cancelled or deferred.
- n) We agree with IATA and BA that we should clarify that steps 5 and 6 of our process will take place when a new price control starts in 2023 rather than at the start of RP4 (which under European Regulations would be 2025).

- o) We agree with BA that the projects chosen must be representative of performance across the whole portfolio during the price control period.

Decision on guidance

5.6 Our revised guidance includes the following amendments:

- Paragraph 6 – delete “and while we will have regard to this guidance, we may adopt a different approach if the facts of an individual case reasonably justify it”:
- Paragraph 13 - delete the blue box on ESO reporting and Incentive Arrangements.
- Paragraph 20 – after “total capex” add “of the projects subject to CAA scrutiny under this incentive”.
- Paragraph 26 step (2) 1st bullet – delete “where appropriate”.
- Paragraph 26 step (5) – replace “RP4” with “next”
- Heading before paragraph 29 – change “into RP4” to “after 2022”
- Paragraph 29 – change each instance of “RP3” to “2020-2022”, change “into RP4” to “after 2022”
- Paragraph 34 – add at the end of the paragraph “Any penalty will be implemented by either a RAB adjustment or a revenue adjustment at the next price control period”.
- Paragraph 36 – add a new bullet “Scores will be rounded to the nearest 0.1 decimal”.

5.7 A full version of the guidance is in Appendix E.

APPENDIX A

Modified Conditions to implement CMA final report

Condition 10: Business Plans, Service and Investment Plans and Periodic Reports

1. The Licensee shall prepare a full business plan fulfilling the requirements of paragraph 3 of this Condition. The business plan must be consistent with any overall business plan of the Licensee but, provided that it fulfils the requirements of paragraph 3, for the avoidance of doubt need not constitute the entirety of any such overall business plan.
2. Business plans prepared under paragraph 1 shall be submitted to the CAA not less than twelve months before each Plan Renewal Date or at a later date agreed with the CAA, and shall relate to the period beginning on that Plan Renewal Date (or the period until expiry of the Licence whichever is the shorter period). Later business plans shall always supersede any earlier business plan in respect of a period which is covered by both. Business plans shall also comply with the relevant requirements for a business plan set out in Commission Implementing Regulation (EU) 2017/373 (and as amended by the Air Traffic Management (Amendment etc)(EU Exit) Regulations 2020 when the Air Traffic Management (Amendment etc)(EU Exit) Regulations 2020 come into force on IP completion day (as defined in section 39(1) of the European Union (Withdrawal Agreement) Act 2020)) and any relevant legislation and/or guidance issued by the Secretary of State arising out of or in connection with the withdrawal of the UK from the European Union.
3. The purpose of each business plan shall be to describe in detail the Licensee's plans and expectations for each of the En route Businesses and London Approach Service including its capital expenditure and operational plans, together with measures which it proposes to take to improve the efficiency and effectiveness of its operation in providing the services required by this Licence. Business plans shall include such information as is reasonably necessary to achieve this including, but not limited to, details concerning the following:
 - a) the demands, in terms of the volumes of flights, which the Licensee forecasts that it will be required to serve in meeting its general obligation under Condition 2 together with the principal factors which it expects to determine those demands;

- (b) the standards of service that the Licensee plans to meet in serving the demands in sub-paragraph (a), including the expected levels of and variations in delays to the flights in respect of which services are provided, and other appropriate measures;
- (c) the capacities which the Licensee plans to provide in order to meet the demands in sub-paragraph (a) at the standards of service in sub-paragraph
- (d) any underlying assumptions regarding airspace;
- (e) the likely level of and developments in any constraints on the volume of services which the Licensee may provide in each of the Licensed Areas and any proposed changes thereto;
- (f) the Licensee's capital expenditure plans and how these will contribute to the provision of the planned outputs;
- (g) the Licensee's plans with respect to operating and human resources and practices, operating expenditure and how these will contribute to the provision of the planned outputs; and
- (h) forecasts of the Licensee's financial results in terms of a regulatory income statement with associated cash flow statements and the effects on the regulatory asset base projection.

4. Every year the Licensee shall submit:

- (a) not later than 31 January in each year, a service and investment plan fulfilling the requirements of paragraph 5 of this Condition;
- (b) not later than 31 July in each year, an interim service and investment plan fulfilling the requirements of paragraph 5 of this Condition;
- (c) not later than 30 April and 31 October in each year, an update to the service and investment plan; and
- (d) with effect from 1 January 2020, not later than seven months after the end of the regulatory year, a business plan report fulfilling the requirements of paragraph 6 of this Condition which shall relate to the previous regulatory year.

5. Each service and investment plan and interim service and investment plan shall provide an update of:

- (a) the Licensee's investment plans, including its technology and airspace programmes;
- (b) the Licensee's delivery of the investment plans, as measured against the capital expenditure programme milestones set out in the Licensee's business plan and as amended to be consistent with the price controls in

Conditions 21, 21a and 22; (c) material changes in the Licensee's expectations as to the level and quality of the services it will provide, the means by which the services will be provided, and the likely implications for charges to Users beyond the expiry of the period for which charges are for the time being set pursuant to the Charge Control Conditions. Service and investment plans shall include such information as is reasonably necessary to achieve this including, but not limited to, material changes in the Licensee's expectations as to its operating practices and resources.

6. Each business plan report shall provide a description of progress achieved in relation to the business plan and the latest service and investment plan or interim service and investment plan, reconciling actual performance against these plans. Each business plan report shall also include information on the performance of the Licensee against its obligations in Condition 2(1)(a) of this Licence.
7. The Licensee shall be subject to a financial incentive in respect of the efficiency of its capital expenditure programme. The financial incentive shall be based on whether the Licensee has incurred any demonstrably inefficient and/or wasteful capital expenditure and shall be carried out following the criteria set out in a regulatory policy statement produced by the CAA. Any penalty shall be calculated using the principles set out in the regulatory policy statement and will be applied in the next reference period.
8. From 1 January 2021, the Licensee shall be subject to a financial incentive in respect of the quality of its engagement on its capital expenditure programme. The incentive shall be based on the following assessment criteria:
 - a) the timeliness of information the Licensee provides to Users, including the provision of early warning and explanation of factors that may put planned delivery timelines at risk;
 - b) the information and mechanism of delivery is focused on the priorities and resource constraints of Users so that it is clear and accessible;
 - c) the proportionality of the information to the materiality of change under consideration;
 - d) the range of reasonable options that the Licensee engages on with Users that might be adopted where practical and opportunities provided for engagement and scrutiny of those options;
 - e) the Licensee's responsiveness to User and Independent Reviewer submissions including the clear explanation of how it has considered and taken account of those submissions; and
 - f) whether the Licensee has taken the appropriate mitigation and corrective actions in the light of User and Independent Reviewer submissions.

The maximum value of any penalty in respect of the quality NERL's engagement on its capital expenditure programme in a reference period shall be limited to the Licensee's return on equity on its actual capital expenditure in the reference period and shall be applied in the next reference period.

The process that the CAA shall use to assess the Licensee's performance against the engagement incentive and determine the level of penalty (if any) to be applied shall be set out in a guidance document published by the CAA.

9. The CAA may appoint an Independent Reviewer to report on the Licensee's delivery of and engagement on its capital expenditure programme. The reports shall:
 - a) review the timeliness and accuracy of the Licensee's reporting in its service and investment plans;
 - b) assess whether the Licensee has sufficiently explained and justified its capital expenditure programme in its service and investment plans;
 - c) assess and propose scores for the Licensee's engagement with Users against the assessment criteria referred in paragraph 8 and the CAA's published guidance;
 - d) track and assess the Licensee's progress on delivering its capital expenditure programme and achieving the associated benefits; and
 - e) report on the cost efficiency of the Licensee's capital expenditure and its implementation.

The CAA may publish the reviews, assessments and reports of the Independent Reviewer. Unless the CAA directs otherwise, the Independent Reviewer will be paid for by the Licensee.

10. The form, scope and level of detail of the Licensee's plans referred to in this Condition shall be as reasonably approved by the CAA and shall take into account the views of Users consulted in accordance with Condition 16.
11. Subject to paragraph 12, the Licensee shall make available a copy of the latest business plan, business plan report, service and investment plan and interim service and investment plan to any person who requests a copy of such plan or report.
12. The Licensee may with the prior consent of the CAA (provided that such consent is not unreasonably withheld or delayed) omit from any document made available under paragraph 11 any details as to the terms of any agreement between the Licensee and any User, or other information disclosure of which the

Licensee satisfies the CAA, or the CAA otherwise considers, would seriously and prejudicially affect the commercial interests of the Licensee or any third party.

13. The Licensee may make a charge for any copy document given or sent pursuant to paragraph 11 of an amount reflecting the Licensee's reasonable costs of providing such copy document.
14. In this Condition:

“Plan Renewal Date” means 31 December 2020, or such other date the CAA shall reasonably specify following consultation with the Licensee, and every fifth anniversary thereof.

Condition 21: Control of Eurocontrol Service charges

1. Without prejudice to Condition 25 (Suspension and Modification of Charge Control Conditions), for each Eurocontrol Relevant Year beginning on 1 January 2020, 2021 and 2022, the maximum Permitted Average Charge Per Service Unit shall be calculated as follows:

Maximum Charge_t =

$$\frac{DC_t + INF_t + ReS_t + TRS_t + CSM_t + FI_t + MOD_t + Tvar_t - VFR_t - INEA_t - FAS_t}{ForecastTSU_t}$$

DISCOUNT_t

Where:

Maximum Charge _t	means the Maximum Permitted Average Charge Per Service Unit in Eurocontrol Relevant Year t.	
DC _t	means the determined costs, expressed in nominal terms for relevant year t.	
	Year t	(£)
	2018	589,585,024
	2019	579,006,611
	2020	689,955,378
	2021	674,270,832

	2022	688,739,423
INF_t	means the adjustment of the difference between forecasted and actual inflation in relevant year t calculated in accordance with Paragraph 3 of this condition.	
$INEA_t$	means any assistance provided by the Innovation and Networks Executive Agency (INEA) or other similar public funding in relevant year t, where funding is to be returned to users via a specific unit rate reduction as calculated and agreed with the CAA.	
FAS_t	means any unspent portion of the FAS Facilitation Fund in relevant year t, where funding is to be returned to users via a specific unit rate reduction as calculated and agreed with the CAA.	
ReS_t	means the restructuring costs in relevant year t authorised in accordance with Article 2(18) of Commission Implementing Regulation (EU) No 2019/317. For all years t = 2020, 2021, and 2022 $ReS_t = 0$	
TRS_t	means the Traffic Risk Sharing element from previous years calculated in accordance with Paragraph 4 of this condition.	
CSM_t	means the carry-overs from the previous reference period resulting from the implementation of the cost sharing mechanism referred to in Article 14 of Commission Implementing Regulation (EU) No 391/2013;	
	Year t	(£)
	2020	1,590,664
	2021	7,943,638
	2022	8,029,814
FI_t	means the Financial Incentives relating to performance as calculated in accordance with Paragraphs 7-18 of this condition.	
MOD_t	means the over-or under-recoveries that may result from the modulation of air navigation charges in application of Article 32 of Commission Implementing Regulation (EU) No 2019/317.	
$Tvar_t$	means the over-or under-recoveries resulting from traffic variations as defined in Paragraph 5 of this condition.	

VFR _t	means the expected cost of services to traffic operating under Visual Flight Rules in relevant year t. For all years t = 2020, 2021 and 2022, VFR _t = 0	
DISCOUNT _t	means an adjustment to the maximum charge per Total Service Unit in relevant year t where the Licensee at its own discretion decides to recover less than it would otherwise be allowed to recover and has declared to the CAA that it will not pursue this as under-recovery in subsequent years.	
ForecastTSU _t	means the forecast of Total Service Units for relevant year t established at the beginning of the reference period as follows:	
	Year t	TSU
	2018	10,758,000
	2019	10,940,000
	2020	12,647,945
	2021	12,891,000
	2022	13,183,000
Total Service Units (TSUs)	means the route service units calculated in accordance with Article 25 and Annex VIII of Commission Implementing Regulation (EC) 2019/317 as amended from time to time <i>including</i> the service units relating to military exempt flights.	

Inflation Assumptions

2. The forecast values of the inflation index referenced in paragraph 3 shall be as follows:

FHICP _t	means the reference values of the HICP (all items) index in respect of the UK for Eurocontrol Relevant Year t established prior to the control period, consistent with the projections in nominal prices (the index base is 2012=100 up to 2019 and 2017=100 thereafter), which shall be:		
	Year t	Index (base 2012=100)	Index (base 2017=100)
	2018	112.90	
	2019	115.15	
	2020		106.44
	2021		108.57
	2022		110.74

Inflation Adjustment

3. The adjustment of the difference between forecasted and actual inflation shall be calculated as follows:

For t = 2020, 2021, and 2022,	
$INF_t = DC_{t-2} \left(\frac{HICP_{t-2}}{FHICP_{t-2}} - 1 \right)$	
Where $HICP_{t-2}$ is calculated as follows:	
Year t-2	Calculation
2018	110.4
2019	$HICP_{2019} = 110.4 \times (1 + Inflation_{2019})$
2020	$HICP_{2020} = 102.5 \times (1 + Inflation_{2019}) \times (1 + Inflation_{2020})$
2021	$HICP_{2021} = 102.5 \times (1 + Inflation_{2019}) \times (1 + Inflation_{2020}) \times (1 + Inflation_{2021})$
2022	$HICP_{2022} = 102.5 \times (1 + Inflation_{2019}) \times (1 + Inflation_{2020}) \times (1 + Inflation_{2021}) \times (1 + Inflation_{2022})$
Where:	
Inflation _t	means the annual average inflation rate produced by Eurostat in the Harmonised Index of Consumer Prices in respect of calendar year t as published by Eurostat in April of year t+1 (the published rate of inflation is rounded to one significant place of decimals).

Traffic Risk Sharing

4. Article 27 of Commission Implementing Regulation (EU) 2019/317 sets out the basis of traffic risk sharing.

Traffic Risk Sharing (TRS_t) shall be calculated as follows:

For t = 2020, 2021 and 2022		
$TRS_t = RSF_{t-2} \times DC_{t-2}$		
Where:		
	DC_{t-2}	has the meaning in Paragraph 1 of this condition.
And	RSF_{t-2}	means the risk sharing factor relating to Eurocontrol Relevant Year t-2 based on the actual number of Total Service Units which shall be calculated as follows:

	Where:	$0.98 \leq \frac{ActualTSU_{t-2}}{ForecastTSU_{t-2}} \leq 1.02$ $RSF_{t-2} = 0$
	Where:	$1.02 \leq \frac{ActualTSU_{t-2}}{ForecastTSU_{t-2}} \leq 1.10$ $RSF_{t-2} = -0.7 \left[\frac{ActualTSU_{t-2}}{ForecastTSU_{t-2}} - 1.02 \right]$
	Where:	$0.90 \leq \frac{ActualTSU_{t-2}}{ForecastTSU_{t-2}} \leq 0.98$ $RSF_{t-2} = -0.7 \left[\frac{ActualTSU_{t-2}}{ForecastTSU_{t-2}} - 0.98 \right]$
	Where:	$\frac{ActualTSU_{t-2}}{ForecastTSU_{t-2}} < 0.90$ $RSF_{t-2} = - \left[\frac{ActualTSU_{t-2}}{ForecastTSU_{t-2}} - 0.90 \right] + 0.056$
	Where:	$\frac{ActualTSU_{t-2}}{ForecastTSU_{t-2}} > 1.10$ $RSF_{t-2} = - \left[\frac{ActualTSU_{t-2}}{ForecastTSU_{t-2}} - 1.10 \right] - 0.056$
Where:	$ActualTSU_{t-2}$	means the actual level of Total Service Units for relevant year t-2 published by Eurocontrol.

Correction of INF and TRS Adjustments for Subsequent Traffic Variations (TVar)

5. The TVar component shall be calculated as follows:

$TVar_t$	<p>is an adjustment to allow for variations between actual and forecast TSUs in the year that a correction originally takes place.</p> <p>For t = 2020,2021 and 2022</p> $TVar_t = (INF_{t-2} + TRS_{t-2} + CSM_{t-2} + INEA_{t-2} + FAS_{t-2} + FI_{t-2} + TVar_{t-2}) \times \left(1 - \frac{ActualTSU_{t-2}}{ForecastTSU_{t-2}} \right)$
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Calculation of Capacity Target (C1)

6. The C1 (UK capacity target) shall be calculated as follows:

C1_t	means the average minutes of en route air traffic flow management (ATFM) delay in relevant year t. Where: $C1_t = \frac{EnRouteDelay_t}{Flights_t}$	
EnRouteDelay_t	means the en route ATFM flight delay from all causes which has been attributed by Eurocontrol to the UK in relevant year t.	
Flights_t	means the STATFOR determined count of all IFR flights for the UK for year t. For the avoidance of doubt these include flights which depart or arrive at airports in the UK or which overfly the UK FIR	
C1Target_t	means the target set in the performance plan which have the following values:	
	Year t	C1Target_t
	2020	0.26
	2021	0.32
	2022	0.32

Calculation of financial incentives (FI)

7. Financial incentives for capacity and environment performance shall be calculated as follows:

For FI ₂₀₂₀ and FI ₂₀₂₁		FI ₂₀₂₀ and FI ₂₀₂₁ shall have meanings set out in Paragraph 18 of this condition with reference to Condition 21 of the Air Traffic Services Licence for NATS En Route plc which was in effect on 1 January 2019.
For FI ₂₀₂₂ , FI ₂₀₂₃ and FI ₂₀₂₄		$FI_t = FC2_{t-2} + FC3_{t-2} + FC4_{t-2} + F3DI_{t-2}$
Where:	FC2_{t-2}	means the financial incentive for the C2 measure of the Licensee's performance for relevant year t-2 as defined at Paragraph 8 of this condition.
	FC3_{t-2}	means the financial incentive from the C3 Impact Score for relevant year t-2 as defined at Paragraph 9 of this condition.
	FC4_{t-2}	means the financial incentive from the C4 Daily Excess Delay Score for relevant year t-2 as defined at Paragraph 12 of this condition.

	$F3DI_{t-2}$	means the element of financial incentives relating to measure 3DI for relevant year t-2 as calculated in Paragraph 16 of this Condition.		
In respect of all the elements of the Financial Incentives:				
Licensee Attributable En Route ATFM Delay	means En Route ATFM Delay attributed by Eurocontrol which meet the regulation cause and regulation location in the following tables:			
	Regulation Cause	NM Code	Regulation Location	
	ATC Capacity	C	En route	
	ATC Routings	R	En route	
	ATC Staffing	S	En route	
	ATC Equipment	T	En route	
	Military	M	En route	
	Special Event	P	En route	
En Route ATFM Delay	means en route ATFM delay calculated by the Network Manager of ATFM as defined in Commission Regulation (EC) No 255/2010 on ATFM and expressed as the difference between the take-off time requested by the aircraft operator in the last submitted flight plan and the calculated take-off time allocated by the Network Manager.			
	FLT_{t-2}	means the Network Manager (STATFOR) determined count of all IFR flights for the UK for year t-2.		

Calculation of FC2

8. For the purpose of Paragraph 7, the term $FC2_{t-2}$ shall be calculated in accordance with the following formulae where Eurocontrol relevant years t-2 are 2020, 2021 and 2022 (relating to penalties or bonuses in 2022, 2023 and 2024 respectively).

$FC2_{t-2}$	<p>If $C2_{t-2} > 1.15 \times C2ParValue_{t-2}$ (where $1.15 \times C2ParValue_{t-2}$ is rounded to 2 significant figures.)</p> $FC_{t-2} = - \text{MIN} \left[\left(\frac{C2_{t-2} / C2Target_{t-2} - 1.15}{0.4} \right) \times (0.0025 \times REV_{t-2}), (0.0025 \times REV_{t-2}) \right]$
	<p>If $C2_{t-2} < 0.85 \times C2ParValue_{t-2}$ (where $0.85 \times C2ParValue_{t-2}$ is rounded to 2 significant figures.)</p>

	$FC_{t-2} = + \text{MIN} \left[\left(\frac{0.85 - C2_{t-2} / C2Target_{t-2}}{0.4} \right) \times (0.0005 \times REV_{t-2}), (0.0005 \times REV_{t-2}) \right]$
	Otherwise $FC_{t-2} = 0$
$C2_{t-2}$	<p>means the average minutes of en route ATFM delay in relevant year t.</p> $C2_{t-2} = \frac{\text{Licensee Attributable En Route ATFM Delay}_{t-2}}{FLT_{t-2}}$ <p>Where: Licensee Attributable En Route ATFM Delay_{t-2} has the meaning in Paragraph 7 of this condition; and FLT_{t-2} has the meaning in Paragraph 7 of this Condition.</p>
$C2ParValue_{t-2}$	<p>means the par values for C2 which have the following values in the relevant years:</p> <p>t-2 = 2020 $C2ParValue_{t-2} = 0.20$</p> <p>t-2 = 2021 and 2022 $C2ParValue_{t-2} = 0.25$</p>
REV_{t-2}	<p>means the revenues from that part of the charges paid to Eurocontrol by users which is reimbursed to the United Kingdom and relates to services provided by the Licensee in year t-2.</p> <p>Where: $REV_{t-2} = \text{Maximum Charge}_{t-2} \times \text{ActualTSU}_{t-2}$ Where Maximum Charge_{t-2} and ActualTSU_{t-2} have the meanings in Paragraphs 1 and 4 respectively of this condition.</p>

Calculation of FC3

9. FC3 is the financial incentive relating to C3 (an Impact Score placing greater weight on long delays and departures in the morning and the evening peaks).

For the purpose of Paragraph 7, the term $FC3_{t-2}$ shall be calculated in accordance with the following formulae where Eurocontrol relevant years t-2 are 2020, 2021 and 2022 (relating to penalties or bonuses in 2022, 2023 and 2024 respectively).

$FC3_{t-2}$	If $C3_{t-2} > C3Upper_{t-2}$
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	$FC3_{t-2} = -MIN [(C3PenRate_{t-2} (C3_{t-2} - C3Upper_{t-2}) FLT_{t-2}), 0.0075 \times REV_{t-2}]$
	If $C3_{t-2} < C3Lower_{t-2}$ $FC3_{t-2} = +MIN [(C3BonusRate_{t-2} (C3Lower_{t-2} - C3_{t-2}) FLT_{t-2}), 0.0025 \times REV_{t-2}]$
Where:	
$C3_{t-2}$	is defined in Paragraph 10.
$C3PenRate_{t-2}$	means the penalty rate for the reduction of revenues relating to the C3 score in Eurocontrol relevant year t-2 (to take effect in relevant year t) calculated as follows: $C3PenRate_{t-2} = \text{£}0.076 \times \frac{HICP_{t-2}}{100}$
$C3BonusRate_{t-2}$	means the bonus rate for the reduction of revenues relating to the C3 score in Eurocontrol relevant year t-2 (to take effect in relevant year t) $C3BonusRate_{t-2} = \text{£}0.038 \times \frac{HICP_{t-2}}{100}$
$C3Upper_{t-2}$	is the value of the C3 score in Eurocontrol relevant year t-2 above which a penalty becomes payable calculated in Paragraph 11.
$C3Lower_{t-2}$	is the value of the C3 score in Eurocontrol relevant year t-2 below which a bonus becomes payable calculated in Paragraph 11.

The Calculation of $C3_{t-2}$

10. $C3_{t-2}$ shall be calculated as follows:

$C3_{t-2}$	$C3_{t-2} = \frac{\sum w_{p,b} d_{p,b}}{FLT_{t-2}}$ For all flights in year t-2	
Where:	Where p denotes that each flight in relevant year t-2 shall be considered as falling into one of three periods:	
	Morning Peak (p=1)	means flights in relevant year t-2 with an off-block estimated time ≥ 0400 and < 0800 UTC in Summer (April –October inclusive) and between ≥ 0500 and < 0900 UTC in Winter (January -March inclusive and November-December inclusive).
	Evening Peak	means flights in relevant year t-2 with an off-block

	(p=2)	estimated time ≥ 1500 and < 1900 UTC in Summer (April –October inclusive) and ≥ 1600 and < 2000 UTC in Winter (January-March inclusive and November-December inclusive).		
	Other (p=3)	means flights in relevant year t-2 with an off-block estimated block time not in the morning peak and not in the evening peak.		
And	b denotes bands of delay for each flight where:			
	$b = d_{p,1}$	means the Licensee Attributable En Route ATFM Delay for each flight in seconds up to and including 15 minutes per flight in relevant year t-2 of flights which fall into relevant period p as defined above.		
	$b = d_{p,2}$	means the Licensee Attributable En Route ATFM Delay in seconds over 15 minutes but less than or equal to 30 minutes per flight in relevant year t-2 of flights which fall into relevant period p as defined above.		
	$b = d_{p,3}$	means the Licensee Attributable En Route ATFM Delay in seconds over 30 minutes but less than or equal to 60 minutes per flight in relevant year t-2 of flights which fall into relevant period p as defined above.		
	$b = d_{p,4}$	means the Licensee Attributable En Route ATFM Delay in seconds over 60 minutes per flight in relevant year t-2 of flights which fall into relevant period p as defined above.		
	$w_{p,b}$	means the weighting to be applied to bands of delay b for each flight subject to the period of the flight p where the weightings applied shall be:		
		p=1 Morning Peak Period	p=2 Evening Peak Period	p=3 Other Times
	b=1 (Delay > 0 and ≤ 15 minutes)	3	2	1
	b =2 (Delay >15 and ≤ 30 minutes)	6	3	2
	b =3 (Delay >30 and ≤ 60 minutes)	9	6	3
	b =4 (Delay >60 minutes)	18	9	6

Definition of Thresholds at which Bonuses or Penalties for C3_{t-2} become payable

11. The thresholds for bonuses or penalties shall be calculated as follows:

Where	$LFT_{t-2} \leq FLT_{t-2} \leq UFT_{t-2}$									
		$C3Uppert-2 = jt$ $C3Lowert-2 = kt$								
where	$LFT_{t-2} > FLT_{t-2}$									
		$C3Uppert-2 = jt \left(1 + \frac{5(FLT_{t-2} - LFT_{t-2})}{LFT_{t-2}} \right)$								
		$C3Lowert-2 = kt \left(1 + \frac{5(FLT_{t-2} - LFT_{t-2})}{LFT_{t-2}} \right)$								
Where	<p>j_t and k_t are factors for each year based on C2 values (as defined in Paragraph 8) x60x2 for Upper Threshold (j_t) and j_t x2/3 for Lower Threshold.</p> <p>If t=2020, $j_t=24$ and $k_t=16$ If t=2021 or 2022, $j_t=30$ and $k_t=20$</p>									
where	$FLT_{t-2} > UFT_{t-2}$									
		$C3Uppert-2 = jt \left(1 + \frac{5(FLT_{t-2} - UFT_{t-2})}{UFT_{t-2}} \right)$								
		$C3Lowert-2 = kt \left(1 + \frac{5(FLT_{t-2} - UFT_{t-2})}{UFT_{t-2}} \right)$								
Where:										
FLT_{t-2}		has the meaning in Paragraph 7.								
LFT_{t-2}		$LFT_{t-2} = 0.96 \times FFlight_{t-2}$								
UFT_{t-2}		$UFT_{t-2} = 1.04 \times FFlight_{t-2}$								
$FFlight_{t-2}$	<p>means the forecast of flights for relevant year t established at the beginning of the reference period as set out as follows:</p> <table border="1"> <thead> <tr> <th>t-2</th> <th>$FFlight_{t-2}$</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>2,649,000</td> </tr> <tr> <td>2021</td> <td>2,686,000</td> </tr> <tr> <td>2022</td> <td>2,737,000</td> </tr> </tbody> </table>		t-2	$FFlight_{t-2}$	2020	2,649,000	2021	2,686,000	2022	2,737,000
t-2	$FFlight_{t-2}$									
2020	2,649,000									
2021	2,686,000									
2022	2,737,000									

Calculation of FC4

12. FC4 is the financial incentive relating to C4 (a daily excess delay score based on weighted delays exceeding pre-determined thresholds on a daily basis).

For the purpose of Paragraph 7, $FC4_{t-2}$ shall be calculated in accordance with the following formulae:

Where:	$C4_{t-2} \geq 1800$	
		$FC4_{t-2} = -MIN[C4PenRate_{t-2} \times (C4_{t-2} - 1800) \times FLT_{t-2}, 0.0025 \times REV_{t-2}]$
Where:	$C4_{t-2} < 1800$	
		$FC4_{t-2} = 0$
Where:	$C4_{t-2}$	means the annual sum of the weighted daily excess delay score calculated as set out in Paragraph 13.
	$C4PenRate_{t-2}$	means the penalty rate for the reduction of revenues relating to the C4 score in Eurocontrol relevant year t-2 (to take effect in relevant year t) calculated as follows:
		$C4PenRate_{t-2} = 0.00167094 \times \frac{HICP_{t-2}}{100}$

Calculation of C4

13. $C4_{t-2}$ shall be calculated as follows subject to the exemption in Paragraph 15:

$C4_{t-2}$	= $C4DailyScore_d$ for all days in year t-2 except where an exemption applies as defined in Paragraph 15.	
Where:	d is a day in the months January to March inclusive or November to December inclusive:	
	Where:	$\frac{DT1_d}{DailyFlights_d} \leq 40$
	then	$C4DailyScore_d = 0$
	Where:	$40 < \frac{DT1_d}{DailyFlights_d} \leq 80$
	then	$C4DailyScore_d = \frac{DT1_d}{DailyFlights_d} - 40$
	Where:	$\frac{DT1_d}{DailyFlights_d} > 80$
		$C4DailyScore_d = 40 + 2 \left(\frac{DT1_d}{DailyFlights_d} - 80 \right)$
Where:	d is a day in the months April to October inclusive.	
	Where	$\frac{DT1_d}{DailyFlights_d} \leq 60$
	then	$C4DailyScore_d = 0$
	Where	$60 < \frac{DT1_d}{DailyFlights_d} \leq 110$
	then	$C4DailyScore_d = \frac{DT1_d}{DailyFlights_d} - 60$
	Where	$110 < \frac{DT1_d}{DailyFlights_d}$
	then	$C4DailyScore_d = 50 + 2 \left(\frac{DT1_d}{DailyFlights_d} - 110 \right)$
Where:	$DT1_d$	means total Licensee Attributable En Route ATFM Delay in seconds on day d.
	$DailyFlights_d$	means the actual aggregate number of flights on day d to be calculated by reliance on figures of flights reported to the CAA by the Central Route Charges

		Office.
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Mitigation of C3_{t-2} or C4_{t-2} scores for equipment failure

14. On days where both the following two conditions apply:

- the scores relate to a day for which the relevant C4DailyScore_d as calculated in Paragraph 13 is greater than zero; and
- there is a C3 score relating to Licensee Attributable to En Route ATFM recorded as equipment failure greater than zero.

The following mitigation should apply:

If:	$ C3PenRate_{t-2} (C3_d)DailyFlights_d > C4PenRate_{t-2} (C4DailyScore_d)FLT_{t-2}$	
then:	for day d, the C3 numerator for all NERL attributable cause codes shall be included in the annual FC3 penalty or bonus term, the C4 score shall be excluded from the calculation of the annual $FC4_t$ penalty or bonus.	
If:	$ C3PenRate_{t-2} (C3_d)DailyFlights_d \leq C4PenRate_{t-2} (C4DailyScore_d)FLT_{t-2}$	
then:	for day d the C3 numerator for all the Licensee attributable technical cause codes shall be excluded from the annual FC3 penalty or bonus term; the C4 score shall be included in the annual $FC4_t$ penalty or bonus term.	
Where:	C3PenRate _{t-2}	has the meaning in Paragraph 9.
	DailyFlights _d	has the meaning in Paragraph 13.
	C4PenRate _{t-2}	has the meaning in Paragraph 12.
	C4DailyScore _d	has the meaning in Paragraph 13.
	FLT _{t-2}	has the meaning in Paragraph 7.
	C3 _d	has the following meaning: $C3_d = \frac{\sum w_{p,b}d_{p,b}}{DailyFlights_d}$ for all flights in day d Where: $\sum w_{p,b}d_{p,b}$ has the meaning in Paragraph 10.

For the avoidance of doubt the C3 and C4 measures are based on different units and the estimation of the penalty for each in the tests above requires the different parameters as specified.

Exemptions for C3_{t-2} and C4_{t-2} in respect of Major Changes in Operations

15. C3 weighted delays and C4 Daily scores for the relevant day shall not be counted for the purposes of calculating C3_{t-2} or C4_{t-2} where all the following conditions apply:
- The day falls into a period designated by the Licensee in advance as a period when major new systems or airspace changes are being implemented and transitioned into the operation;
 - Users have been notified and consulted in advance over the timing of such exemptions under currently existing consultation mechanisms (e.g. the Service and Investment Plan (SIP)) or targeted consultation;
 - The total number of days falling into such periods designated by the Licensee shall not exceed 60 in aggregate for the period of the three Eurocontrol relevant years 2020 to 2022 inclusive, considered as a whole;
 - The length of any given transition period should be limited to three weeks (unless otherwise agreed with users) and will be agreed in advance as well as the amount of days from the overall cap that the Licensee wishes to use towards this transition;
 - The number of days agreed during the consultation will be fixed (unless subsequently revised with the agreement of users) but the particular exempt days within the agreed transition period would not need to be specified as part of the consultation;
 - The Licensee will carry out the transition by means of the detailed steps and timing that are most operationally practical. The Licensee will nominate the exempt days ex-post (up to the pre-agreed maximum) for the transitional period;
 - If at the end of the transition period the Licensee does not use the pre-agreed amount of exempt days, these will still count against the overall 60 day cap (i.e. the Licensee cannot roll over unused exclusions).

Calculation of the Flight Efficiency Incentive (F3DI)

16. For the purpose of Paragraph 7, the term $F3DI_{t-2}$ shall be calculated in accordance with the following formulae where relevant years t-2 are 2020, 2021 and 2022 (relating to penalties or bonuses in 2022 and 2023 and 2024 respectively):

$3DI_{t-2}$	means the average 3Di score for all flights for year t-2 as calculated by NERL in accordance with the flight efficiency metric calculation and annual review protocol. ⁶													
Where:	$3DI_{t-2} > 3DIUpper_{t-2}$													
	Then	$F3DI_{t-2} = -MIN [3DIPenRate_{t-2} (3DI_{t-2} - 3DIUpper_{t-2}), REV_{t-2} \times 0.005]$												
Where:	$3DI_{t-2} < 3DILower_{t-2}$													
	Then	$F3DI_{t-2} = MIN [3DIBonusRate_{t-2} (3DILower_{t-2} - 3DI_{t-2}), REV_{t-2} \times 0.005]$												
Where:	$3DIUpper_{t-2}$ $3DILower_{t-2}$	is the upper deadband limit on the flight efficiency metric in year t-2; and is the lower deadband limit on the flight efficiency metric in year t-2: which shall be calculated in accordance with: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>t-2</th> <th>$3DILower_{t-2}$</th> <th>$3DIUpper_{t-2}$</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>26.4</td> <td>29.2</td> </tr> <tr> <td>2021</td> <td>26.2</td> <td>28.9</td> </tr> <tr> <td>2022</td> <td>25.9</td> <td>28.6</td> </tr> </tbody> </table>	t-2	$3DILower_{t-2}$	$3DIUpper_{t-2}$	2020	26.4	29.2	2021	26.2	28.9	2022	25.9	28.6
t-2	$3DILower_{t-2}$	$3DIUpper_{t-2}$												
2020	26.4	29.2												
2021	26.2	28.9												
2022	25.9	28.6												
	$3DIPenRate_{t-2}$	is the penalty rate in year t-2 = $3DIBonusRate_{t-2}$												
	$3DIBonusRate_{t-2}$	is the bonus rate in year t-2 which is calculated as follows: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>t-2</th> <th>$3DIBonusRate_{t-2}$</th> </tr> </thead> <tbody> <tr> <td>2020</td> <td>$(0.005 \times REV_{2020}) / 5.6$</td> </tr> </tbody> </table>	t-2	$3DIBonusRate_{t-2}$	2020	$(0.005 \times REV_{2020}) / 5.6$								
t-2	$3DIBonusRate_{t-2}$													
2020	$(0.005 \times REV_{2020}) / 5.6$													

⁶ CAA (January 2015) "Flight efficiency metric calculation and annual review protocol" available [online](#). Note that the protocol will be updated for RP3 – a draft version of the updated protocol is published on the CAA website.

		2021	$(0.005 \times REV_{2020}) / 5.5$
		2022	$(0.005 \times REV_{2020}) / 5.5$

17. For the avoidance of doubt, the treatment of C2, C3, C4 and 3DI occurring in 2018 and 2019 will be subject to review before the end of Relevant Year 2019 under the provisions of Commission Implementing Regulation (EU) No 390/2013 and the provisions of sections 11 to 19 of the Transport Act 2000. (Subject to those provisions, the CAA would expect to take the performance in 2018 and 2019 into account in the charges for subsequent years as if this condition applied to charges in 2020 and 2021

18. Financial Incentives Carried Forward From RP2

In respect of charges in year 2020		
$FI_{2020} = FC2_{2018} + FC3_{2018} + FC4_{2018} + F3DI_{2018}$		
In respect of charges in year 2021		
$FI_{2021} = FC2_{2019} + FC3_{2019} + FC4_{2019} + F3DI_{2019}$		
Where:		
FC2 ₂₀₁₈	FC2 ₂₀₁₉	have the meanings defined in Condition 21 of the Air Traffic Services Licence for NATS (En Route) plc which was in effect on 1 January 2019.
FC3 ₂₀₁₈	FC3 ₂₀₁₉	
FC4 ₂₀₁₈	FC4 ₂₀₁₉	
F3DI ₂₀₁₈	F3DI ₂₀₁₉	

Condition 21a: Control of London Approach charges

19. Without prejudice to Condition 25 (Suspension and Modification of Charge Control Conditions), for each London Approach Relevant Year beginning on 1 January 2020, 2021 and 2022, the maximum Permitted Average Charge Per London Approach Service Unit shall be calculated as follows:

$$\text{MaximumCharge}_t = \frac{LDC_t + LINF_t + LReS_t + LTRS_t + LOR_t + LCSM_t + LFI_t + LMOD_t + LTvar_t - LVFR_t}{\text{ForecastLTSU}_t} - LDISCOUNT_t$$

Where:

Maximum Charge_t	means the Maximum Permitted Average Charge Per London Approach Service Unit in Relevant Year t.
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LDC _t	Means the determined costs, expressed in nominal terms for relevant year t.	
	Year t	(£)
	2020	13,554,700
	2021	13,505,263
	2022	14,448,079
LINF _t	means the adjustment of the difference between forecasted and actual inflation calculated in accordance with Paragraph 3 of this condition.	
LReS _t	<p>means the restructuring costs authorised in accordance with Article 2(18) of Commission Implementing Regulation (EU) No 2019/317.</p> <p>For all years t =2020, 2021, 2022,</p> <p>ReS_t = 0</p>	
LTRS _t	means the Traffic Risk Sharing element from previous years calculated in accordance with Paragraph 4 of this condition.	
LOR _t	Means Other revenues, including revenues collected from Biggin Hill, as agreed with the CAA, to be returned to airspace users and reflected within the Central Route Charges Table 2. Note – LOR is a negative number as the revenues are returned to airspace users.	
LCSM _t	<p>means the carry-overs from the previous reference period resulting from the implementation of the cost sharing mechanism referred to in Article 14 of Commission Implementing Regulation (EU) No391/2013;</p> <p>For all years t =2020, 2021, 2022,</p> <p>LCSM_t = 0</p>	
LFI _t	<p>means the Financial Incentives relating to performance.</p> <p>For all years t =2020, 2021, 2022</p> <p>LFI_t = 0</p>	
LMOD _t	<p>means the over-or under-recoveries that may result from the modulation of air navigation charges in accordance with Article 32 of Commission Implementing Regulation (EU) No 2019/317.</p> <p>For all years t= 2020,2021,2022</p> <p>LMOD_t = 0</p>	
LTvar _t	means the over-or under-recoveries resulting from traffic variations as defined in Paragraph 5.	

LVFR _t	means the expected cost of services to traffic operating under Visual Flight Rules. For all years t =2020, 2021, 2022, LVFR _t =0	
LDISCOUNT _t	means an adjustment to the maximum charge per LTSU in year t where the Licensee at its own discretion decides to recover less than it would otherwise be allowed to recover and has declared to the CAA that it will not pursue this as under-recovery in subsequent years.	
ForecastLTSU _t	means the forecast of Total London Approach Service Units for relevant year t established at the beginning of the reference period as set out as follows:	
	Year t	LTSU
	2018	940,093
	2019	958,830
	2020	1,005,900
	2021	1,015,600
	2022	1,041,800
Total London Approach Service Units	means the terminal service units calculated in accordance with Article 25 and Annex VIII of Commission Implementing Regulation (EU) 2019/317 as amended from time to time <i>including</i> any service units relating to military exempt flights for the aggregate of Heathrow, Gatwick, Stansted, Luton, and London City airports.	

Inflation Assumptions

20. The forecast values of the inflation index referenced in paragraph 3 shall be as follows:

FHICP _t	means the reference values of the HICP (all items) index in respect of the UK for Eurocontrol Relevant Year t established prior to the control period, consistent with the projections in nominal prices (the index base is 2012=100 up to 2019 and 2017=100 thereafter), which shall be:		
	Year t	Index (base 2012 = 100)	Index (base 2017 = 100)
	2018	112.90	
	2019	115.15	
	2020		106.44
	2021		108.57

	2022		110.74
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Inflation Adjustment

21. The adjustment of the difference between forecasted and actual inflation shall be calculated as follows:

For t = 2020, 2021 and 2022	
$INF_t = LDC_{t-2} \left(\frac{HICP_{t-2}}{FHICP_{t-2}} - 1 \right)$	
Where $HICP_{t-2}$ is calculated as follows:	
Year t-2	Calculation
2018	110.4
2019	$HICP_{2019} = 110.4 \times (1 + Inflation_{2019})$
2020	$HICP_{2020} = 102.5 \times (1 + Inflation_{2019}) \times (1 + Inflation_{2020})$
2021	$HICP_{2021} = 102.5 \times (1 + Inflation_{2019}) \times (1 + Inflation_{2020}) \times (1 + Inflation_{2021})$
2022	$HICP_{2022} = 102.5 \times (1 + Inflation_{2019}) \times (1 + Inflation_{2020}) \times (1 + Inflation_{2021}) \times (1 + Inflation_{2022})$
Where:	
$Inflation_t$	means the annual average inflation rate produced by Eurostat in the Harmonised Index of Consumer Prices in respect of calendar year t as published by Eurostat in April of year t+1 (the published rate of inflation is rounded to one significant place of decimals).

Traffic Risk Sharing

22. The Traffic Risk Sharing (LTRS_t) term shall be calculated as follows:

For t = 2020, 2021 and 2022		
$LTRS_t = (LDC_{t-2} \times LRSF_{t-2})$		
Where:	LDC_{t-2}	has the meaning in Paragraph 1 of this condition.
And	$LRSF_{t-2}$	means the risk sharing factor relating to Relevant year t-2 based on the actual number of Total London

		Approach Service Units which shall be calculated as follows:
	Where:	$0.98 \leq \frac{\text{ActualLTSU}_{t-2}}{\text{ForecastLTSU}_{t-2}} \leq 1.02$ $\text{LRSF}_{t-2} = 0$
	Where:	$1.02 \leq \frac{\text{ActualLTSU}_{t-2}}{\text{ForecastLTSU}_{t-2}} \leq 1.10$ $\text{LRSF}_{t-2} = -0.7 \left[\frac{\text{ActualLTSU}_{t-2}}{\text{ForecastLTSU}_{t-2}} - 1.02 \right]$
	Where:	$0.90 \leq \frac{\text{ActualLTSU}_{t-2}}{\text{ForecastLTSU}_{t-2}} \leq 0.98$ $\text{LRSF}_{t-2} = -0.7 \left[\frac{\text{ActualLTSU}_{t-2}}{\text{ForecastLTSU}_{t-2}} - 0.98 \right]$
	Where:	$\frac{\text{ActualLTSU}_{t-2}}{\text{ForecastLTSU}_{t-2}} < 0.90$ $\text{LRSF}_{t-2} = - \left[\frac{\text{ActualLTSU}_{t-2}}{\text{ForecastLTSU}_{t-2}} - 0.90 \right] + 0.056$
	Where	$\frac{\text{ActualLTSU}_{t-2}}{\text{ForecastLTSU}_{t-2}} > 1.10$ $\text{LRSF}_{t-2} = - \left[\frac{\text{ActualLTSU}_{t-2}}{\text{ForecastLTSU}_{t-2}} - 1.10 \right] - 0.056$
Where:	ActualLTSU_{t-2}	means the actual level of Total London Approach Service Units for relevant year t-2 published by Eurocontrol for the aggregate of Heathrow, Gatwick, Stansted, Luton, and London City airports.

Correction of LINF and LTRS Adjustments for Subsequent Traffic Variations (LTVar)

23. The LTVar component shall be calculated as follows:

LTVar_t	<p>is an adjustment to allow for variations between actual and forecast LTSUs in the year that a correction originally takes place.</p> $\text{LTVar}_t = (\text{LINF}_{t-2} + \text{LTRS}_{t-2} + \text{LOR}_{t-2} + \text{LTVar}_{t-2}) \times \left(1 - \frac{\text{Actual LTSU}_{t-2}}{\text{Forecast LTSU}_{t-2}} \right)$
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Condition 22: Oceanic Charges

1. The Oceanic charging zone comprises two areas, 'Atlantic' and 'Tango'. Flights will either incur an Atlantic or Tango area charge. If a flight is solely in the Tango area it will only incur a Tango charge, otherwise it will incur an Atlantic charge.
2. Without prejudice to Condition 25 (Suspension and Modification of Charge Control Conditions) the Licensee shall use its best endeavours to ensure that in each Oceanic Relevant Year beginning on 1 January 2020, 2021 and, 2022:

The Average Charge Per Atlantic Flight shall not exceed the Maximum Permitted Average Charge Per Atlantic Flight calculated in accordance with the following formula:

$$A_t = U_t + ADA_t + AINF_t + ATVAR_t$$

The Average Charge Per Tango Flight shall not exceed the Maximum Permitted Average Charge Per Tango Flight calculated in accordance with the following formula

$$T_t = U_t + ADT_t + TINF_t + TDTRS_t + TTVAR_t$$

where:

A_t	means the Maximum Permitted Average Charge Per Atlantic Flight in Oceanic Relevant Year t.	
T_t	means the Maximum Permitted Average Charge Per Tango Flight in Oceanic Relevant Year t.	
U_t	is a base charge per Oceanic Flight in Oceanic Relevant Year t, expressed in nominal terms:	
	Relevant Year t	U_t
	2020	56.56
	2021	55.21
	2022	55.26
ADA_t	<p>means the price charged per Atlantic Flight for the use of the ADS-B service, expressed in nominal prices.</p> <p>When the ADS-B service is not fully available for Atlantic flights $ADA_t=0$</p> <p>When the ADS-B service is fully available:</p>	

	Relevant Year t	ADA _t
	2020	33.30
	2021	33.97
	2022	34.65
AINF _t	means the adjustment to the ADS-B North Atlantic charges to account for the difference between forecast and actual inflation in relevant year t calculated in accordance with Paragraph 4 of this condition.	
ATVAR _t	means the adjustment to account for the difference between forecast and actual number of North Atlantic flights in the relevant year t calculated in accordance with Paragraph 5 of this condition. For 2020 and 2021 ATVAR _t = 0	
ADT _t	means the price charged per Tango Flight for the use of the ADS-B service, expressed in nominal prices. When the ADS-B service is not fully available for Tango flights ADT _t =0 When the ADS-B service is fully available:	
	Year t	ADT _t
	2020	5.15
	2021	5.08
	2022	5.02
TINF _t	means the adjustment to the ADS-B Tango charges to account for the difference between forecast and actual inflation in relevant year t calculated in accordance with Paragraph 4 of this condition.	
TDTRS _t	Means the adjustment to account for the difference between forecast and actual Tango data charge. For 2020 and 2021 TDTRS _t = 0 For 2022 $TDTRS_t = ADT_{t-2} \times \left(1 - \frac{\text{Actual Tango Flights}_{t-2}}{\text{Forecast Tango Flights}_{t-2}}\right)$	

TTVAR _t	means the adjustment to account for the difference between forecast and actual number of Tango flights in the relevant year t calculated in accordance with Paragraph 5 of this condition. For 2020 and 2021 TTVAR _t = 0	
Forecast Tango Flights _t	means the forecast of Tango Flights for relevant year t established at the beginning of the reference period as follows:	
	2020	31,000
	2021	32,000
Forecast Atlantic Flights _t	2020	497,000
	2021	507,000
	2022	519,000

Inflation assumptions

3. The Oceanic base charge (U_t) and ADS-B North Atlantic (ADA_t) and Tango (ADT_t) charges are set above in *nominal* prices, and therefore include the CAA's assumed forecast of CPI inflation.

FHICP _t	means the reference values of the HICP (all items) index in respect of the UK for Eurocontrol Relevant Year t established prior to the control period, consistent with the projections in nominal prices (the index base is 2017=100), which shall be:	
	Year t	Index
	2020	106.4
	2021	108.6
	2022	110.7

Inflation Adjustment

4. The adjustment for the difference between forecast and actual inflation shall be calculated as follows:

For t = 2020, 2021 and 2022:

$$AINF_t = (U_{t-2} + ADA_{t-2}) \times \left(\frac{HICP_{t-2}}{FHICP_{t-2}} - 1 \right)$$

and	
$TINF_t = (U_{t-2} + ADT_{t-2}) \times \left(\frac{HICP_{t-2}}{FHICP_{t-2}} - 1 \right)$	
Where $HICP_{t-2}$ is calculated as follows:	
Year t-2	Calculation
2018	102.5
2019	$HICP_{2019} = 102.5 \times (1 + Inflation_{2019})$
2020	$HICP_{2020} = 102.5 \times (1 + Inflation_{2019}) \times (1 + Inflation_{2020})$
2021	$HICP_{2021} = 102.5 \times (1 + Inflation_{2019}) \times (1 + Inflation_{2020}) \times (1 + Inflation_{2021})$
2022	$HICP_{2022} = 102.5 \times (1 + Inflation_{2019}) \times (1 + Inflation_{2020}) \times (1 + Inflation_{2021}) \times (1 + Inflation_{2022})$
Where:	
$Inflation_t$	means the annual Inflation rate produced by Eurostat in the Harmonised Index of Consumer Prices in respect of calendar year t as published by Eurostat in April of year t+1 (the published rate of inflation is rounded to one significant place of decimals).

5. Traffic adjustments

TVar Adjustments

These are adjustments to allow for variations between actual and forecast number of flights in the year that a correction originally takes place." For 2020 and 2021 both terms as defined below will equal 0.

For 2022

$$ATVAR_t = (((AINF_{t-2} + ATVar_{t-2}) \times Forecast Atlantic Flights_{t-2})$$

$$\times \left(1 - \frac{Actual Atlantic Flights_{t-2}}{Forecast Atlantic Flights_{t-2}} \right)$$

$$/ Forecast Atlantic Flights_t$$

and

$$TTVAR_t = (((TINF_{t-2} + TTVAR_{t-2}) \times Forecast Tango Flights_{t-2})$$

$$\times \left(1 - \frac{Actual Tango Flights_{t-2}}{Forecast Tango Flights_{t-2}} \right)$$

$$/ Forecast Tango Flights_t$$

Other licence conditions

6. Tango flight means a flight only operating along the length of ATS routes T9 and T290, as defined and promulgated within the UK AIP, within a defined volume of airspace bounded by coordinates 4500N01000W - 4500N00845W - 4834N00845W - 4841N01000W – 4500N01000W and not elsewhere in the En route (Oceanic) Area.
7. Atlantic flight means any flight in the En route (Oceanic) Area that is not a Tango flight.
8. The ADS-B service is fully available when the Licensee's Board has certified that it is operating a fully ADS-B based service in the En route (Oceanic) Area and 99% of flights, that have the correct and functioning equipment, regulatory approval and plan to use it, crossing the En route (Oceanic) Area are being provided with an ADS-B enabled service for the whole time the flights are within the En route (Oceanic) Area. At all other times the ADS-B service is unavailable. The certificate may say that the ADS-B service is fully available for both Atlantic flights and Tango flights; or is fully available for Atlantic flights but not for Tango flights; or the ADS-B service is fully available for Tango flights but not for Atlantic flights.
9. By no later than two years and six months after the licensee has certified it is operating a fully ADS-B based service in the En route (Oceanic) Area, or at a later date agreed with the CAA, the Licensee shall commission an independent review of whether the benefits of providing a fully ADS-B based service outweigh the costs of providing the service.

APPENDIX B**Condition 10a: Airspace modernisation**

Condition 10a – Airspace modernisation

1. The Licensee must maintain an Airspace Change Organising Group (ACOG). ACOG shall be a unit within the Licensee, separate and impartial from the Licensee's other functional units set up for the purpose of carrying out the functions set out in paragraphs 2, 3, 5 and 10 below. ACOG will be subject to oversight from a Steering Committee to assist with its impartiality and engagement of relevant stakeholders relevant to the delivery of this function. The Licensee shall appoint the Head of ACOG and the Chair of the Steering Committee following consultation with the CAA and the Department for Transport ("DfT"). The Steering Committee will include at least one representative from the Licensee, airlines, airports, the general aviation community and independent members with appropriate experience. The Licensee remains accountable for the outputs of ACOG,
2. The Licensee must create and maintain a single coordinated implementation plan for airspace changes in the UK for the period to 2040 ("airspace change masterplan" or "the masterplan").
3. The masterplan must:
 - a. be consistent with the delivery of airspace modernisation as described in the Airspace Modernisation Strategy (CAP 1711 or any successor publication) published by the CAA in accordance with Direction 3(e) of the Civil Aviation Authority (Air Navigation) Directions 2017 (the "Airspace Modernisation Strategy");
 - b. meet the criteria for a Masterplan set out in paragraph 6 of the DfT and CAA's joint letter to the licensee of 2 November 2018 (see Annex B) or any successor;

- c. comply with any requirements or guidance associated with the requirements set out in paragraphs 3a to 3b above, as provided by the Secretary of State or CAA as co-sponsors of the Airspace Modernisation Strategy, including on the content or the methods by which the masterplan is to be produced;
 - d. take into consideration the information provided by and expertise of the airport operators and other ANSPs in the relevant part of the managed area; and
 - e. take into consideration the views of the entities listed as representatives of a stakeholder group, or as a conduit to them, identified in the Airspace Modernisation governance annex to the Airspace Modernisation Strategy.
4. The masterplan shall be subject to assessment in accordance with the criteria set out in paragraphs 3 a to e above and any further guidance issued by the CAA and subsequent acceptance by the CAA, who shall consult with the Secretary of State in making such assessment.
5. The Licensee shall make any changes to the masterplan as are reasonably proposed by the CAA in order to comply with and meet the objectives of the Airspace Modernisation Strategy.
6. The Licensee shall prepare and submit to the CAA the airspace change proposals related to the airspace in which the Licensee provides UK en route air traffic control services. Such requirement may be identified in the masterplan or other work undertaken by the Licensee pursuant to its activities under this licence.
7. Subject to coordination with relevant stakeholders and the agreement of the CAA, the Licensee may provide support to airspace change proposals proposed by other bodies where other bodies are designated as responsible for such airspace change proposals in the masterplan.
8. The Licensee shall encourage such sponsors to follow the coordinated programme plan in the masterplan including, where appropriate, providing advice and coordination to sponsors on the implementation of the airspace changes identified in the masterplan.
9. The Licensee shall periodically update the masterplan as reasonably requested by the CAA and the Licensee shall provide a report to the CAA and the DfT on progress

against the masterplan and related activities on 1 November each year and at any time it is requested to do so by the CAA.

10. The Licensee shall be responsible for other activities identified in the Airspace Modernisation Strategy which the Licensee is required to undertake pursuant to legislation.

Guidance note: NERL Licence Condition 10a – Airspace modernisation

Introduction

1. The purpose of this note is to provide guidance on the CAA's expectations for how NATS (En Route) Plc – referred to as NERL – works with and uses the Airspace Change Organising Group (ACOG) in delivering condition 10a of the NERL Licence and how it will be assessed as to whether it has met the requirements of this condition.
2. This note does not override the obligations of the Licence but is intended to provide some additional information about the CAA's approach to assessment of performance against it. In summary, the CAA recognises and will note when considering compliance with this Licence condition that NERL does not have absolute control over all the stakeholders and all the issues that are required to deliver the requirements set out in condition 10a. The CAA has asked NERL to establish an ACOG to assist with the delivery of NERL's requirements in this Licence condition and to effect some impartial governance through the establishment of the ACOG Steering Committee. Nevertheless, NERL is well placed to substantially (positively or negatively) both influence the other stakeholders and mitigate the impacts of any issues that arise. The CAA therefore expects NERL to use its reasonable endeavours to deliver the requirements of condition 10a of the Licence.
While, in the CAA's view, NERL continues to do so it will not reach a conclusion that NERL has breached this Licence condition.

NERL's relationship with its ACOG team

3. Airspace Modernisation is a complex programme that involves many stakeholders and a series of separate, but in some cases interdependent, airspace changes. All parties recognised some time ago that a high level of coordination was required between geographically adjacent airspace changes in the South and the North of the UK and that while NERL had many of the skills and experience to carry out this coordination, given the wide number of stakeholders and the complexity of the relationships between each other, some impartial coordination would be of value. For this reason and purpose, NERL was asked to establish and maintain ACOG. Moreover, the DfT and the CAA recognised that a masterplan was required to identify potential conflicts between individual airspace change requests and, subsequently, NERL was asked to produce and maintain a UK masterplan, engaging with relevant stakeholders in order to do so. NERL started work on the masterplan and since its creation in late 2019, the ACOG team within NERL has been leading the development of this masterplan.
4. ACOG is a unit within the Licensee, separate and acting impartially. This impartiality is in part achieved through a Steering Committee set up by NERL to provide external challenge and support to the work of ACOG. This is particularly important given the wide range of stakeholders that need to be involved in the airspace masterplan process. The Licensee appoints and employs the Head of ACOG and the Chair of the Steering Committee following consultation with the CAA and the DfT. The Steering Committee will include at least one representative from the Licensee, airlines, airports, the general aviation community and independent members with appropriate experience.
5. Licence condition 10a requires NERL to establish an Airspace Change Organising Group (ACOG) to assist it with the masterplanning task. ACOG was established before the start of Reference Period 3 (RP3) with airspace user funding in 2019. For the original period of RP3 (1 January 2020 to 31 December 2024), the CAA has made an additional allowance of £15m of operating costs, within NERL's determined costs, to provide resources for the masterplanning task, including the costs of running ACOG but excluding the costs of implementing individual airspace changes. The CAA expects NERL to efficiently manage this allowance to deliver the masterplan and, as with all aspects of NERL's operating costs allowance, the money allowed for the ACOG unit is part of normal incentive regulation, and it is for NERL to manage the ACOG unit to efficiently deliver its expected outputs. In the event that there is a very material change to the scope of the masterplanning task such that it includes tasks not reasonably foreseeable, NERL would be able to make an application to access the Opex Flexibility Fund (OFF) contained within the RP3 decision. Additionally, should NERL be directed under the powers in the proposed ATM and Unmanned Aircraft Bill to progress another sponsors' airspace change proposal, the CAA confirm that NERL would be able to apply to the OFF to

cover the operating costs of doing so. Such applications will be determined by the governance process that applies to the OFF.

6. While under Licence condition 10a NERL has overall accountability for creating the masterplan, the CAA's current expectation is that (in order to achieve the impartiality this task demands) this will be carried out by ACOG, hence the requirement in condition 10a to establish and maintain ACOG. Condition 10a also requires NERL to use constructively the other skills and resources that NERL, including ACOG, have at its disposal to further the delivery of the development and completion of the masterplan in the interests of all stakeholders.
7. For the avoidance of doubt, noting of course their ultimate corporate responsibility as Directors for all aspects of NERL, the CAA does not expect NERL's senior leadership team to exert day to day operational control over the ACOG team.

Nature of NERL's accountability for delivery of the Licence obligation

8. There are a number of factors that the CAA will take into account in determining whether NERL is delivering the requirements of condition 10a of the Licence. Some of these factors are within NERL's direct control and some are within NERL's (positive or negative) influence. These factors include:
 - The CAA has asked NERL to establish some impartial challenge to ACOG via the Steering Committee and it acknowledges that the work of ACOG will be influenced by this Steering Committee.
 - That a full masterplan can only be delivered with the coordination and positive engagement of the airports within its scope – and that NERL cannot force the coordination of those airports to happen, though the level and nature of this coordination and engagement is within its influence. The CAA expects any masterplan to report faithfully on the degree of appetite and collaboration from airports, and the extent to which completing the overall plan can/cannot be achieved without any that are reluctant or disengaged.
 - The current Government strategy for airspace modernisation and the policy framework is described in the CAA's Airspace Modernisation Strategy and is sourced from Section 70 of the Transport Act 2000, the Air Navigation Directions and Guidance, and policy publications including the Airports National Policy Statement. This framework is determined by Government and may be reviewed and revised. In the event that relevant aspects of that framework are changed, the CAA's Airspace Modernisation Strategy would change and the objectives of

the masterplan and the associated criteria for its creation may also change. In those circumstances, the CAA would seek to understand the extent to which NERL's masterplan had achieved the government policies in place at the inception of their work, and the extent to which it could/could not meet the policies in place at the time of the change and work with NERL to make clear what is needed to continue to meet this Licence condition.

- While NERL has the overall accountability for delivering the masterplan, the CAA currently expects ACOG to make the most significant contribution (within NERL) in delivering this obligation. In the event that ACOG does not deliver what is asked of it, the CAA expects NERL to work constructively with work completed to date and relevant stakeholders to deliver the best outcome possible within the overall operating costs provisions for RP3.
9. In assessing NERL's performance in meeting the requirements of the condition 10a of the Licence, the CAA will take all these factors into account and the extent to which NERL has used its reasonable endeavours to positively deliver them.

UK Civil Aviation Authority

November 2020

APPENDIX C

Minor licence modifications to improve clarity

Condition	Paragraph(s)	Change
5	7(b)	Formatting, delete (c) before "In the opinion..."
5	14(g) and (i)	Delete "sub-paragraph deleted" and change subsequent numbering
5	9	Delete "paragraph 9 deleted".
5	26(b)(i)	Change "2015" and "2020" with "2020" and "2024"
5	26(b)(ii)	Replace "target level of gearing" with "monitoring threshold level of gearing"
5	29 on page 39	Modify para on operating leases starting "At the time of inception" to "For the duration of the charge controls set out in Conditions 21, 21a and 22, the definition of Financial Indebtedness under the licence has not changed. This definition excludes lease liabilities that have generally been classified as debt since 1 April 2019 as a result of a change to the accounting treatment of operating leases."
5	29	Definition of Connected Business, replace "paragraph 30" with "in this Condition"
5	29	Definition of Finance Leases missing. Added as: "Finance Leases" means, all leases entered into by the Licensee, except those that are treated as though they were operating leases (and therefore included within operating costs) in any relevant national performance plan (or equivalent regulatory document)."
5	29	Definition of relevant asset last word change from "situate" to "situated"
6	4	Changed from 2015 to 2020 as original text was referring to RP2, not RP3: "regulatory year commencing on 1 January 2020 45 "
20	"Reference period"	Added RP3 to the definition of "Reference Period".
23	Title	Delete "and London Approach Service" as London Approach Charges no longer covered in Condition 23 if 23(2) deleted

23	2	Paragraph deleted as the requirements in this paragraph were duplicated in Condition 24(4) - so it seemed sensible to delete one of them and retain the other.
24	1(ii), 2(ii) and 3(ii)	Change reference to paragraph 7 to paragraph 6
24	5	Deleted an erroneous 'r' in line 3 of paragraph 5.

APPENDIX D

Regulatory policy statement – *ex post* efficiency assessment of NERL’s capital expenditure

Introduction

1. NATS (En Route) plc (NERL) holds an economic licence issued under the Transport Act 2000 to provide en route air traffic services in the UK. On 29 August 2019, we published proposed modifications to NERL’s licence for the economic regulation of NERL during the period 2020 to 2024 (RP3). The proposals included the introduction of an *ex post* efficiency assessment of NERL’s capital expenditure (capex). NERL rejected the proposed modifications and on 19 November 2019 we made a reference to the Competition and Markets Authority (CMA) to investigate and report on the proposed modifications.
2. In its provisional findings, the CMA agreed with the introduction of the *ex post* efficiency assessment and invited us to develop a policy statement to explain how we would judge any disallowance of capex, following the *ex post* efficiency review.
3. In response we produced a draft regulatory policy statement (RPS) taking into account the CMA’s provisional findings, along with other regulatory precedent, to set out the principles and procedure we would expect to follow in determining whether any of NERL’s capex should not be included in the regulatory asset base (RAB) at the next price control review.
4. On 23 July 2020, the CMA sent us its final report on the reference. The CMA welcomed our draft RPS and considered it sufficiently specified the basis upon which we would expect to apply a disallowance of capex, following an *ex post* efficiency review. The CMA did not think the level of detail in the RPS to be suitable for inclusion in NERL’s licence. However, it considered that the ‘Demonstrably Inefficient and/or Wasteful Expenditure’ (DIWE) test and the RPS should be referred to in the licence.
5. The purpose of this RPS is to provide guidance to NERL and other stakeholders on the principles and approach we intend to apply in deciding whether to disallow capex from NERL’s RAB.
6. In developing the RPS we considered the following:
 - our statutory duties, which include a duty to have regard to NERL’s financeability;

- precedent from *ex post* reviews we have carried out as the economic regulator for Heathrow airport;
 - the DIWE model used in the economic regulation of the energy sector;
 - user support for capex projects and the evidence base for our decisions on capex efficiency in RP3, which will be enhanced by the strengthened role of the Independent Reviewer (IR); and
 - the timing of the *ex post* reviews, noting that some capex projects may span more than one regulatory period.
7. We do not consider that user support should be a prerequisite for NERL's capex. However, if NERL were to invest in projects that do not have user support and do not have net benefits to users, then such projects could be considered to be demonstrably wasteful. Nonetheless, in considering the costs and benefits of projects we would also consider the impact on NERL's own operational efficiency (which should benefit users in the longer term) and the importance of NERL efficiently and effectively complying with its statutory and regulatory obligations.

Definition

8. In order to assess the relative efficiency of given expenditure, it is important to establish a definition of what might be considered to be inefficient:⁷

'DIWE means [capital] expenditure which the CAA has (in a published decision giving reasons) determined to be demonstrably inefficient and/or wasteful, given the information reasonably available to NERL at the time that it made the relevant decision about that expenditure. For the avoidance of doubt, no expenditure is Demonstrably Inefficient or Wasteful Expenditure simply by virtue of a statistical or quantitative analysis that compares very aggregated measures of the NERL's costs with the costs of other companies.'

Interpretation of DIWE

9. The use of the word 'Demonstrably' serves to reverse the normal burden of proof and places the onus on the CAA to demonstrate that NERL has been inefficient in its expenditure.
10. Where NERL is requesting allowances – whether before the start of the price control period, or by way of approvals for expenditure incurred in period – it is usually for NERL to show that the allowances that it seeks represent efficient

⁷ We have based our DIWE definition on that used by Northern Ireland's Utility Regulator, with minor changes to reflect its application to NERL. DIWE is defined in the licence of the SONI Transmission Systems Operator (paragraph 1.1 of Annex 1) and both NIE Networks Ltd's transmission and distribution licences (paragraph 1.1 of Annex 2). The Utility Regulator has also published '[Guidance on the interpretation and application of the Demonstrably Inefficient or Wasteful Expenditure \(DIWE\) Provision](#)'.

expenditure. However, where we decide that expenditure which has already been incurred is to be disallowed as DIWE, we should be able to reasonably demonstrate that the expenditure which was incurred was inefficient or wasteful.

11. The starting point is, therefore, that expenditure which is potentially subject to DIWE is presumed efficient; unless and until we establish that it is not. This approach provides some mitigation to the risk that we might unduly penalise NERL for decisions made at the time, but with the benefit of hindsight turn out not to be efficient.
12. The words 'inefficient' and 'wasteful' are to be given their natural meaning.

Factors to be taken into account in the application of DIWE

13. Where we choose to consider whether certain NERL expenditure may be DIWE, we will take into account the relevant circumstances. This will include, but may not be limited to, consideration of the following factors, to the extent that they are relevant:
 - a) the extent to which NERL identified and utilised appropriate resources.
 - b) the process by which any third-party contract was procured.
 - c) the extent to which NERL was, or ought to have been, able to control the relevant expenditure, including:
 - d) whether NERL had in place appropriate processes to oversee and control its internal costs;
 - e) whether NERL had in place appropriate contract management processes to oversee and control third-party costs;
 - f) to what extent these processes were applied effectively.
 - g) The information that was reasonably available to NERL and/or its third-party contractors, at the time that it and/or they made any relevant decisions in relation to expenditure or the control of expenditure. This includes information relating to stakeholder views in relation to that expenditure.
 - h) The extent to which any expenditure involved an unnecessary duplication of activity on the part of NERL and/or its third-party contractors.
 - i) The extent to which any expenditure was increased by any material error or mistake on the part of NERL and/or its third-party contractors.
 - j) The extent to which any expenditure was increased by any avoidable delay on the part of NERL and/or its third-party contractors.

- k) The extent to which any expenditure was proportionate to the outputs which that expenditure was intended to, and/or did, deliver.
 - l) The extent to which those outputs were appropriate outputs to be delivered in the context of creating (direct and indirect) benefits for the users of its services or in facilitating NERL's efficient compliance with regulatory or statutory obligations.
14. In accordance with the definition of DIWE, we will not determine any expenditure to be DIWE solely because of a comparative financial analysis of the costs of NERL as against those of other companies. However, such an analysis may be one factor which we take into account.
15. Our ability to demonstrate inefficiency or wastefulness may be dependent on information from NERL that could, potentially, be withheld. To ensure that our ability to reach a view on whether NERL is investing efficiently is not frustrated by information asymmetries between us and NERL, we consider the capex engagement incentive and the role of the IR will be important in helping us make properly informed decisions on any potential capex disallowances.

The Procedure

16. We will retain discretion to decide whether or not to undertake an assessment of whether specified expenditure is DIWE. We may (but shall not be required to) do so where information has come to our attention that expenditure incurred by NERL might be DIWE. We may do so from time to time, by way of occasional audit, in relation to a sample of expenditure, without any specific information that expenditure might be DIWE.
17. We will usually seek to notify NERL as soon as reasonably practicable if we decide to assess whether any expenditure is DIWE. However, we reserve the right to carry out an assessment at any time without such notice having been given.
18. We will follow such procedures as we consider appropriate in each case for the purpose of determining whether expenditure is DIWE. These may (without limitation) include the use of any audit, assessment or consultation in respect of the expenditure and the conduct of NERL and/or its third-party contractors in relation to it.
19. In considering whether expenditure is DIWE, we will have regard to all relevant information submitted by NERL and may request further information as part of our review. We will also have regard to all relevant information available to us, including through our broader regulatory oversight of NERL, and the advice of the IR.

20. Where we identify expenditure that we consider may be DIWE, we will invite NERL and other stakeholders to make representations on these matters and will take those representations into account before making our final determination.
21. Where we determine that any expenditure is DIWE, we will, in accordance with the definition of that term, provide NERL with reasons for our decision.
22. Where, having determined any expenditure is DIWE, we will ensure any decision to disallow the capex from NERL’s RAB is consistent with our duty,⁸ under the Transport Act 2000, to ensure that NERL does not find it unduly difficult to finance its regulated activities.

Timing of assessment and application of any disallowance

23. We recognise that in practice not all of NERL’s capex projects planned for RP2 were completed in RP2, or they are planned to be completed in RP3. Similarly, some RP3 projects will only be delivered towards the end of RP3, or during RP4. In relation to such projects, any assessment of the capex efficiency may not take place until late in RP3 or in a subsequent reporting period. The outcome of any efficiency assessment not completed in time to affect NERL’s starting RAB at the beginning of a reporting period will be taken into account at the beginning of the next reporting period.
24. As well as retaining discretion to decide whether to undertake an assessment of whether specified expenditure is DIWE, we also retain discretion to decide when to undertake such an assessment. However in relation to NERL’s capex projects directly impacted by the Covid-19 pandemic, we may engage with NERL and stakeholders as appropriate, when considering the timing of any assessment of the capex efficiency we decide to undertake and, where relevant, the timing of when to apply any decision to disallow capex.

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⁸ Section 2 of the [Transport Act 2000](#), sets out the CAA’s duties.

APPENDIX E

Guidance on NERL's capital expenditure engagement incentive

Introduction

1. NATS (En Route) plc (NERL) holds an economic licence issued under the Transport Act 2000 to provide en route air traffic services in the UK. On 29 August 2019, we published proposed modifications to NERL's licence for the economic regulation of NERL during the period 2020 to 2024 (RP3). Our proposals included introducing a financial incentive on NERL based on the delivery of its capital expenditure (capex) programme. NERL rejected the proposed modifications and on 19 November 2019 we made a reference to the Competition and Markets Authority (CMA) to investigate and report on the proposed modifications.
2. In its provisional findings the CMA did not support our proposed delivery incentive but instead provisionally found that NERL should be subject to a financial incentive based on its engagement with users on its capex programme. The CMA invited both us and NERL to submit a proposed design for a capex engagement incentive building on the CMA's initial specification, including:
 - how performance should be defined; and
 - how financial penalties would be calculated.
3. In response we produced draft guidance taking into account the provisional findings, along with other regulatory precedent, to set out the principles and procedure we would expect to follow in operating a financial incentive on NERL's engagement on its capex programme.
4. On 23 July 2020, the CMA sent us its final report on the reference. The CMA concluded that a new capex incentive based on the quality of NERL's engagement, and actions in response to engagement should be added to its licence. The CMA said that the licence should also refer to:
 - a guidance document setting out the process through which, and the basis upon which, we would assess NERL's performance under the new incentive and determine the level of penalty (if any) to be applied; and

- details of how the penalty cap should be calculated. This should provide that the level of the penalty cap will be calculated using an approach that is, and assumptions that are, consistent with that which we used when calculating our proposed £36 million capex delivery incentive penalty, but that the cap should be determined on the basis of NERL's actual capex rather than on the level of its capex allowance.
5. The CMA said that our guidance should be published alongside the licence modification and be substantially consistent with the draft guidance we submitted in response to the CMA's provisional findings, subject to the following:
- it should include a statement that the role of the Independent Reviewer (IR) would include providing its assessment of NERL's scores in relation to each relevant programme/project and criterion, following user engagement, and that this assessment should be published;
 - the scope for a penalty uplift in our proposed guidance should be removed;
 - the calculation of the standard penalty should be revised that:
 - no penalty would apply when there was an overall weighted average score of 3 or above;
 - the maximum penalty would apply when there was an overall weighted average score of 1.5 or below;
 - the penalty level would increase linearly as the overall weighted average score reduced, in units of 0.1 from 3 to 1.5;
 - our statement that appropriate adjustment may be made within RP3 if issues were identified in the first years of operation, should be qualified to highlight that such adjustments would be limited to minor refinements, unless they formed part of a more fundamental review that involved licence modifications and/or provided for appropriate appeal opportunities.

Guidance

6. This guidance sets out how we intend to assess NERL's performance in respect of the capex engagement incentive set out in Condition 10 of the NERL Licence. Subject to appropriate engagement and consultation, and taking account of our statutory duties, it may be revised from time to time to reflect best practice, the law and our developing experience.
7. This guidance addresses the following issues.
- **Measuring performance:** building upon the CMA's list of proposed criteria, we set out more details on how we intend to assess NERL's capex engagement.

- **Process and timings:** we discuss the processes and timings involved in the assessment of NERL's capex **engagement**.
- **Calculating financial penalties:** building upon the CMA's suggestions, we set out more details on how financial penalties **should** be calculated.

Measuring Performance

Criteria for assessment

8. In assessing the quality of NERL's engagement on its capex plans we intend to use the following criteria:
 1. **Timeliness:** NERL should provide information (to users, the IR and us) in a timely manner. This should include providing early warning and explanation of factors that may put planned delivery timelines at risk.
 2. **User-focus:** NERL should provide information in forms, and through mechanisms, that reflect user priorities and resource constraints, such that it is clear and accessible.
 3. **Proportionality:** the level of substantiation NERL provides should reflect the materiality of the change under consideration.
 4. **Optioneering:** NERL should seek to identify a range of different responses that might be adopted where practicable, and to provide opportunities for user and IR engagement and scrutiny of those options.
 5. **Responsiveness:** NERL should respond constructively to user, IR and our submissions, and explain clearly how it has considered and taken account of those submissions.
 6. **Mitigating/corrective actions:** NERL should take appropriate mitigating and/or corrective actions in the light of user, IR and our submissions.
9. We consider that these criteria will form a reasonable basis for assessing the quality of NERL's engagement on its capex plan. In broad terms criteria 1 to 4 address the quality of NERL's submissions, while criteria 5 and 6 address the quality of NERL's response to stakeholders.
10. We agree with the CMA's statement in its provisional findings that "*NERL's engagement with users on risks associated with its capex plan should include explicit attention being given by NERL to identifying the opex effects that may be associated with different changes to that plan, and different options with respect*

*to how NERL might respond*⁹. The context here is that if NERL were to change its approach to capital projects and expenditure then this may have implications for the level of operating expenditure (opex) it incurs.

11. NERL should be transparent about the expected impact on opex of its capital projects and engage with stakeholders on these matters. We expect to assess NERL's approach to these matters under the 'Optioneering' criterion.

A scoring system for assessment

12. We will use a scoring system that is intended to provide sufficient clarity on how the level of any penalty would be determined while also allowing sufficient flexibility to reflect the range of circumstances that may need to be addressed. The penalty assessment process also takes account of where NERL is found to have performed well.
13. We have developed a points-based methodology to assess the appropriate level of a penalty taking account of performance across a number of areas. In doing so we have drawn upon Ofgem's Electricity System Operator (ESO) incentive arrangements.¹⁰
14. The points-based scoring system we will use is as follows.
15. For each capex project,¹¹ we will score NERL for each of the performance criteria above (Timeliness, User-focus, etc.) on a scale of 1 to 5, where:
 1. = Weak
 2. = Poor
 3. = Average ('baseline expectations')
 4. = Good
 5. = Excellent
16. This scoring system is directly based on the ESO arrangements. It is based around the concept of 'baseline expectations', which for the purpose of the incentive mechanism means a reasonable level of performance (as described further in Figure 1 below).

⁹ [NATS \(En Route\) Plc/CAA Regulatory Appeal – Provisional findings report, paragraph 8.78 \(March 2020\)](#)

¹⁰ https://www.ofgem.gov.uk/system/files/docs/2018/03/esori_arrangements_guidance_document.pdf

¹¹ Below, we discuss whether we would assess NERL's performance for each individual capex project, whether we would assess its performance at the level of capex programmes (i.e. with multiple projects per programme), or whether we would agree with airspace users and NERL to consider only a shortlist of projects which are identified as high priority for airspace users.

17. The IR will score the quality of NERL's capex engagement in two rounds, with only the scores from the final round being used for the calculation of any penalty payments. This would allow NERL early indication as to where we deem that they are exceeding/falling below baseline expectations. NERL would then have scope to adjust and improve the quality of its engagement before the final round of assessment. We will publish the IR's scores.
18. We will take account of the findings of the IR and representations from stakeholders (including NERL) in forming our assessment. We will make the final decision on scoring NERL's performance. If our score is different to the IR's score we will clearly explain why we have done so. Nonetheless, the final penalty (if any) will be calculated and applied at the following price control review, which will provide NERL with an opportunity to appeal (in addition to its procedural rights to judicial review). Wider issues on timing of the various elements of these incentive arrangements are discussed further below.
19. Guidance on how scoring could be applied in practice is provided in Figure 1.

Figure 1 Guidance on scoring

	Underperformance		Baseline	Outperformance	
	Weak (1)	Poor (2)	Average (3)	Good (4)	Excellent (5)
1. Timeliness	Substantial delay in providing information, very little early warning of factors that may affect delivery.	Some delay in providing information, limited early warning of factors that may affect delivery.	Information provided in a timely manner, reasonable early warning (where possible) of factors that may affect delivery.	Information provided proactively and promptly, good quality early warning and explanation of factors that may affect delivery.	Information provided proactively and promptly, excellent quality early warning and explanation of factors that may affect delivery.
2. User-focus	Very unclear and inaccessible information provided in format not reflecting user priorities or resource constraints.	Unclear, inaccessible or perfunctory provision of information with limited regard for user priorities and resource constraints.	Reasonably clear and accessible information provided with reasonable regard for user priorities and resource constraints.	Very clear and accessible information with good regard for user priorities and resource constraints.	Extremely clear and accessible information with excellent consideration of user priorities and resource constraints.
3. Proportionality	Very little additional information provided for very material changes in capex plan.	Limited additional information provided for material changes in capex plan.	The level of substantiation provided reasonably reflects the materiality of the change under consideration.	Good substantiation for all material changes in capex plan under consideration.	Excellent substantiation for all material changes in capex plan under consideration.
4. Optioneering	Very little information on alternative options presented (including no discussion of opex interactions), no real opportunity for users and IR to scrutinise relative merits of different options.	Limited information on alternative options presented (including limited discussion of opex interactions), limited opportunity for meaningful scrutiny of relative merits of different options by users and IR.	A range of different options identified where possible (including explicit consideration of opex interactions), reasonable opportunities for meaningful user and IR engagement and scrutiny.	Good information provided on alternative options where possible (including explicit consideration of opex interactions), good opportunities for meaningful scrutiny.	Excellent information provided on alternative options where possible (including explicit consideration of opex interactions), extensive opportunities for meaningful scrutiny.
5. Responsiveness	Very limited response to user and IR submissions, does not appear that submissions have been accounted for.	Perfunctory response to user and IR submissions, insufficiently clear how these submissions have been accounted for.	Constructive response to user and IR submissions, reasonably clear explanation of how these submissions have been accounted for.	Engaged and constructive response to user and IR submissions, clear explanation of how these submissions have been meaningfully accounted for.	Engaged and highly constructive response to user and IR submissions, very clear evidence that submissions have been meaningfully accounted for after substantial consideration.
6. Mitigating / corrective actions	Very little evidence of mitigating and/or corrective actions, where appropriate, following user and IR submissions.	Limited evidence of mitigating and/or corrective actions, where appropriate, following user and IR submissions.	In most cases reasonable mitigating and/or corrective actions taken, where appropriate, following user and IR submissions. Actions communicated to stakeholders.	In almost all cases mitigating and/or corrective actions taken promptly, where appropriate, following user and IR submissions. Actions clearly explained to stakeholders.	In all cases mitigating and/or corrective actions taken promptly and proactively, where appropriate, following user and IR submissions. Actions very clearly explained to stakeholders.

Calculating an overall capex engagement score

20. To assess the overall level of performance across criteria and across projects the IR will calculate an overall capex engagement score. To do this it will first calculate an average final score for each project by taking the simple average across the scores for each performance criterion. It will then calculate an overall capex engagement score as the weighted average of project scores, where the weights used are each project's capex value as a proportion of total capex of the projects subject to CAA scrutiny under this incentive.¹² Figure 2 provides a stylised example for how the overall capex engagement score would be calculated.

Figure 2 Overall Capex Engagement Score Example

Project	Value (£m)	Weight	Timelines score	User-focus score	Proportionality score	Optioneering score	Responsiveness score	Mitigating actions score	Average project score
1	£10	0.07	2	3	3	2	2	3	2.5
2	£20	0.13	2	3	3	2	3	2	2.5
3	£5	0.03	2	2	3	2	4	3	2.7
4	£15	0.10	3	5	3	1	4	4	3.3
5	£10	0.07	2	4	4	2	4	4	3.3
6	£10	0.07	4	4	2	4	3	4	3.5
7	£20	0.13	3	4	2	1	4	3	2.8
8	£25	0.17	2	4	2	4	2	2	2.7
9	£25	0.17	4	2	3	3	4	2	3.0
10	£10	0.07	2	4	4	3	2	3	3.0
Total	£150								
Weighted Average Overall Capex Engagement Score									2.90

Projects included in the capex engagement assessment

21. There is a question as to which projects are included in the assessment. This could be every individual capex project, a smaller number of programmes (with multiple projects per programme), or a shortlist of projects/programmes which are identified as high priority by airspace users.
22. There are pros and cons to the different approaches. Assessing the quality of NERL's engagement on every individual project could involve a significant regulatory burden. However, including only a shortlist of projects would mean

¹² We note that over the course of RP3, the value of projects may change – e.g. projects may be dropped or rescoped into larger projects. We discuss this in the next section on process.

that NERL would not be assessed or held to account for the quality of its engagement on all projects.

23. We will engage with NERL and airspace users to agree on the projects to include, and currently have a preference to condense individual projects into a smaller number of larger programmes to be reviewed together. We envisage having a relatively small number of projects/programmes (for example, 10) which collectively represent a large share of NERL's overall total capex. We expect to engage with NERL and users on the projects captured by the incentive when NERL consults on its annual Service and Investment Programme (SIP).

Process and timings

24. In this section we propose more details on the process and timings that would be involved in the assessment of NERL's capex engagement.

Proposed steps

25. The assessment would occur across the whole of the regulatory period. We note that NERL's consultations with airspace users on its capex plan should be continuous and engagement is not restricted to the SIP. The SIP should be viewed as a summary of NERL's consultations. While the SIP would be a natural basis for our assessment, we will consider the quality of NERL's engagement more broadly.
26. The assessment will proceed in the following steps.

Step 1) Initial updates

- NERL will provide us and users with continuous updates on its capex projects/programmes and engage with users and the IR. The regular SIPs, supplemented by quarterly **updates**, will represent a record of NERL's consultations.

Step 2) Initial capex engagement assessment

- At an early stage for each project/programme, the IR will give initial scores for the quality of NERL's engagement, taking account of the views of stakeholders. We can deviate from the IR's score, but if we do so, we will explain why we have done so. We and the IR will work with NERL to make it clear why we have scored its performance as we have and help NERL understand where and how improvements should be made.
- We propose that for each project/programme we would agree with NERL in advance when the initial assessment would take place, noting that projects will be spread out over the course of RP3, and some may continue on into RP4 (which we discuss in more detail below).

Step 3) Further updates

- Taking into account feedback from the IR, airspace users and our initial assessment, NERL will continue to provide us and users with updates on each project/programme and engage with users and the IR.

Step 4) Final capex engagement assessment

- For each project/programme we will agree with NERL in advance when the final assessment should take place, noting that projects will be spread out over the course of RP3. (We discuss in more detail below how we would approach projects/programmes that will continue on into RP4.)

Step 5) Weighted average overall capex engagement score

- Once we have produced a final score for each project/programme we will then calculate the weighted average score across all projects/programmes in line with the approach described above in Figure 2. We presently envisage that steps (5) and (6) would take place at the next price control review.

Step 6) Calculation of penalty (if relevant)

- Based on the final overall capex engagement score a financial penalty may be applied, as described in the next section. This penalty will be increasing with the level of underperformance. The maximum penalty will be capped at a value equal to NERL's return on equity (used in the calculation of NERL's cost of capital in the price control) on its actual capex in the price control period.
- The incentive will be penalty-only. We discuss in more detail in the next section.

Changes to the capex plan within the period

27. The IR will assess the quality of NERL's engagement on its capex plan across a number of projects/programmes. This is important to ensure a sufficiently broad yet proportional appraisal of NERL's capex engagement and in order to identify areas of consistent underperformance. However, we recognise that NERL's capex plan may change over the regulatory period. In fact, this is part of why high-quality engagement is so important. If during the period the value of projects is changed, new projects are added, or projects are discontinued or deferred, it may be appropriate to adjust the weighting of projects in the overall score.
28. When making adjustments to the weighting of projects where the capex plan changes during the period:

- If the budget of a project is reduced or the project is cancelled or deferred, then it is important that NERL is held to account for engaging well with stakeholders on why the decision was made. Therefore, we may not reduce the weighting of such projects or remove them from the assessment but may keep the initial weights as they were. This would ensure that NERL is still held to account.
- If the budget of a project is increased, then it is important that NERL's accountability is also increased. Therefore, in these instances, we may update the value of the project in the weightings. We would then adjust all weightings such that the overall sum of weightings does not exceed 1.

Projects that continue after 2023

29. We recognise that not all of NERL's capex projects planned for 2020-2022 will be delivered during 2020-2022 as some will continue on into RP4. However, we still believe it is appropriate that NERL continues to engage on these projects during 2020-2022 and that it is held to account on the quality of its engagement.

Calculating financial penalties

30. In this section we set out how NERL's capex engagement scores will be used to calculate the level of any penalties.
31. First, we propose that the incentive is penalty-only, meaning that NERL will incur financial penalties if it underperforms, but it would not receive a financial reward if it outperforms. This is in line with the CMA's final report. Nonetheless, we also note that the CMA "...recommend[s] that the CAA considers ways in which more symmetric incentive arrangements might be applied as part of its RP4 review."

Criteria for calculating penalties

32. The level of penalty shall be guided by the following four factors:
1. The severity of the identified failing, and/or of the effects of that failing.
 2. Evidence on NERL's track record: for example, to what extent has the identified failing (and/or similar types of failing) recurred or persisted over time?
 3. Evidence of actions NERL has taken to address the underlying causes of the failing and to guard against their recurrence. This would include the extent to which NERL has adequately responded to past concerns and proposals presented by users and by the IR.
 4. Evidence of actions NERL took to mitigate the effects of the failing.

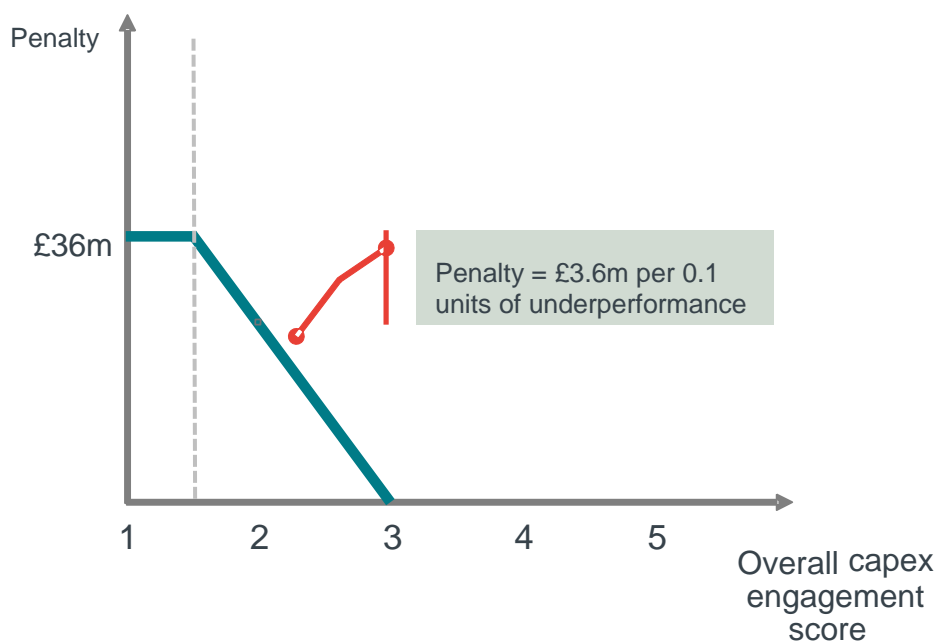
33. The scoring system we have described above captures these factors:
- by weighting projects/programmes through value this should go some way to ensure that failings on the biggest projects receive most weight (addressing at least in part factor 1);
 - by providing initial scores and retaining a penalty only incentive the incentive will target persistent failures (addressing at least in part factors 2, 3 and 4); and
 - assessment of performance criteria 5 and 6, that capture 'responsiveness' and 'mitigating/corrective actions' (that also go towards factors 3 and 4).

Method for calculating penalties

34. The maximum penalty shall be capped at NERL's rate of return on its actual capex in the price control period¹³. Any penalty will be implemented by either a RAB adjustment or a revenue adjustment at the next price control period.
35. As described above, NERL would receive an initial score and a final score for each of the individual performance criteria for each of the capex projects/programmes included in the assessment. Only the final scores would be used to calculate penalties. Specifically, we will use the Overall Capex Engagement Score, calculated as the weighted average final score across projects, as described above.
36. The penalty will be calculated as follows:
- No penalty will be applied for a weighted average Overall Capex Engagement Score of 3 or above.
 - Penalties will be applied if performance falls below 3. The maximum penalty will be applied if NERL's Overall Capex Engagement Score is 1.5 or below.
 - The level of the penalty increases linearly with the level of underperformance at a rate of 0.1 units of underperformance, up to the penalty cap.
 - Scores will be rounded to the nearest 0.1 decimal.

This is illustrated below.

¹³ This is in line with the way we calculated the £36 million penalty in our proposed licence modifications.

Figure 1 Calculation of the penalty

Conclusions

37. We consider the design set out above should help assess and incentivise the quality of NERL's engagement on its capex plan and is intended to ensure that airspace users are well-informed and listened to. The approach of initial and final assessments, project weightings, the range of criteria, and the calculation of penalties should make the approach reasonable and proportional. It will hold NERL to account for the quality of engagement on its capex plan, while also allowing NERL scope to improve the quality of engagement and avoid penalties.
38. However, it is important that all stakeholders have an opportunity to engage on the details of the proposed mechanism. Areas particularly important for discussion include:
- Assessment criteria – ensuring a common understanding of baseline expectations.
 - Projects to be assessed – views on the subset of capex projects/ programmes that would be included in the assessment.
 - Timings – views on the timing of initial and final assessments, noting that some projects may continue on into RP4.
39. We currently expect to engage with NERL and users when NERL consults on its annual SIP.

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