Consumers and Markets Group

Economic Regulation of NATS (En Route) plc: Final Decision for the NR23 (2023 to 2027) price control review

CAP 2597

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Contents

Executive summary

Overall approach to the NR23 price review

1. NATS (En Route) plc, known as NERL, is the monopoly provider of air traffic services (ATS) in the UK and this document sets out and explains the Final Decision we are making on its price controls for the period 2023 to 2027. This Final Decision follows extensive consultation and engagement with NERL and other stakeholders.

2. Under the Transport Act 2000 (TA00), NERL has responsibility for providing a safe and reliable service. For NR23, as with past reviews, our overriding priority, in line with our primary duty under the TA00, is making sure that we set price controls that allow NERL to continue to provide a high standard of safety in the provision of ATS in UK and delegated airspace. Our Final Decision includes projections of the efficient levels of NERL's costs, which we consider are appropriate for NERL to deliver its plans, including its very important safety obligations.

3. We consider the price control should incentivise NERL to provide resilient, efficient, and high-quality services. To achieve this, we have included service quality targets and incentives that provide reputational and financial incentives on NERL to improve its performance on delay and the environment. Having carefully considered the responses to the Provisional Decision and undertaken further analysis, our Final Decision is broadly in line with our Provisional Decision with similar but slightly higher forecast charges.

4. This price control review has taken place in particular challenging circumstances, including both for NERL and its customers and the users of it services. In particular:

   - NERL experienced a significant system failure on 28 August 2023, which is now the subject of an independent review. As we explain below, we will consider carefully the results of this review and if appropriate take further steps to strengthen the regulatory framework for NERL to further the interests of both its airline customers and consumers;

   - NERL has made significant changes to its capital programme both in response to covid-19 and during the course of this price control review. We have commissioned a report by Egis to assess some of the more recent changes, which is published alongside this Final Decision. The Egis report identifies a number of issues with the way that NERL has developed and managed changes in relation to its capital programme. We will consider the conclusions and recommendations of this report as well as NERL's response. Given the importance of these matters, we will consider further whether additional changes are required to the regulatory framework for NERL during the NR23 period and/or for the next price control, NR28. These matters are discussed further below; and

- the covid-19 pandemic had a significant impact on NERL, though it has received a significant amount of protection from the traffic risk sharing (TRS) arrangements that allow it to recover historical shortfalls in revenues. We have taken care to profile the recovery of this revenue over the NR23 and NR28 periods so that NERL's charges remain reasonable (and in real terms below the levels experienced in earlier price control periods). We have also retained and, where appropriate, developed enhanced arrangements for dealing with uncertainty during the NR23 period, so that NERL should continue to benefit from efficient financing costs, with these benefits flowing to customers and consumers in the longer-term through lower charges.

5. The forecast continued recovery in traffic levels and the impact of recovering TRS revenues allow NERL to continue to finance its activities and mean that NERL should be in a relatively strong financial position. In these circumstances, it is particularly important that NERL seeks to provide an excellent level of service to its customers during the NR23 period and rises to the challenge of any issues that emerge from the independent review of the 28 August incident, and our further work on its capex programmes and incentives. It will also need to continue to play a leading role in airspace modernisation, as discussed below.

6. We note that airline customers and consumers have also experienced flight delays and cancellations recently as a result of air traffic control issues at Gatwick airport. These relate to issues between NATS Services Limited (NSL), the provider of terminal air navigation services, and Gatwick airport, and we are working with the relevant parties to develop constructive solutions to improve the position. However, these issues are separate from these price controls on NERL, the monopoly provider of en route air traffic services.

Responding to the system failure on 28 August 2023

7. On 28 August 2023 there was a significant failure of one of NERL's systems that support flight plan processing and its ability to provide ATS. The incident had a major impact on flights on the day, and in the following days. In response to the incident, we have set up an independent review, the terms of reference for which consider both the cause and response to the failure, but also broader themes

including NERL's resources to respond to the incident, resilience and investment, and performance incentives.[1]

8. We consider that, consistent with our duties, it is in customers' and consumers' interests that we complete the NR23 review and make our Final Decision in a timely manner. However, we acknowledge that the incident had a major impact for consumers and customers and the outcome of the independent review may raise issues that we need to consider for the regulatory framework in NR23 and future price control reviews. If we consider that changes should be implemented during the NR23 period we will act consistently with our statutory duties and if appropriate consult on changes to the NERL's licence, including its price control conditions, as provided for in section 11A of the TA00. We will also consider any issues raised as we develop the regulatory framework for NR28 and beyond.

Dealing with changes to NERL's capital programme and the challenges of airspace modernisation

9. Following our Initial Proposals, NERL consulted with airlines on material changes in its capex programme and particularly its DP En Route and legacy escape capex programme,[2] which is critical to future service quality and airspace modernisation. In our Provisional Decision we considered these changes and stated that we had commissioned an external independent report on the impact of the changes in NERL's capex programme. This report from our consultants, Egis, has been published alongside our Final Decision.[3]

10. Egis' report sets out a number of recommendations for both NERL and the CAA, to address issues it has identified around the planning for key capex programmes such as DP En Route and mechanisms for incentivising efficiency, delivery and benefits in NERL's capex programme.

11. We will consider whether changes are required to the regulatory framework for NR28 and during NR23 to take account of the recommendations and we will consult with NERL and stakeholders accordingly. If we consider that changes should be implemented during the NR23 period we will act consistently with our statutory duties and if appropriate consult on changes to NERL's licence. We would also expect to see steps from NERL during NR23 to address these recommendations. We set out in chapter 4 (NERL costs) further detail on the next steps we plan to take based on the outcome of this work.

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1 CAP 2594

2 The programme will replace ageing infrastructure and systems, consolidating these to a single platform with improved tools and standardised operations. This technology needs to be replaced in order to ensure a reliable and resilient service, and to provide new capabilities and airspace change.

3 Egis, Review of key capital programmes proposed by NERL for the NR23 period, October 2023

12. We expect to see a number of developments and changes across the air traffic and airspace sector in the coming years. In this context, it will be important to continue to modernise UK airspace and reasonably accommodate the changing use of airspace arising from the emergence of new users, including drones and space launches. While some of these changes may have a greater effect on the sector after the NR23 period, we need to start to prepare for these changes now.

13. Our Final Decision is intended to support this wider change across the sector, by providing funding that allows NERL to continue with its work on airspace modernisation and by taking account of the emerging needs of new airspace users. NERL will need to find innovative ways of dealing with these challenges and, in due course, reflect the changing environment in its charging arrangements in a way that does not unduly hinder or stifle innovation.

14. We will also hold NERL accountable for playing its role in the delivery of airspace modernisation and providing high quality services, consistent with its licence obligations and duties under the TA00. We do this through providing reasonable allowances for, and appropriate oversight of, NERL's capex programme, as discussed in chapter 4 (NERL costs). We have also formalised oversight and reporting requirements of the Airspace Change Organising Group (ACOG) function provided by NERL, which is set out in chapter 7 (Regulatory incentives and mechanisms).

The recovery from the impact of covid-19 and the importance of affordability

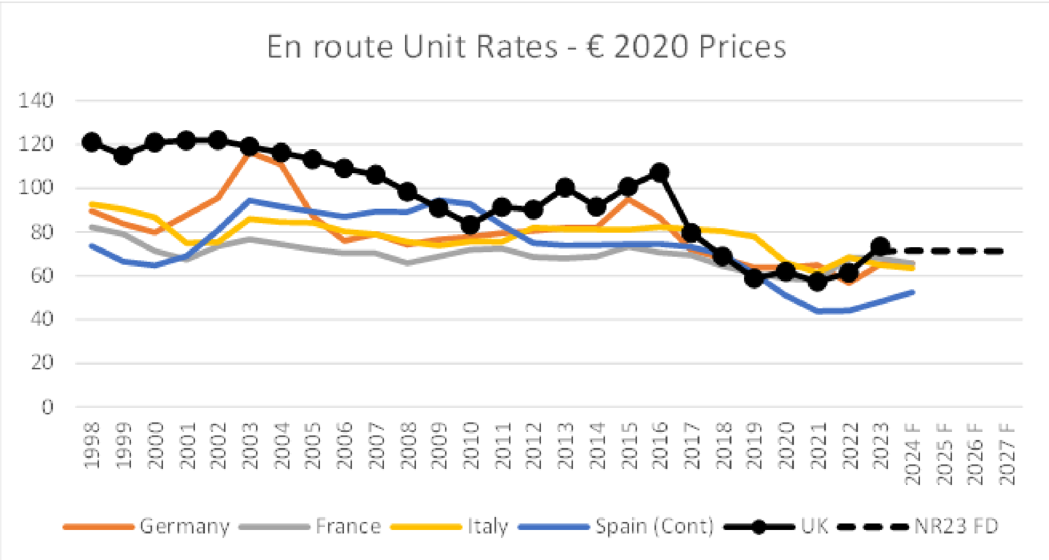
15. During 2020, following the unprecedented impact of the covid-19 pandemic, UK air traffic fell to around 40% of 2019 levels. The RP3 price control period was shortened to end in 2022 due to the impact of the covid-19 pandemic and the difficulty that this created for setting a five-year price control.

16. We have retained the approach set out in our Provisional Decision to allow NERL to recover revenues from the pandemic period, consistent with the TRS arrangements in place prior to covid-19 and the exceptional arrangements put in place for other European air navigation service providers (ANSPs). While we have seen a strong recovery in air traffic during 2022 and into 2023, there continues to be some uncertainty about the precise recovery path in traffic levels and the traffic forecasts for the NR23 period are predicted not to reach pre-pandemic levels until 2024. This recovery of revenue and relatively low levels of traffic place upwards pressure on charges for NERL's customers and consumers, particularly in the first few years of NR23. While the price controls should support NERL in continuing to make essential investments in providing services, we are also seeking to ensure that charges are no higher than necessary.

17. We have considered how best to profile the recovery of TRS revenues from the period of the pandemic in Reference Period 3 (RP3). We considered a range of factors, including comparisons with the unit rates with other European ANSPs, the historical levels of NERL's charges and views from stakeholders. The UK's unit rates have been, in recent years, similar to those of some countries with comparable ANSPs as shown in Figure 1 below.

18. Consistent with the recommendations made by the Competition and Markets Authority (CMA) determination for RP3, we have also adjusted TRS revenues on the basis of a backwards-looking reconciliation review where we looked back to take account of NERL's efficient costs in RP3. This takes into account the significant cost savings NERL made during the covid-19 pandemic and seeks to balance affordability for customers and consumers with NERL's financeability. To further reduce the impact on the unit rate in NR23, we propose to spread the recovery of TRS revenues over a ten-year period. Taking these issues together we expect that charges should remain broadly consistent with the levels experienced historically and with other large European ANSPs, although we note this will depend on the profile of charges agreed for other ANSPs from 2025 and NERL's charges may be towards the upper end of this range.

Figure 1: Comparison of en route unit rates – NR23 Final Decision



Source: CAA analysis of Eurocontrol unit rate dashboard, CRCO tables and CAA Final Decision.

19. The overall impact of our Final Decision is to reduce NERL's average Determined Unit Cost (DUC) per TSU to £47, compared with £52 in NERL's business plan. After considering the recovery of TRS shortfall and other revenue adjustments, we forecast that NERL's unit rates over NR23 will be £53 per TSU. This has increased slightly since our Provisional Decision (by around £0.05 per TSU) and is significantly lower than £61 per TSU proposed in NERL's business plan (CPI-real 2020 prices). This represents a 26% increase relative to 2022 in real terms, due mainly to higher unit costs and the recovery of the TRS shortfall.

20. Consistent with our statutory duties under the TA00, we have taken steps to exercise our functions in the manner we think best calculated to apply the secondary duties, in particular to further the interests of customers and consumers, to promote economy and efficiency, and to secure that NERL will not find it unduly difficult to finance its licensed activities. These include:

- proposing appropriate allowances that reflect our best estimate of efficient operating expenditure (opex) and capital expenditure (capex) in NR23, and challenging historical opex and capex incurred by NERL as part of our reconciliation review.[4] We are also retaining and strengthening the capex engagement incentive that we introduced for RP3. Together, these should incentivise NERL to engage effectively with stakeholders on its investment plans and to deliver efficiently;
- setting challenging targets in relation to reducing delays and achieving better environmental efficiency of airspace given the likely pattern for traffic growth. We have decided to maintain targets in line with our Provisional Decision, rather than accept NERL's proposal to loosen targets;
- setting efficient levels of financing and tax costs. The efficient level of these costs reflects the strong protections that NERL has from both the TRS arrangements and from pension costs pass-through, while also allowing NERL to finance new investment and its activities in the provision of ATS, to the benefit of customers and consumers. This approach is also consistent with discharging our secondary duty to secure that it is not unduly difficult for NERL to finance its activities; and
- as noted above preventing any undue increases in NERL's charges at the start of the NR23 period by profiling the recovery of TRS revenues, which includes allowing the recovery of a proportion of this revenue in the next regulatory period, and the profiling of NERL's revenue within NR23 to smooth prices.

Dealing with uncertainty

21. We recognise that stability, credibility and predictability of the regulatory framework is important for NR23 to support NERL's continued investment in new systems, the delivery of resilient services and to allow longer-term planning.

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4 In setting price controls for the period 2020 to 2022, the CMA did not take account of the impact of the covid-19 pandemic in its determination, but instead set a shorter control period from 2020 to 2022, and said that the CAA should conduct a reconciliation exercise, with reference to actual flight volumes and costs since 2020, as a relevant consideration for setting the NR23 price control. We refer to this as the reconciliation review for 2020 to 2022, which we have carried out as part of the NR23 price review.

22. Our Final Decision retains the core features of the regulatory framework from RP3, including the use of the RAB and the broad form of the price control. We have also retained a number of mechanisms for dealing with uncertainty, including TRS, pension cost pass-through, an adjustment mechanism for changes in corporation tax, flexibility for NERL to recover its actual efficient capex and incentives for high quality capex engagement. We have also given NERL the flexibility to develop charges for new users of its services. Taken together these arrangements are designed to protect NERL from undue uncertainty, to avoid unnecessary upward pressure on its financing costs, and allow NERL to respond flexibly to changing circumstances. This should help further the interests of NERL's customers and consumers, promote economy and efficiency and allow NERL to finance its activities.

23. Our Provisional Decision was prepared based on information available up to mid-March 2023 for inflation forecasts (following the UK government Spring 2023 budget) and the end of March for traffic forecasts (following the March 2023 update from Eurocontrol STATFOR (the independent network forecasting team of Eurocontrol). Our Final Decision is based on this same information, which is the latest available macroeconomic and traffic forecasts from these sources when we completed work on our Final Decision. We note that the regulatory framework provides NERL with a strong degree of protection for variations in traffic and inflation, which are set out in detail in chapter 7 (Regulatory incentives and mechanisms).

Looking forward

24. If NERL accepts the new price control, it will need to respond flexibly to changes and remain accountable for delivering a high standard of service and for an efficient price. NERL's customers place a high value on a safe and reliable service, and we will continue to monitor and enforce NERL's licence obligations on this basis and in accordance with our statutory duties. NERL remains responsible and accountable for providing an appropriately high quality of service to customers and consumers. Its focus in delivering outcomes and outputs should always be in the context of maintaining and/or improving safety.

25. If NERL considers that this Final Decision does not provide it with the ability to recover sufficient revenue to deliver an appropriate level of service to its customers, taking full account of its safety obligations, then NERL should exercise its right to appeal this Final Decision to the CMA under the provisions of the TA00.

Background and context

26. NERL is the monopoly provider of en route and certain approach ATS in the UK. NERL is subject to economic regulation by the CAA under the TA00. NERL holds

an ATS licence (the NERL licence) issued by the Secretary of State (SoS) under the TA00.

27. The CAA's 'primary' duty under the TA00 is to exercise its functions so as to maintain a high standard of safety in the provision of ATS. Setting price controls and service quality incentives for NERL is one of the CAA's core functions under the TA00. The TA00 also places duties on NERL, including to secure that an efficient and coordinated safe system of authorised ATS in respect of the licensed area is provided, developed and maintained.

28. NERL, like other ATS providers, must also meet the requirements of an extensive safety regulatory framework.[5] Monitoring and oversight of this framework is conducted primarily outside the price control review process.

29. When operational challenges arise, this can increase the workload for air traffic control. In such circumstances, NERL typically applies air traffic flow and capacity measures to manage available capacity (which in turn tends to increase delays to flights and passengers) to ensure safe operations and meet its safety obligations. In responding to our Provisional Decision, NERL agreed that under the terms of the Provisional Decision, if adopted by the CAA, NERL should be able to provide a safe service in NR23, by *"enabling NERL to deploy adequate operational resources, whilst providing for mechanisms to address future uncertainties."*[6] In its NR23 business plan, NERL also included a number of safety performance metrics to measure progress against these objectives during NR23. While these metrics are important, they do not form part of this Final Decision or the NR23 price control.[7]

30. The TA00 also requires the CAA to exercise its economic functions in the manner it thinks best calculated to apply the 'secondary' duties, including to further the interests of "customers and consumers",[8] promote the economy and efficiency of licence holders and secure that licence holders do not find it unduly difficult to finance their licensed activities.[9] Another of the secondary duties is to

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5 This comprises requirements under UK regulations (the Air Navigation Order 2016) and former EU regulations, now transposed into UK law following EU exit.

6 NERL response to CAA NR23 Provisional Decision, CAP2553, 4 August 2023, page 11

7 In its NR23 business plan appendix D, NERL also said that: *"to remain in line with the UK State Safety Programme acceptable level of safety performance, and to continue to provide a safe service, [its] overarching objective is to maintain or improve safety levels by ensuring that the number of serious or risk bearing incidents per flight does not increase, and if possible decreases"*.

8 In this context, section 2(2)(a) of the TA00 requires the CAA to "further the interests of operators and owners of aircraft, owners and managers of aerodromes, persons travelling in aircraft and persons with rights in property carried in them". We use the expression "customers and consumers" to refer to these stakeholders as a whole. The only interests to be considered are interests regarding the range, availability, continuity, cost and quality of air traffic services (section 2(3)).

9 These are discussed in more detail in chapter 1 (Introduction).

take account of the UK's international obligations as notified to it by the Secretary of State. As the UK is party to the Eurocontrol Multilateral Agreement relating to Route Charges, the CAA's approach follows the common policy set out in the Eurocontrol Principles for establishing the cost base for en route charges and the calculation of unit rates based on the Determined Costs methodology.[10]

31. This suite of documents sets out our Final Decision on the UK en route, London Approach and Oceanic price controls that will apply for the five calendar years from 1 January 2023 to 31 December 2027 (the 'NR23' period).[11] These follow on from the RP3 price controls, which were set following the review and determination by the CMA, and which applied from 1 January 2020 to 31 December 2022 (the CMA determination).

32. NERL's price controls, which set the maximum charges that NERL can recover from its airline customers, are calculated from allowances for efficient costs (referred to as 'Determined Costs') and forecasts for traffic volumes (measured as service units) and revenues. The price controls are underpinned by the regulatory asset base (RAB), which allows NERL to recover revenue to finance new and efficient investments, enabling the recovery of the costs of that investment and its financing to be spread out over multiple price control periods. The price control arrangements for NERL also include:

- mechanisms to incentivise NERL's performance in respect of its quality of service and the environmental impact of air traffic; and
- risk sharing mechanisms to help secure that it can obtain financing on reasonable terms and that, in the longer-term, charges to its customers are no higher than necessary.

33. The suite of documents we published on 7 July 2023 included our Final Decision on cost allowances for the Met Office, the CAA and the Department for Transport (DfT) for certain activities associated with airspace management and oversight (Non-NERL costs).[12] The Final Decision on Non-NERL costs and our Final Decision on NERL's UK en route price control form the UK performance plan under the Eurocontrol Principles.

34. The overall structure of the NR23 review and price controls is summarised below in Figure 2.

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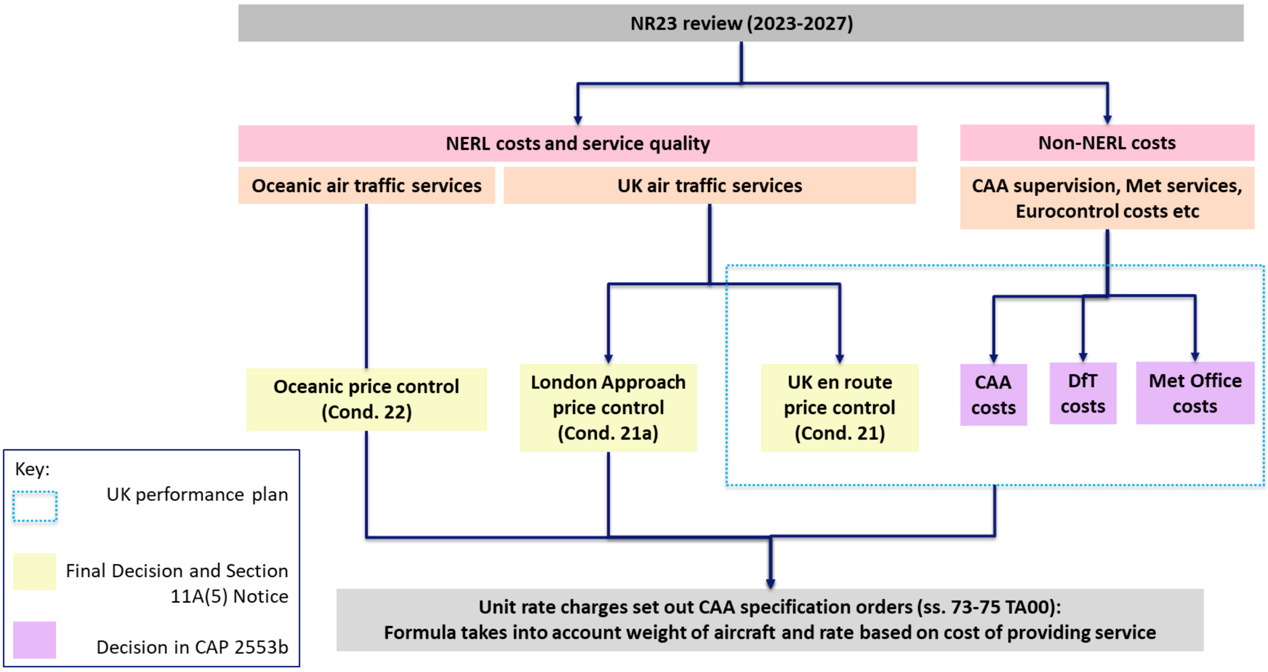
10 Eurocontrol Principles for establishing the cost base for en route charges and the calculation of the unit rates, January 2020

11 CAP 2597 and CAP 2597a to CAP 2597h.

12 See CAP 2553b.

Figure 2: NR23 review and price controls



Source: CAA

35. We give effect to our price control decisions through modifications to the NERL licence. As part of this Final Decision, in CAP 2597c, we are publishing a notice setting out the licence modifications that we have decided to make. This Final Decision (including the appendix setting out the detail of the licence modifications) constitutes the notice under section 11A(5) of the TA00 of the changes to the NERL licence that the CAA has decided to make.

36. The remainder of this is Executive Summary provides:

- a summary of the main components of our Final Decision; and
- the next steps in our process.

37. Chapter 1 contains further detail on the background, context and approach to the NR23 price review.

Summary of the key elements of our Final Decision

38. We have assessed information from a range of sources to make a Final Decision that is consistent with our statutory duties. Where appropriate, we have used our judgement and regulatory discretion. In doing so, we have weighed up often contradicting views and evidence from NERL and other stakeholders and taken account of future uncertainties.

39. We set out below a summary of our Final Decision, which covers the following key aspects of our approach:

- traffic forecasts;

- service quality targets and incentives;
- Determined Costs and the underlying building blocks of price control revenue;
- the approach to the recovery of TRS revenues from 2020 to 2022 and the overall revenue and charges;
- NERL's charges and our assessment of financeability;
- regulatory mechanisms to manage uncertainty and support innovation; and
- London Approach and Oceanic price controls.

Traffic forecasts

40. For UK en route, we have used traffic forecasts from Eurocontrol STATFOR. This has the important benefit of being an independent view on UK traffic forecasts, which was also the source of forecasts used in the CMA RP3 determination. The use of STATFOR forecasts has been consistently supported by NERL and airlines throughout customer consultation and in the lead up to this Final Decision.

41. At the time of producing our analysis, the most recent full forecast from STATFOR was published at the end of March 2023. We consider that this represents a reasonable forecast for traffic levels. The forecasts show UK en route traffic recovering to above 2019 levels by 2024. On 19 October 2023, STATFOR published its October forecast update. It would not have been practicable for us to use STATFOR's October 2023 forecast and to publish our Final Decision in a timely way, and we note that the difference between the March and October 2023 forecasts is relatively small. We consider that it is in the interest of consumers and customers that we do not unduly delay our Final Decision. We discuss the traffic forecast further in chapter 1 (Introduction).

42. STATFOR does not publish a specific forecast for NERL's Oceanic services. We have reviewed and used a forecast from NERL, which is based on STATFOR assumptions around traffic flows over the North Atlantic. This is discussed further in CAP2597a chapter 9 (Oceanic).

Service quality targets and incentives

43. We are proposing to set targets that provide strong incentives for NERL to continue to deliver good levels of performance over NR23, to the benefit of customers and consumers. By setting strong but achievable targets for NERL in NR23, we are furthering the interests of customers and consumers regarding the availability, continuity and quality of air traffic services, as well as promoting efficiency and economy on the part of NERL. The financial incentives are focused on incentivising NERL to improve its performance rather than covering

all of the financial consequences for airlines and passengers that can arise from delays.

44. As discussed in the section above on the NERL system failure, we have not made changes to performance measures and targets in response to the incident on 28 August 2023. The terms of reference for the independent review state that it will consider any lessons from this incident that should inform the framework for setting performance targets in the future. We consider it is in the interests of consumers and customers to proceed with our Final Decision rather than wait until completion of the independent review and we will consider any recommendations during the NR23 period and, as appropriate, take steps to strengthen the regulatory framework as described above.

45. We summarise our Final Decision below and provide further details on the targets and incentives in chapter 2 (Service quality and incentives).

Environment targets and incentives

46. NERL's business plan aims to reduce carbon emissions from aviation to contribute to UK government targets for net zero and aviation decarbonisation.

47. Our Final Decision includes targets for environmental performance (the "3Di" metric) that we consider should further the interests of customers and consumers by reflecting the benefits from NERL's planned capex and opex. We have carefully considered the targets proposed by NERL and the evidence it submitted and have decided not to accept NERL's proposals to relax the target and so we have set targets in line with our Provisional Decision.

48. We also strongly reject NERL's suggestion that our targets for environment and delay would require it to divert resources away from training future controllers or investing in technology transformation and airspace modernisation. It is essential that NERL continues to train future controllers and to invest in technology transformation and airspace modernisation regardless of the current level of performance, and we are firmly of the view that this Final Decision provides NERL with sufficient funding to achieve that.

49. We are retaining financial incentives on these metrics that are similar to those that applied during RP3. For example, we are retaining deadbands and maximum bonuses and penalties at +/- 0.5% of Determined Costs. We have not accepted NERL's proposals for modulation of the target or re-opener for events outside NERL's control, as they do not appear to be robustly estimated, and could dilute incentives.

Delay targets and incentives

50. The targets we are setting envisage NERL broadly maintaining its delay performance over NR23 as traffic increases. We have carefully considered the evidence submitted by NERL to support its proposal to relax these targets.

However, we have some concerns with this evidence and we have had regard to a wide range of different types of evidence which give us confidence that the judgements we have made in setting targets are reasonable.

51. We are retaining financial incentives that are similar to those applicable during RP3 on these metrics. The target for NERL attributable delay will be modulated with traffic levels given the high degree of forecast uncertainty. We have not accepted other adjustments which NERL proposed to increase exemptions and allow additional re-openers to the price control.

52. In our recommendations following the Palamon investigation,[13] we recognised stakeholder concerns that current practices for coding different causes of delay can lead to inconsistences and difficulties in monitoring ANSPs' performance. We welcome NERL's intention to propose and consult on additional reporting on delay codes in its quarterly reports from 2024. If NERL's proposal or reporting falls short of our expectations, we will consider whether further modifications to NERL's reporting obligations set out in its licence are required.

Determined Costs and the underlying building blocks

UK en route Determined Costs and Determined Unit Costs

53. NERL Determined Costs are made up of the cost and non-regulatory revenue building blocks, that is, opex, pension costs, regulatory depreciation, return on the RAB and non-regulatory revenue. The Determined Unit Costs (DUC) are Determined Costs per total service unit (TSU).[14] Unless otherwise stated, costs are expressed in 2020 CPI prices.

54. The overall impact of our Final Decision is to reduce NERL's en route Determined Costs in NR23 from £3,238 million proposed in NERL's business plan to £3,057 million.[15] This results in average DUC per TSU of £47, compared with £52 in NERL's business plan, contributing to lower unit charges over the period. The average DUC per TSU was also £47 in our Provisional Decision.

55. The main drivers of the lower Determined Costs, compared with NERL's business plan, are lower allowances for weighted average cost of capital (WACC), tax and pension costs, as shown in Figure 3 below.

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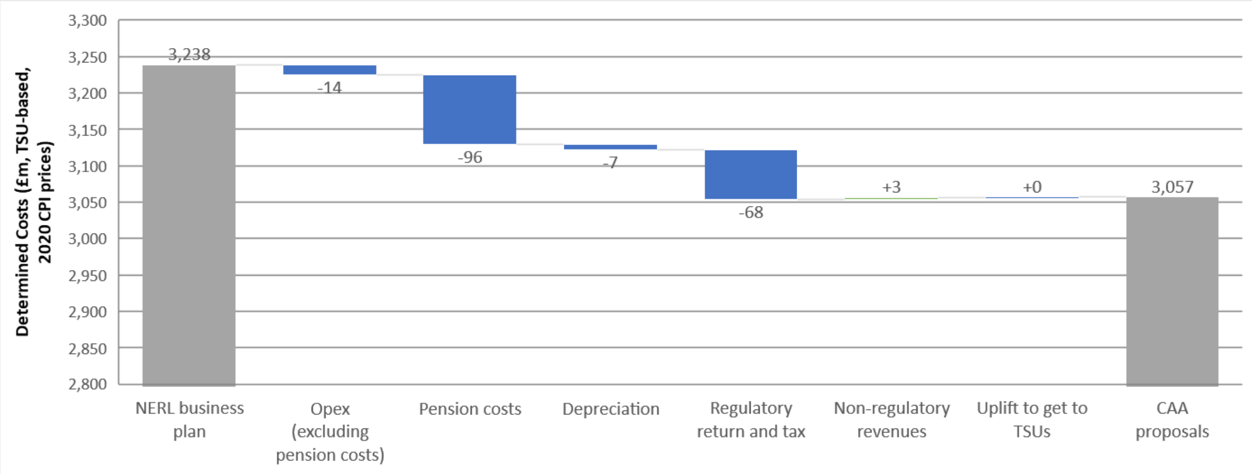
13 Project Palamon was a CAA investigation initiated following complaints brought by Ryanair plc and Stansted Airport Ltd. The final report of this investigation is available at www.caa.co.uk/cap2100

14 UK en route service units are the product of the distance factor and the weight factor. From RP3, the distance factor was based on actual route flown (not planned). TSUs include chargeable service units (CSUs) and exempt traffic (for example, from military flights).

15 This is in Determined Costs in 2020 CPI prices in terms of TSUs, which include CSUs and exempt traffic (for example, from Ministry of Defence). This is consistent throughout this chapter unless otherwise stated.

Figure 3 – CAA Final Decision Determined Costs vs NERL's business plan



Source: CAA analysis

56. We add costs from our Final Decision on the Met Office, CAA and DfT costs for NR23 to calculate the total UK en route Determined Costs and DUC for NR23 in Tables 1 and 2 below. These show DUC decreasing during NR23 as traffic levels increase and due to reductions in NERL's Determined Costs.

57. Further details on the overall Determined Costs and DUC for NERL are set out in chapter 6 (Charges and financeability). Details of the Determined Costs for the CAA, Met Office and DfT were published in our UK performance plan Decision on DfT, Met Office and CAA en route costs (2023 to 2027), on 7 July 2023.[16] Determined Costs and DUC do not include the recovery of TRS revenues from the period of the covid-19, which are treated separately as explained further below.

Table 1 – UK en route Determined Costs for NR23

2020 prices £ million	2022 Base	2023	2024	2025	2026	2027	NR23 total
NERL	582	639	643	581	598	596	3,057
MET	30	29	33	33	33	32	160
CAA & DFT	68	68	67	68	70	69	342
UK	680	736	743	682	700	698	3,559

Source: CAA analysis

16 NR23 Review: UK performance plan Decision on DfT, Met Office and CAA en route costs (2023 to 2027) (CAP 2553b)

Table 2 – UK en route DUC for NR23

2020 prices £ per TSU	2022 Base	2023	2024	2025	2026	2027	NR23 average
NERL	54.0	53.5	49.7	43.9	44.3	43.5	47.0
MET	2.8	2.5	2.5	2.5	2.4	2.4	2.5
CAA & DFT	6.3	5.6	5.2	5.2	5.2	5.1	5.2
UK	63.1	61.6	57.4	51.5	51.9	50.9	54.7

Source: CAA analysis

58. In the following sub-sections, we summarise our Final Decision on the reconciliation review of NERL's costs in RP3 and for each of the main components of NERL's UK en route Determined Costs:

- reconciliation review of costs in RP3;
- opex;
- pension costs;
- capex;
- RAB and regulatory depreciation;
- WACC and tax; and
- non-regulatory revenues.

Reconciliation review 2020 to 2022

59. NR23 includes a backwards-looking reconciliation review where we have looked back to take account of NERL's efficient costs in RP3. We have used the results of this review to ensure that NERL's recovery of TRS revenue from the period of the covid-19 pandemic is no higher than is appropriate.

60. We have retained our approach from the Provisional Decision, which is to allow NERL to recover its efficient costs from RP3 through its TRS revenues. In response to our Initial Proposals and the Provisional Decision, a number of airlines commented that we should adopt a different allocation of the TRS revenues with NERL or that the government should bear a greater proportion of these TRS revenues. However, we consider our approach is consistent with providing regulatory certainty that will further the interests of customers and consumers by continuing to support a lower than otherwise and efficient cost of capital and assisting NERL in financing the significant investment requirements over NR23 and beyond. Furthermore, it is not within the scope of the CAA's

powers to require the government to provide financial support of the kind proposed.

61. Nonetheless, we recognise that the recovery of TRS revenues increases the charges to airlines. To address this, we have decided to profile the recovery of these revenues over a ten-year period to manage the extent of the increase in charges during NR23.

62. The purpose of the reconciliation review was to assess whether any of the costs NERL incurred during 2020 to 2022 were demonstrably inefficient, in the context of the actions it took in response to the impact of the covid-19 pandemic, taking into account the significant uncertainties NERL faced at the time and without the benefit of hindsight. There are a small number of aspects of NERL's actual opex and refinancing costs during 2020 to 2022 that appear to indicate inefficiency and we have not allowed for the recovery of these elements of costs from customers and consumers. We have considered the responses from airlines to our Provisional Decision but do not consider there is sufficient evidence of inefficiency to make further reductions to the baseline.

63. Our assessment of efficient costs for NERL for RP3, as well as adopting the CMA allowances for other building blocks, lead to total efficient cost baseline in respect of 2020 to 2022 of £707 million to be recovered through the TRS mechanism, compared with £740 million from NERL's business plan (all in nominal prices). By adopting an even recovery over ten years (NR23 and NR28), our final decision is to allow a recovery of £354 million during NR23, around 36% (or £201 million) lower than in NERL's business plan (all in nominal prices).

64. For the purposes of the reconciliation review, we have adopted NERL's proposals for capex, as NERL reduced its programme significantly in 2020 to 2022 and it is too early to assess whether these costs may have been inefficient. We expect to assess these costs in the round with NR23 capex for NR28.

65. We provide further details on the reconciliation review in chapter 3. As noted below and in chapter 3, we will also review NERL's defined benefit (DB) pension costs during NR23.

Operating expenditure

66. NERL has set out a plan to deliver ongoing resilience in the short term as traffic recovers (such as by increasing staff levels), and resilience into the longer-term by investing in new infrastructure and IT systems, while sustaining the safe operation of current systems (referred to as 'legacy escape'). It is essential that NERL continues to provide safe and reliable services as traffic levels recover, and we have reflected this in the opex and capex allowances we have set in our Final Decision. We set overall allowances for NERL, rather than specify how any efficiencies should be achieved. It is for NERL to manage its business given these cost allowances.

67. We have identified areas where allowances should be set below the level proposed in NERL's business plan and areas that should reflect more recent information from NERL on opex, as well as analysis on productivity and price inflation, to reflect efficient staff and non-staff costs. We also considered responses and evidence provided by NERL and stakeholders. In this light and applying our statutory duties, including to further the interests of customers and consumers, promote efficiency and economy, and to secure that NERL will not find it unduly difficult to finance its activities, we have decided that it is reasonable to retain the same allowances in our Final Decision as we proposed in our Provisional Decision.

68. We have set an allowance for opex (excluding pension costs) of £2,063 million for the NR23 period, around 1% lower than NERL's business plan. We consider that this opex allowance will be sufficient for NERL to provide additional staffing resilience and deliver the service quality targets set out in our Final Decision.

69. We provide further detail on opex in chapter 4 (NERL costs).

Pension costs

70. NERL operates a defined benefit (DB) pension scheme, which is closed to new members, and a defined contribution (DC) pension scheme. We have assessed NERL's projections of the costs of these schemes to make sure they are reasonable and efficient, taking account of the strong regulatory protections in place.

71. For our Initial Proposals, we asked our advisors, the Government Actuary's Department (GAD) and consultants, Steer, to review the DB and DC pension costs respectively in NERL's business plan. This analysis concluded that NERL had not taken full account of the regulatory protections in place and that the costs were not appropriately aligned with relevant market benchmarks. GAD has updated its advice twice. Once for our Provisional Decision and again for our Final Decision, including to consider more recent information published by the Pensions Regulator. Based on this information and in accordance with our statutory duties, we have continued to set pension cost allowances which are significantly below those proposed in NERL's business plan. Recognising that NERL's defined benefit pension costs are fixed until the next valuation, we have applied the lower pension cost allowances from the date when contributions could be revised following the next pensions valuation, rather than a reduction from the start of NR23. We also have assumed savings from reductions to staff opex.

72. In this light, this Final Decision, sets an overall allowance of £447 million for pension costs, around 18% lower than proposed in NERL's business plan. This comprises £312 million for DB pension costs and £135 million for DC pension costs and pension cash alternative (PCA) costs.

73. In response to our Provisional Decision, NERL raised concerns that there is a lack of clarity about the cost pass-through mechanism for changes in pension costs. Our approach has not changed from RP3. NERL will be able to recover eligible pension costs during NR23 that are reasonable and efficient. We also clarify that:

- the approach to assessment of costs eligible for pass-through would be based on updated information available at the time, rather than applying the same approach we used to set cost allowances;
- we will not simply apply a single mid-point or range (which were developed for the purpose of setting cost allowances), as they may not be appropriate in assessing whether actual costs were reasonable and efficient and reflect actual market conditions;
- if NERL has compelling evidence that its costs are efficiently incurred and reflective of actual market conditions, then it should expect that pass-through provisions will apply; and
- to illustrate this, if the financial market assumptions and the level of the required pension contributions from the next valuation are in line with NERL's business plan, then the reductions we have made to NERL's forecast costs in this Final Decision would be eligible to be funded through the pension cost pass-through. This would be subject to checks that the costs are efficient and take account of offsetting cost savings that NERL has made.

74. We consider the pensions regulatory policy statement[17] and the pensions pass-through mechanism provide benefits to customers and consumers by supporting a very strong employer covenant for future pensions valuations.

75. The assessment of reasonable and efficient pension costs will be carried out and implemented during NR23 based on information available at the time and in consultation with NERL and other stakeholders. Further details on pension costs are provided in chapter 4 (NERL costs).

Capex

76. NERL's plans to upgrade its legacy technology system and for airspace modernisation are important for customers and consumers, as NERL should be able to deliver increased resilience, significant operational efficiencies and productivity improvements. During the height of the covid-19 pandemic, NERL

[17] CAA, Economic regulation of NATS (En Route) plc: Update on approach to the next price control review, CAP 2119, March 2021

significantly reduced capex, but it has proposed to increase capex for the NR23 period.

77. In its response to our Initial Proposals, NERL proposed significant changes to its capex programme, particularly to the delivery of the DP En Route and legacy escape work. NERL has said the costs of the DP En Route work have increased and that there will be further delays to the implementation of new systems. It also proposed reducing the risk and contingency allowance, leaving the overall capex forecast for NR23 broadly unchanged.

78. In this light we commissioned Egis to undertake a review of the changes to the DP En Route and legacy escape programmes. We asked Egis to consider whether the new programme should be deliverable, whether NERL had considered all appropriate options and whether NERL had fully considered the impacts on costs and customer benefits from changes to the programme.

79. The report by Egis on these matters has been published alongside this Final Decision. The report identifies a number of issues with NERL's approach to planning the DP En Route and legacy escape programmes. Its four recommendations are summarised briefly below with more detail in chapter 4 (NERL costs) and the Egis report:

- NERL should strengthen its change management procedures for capital projects and programmes;
- NERL should produce a comprehensive technical description of its plans for the DP En Route programme to completion;
- the CAA should consider mechanisms for incentivising efficiency, delivery and benefits in NERL's capex programme; and
- NERL should provide a more detailed presentation of the risks to delivery, benefits and costs.

80. NERL should take forward the recommendations that Egis has made. We plan to consider and consult during NR23 on potential options for more effective incentives around efficient and timely delivery of the benefits from key strategic capex programmes. As part of this, we will consider whether additional changes are required to the regulatory framework for NERL during the NR23 period and/or for the next price control, NR28.

81. Given the importance of NERL delivering the proposed benefits to further the interests of customers and consumers in a timely way in NR23 and beyond, so we have allowed capex in line with NERL's updated capex plan for NR23. As such, we have set a total capex allowance over NR23 of £540 million for UKATS, which is unchanged from our Provisional Decision.

82. This capex allowance is not a ‘cap’ on capex and we would expect NERL to consult on and, if appropriate, deliver additional capex, where this is efficient and there are clear benefits to customers and consumers from additional spending. Efficient capex will be remunerated through NERL’s RAB. We will conduct an *ex post* review of NERL’s RP3 and NR23 capex. Any expenditure that is found to be demonstrably inefficient and/or wasteful will be removed from NERL’s RAB at the next price control review.

83. Further details on our projections of capex are set out in chapter 4 (NERL costs). We summarise our approach to capex incentives below and discuss them further in chapter 7 (Regulatory incentives and mechanisms).

Regulatory asset base and regulatory depreciation

84. The stability, credibility and predictability of NERL’s regulatory framework is important to support continuing investment through the NR23 period and beyond. In support of this, we have retained the core features of the existing regulatory framework, including the RAB, which reflects the amount of revenue that NERL can recover in future and provides remuneration for efficient investment. Regulatory depreciation then reflects the amount of the RAB that is amortised and recovered through NERL’s charges over the NR23 period.

85. Our forecast of NERL’s RAB reflects our allowances for capex and regulatory depreciation. NERL’s RAB also reflects other adjustments during NR23, including the balances from TRS revenues from 2020 to 2022 (discussed further below). The RAB is inflated each year by retail price index (RPI) inflation and is used to calculate allowed returns based on a “real” (that is, adjusted by the RPI) WACC, consistent with our approach in RP3. Our forecast for the UKATS RAB in RPI 2020 prices is £1,282 million on average over NR23, slightly lower than the forecast RAB in NERL’s business plan. The RAB has increased slightly since our Provisional Decision to reflect corrections to our price control model (PCM).

86. We have published the RAB rules in CAP 2597d. This sets out the basis for rolling forward the RAB to the end of NR23 and reflects our approach to calculating the RAB, regulatory depreciation and provides for the clear separation of the unamortised balance of 2020 to 2022 TRS revenues.

87. We have calculated depreciation based on the “straight line” method that is broadly consistent with the approach in RP3 and NERL’s business plan. We propose depreciation of £643 million over NR23, reflecting changes in the RAB.

88. The RAB and depreciation are discussed further in chapter 5 (Financial framework).

WACC and corporation tax

89. The allowed WACC represents our estimate of the return required by investors on the debt and equity finance that supports the RAB and new investment in the

business. While NERL's RAB is relatively small compared to other regulated companies (such as Heathrow Airport Limited (HAL)), the regulatory allowances for WACC and the returns on the RAB remain important in our calculations of the NR23 price control.

90. To estimate the WACC, we considered our statutory duties and have drawn on analysis from regulatory precedent (including the CAA's H7 Final Decision, the CMA's determination for H7, the CMA determinations for RP3 and RIIO-2), expert advice on asset beta and our own analysis of debt and equity costs. We used the same information as we used for our Provisional Decision, which considered market information with a cut-off date of mid-March 2023. We considered the CMA's determination for H7 and further evidence provided by NERL and airlines, although this has not led us to change our overall approach.

91. We have set an allowed WACC that we consider is reasonable, efficient and in line with our statutory duties, taking into account the strong protections in place for TRS and pension costs.[18] This WACC will incentivise new investment which will further the interests of customers and consumers (particularly in relation to the quality, availability, range and continuity of air traffic services), while being no higher than is necessary to promote economy and efficiency and secure that the notional company will not find it unduly difficult to finance its activities. We have decided on an appropriate range for the RPI-real vanilla WACC of 2.31% to 4.06% and that the point estimate should be 3.19%. This is below the estimate provided by NERL in its response to our Provisional Decision (3.61%).

92. In a change from RP3, to improve transparency, we present the tax allowance as a separate line in Determined Costs, rather than in simply calculating an equivalent pre-tax WACC. We have retained a similar approach to estimating tax costs for NR23 as we used for our Provisional Decision, in which we updated our estimates to reflect responses to our Initial Proposals, improvements in the modelling of tax and the updates to tax policy announced in the UK government Spring 2023 budget. We have set a tax allowance of £83 million for UKATS. This has broadly similar to the tax allowance from our Provisional Decision (£83 million).

93. Further detail on the WACC and the corporation tax allowance are set out in chapter 5 (Financial framework).

Non-regulatory revenues

94. NERL earns non-regulatory revenues from services it provides to, for example, NSL, the Ministry of Defence (MoD) and North Sea Helicopters. These revenues,

[18] To illustrate the potential impact of these protections, for example, in our H7 Final Decision we estimated that the TRS for HAL reduced its asset beta, a key component of the cost of equity (see CAA H7 Final Decision, March 2023).

together with revenues from the London Approach service, are used to offset NERL's costs and so the revenues recovered from UK en route charges are no higher than are necessary.

95. We consider the forecasts proposed in NERL's business plan to be broadly reasonable and have made updates to the allocations of Determined Costs for London Approach and the MoD contracts to reflect changes to Determined Costs compared with NERL's business plan. In this light, we have decided that the level of non-regulatory revenues used for the calculation of the price control should be set at £430 million, slightly lower than proposed in NERL's business plan (£433 million) due to the reduction in Determined Costs.

96. Non-regulatory revenues are discussed in chapter 4 (NERL costs).

Overall revenues

Recovery of traffic risk sharing revenues from 2020 to 2022

97. For RP3 and previous price control periods, NERL and other European ANSPs had in place a TRS mechanism, which provided a high level of revenue protection to ANSPs from unexpected variations in traffic levels.

98. Consistent with providing predictability and credibility in the regulatory framework, we propose to uphold these commitments but to allow NERL to recover no more than its efficient Determined Costs, so that customers and consumers benefit from the cost savings made by NERL during the covid-19 pandemic. This approach to recovering revenue shortfalls (due to the impact of covid-19) is broadly in line with the special arrangements put in place for other major European ANSPs. It should bring benefits for customers and consumers in both shorter and longer terms, as NERL will retain sufficient protection through these arrangements to ensure its financeability and will be able to continue to invest on the basis of a relatively low WACC, compared to if this arrangement was not in place.

99. We have considered responses from NERL and stakeholders on different periods for recovery. We continue to consider that the appropriate period that provides certainty of recovery while managing the impact on customer charges is for recovery over 10 years (that is, two price control periods) starting in 2023. This is longer than the recovery period proposed for other European ANSPs (typically 5 to 7 years) and does not involve the "front loading" of the recovery as suggested in NERL's business plan.

100. We have considered responses from airline stakeholders that NERL should not be allowed to recover a return and/or inflation on these revenues. We continue to consider it is important to retain regulatory certainty of the recovery of these revenues over a longer period of 10 years by assuming that the unamortised

balance of NERL's TRS revenues are included in its RAB and are financed on the basis of our estimate of NERL's WACC.

101. We estimate that the recovery of these revenues increases NERL's charges by around £6 per TSU in NR23, significantly lower than the estimated increase of £9 per TSU proposed in NERL's business plan. We provide further details on the recovery of TRS revenue in chapter 6 (Charges and financeability).

Overall revenue and unit rate

102. After considering the recovery of TRS shortfall and other revenue adjustments, we forecast that NERL's unit rates over NR23 will be £53 per TSU. This has increased very slightly since our Provisional Decision (by around £0.05 per TSU) and is significantly lower than £61 per TSU proposed in NERL's business plan (CPI-real 2020 prices). This represents a 26% increase relative to 2022 in real terms.

103. Unprofiled charges would be highest in 2023 and 2024 (reflecting the lower levels of forecast traffic) before reducing for the rest of NR23. We do not consider that this uneven profile of charges would further the interests of customers and consumers, particularly in relation to the costs of ATS, as the aviation sector continues to recover. While the charges in 2023 reflect our Initial Proposals, from 2024 we have decided to profile unit rates to be £53 per TSU for each year of the NR23 period (in real terms), slightly higher than the level proposed in our Provisional Decision. After taking account of inflation, the unit rate in nominal terms is forecast to increase from £47 per TSU in 2022 to £64 per TSU over NR23 on average.

104. The forecasts for the unit rates after taking account of reprofiling are shown in the table below. Further details on these forecasts are provided in chapter 6 (Charges and financeability). The actual unit rates during NR23 will depend on outturn inflation, traffic levels and adjustments for other incentives.

Table 3 – UK en route forecast unit rates for NR23, after reprofiling

2020 CPI prices (except where stated)	2022 Base	2023	2024	2025	2026	2027
Revenue allowance (£ million)	561	628	689	706	719	730
TSUs ('000)	13,183	11,956	12,930	13,247	13,490	13,700
Unit rate (£ per TSU)	42.52	52.53	53.28	53.28	53.28	53.28
CPI inflation	1.119	1.187	1.198	1.199	1.205	1.224

2020 CPI prices (except where stated)	2022 Base	2023	2024	2025	2026	2027
forecast (2020 index)						
Unit rate (£ per TSU) – nominal prices	47.56	62.37	63.81	63.88	64.20	65.21

Source: CAA analysis. Note: 2022 revenue and unit rate are from price control model forecasts, with small differences to actuals

Benchmarking charges and assessment of financeability

105. While the services provided by NERL are a relatively small proportion of the costs of operating a flight, we understand airline customers and consumers will be sensitive to higher charges as they recover from the impact of the covid-19 pandemic. Furthermore statutory duties to further the interests of customers and consumers and to promote economy and efficiency by NERL mean we should set price controls at efficient levels, while enabling NERL to provide a resilient and high-quality level of service.

106. The analysis summarised in Figure 1 above shows NERL’s charges for NR23 below the average levels for the RP2 period and broadly comparable with other European ANSPs. We provided more detail on benchmarking in our Provisional Decision CAP2553c appendix F and the unit rates in our Final Decision have not changed significantly from these figures. Our view is that, while the increase in NERL’s charges in NR23 will be difficult for its customers, it is essential that the price control arrangements allow NERL to continue to finance new investment and that the steps we have taken to profile the recovery of TRS revenues means that, while charges are forecast to increase, the average level remains reasonable given the benchmarks from the RP2 period and from European comparisons.

107. We have assessed NERL’s debt and equity financeability under an efficient (or “notional”) financing structure. We consider that NERL should be able to retain an investment grade credit rating over NR23 under our Final Decision, including under reasonable downside traffic scenarios. We provide further detail on our benchmarking and financeability assessment in chapter 6 (Charges and financeability).

Managing uncertainty and supporting innovation and delivery

108. Given the relatively high degree of uncertainty in relation to NR23, we consider it will be in the interests of consumers and customers for NERL to be given a proportionate amount of protection in relation to this uncertainty. Therefore, we

are retaining and developing mechanisms to deal with uncertainty by providing NERL with a degree of protection for the recovery of efficiently incurred costs. This supports setting NERL a relatively lower WACC than would otherwise be the case, with the benefits of this being passed to consumers through lower charges. We have also established arrangements designed to support innovation relating to new airspace users in NR23. These are summarised below with further detail in chapter 7 (Regulatory incentives and mechanisms).

Airspace modernisation

109. A key strategic driver for NERL in NR23 is to continue to support the implementation of the UK's Airspace Modernisation Strategy (AMS), which is intended to deliver a once in a generation upgrade to modernise critical national infrastructure, UK airspace, and deliver a broad range of benefits in all key performance areas and more widely.[19]

110. We are supporting airspace modernisation activities by allowing for the associated costs and investment that NERL has proposed over NR23. To that end, we have also maintained the CAA AMS Support Fund, a ring-fenced fund created in RP3 for stakeholders (except CAA and NERL) to support the implementation of airspace modernisation and have allowed funding for the ACOG function.

Traffic risk sharing

111. We are retaining the broad approach to the TRS mechanism for UK en route services that was applied prior to the covid-19 pandemic. Nonetheless, we have proposed a change that means that where traffic reduces unexpectedly by over 10%, the recovery of the revenues to be recovered through the TRS mechanism will be spread over multiple years. This will provide greater certainty, while mitigating the upward pressure of these traffic variations on the level of charges in future if actual traffic falls significantly below assumed traffic levels. The TRS parameters otherwise remain unchanged from RP3.

Pension cost pass-through and other cost sharing mechanisms

112. We intend to continue to allow pass-through of unexpected changes in DB pension costs due to unforeseen financial market conditions, consistent the regulatory policy statement on these matters. [20] We have retained the approach set out in our Provisional Decision of excluding from the pension cost pass-through, the variations in costs from the pension cash alternative. We consider these costs are at least partially within NERL's control and we do not consider

[19] About the strategy | Civil Aviation Authority (caa.co.uk)

[20] CAA, Economic regulation of NATS (En Route) plc: Update on approach to the next price control review, CAP 2119, March 2021 – Appendix C

there is a clear customer or consumer benefit from expanding the scope of the pension cost pass-through.

113. We have retained other cost pass-throughs in line with the Eurocontrol Principles, including for unexpected changes in costs associated with changes in government requirements, interest costs and tax costs. We would expect this to include adjustments for unexpected changes in corporation tax rates compared to the assumptions used for the allowances we have decided to make for tax costs.

Inflation risk mechanisms

114. The current regulatory framework passes risks from variations between forecast and actual inflation to customers and consumers, through indexation of the price control (to CPI) and RAB (to RPI), as well as an adjustment in the RAB rules to “true-up” for unexpected changes in the RPI-CPI wedge. We observe current high inflation and interest rates, leading to uncertainty around inflation forecasts in NR23. Our Final Decision retains the same mechanisms and risk protections for NERL in NR23, as were applied in RP3.

Reopeners and allowances for asymmetric risk

115. As was the case in RP3, the Eurocontrol Principles and TA00 allow the price control to be reopened in the case of significant changes in circumstances in accordance with our statutory duties.[21] We consider that this provision, together with the strong protections provided by other regulatory mechanisms, provides sufficient flexibility and certainty to deal with changing circumstances. This includes the independent review of the 28 August ATC failure and the Egis report on NERL’s capex programme, where we have stated earlier in the summary that we will consider the recommendations and consult on any changes to the framework during the NR23 period. As a result, we have decided not to include any additional specific “re-opener” mechanisms in NR23. We also do not consider that there is a sufficient case to make adjustments to NERL’s price controls to account for any potential skew to the downside in the traffic variation risks faced by NERL.

Capex engagement incentive

116. Following the CMA’s RP3 determination, we introduced a financial incentive linked to the quality of NERL’s engagement with its airline customers on its capex plans. For NR23, we have sought to strengthen these arrangements.

[21] Eurocontrol Principles: paragraph 3.2.3 provides for amendments to unit rates due to unexpected major changes of traffic or costs; and paragraph 3.3.1.4 provides for revision of a performance plan in accordance with applicable law during a reference period.

117. To this end we have decided to set higher baseline expectations for NERL's engagement to encourage higher quality engagement on the efficient delivery of capex (with the aim ultimately of reducing pressure on future prices and ensuring that the capex delivered is appropriate). We have also decided to broaden the scope of the capex engagement incentive, for example, to cover more explicitly information on the benefits of investment, and to better incentivise NERL to make the relevant information available to both customers and us. We have published updated guidance on this incentive along with this Final Decision in CAP 2597b appendix D.

New airspace users

118. NERL anticipates that new users of UK airspace will come forward during NR23, such as commercial drones, advanced air mobility, high altitude platforms and space launches. Where NERL incurs costs to manage such new users, we consider these costs should, in principle, be borne by those new users. This will require new charging mechanisms to be developed. It is important that these arrangements do not create undue obstacles to innovation.

119. We have included an obligation on NERL to work with relevant stakeholders to develop and consult all relevant stakeholders, and then make a proposal to us on a new charging mechanism by June 2025, to allow recovery of efficient and appropriate costs by NERL for new user services.

London Approach and Oceanic price controls

120. Two additional price controls, for NERL's London Approach and Oceanic services, are regulated under the TA00 but are not part of the UK's performance plan.

121. For setting London Approach charges, we have retained the approach to cost allocation between London Approach and en route charges used for RP3. We also continue to use the same TRS mechanism as we do for en route charges.

122. For the Oceanic price control, we have allowed the ongoing costs of the space-based Automatic Dependent Surveillance-Broadcast (ADS-B) service. We set out in the RP3 price control that we would review the costs and benefits of regulatory allowances for this service once traffic has recovered to an appropriate level. We have been working with NERL and airline stakeholders on the terms of reference for an independent review of the costs and benefits of the service to inform this matter.

123. We have not adopted NERL's suggestion of introducing TRS arrangements for the Oceanic service as this would create additional complexity without significant benefits for consumers.

124. Further details of the charges for the London Approach service are set out in CAP 2597a chapter 8 (London Approach) and further details of the charges for Oceanic services are set out in CAP 2597a chapter 9 (Oceanic).

Next steps and implementation

125. The UK performance plan, as required under the Eurocontrol Principles, consists of two parts: NERL's UK en route price control and the Non-NERL (CAA, DfT and Met Office) costs, both of which are recovered through the UK en route charge.

126. Our Final Decision on NERL's UK en route price control is set out in this document and includes the modifications to NERL's licence in CAP 2597c, which are required to implement the price control. We published our UK performance plan Decision on DfT, Met Office and CAA en route costs (2023 to 2027), on 7 July 2023 in CAP 2553b.

127. Our Final Decision on the London Approach and Oceanic price controls is set out in CAP 2597a and includes the modifications to NERL's licence in CAP 2597c, which are required to implement the price controls.

128. The TA00 provides that the CAA may modify NERL's licence following appropriate stakeholder consultation.[22] Our Provisional Decision constituted the section 11A(1) TA00 statutory notice and we consulted on these proposed modifications for a period of 28 days. We also consulted for a period of 28 days on the updated draft guidance for capex engagement incentive and the proposed RAB rules, and requested any comments on clear factual errors in our Provisional Decision.

129. This Final Decision, including its appendices, constitutes the notice required under section 11A(5) of the TA00 to modify the conditions of NERL's licence to implement this Final Decision. We are also publishing the updated RAB rules and capex engagement incentive guidance alongside this Final Decision. The UK's unit rates from 2024 onwards will be set on the basis of these final licence modifications.[23]

130. The CMA issued its final determination on the H7 Heathrow Airport licence modifications appeals on 17 October 2023. We have considered whether there is any read-across from the CMA H7 final determination for our NR23 Final Decision. We consider that the CMA's determination supports the approach taken in our NR23 Final Decision, such as for the cost of capital.

[22] See sections 11 and 11A TA00.

[23] Eurocontrol Principles, 3.3.1.4

131. Following the publication of this decision notice and licence modifications, certain stakeholders have six weeks in which they can apply to the CMA for permission to appeal the CAA decision on modifications to NERL's licence.[24]

[24] Section 19A TA00 provides that an appeal may be brought by the licence holder, an owner/operator of an aircraft whose interests are materially affected by the decision or an owner/manager of a prescribed aerodrome whose interests are materially affected by the decision.

Chapter 1

Introduction

1.1 This chapter sets out background information for our Final Decision on the NERL NR23 price controls, which encompass NERL's (i) UK en route, (ii) London Approach and (iii) Oceanic services.

1.2 The part of this Decision that relates to NERL's UK en route service, along with our previously published Decision on (i) DfT, (ii) Met Office and (iii) CAA en route costs (we refer to these as Non-NERL Costs), together form the UK NR23 performance plan under the Eurocontrol Principles.

1.3 Our Final Decision on NERL comprises:

- our Decision on NERL costs, service targets and incentives, and other incentives and requirements for the NR23 price controls; and
- the statutory notice modifying NERL's licence, implementing the NR23 price controls.

1.4 Our Decision on Non-NERL costs was published as CAP 2553b in July 2023.[25]

1.5 This chapter has the following sections:

- the context for the NR23 review;
- a summary of the process we have followed;
- the scope of our Final Decision;
- a description of the UK regulatory framework;
- how to ensure our Final Decision is consistent with our primary duty to maintain a high standard of safety (section 2(1) of the TA00); and
- traffic forecasts.

25 CAP 2553b - NR23 Review: UK performance plan Decision on DfT, Met Office and CAA en route costs (2023 to 2027)

Context for this review

RP3 and the CMA's determination

1.6 The price controls for the RP3 period of 2020 to 2022 were determined by the CMA and given force through licence modifications made in December 2020.[26] Given the ongoing uncertainty at the time of making its determination, the CMA did not take account of the impact of the covid-19 pandemic in setting the price control, but instead set a shorter control period (from 2020 to 2022, rather than to 2024 as originally intended for RP3). The CMA also said that the CAA should conduct a reconciliation exercise, with reference to actual flight volumes and costs since 2020, as a relevant consideration for setting the NR23 price control and calculating TRS revenues. We refer to this as the 'reconciliation review' for 2020 to 2022, which we have carried out as part of the NR23 price review.[27]

Recovery from the covid-19 pandemic

1.7 The aviation industry is continuing to recover from the effects of the covid-19 pandemic on traffic levels, staffing numbers and other impacts. We have seen strong recovery in traffic levels in 2022 and 2023, with traffic levels expected to reach 2019 levels in 2024 under the March 2023 forecasts from Eurocontrol. However, there remains ongoing uncertainty around the path of recovery and impact of other issues such as the Russian invasion of Ukraine and risks of economic slowdown or recession in the UK and abroad. These factors make it more difficult to forecast traffic levels, a key driver of the price control, in the short and medium-term.

1.8 NERL was protected from the full impact of the pandemic through regulatory mechanisms such as traffic risk-sharing (TRS). The recovery of TRS revenues from the period of the pandemic in RP3 over the period of the NR23 price control (and beyond) also creates challenges for this price control review because it puts upward pressure on the level of NERL's charges.

Airspace modernisation

1.9 Airspace modernisation is a national strategic objective for the UK and in 2018 we published a UK Airspace Modernisation Strategy (AMS). In support of the AMS, as part of our RP3 price control conditions we created obligations on NERL to establish and maintain the Airspace Change Organising Group (ACOG). The ACOG function sits within NERL, but operates impartially, and is responsible for the design and delivery of a UK airspace masterplan. We also

[26] CAP 2011 - Economic regulation of NATS (En Route) plc: Decision on licence modifications and guidance, December 2020

[27] Details of the reconciliation review are set out in chapter 3.

highlighted the importance of NERL delivering those airspace and technology initiatives for which it is responsible, in line with the AMS.

1.10 In January 2023, we published the refreshed AMS for 2023-2040, extending the strategy to 2040, while maintaining the vision to "deliver quicker, quieter and cleaner journeys and more capacity for the benefit of those who use and are affected by UK airspace".[28] Parts 1 and 2 of the 2023 AMS cover strategic objectives, enablers, governance arrangements and delivery elements. Part 3, which will set out progress with deployment and related elements, is expected to be published by spring 2024.

1.11 Our Final Decision maintains the links and obligations between the AMS and NERL's role in its delivery, including running the ACOG function and the delivery of related airspace and technology initiatives.

H7 price review

1.12 In March 2023, we published our H7 Final Decision on the price control review for regulated charges for HAL.[29] HAL and NERL both operate under regulated price caps set on the basis of a regulatory asset base (RAB) and projections of costs and revenues. Where appropriate, we have taken a consistent approach across the H7 and NR23 reviews, for example, on market wide parameters in the weighted average cost of capital (WACC). However, we also recognise that NERL and HAL are significantly different businesses. For example, NERL is much less capital intensive, has a higher proportion of opex and has a significantly lower RAB. NERL also provides services to all commercial flights in UK airspace and its customers include low-cost carriers and the airlines operating overflights.

1.13 Another difference is that for NERL, where a TRS mechanism was in place prior to the covid-19 pandemic, this decision allows the recovery of this shortfall, broadly consistent with the existing mechanism and expectations. For HAL, no such mechanism existed during that period.

1.14 On 17 October 2023, the CMA issued its final determination on the appeals (from both HAL and airlines) in relation to the CAA's Final Decision on the H7 price control. We have considered whether there is any read-across from the CMA H7 final determination for our NR23 Final Decision. We consider that the CMA's determination supports the approach taken in our NR23 Final Decision, and in

28 Details on the CAA's Airspace Modernisation Strategy is provided here: https://www.caa.co.uk/commercial-industry/airspace/airspace-modernisation/airspace-modernisation-strategy/about-the-strategy/

29 https://www.caa.co.uk/commercial-industry/airports/economic-regulation/h7/consultations/final-and-initial-proposals-for-h7-price-control/

particular our assessment of the cost of capital for NERL as set out in chapter 5 (Financial framework).

August 2023 flight plan processing system failure

1.15 On the 28 August 2023 there was a failure of one of NERL's systems that supports flight plan processing and, hence, its ability to provide ATS. The incident had a major impact on flights both on that day and in the following days. In response to the incident, we are conducting an independent review, the terms of reference for which are to consider both the cause and response to the failure, but also broader themes including NERL resources to respond to the incident, resilience and investment, and performance incentives.[30]

1.16 Given the timing of the incident at this late stage of the NR23 review we consider that, consistent with our duties, it is in consumers' and customers' interests that we complete the NR23 review and make our Final Decision in a timely manner. Nonetheless, the independent review may raise issues that suggest it would be appropriate to make changes to the framework for the economic regulation for NERL. If this is the case, we would consider these issues and consult on changes to NERL's licence and price control incentives ahead of the NR28 review.

Process to develop our Final Decision

1.17 As explained above, this document sets out the CAA's Final Decision on the price controls for NERL's UK en route, London Approach and Oceanic services. This includes the service quality targets and incentives on NERL that will form the basis of the UK en route and Oceanic price controls under NERL's licence. The CAA has made this decision consistently with our role and duties in respect of ATS under the TA00.

1.18 The document includes:

- our Decision on NERL's UK en route price control (CAP 2597);
- our Decision on the other price controls (London Approach and Oceanic) (CAP 2597a);
- appendices A (Statutory duties), B (Abbreviations), C (Service quality), and D (updated guidance on the capex engagement incentive) (CAP 2597b);
- appendix E – the formal notice of the modifications to NERL's economic licence to implement our decision under s.11A(5) TA00 (Section 11A Notice) (CAP 2597c);

[30] Terms of Reference for the Independent Review of NATS (En Route) Plc's flight planning sub-system failure on 28th August 2023

- appendix F – updated RAB rules, covering the NR23 period (CAP 2597d); and
- the price control model and user guide (CAP 2597e and CAP 2597f, respectively);

1.19 We developed these documents through the following steps:

- in December 2020 we published a consultation on the approach to the next price control (the December 2020 document);[31]
- in March 2021 we published an update on our approach to the price control review;[32]
- we published business plan guidance for NERL in June 2021,[33] with an update in August 2021;[34]
- NERL led a programme of customer consultation during October and November 2021. At the end of the programme, the Co-Chairs of the Customer Consultation Working Group (CCWG) submitted a report on their conclusions.[35] In line with our NR23 guidance, NERL also carried out consumer research to ensure consumer views form part of its business plan;
- NERL submitted an update on its key price control building blocks to us on 10 December 2021. This provided a draft of its view of the building blocks, costs and revenues that it considered should form part of its NR23 business plan;
- NERL provided to the CAA and published its NR23 business plan on 7 February 2022. As agreed during the customer consultation process, we invited stakeholders' views on NERL's business plan to help inform how we developed our Initial Proposals.[36] These responses are published on our website;[37]

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31 CAP 1994 'Economic regulation of NATS En Route plc: Consultation on the approach to the next price control review'

32 CAP 2119 'Economic regulation of NATS (En Route) plc: Update on approach to the next price control review'

33 CAP 2160 'Economic regulation of NATS (En Route) plc: further update on approach to the next price control review (NR23)'

34 Letter to NERL, Further guidance on the approach to the next price control review, 9 August 2021

35 NERL NR23 Customer Consultation Working Group – Report of the Co-Chairs, 13 December 2021

36 Letter to stakeholders inviting submission of views on NERL's NR23 business plan

37 https://www.caa.co.uk/commercial-industry/airspace/air-traffic-management-and-air-navigational-services/air-navigation-services/nats-en-route-plc-nerl-licence/

- we published our Initial Proposals (including our proposals for Non-NERL costs) on 27 October 2022 for consultation and invited stakeholder views on all aspects of our Initial Proposals;
- NERL, airlines and other stakeholders provided responses to our Initial Proposals in December 2022. These responses are published on our website.[38] In its response, NERL provided updates to its business plan in a number of areas;
- we raised a number of queries to clarify elements of NERL's response and have engaged with NERL, airlines and stakeholders on their responses and our approach to our Provisional Decision. During this process, NERL provided further information that informed our views, as discussed in the relevant chapters of the Provisional Decision;
- we published our Provisional Decision on NERL NR23 price controls on 7 July 2023 for statutory consultation and invited stakeholder views, in particular, on the proposed licence modifications; and
- NERL, airlines and other stakeholders provided responses on the Provisional Decision and statutory consultation in August 2023.

1.20 We have considered in detail the views and evidence submitted by stakeholders, as well as collecting our own primary evidence. In addition to our own analysis and assessment, we commissioned a number of consultancy studies to provide independent in-depth analysis and advice on certain issues. We published reports from a range of advisors alongside our Initial Proposals and further reports alongside our Provisional Decision. We have published two further reports with this Final Decision:

- update on pensions (by GAD); and
- review of key capital programmes (by Egis).

NERL NR23 business plan

1.21 As set out above, on 7 February 2022, NERL published its business plan for NR23. We discussed key elements of NERL's business plan in our Initial Proposals and our Provisional Decision.

1.22 In its NR23 business plan, NERL proposed a 35% increase in its en route charge per service unit from £45 in 2019 to £61 in 2023 and over NR23 (2020 prices). The main driver of the increase proposed by NERL in unit charges is the

[38] https://www.caa.co.uk/commercial-industry/airspace/air-traffic-management-and-air-navigational-services/air-navigation-services/nats-en-route-plc-nerl-licence/

recovery of 75% of the under recovery of TRS revenues from 2020 to 2022 (around £555 million in nominal prices) over the period of NR23.

1.23 In summary, stakeholders raised a number of concerns around NERL's plans, including service quality targets, resourcing plans and the allocation of the revenue shortfall from 2020-2022 through the TRS mechanism to airlines.

Our Initial Proposals for NR23

1.24 On 27 October 2022 we published our Initial Proposals for NERL's UK en route, London Approach and Oceanic price controls for the NR23 period (2023-2027), as well as Non-NERL costs. This also included draft licence modifications and RAB rules.

1.25 In our Initial Proposals we allowed increases in real costs and charges, albeit at levels below NERL's business plan. The differences from NERL's business plan reflected lower assumptions on Determined Costs for opex, pension costs and the cost of capital, for example, as well as spreading the recovery of 2020-2022 TRS revenues evenly over a period of 10 years rather than weighting these towards NR23. In addition, we proposed to set more challenging service quality targets than proposed in NERL's business plan.

Stakeholders' views on our Initial Proposals

1.26 In December 2022, we received 14 responses to our Initial Proposals, from NERL, airlines and other stakeholders. These were published on the CAA's website.[39]

1.27 Many responses were positive about parts of our Initial Proposals, but we received comments across a number of the determined cost building blocks, as well detailed comments on the price control model. There was also broad consensus that we should use more up to date information for our decisions. We summarised the stakeholder responses and our views in the relevant chapters of our Provisional Decision.

1.28 In its response to the Initial Proposals, NERL provided updates to its business plan information in a number of areas, including on its capital investment programme, opex, traffic forecasts and proposed service quality targets. Compared with its business plan, these updates included later delivery of some key capital programmes, higher traffic forecasts based on more recent STATFOR forecasts and recalibrated en route delay and flight efficiency targets for lower levels of service delivery. It also consulted with airlines on the revised capex programme for the Service and Investment Plan (SIP) process. As we

39 https://www.caa.co.uk/commercial-industry/airspace/air-traffic-management-and-air-navigational-services/air-navigation-services/nats-en-route-plc-nerl-licence/

explain in chapter 4 (NERL costs), we have a number of reservations and concerns with respect to NERL's updated capex plan.

1.29 We received no stakeholder comments on our proposals for Non-NERL costs.

Our Provisional Decision for NR23

1.30 On 7 July 2023 we published our Provisional Decision for NERL's UK en route, London Approach and Oceanic price controls for the NR23 period (2023-2027). This included our proposed licence modifications, along with draft RAB rules and draft amendments to the guidance for the capex engagement incentive.

1.31 We proposed total Determined Costs that were above our Initial Proposals, but remained below the level of NERL's business plan, against which they reflected significant reductions in pension costs and WACC, as well as modest reductions in opex. We retained our approach to spreading the recovery of 2020-2022 TRS revenues over a period of 10 years and maintained the delay and environmental service quality targets from our Initial Proposals (though we included modulation of C2 delay targets for traffic changes).

1.32 The charge for NERL was forecast to be around £53 per TSU over NR23, similar to Initial Proposals, which had increased from £45 in 2022. This was lower than £61 per TSU in NERL's business plan, in part because we spread the recovery of the TRS revenue evenly across NR23 and NR28, rather than weighted towards NR23, as in NERL's business plan.

Stakeholders' views on our Provisional Decision

1.33 In August 2023, we received nine responses to our Provisional Decision, from NERL, airlines and other stakeholders. These were published on the CAA's website.[40]

1.34 Overall, the responses were positive about many parts of the Provisional Decision or stated that, while they disagreed, they would accept the decisions. However, NERL, airlines and other stakeholders identified some key issues to be addressed and provided additional evidence in some areas.

1.35 NERL's response to our Provisional Decision focused on:

- the application of the pension regulatory policy statement when considering efficient costs in period;
- the impact of the level of the service quality targets and its ability to both meet them and undertake necessary investment in future capability; and

[40] https://www.caa.co.uk/commercial-industry/airspace/air-traffic-management-and-air-navigational-services/air-navigation-services/nats-en-route-plc-nerl-licence/

- its view that we had underestimated the cost of capital due to our approach to asset beta and cost of debt, where NERL provided an additional report by Oxera to support its response.

NERL also provided feedback on technical issues with the price control model and other areas of policy to be reconsidered in our Final Decision.

1.36 Airlines said that we should find further ways to reduce the 26% increase in charges. In particular, they highlighted the allowances in the Provisional Decision for staff costs, pension costs and the application of WACC to the recovery of the TRS revenue from RP3. Some airlines also proposed we update traffic and inflation data for our Final Decision.

1.37 CAAPS (the NERL pension trustee) and Prospect (a Trades Union representing some of NERL's employees) were critical of our approach to setting allowances for pension costs and service quality targets respectively.

1.38 We summarise stakeholders' responses and our views in the relevant chapters of this Final Decision. Where relevant, we have sought to engage with NERL and stakeholders on their responses at a working and senior level.

Scope of our Final Decision

1.39 This document is our Final Decision for all three price controls (UK en route, London Approach and Oceanic) that comprise NERL's regulated activities for the period of 2023 to 2027, known as NR23. It also constitutes the notice required under section 11A(5) TA00 to modify NERL's licence. This follows consultation on our proposed licence modifications, in accordance with section 11A(1) in July 2023, along with our Provisional Decision. The licence modifications are set out in CAP 2597 appendix E and the reasons for and effects of the proposed modifications are set out in the relevant chapters.

UK en route and London Approach

NERL costs

1.40 The UK en route component of the document covers:

- NERL's en route ATS in the Scottish and London Flight Information and Upper Information Regions (FIR/UIR); and
- NERL's combined approach for ATS for certain London airports, known as London Approach. Our Final Decision for the London Approach price control is set out in CAP 2597a chapter 8.

TANS

1.41 Terminal Air Navigation Services (TANS) are not economically regulated under the TA00 or the Eurocontrol Principles and are subject to market conditions in the UK. As they are not in scope for NR23, we will not be setting cost or performance targets for TANS providers for NR23. TANS remain subject to safety regulation by the CAA.

Oceanic

1.42 The Oceanic price control covers the ATS NERL provides to aircraft crossing the North Atlantic. This service is regulated under the TA00. The Oceanic and UK en route regulatory periods are aligned and, where appropriate, we have made similar assumptions in setting both price controls.

1.43 Our Final Decision for the Oceanic price control is set out in chapter CAP 2597a chapter 9.

UK regulatory framework

1.44 Since 1 January 2021, the UK is no longer subject to the European Union's Single European Sky (SES) performance scheme for air navigation services (ANS). Nonetheless, UK en route ATS continues to be subject to economic regulation under the TA00, and the UK is a member of Eurocontrol (see below).

Transport Act 2000

1.45 Under the TA00, the CAA's primary duty is to exercise its functions under Chapter 1 TA00 so as to maintain a high standard of safety in the provision of ATS. Those functions include modifying a licence under section 11 TA00.

1.46 TA00 also requires the CAA to exercise the relevant functions in the manner it thinks best calculated to:

- further the interests of operators and owners of aircraft, owners and managers of aerodromes, persons travelling in aircraft and persons with rights in property carried in them (sometimes referred to as "customers and consumers"). The only interests the CAA may consider are those regarding the range, availability, continuity, cost and quality of air traffic services;
- promote efficiency and economy on the part of licence holders;
- secure that licence holders will not find it unduly difficult to finance activities authorised by their licences;
- take account of any international obligations of the UK notified to the CAA by the Secretary of State (SoS) (whatever the time or purpose of the notification); and
- take account of any guidance on environmental objectives given to the CAA by the SoS.

We refer to these collectively as the "secondary duties".

1.47 In line with our primary duty under the TA00, the overriding priority for this review remains maintaining a high standard of safety in the provision of ATS in the UK and UK managed airspace.[41] Further details of our approach to discharging this primary duty are set out in the section below on our primary duty.

1.48 We have also conducted this review in the manner we consider best calculated to discharge our secondary duties. These include exercising our functions in the manner best calculated to secure that NERL will not find it unduly difficult to finance its activities. We do this by reference to the financeability of the "notionally financed company" (sometimes referred to as the "notional company", rather than "actual" NERL itself. This is in line with the CAA's practice in past price controls for NERL, its approach to H7 and the approaches adopted by other economic regulators such as Ofgem and Ofwat. The purpose of this is to further the interests of customers and consumers by ensuring that decisions surrounding the financing of the actual company (NERL) remain the responsibility of its directors and shareholders and that risk is not inappropriately passed by them to customers and consumers.

1.49 If, in a particular case, there is a conflict in the application of the secondary duties (for example between cost and quality or between financeability and the interests of consumers), we have applied them in the manner we think is reasonable, having regard to these duties as a whole as required by s.2(5) TA00.

Eurocontrol

1.50 The UK continues to be a Member State of Eurocontrol.[42]

1.51 As noted above, one of the secondary duties of the CAA is to take account of international obligations notified to the CAA by the SoS. The notified obligations include the Eurocontrol Multilateral Agreement relating to Route Charges.[43] As a signatory to the Multilateral Agreement, the UK has agreed to adopt the Eurocontrol common policy in respect of charging for UK en route services, which is set out in the Eurocontrol Principles.[44] The CAA will continue to take account of the Determined Costs methodology set out in the Eurocontrol Principles.

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41 As well as other airspace for which the UK is responsible for the provision of ATS, i.e over parts of the North Atlantic.

42 Eurocontrol is an intragovernmental pan-European, civil-military organisation that supports European aviation in a number of roles and functions. It has 41 Member States, including the UK and other EU and non-EU countries.

43 https://www.eurocontrol.int/publication/multilateral-agreement-relating-route-charges

44 Eurocontrol Principles for establishing the cost base for en route charges and the calculation of the unit rates, January 2020

1.52 While the DfT represents the UK as the 'Contracting State' under the Eurocontrol Principles, in coordination with the DfT and consistent with our role and duties under the TA00, we will prepare and adopt the UK's performance plan on behalf of the UK.

1.53 Under the Eurocontrol Principles, Contracting States following the Determined Costs methodology are obliged to:

- adopt a performance plan for each reference period;
- consult with stakeholders on the charging policy and planned cost bases (including planned investments and traffic forecasts);
- report to Eurocontrol on planned cost bases; and
- set a unit rate each year.

1.54 We consulted with stakeholders on the timing and duration of the reference period for NR23 to agree that it will run for five years from 2023 to 2027.[45] This is consistent with the requirement under the Eurocontrol Principles to have a reference period of between three and five years.[46]

1.55 The Eurocontrol Principles set broad requirements, but the details as to how these requirements are implemented in each Contracting State is subject to applicable law. In the UK this is the TA00. Unlike the SES performance regulation, the Eurocontrol Principles and the TA00 do not define in detail what needs to be included in a performance plan.

1.56 We presented our proposed approach to meeting the UK's continuing Eurocontrol obligations at the 2022 unit rate consultation meeting in July 2021. As discussed with stakeholders, the UK NR23 performance plan will comprise:

- the Final Decision documents and appendices for NERL's UK en route services (this document) and Non-NERL costs (CAP 2553b); and
- the Eurocontrol cost reporting tables and additional information document, as submitted to the Central Route Charges Office (CRCO).

1.57 We consider that this approach for the UK NR23 performance plan is consistent with the Eurocontrol Principles. The performance plan excludes the Oceanic and London Approach price controls, which are regulated solely under the TA00.

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45 CAP 1994, 'Economic regulation of NATS En Route plc: Consultation on the approach to the next price control review'

46 Eurocontrol Principles, 1.3.2

Our primary duty to maintain safety

1.58 For this review and Final Decision, our overriding priority, in line with our primary duty under the TA00, is to ensure that we economically regulate NERL in a way that allows it to continue to provide a high standard of safety in the provision of ATS in UK and other airspace where it provides ATS. NERL also has duties under the TA00 to ensure that a safe system for the provision of authorised ATS in respect of a licensed area is provided, developed and maintained. These duties are set out in section 8 of the TA00.

1.59 We are clear that safety must always be maintained and that NERL will constrain air traffic where necessary to ensure safety. NERL's delivery of outcomes and outputs should always be in the context of its overriding obligations to maintain safety.

UK safety regulatory framework

1.60 The UK safety regulatory framework requires the CAA as the Competent Authority to regulate and oversee the UK's aviation system.[47]

1.61 NERL, like all other ATS providers in the UK, is subject to an extensive safety regulatory framework that includes requirements under UK regulations and retained EU regulations. This framework is anchored in a safety management approach that covers systems, procedures and personnel.

1.62 Safety oversight by the CAA's Safety and Airspace Regulation Group (SARG) takes place at all levels of NERL, from corporate through to individual procedural changes, ATCO competence assessments and equipment maintenance and modification.

1.63 This oversight of NERL includes proactive auditing, reactive oversight to incidents or project/programme activity and independent incident investigation. Where NERL seeks to make changes, for example to key infrastructure or procedures, it must produce relevant safety information and documentation, which are assessed for acceptability by SARG. Through this oversight, SARG identifies and categorises according to safety impact, any non-compliance with regulations and may make findings in relation to NERL's safety performance. NERL must respond to audit observations and findings.

1.64 While the UK is no longer part of the EU performance scheme, we continue to monitor specific NERL safety performance indicators as part of our oversight activities.

[47] UK Regulation (EU) 2017/373, on common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight (Retained EU Legislation), sets out the safety framework for air traffic services.

Assuring safety in our Final Decision

1.65 In our Initial Proposals, we considered that NERL would be able to provide a safe service during NR23 based on the current level of safety in its operations and the safety regulatory requirements to manage changes. NERL must take appropriate steps to ensure safe operations and to meet its safety obligations, including in relation to any actions it takes to meet its service quality targets. In responding to our Initial Proposals, NERL said, *"We agree with the content of CAP2394 regarding provision of a safe service whilst allowing mechanisms to address future uncertainties."*[48]

1.66 We maintained the same approach in making our Provisional Decision and now this Final Decision, which provides NERL with appropriate allowances to provide a safe and reliable service, consistent with our primary duty to safety and should allow it to continue to operate a safe ATS system, making improvements to its systems and arrangements as appropriate.

1.67 In responding to our Provisional Decision NERL said, "*We agree that the Provisional Decision should enable the provision of a safe service in NR23 by enabling NERL to deploy adequate operational resources, whilst providing for mechanisms to address future uncertainties."*[49]

1.68 We have considered potential safety implications; for example, including consideration of legacy systems, delays to major projects, and resource and recruitment reviews. We consider that NERL will be able to provide a safe service during NR23 because the price control that we have decided to implement:

- the operation is currently safe, and appropriate safety governance mechanisms exist to manage changes:
  - NERL's safety is monitored, assessed and formally reported as part of SARG's ongoing oversight. Any change that NERL makes to its operation is subject to safety assessment before it is implemented.
- our efficiency adjustments should not impact negatively on safety:
  - **Costs.** For this Final Decision, we have assessed the level of costs we consider efficient for NERL to deliver its plans.

[48] NERL response to CAA NR23 Initial Proposals, CAP 2394 – 13 December 2022, page 33, last paragraph

[49] NERL response to CAA NR23 Provisional Decision, CAP 2553 – 4 August 2023, page 8, para 1.1

- We have sought to make appropriate efficiency assumptions while also providing strong support for the delivery of airspace modernisation which includes reducing the complexity of the airspace structures and the introduction of new technologies. We have allowed all the capex NERL has requested in its business plan for its role in airspace modernisation and ringfenced the ACOG function operating costs from our efficiency challenge.
- This approach should allow NERL appropriate allowances and return on investment to provide a safe service, consistent with our primary duty.
- In addition, and irrespective of the price control allowances for costs, NERL has overriding obligations to prioritise safety.
- **Service quality.** In determining our approach to capacity and flight efficiency targets, we have taken account of a range of factors such as views put forward by NERL and other stakeholders and NERL's historical performance. We also note that NERL must meet the requirements of the safety regulatory framework and, at an operational level, this means that where a challenge to the service quality targets presents itself, NERL must take appropriate steps: for example, it may reduce capacity (and increase delay) to ensure safe operations and meet its safety obligations.
- **Regulatory mechanisms**. We have retained a TRS mechanism which is a key part of the regulatory framework and should support NERL's continuing assess to the cost-effective finance necessary to support its investment programme. Our Final Decision also includes a 'recording mechanism' to support delivery of services for new users (which interface with NERL's regulated services), consistent with NERL's overall obligations to provide safe and reliable services.

1.69 If NERL considers that it is unable to deliver an appropriate level of service to its customers, taking full account of its safety obligations, we expect it to make an application to appeal to the CMA pursuant to section 19A of the TA00.

Traffic assumptions

Our Provisional Decision

1.70 The prices that NERL can recover from its airline customers for providing ATS are calculated on the basis of allowances for efficient Determined Costs and forecasts of two measures of traffic volumes:

- number of Instrument Flight Rules (IFR) movements, or "flights": this forecast underpins the assumptions on resourcing and service quality; and

- service units, which are based on the corresponding flight forecast and include assumptions on the distance flown and weight of aircraft: this forecast is used for the calculation of unit costs and prices NERL can charge.

1.71 Our Provisional Decision was based on forecasts derived from the STATFOR (the independent network forecasting team of Eurocontrol) March 2023 base-case assumptions for UKATS (for UK en route and London Approach) and Oceanic traffic flows. The use of STATFOR forecasts has been consistently supported by airlines and was used by the CMA in its RP3 determination.

1.72 Table 1.1 below shows the STATFOR March 2023 base-case forecasts for UKATS that we used for our Provisional Decision.

Table 1.1: UKATS traffic forecast for our Provisional Decision

	RP2 – 2019 (Actual)	RP3 2020 Actual	RP3 2021 Actual	RP3 2022 Actual	NR23 2023 F'cast	NR23 2024 F'cast	NR23 2025 F'cast	NR23 2026 F'cast	NR23 2027 F'cast
UK flights (000)	2,580	1,029	1,063	2,137	2,422	2,561	2,608	2,644	2,673
% vs 2019		40%	41%	83%	94%	99%	101%	102%	104%
TSUs (000)	12,594	5,099	5,531	10,782	11,956	12,930	13,247	13,490	13,700
% vs 2019		40%	44%	86%	95%	103%	105%	107%	109%
CSUs (000)	12,457	4,970	5,395	10,632	11,806	12,780	13,097	13,340	13,550
% vs 2019		40%	43%	85%	95%	103%	105%	107%	109%

Source: STATFOR March 2023, CAA

Summary of stakeholders' views

1.73 NERL, IATA and a number of individual airlines all supported or accepted our use of STATFOR's March 2023 forecasts as the basis for setting NERL's UKATS price controls. Several airlines commented that we should use the most recent available evidence for our Final Decision.

Our views

1.74 We welcome the broad support from stakeholders for our continued use of STATFOR forecasts. The March 2023 forecasts that we used for our Provisional Decision continued to be the most recent forecasts available at the time that we carried out our analysis and reached our conclusions on this Final Decision.

1.75 Given the impact that a change in traffic forecasts would have on all parts of this Final Decision, it would not have been practicable for us to use STATFOR's October 2023 forecast[50] and to finalise this decision in a timely way. Our assessment is that the March 2023 STAFOR forecast remains reasonable. For both flights and service units, the differences between the March and October forecasts for NR23 as a whole are less than 2%. On this basis we consider that further delays to introducing the NR23 price control arrangements would not have been in the interests of consumers and we have continued to use the March 2023 STATFOR forecast, consistent with our Provisional Decision.

1.76 We also note that while traffic forecasts are an important component of this Final Decision, the traffic risk sharing mechanism described in chapter 7 (Regulatory incentives and mechanisms) means that in practice the impact of traffic changes within the NR23 period is shared between NERL and its customers.

Our Final Decision

1.77 For the reasons set out above, for our Final Decision we have continued to use STATFOR's March 2023 base case forecasts. The forecasts for UKATS traffic are shown in Table 1.2 below, including both total service units (TSUs) and chargeable service units (CSUs).[51] The traffic forecasts for the London Approach and Oceanic price controls are discussed in CAP 2597a, chapters 8 and 9 on the London Approach and Oceanic price controls.

Table 1.2: UKATS traffic forecast for our Final Decision

	RP2 – 2019 (Actual)	RP3 2020 Actual	RP3 2021 Actual	RP3 2022 Actual	NR23 2023 F'cast	NR23 2024 F'cast	NR23 2025 F'cast	NR23 2026 F'cast	NR23 2027 F'cast
UK flights (000)	2,580	1,029	1,063	2,137	2,422	2,561	2,608	2,644	2,673
% vs 2019		40%	41%	83%	94%	99%	101%	102%	104%
TSUs (000)	12,594	5,099	5,531	10,782	11,956	12,930	13,247	13,490	13,700
% vs 2019		40%	44%	86%	95%	103%	105%	107%	109%
CSUs (000)	12,457	4,970	5,395	10,632	11,806	12,780	13,097	13,340	13,550

[50] The STATFOR Seven-Year Forecast 2023-2029 - Autumn 2023 Update was published on 18 October 2023.

[51] CSUs exclude military and exempt flights. To generate a forecast of CSUs we have taken the difference between actual TSUs and actual CSUs in 2022 and deducted this from STATFOR's forecast of TSUs for NR23.

	RP2 – 2019 (Actual)	RP3 2020 Actual	RP3 2021 Actual	RP3 2022 Actual	NR23 2023 F'cast	NR23 2024 F'cast	NR23 2025 F'cast	NR23 2026 F'cast	NR23 2027 F'cast
% vs 2019		40%	43%	85%	95%	103%	105%	107%	109%

Source: STATFOR March 2023, CAA

Chapter 2
Service quality

Introduction

2.1 As part of the UK en route price control, we set targets and incentives on NERL to improve its performance by reducing delays to flights and reducing the environmental impact of ATS. Ensuring appropriate incentives for NERL to provide high levels of service quality is consistent with our TA00 duties to further the interests of customers and consumers, and to promote efficiency and economy on NERL's part. The financial incentives are focused on incentivising NERL to improve its performance rather than covering all of the financial consequences for airlines and passengers that can arise from delays.

2.2 Our incentives on delays are focused on delays to aircraft that are caused by NERL's en route air traffic services. There are several different incentives that attach different weightings to longer delays, especially those occurring in peak periods, and also to days with a particularly high average delay.

2.3 For NERL's environmental performance, our incentives are focused on improving flight efficiency. This will reduce fuel burn by airlines, so reducing both emissions and the costs that are passed onto consumers. NERL can improve flight efficiency both in the short-term, through ATCO decisions providing more direct routeings, and in the long-term through more efficient airspace design and by supporting airspace modernisation.

2.4 We have decided to maintain the service quality incentives proposed in our Provisional Decision in this Final Decision and rejected NERL's proposal to reduce the level of the targets. As we have explained in the Executive Summary, if the Independent Review of the failure of NERL's systems on 28 August 2023 suggests that we should take further steps to strengthen the incentives on NERL with respect to service quality, then we will consider how best to respond to those recommendations. If appropriate, we could bring forward additional changes to NERL's service quality incentives ahead of the NR28 review.

2.5 This chapter covers our Final Decision on the application of RP3 incentives, and on capacity and environmental performance incentives for NR23. We summarise our Provisional Decision, stakeholders' responses and our own views on the points raised, before setting out our Final Decision on each issue.

RP3 incentives

2.6 Having already suspended NERL's financial incentives for service quality in 2020,[52] in our Provisional Decision we said we would also suspend financial incentives for both 2021 and 2022.[53] This reflected the very low level of traffic in 2021, the impact of volatile traffic levels during the early part of 2022, and the unreasonably low targets that would result from applying the traffic modulation mechanism set out in NERL's licence (since traffic levels for 2022 as a whole were still significantly lower than our forecast). The 3Di measure of environmental performance had also failed the annual review test of its validity in two consecutive years (see CAP 2597b appendix C for more details of the annual review) due to the circumstances arising from the pandemic.

2.7 British Airways was the only stakeholder to comment specifically on this aspect of our Provisional Decision. It stated that it is unclear whether it is appropriate to suspend the incentives for the whole of 2022, or whether special measures might be adopted that consider NERL's performance only from Q2 (when traffic levels were recovering and users were encouraging NERL to meet its targets). It said it was unclear whether the incentives would, in its opinion, unduly penalise NERL.

2.8 For the reasons set out above, we continue to consider that the financial incentives should be suspended for both 2021 and 2022. We consider that applying the incentives for 2022 as set out in NERL's licence (including traffic modulation) would result in unreasonably low targets. In response to British Airways' suggestion, we consider that a retrospective decision to apply an incentive for only part of a year would raise a number of complex questions about how to achieve this is a reasonable way (including how to take account of seasonality and the unusual operating conditions that persisted further into the year) and would be too late to have any impact on NERL's performance in 2022.

2.9 Bearing the above in mind we do not consider it would further the interests of customers and consumers, or promote efficiency and economy on the part of NERL, for us to continue to apply incentive mechanisms under conditions for which they were clearly not designed.

2.10 Our Final Decision is, therefore, that the financial service quality incentives are suspended for both 2021 and 2022. This applies to each of the C2, C3, and C4 metrics, and also the 3Di measure (which had already been suspended as the annual review test was failed in two consecutive years).

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[52] This was in our November 2021 decision on exceptional measures in response to the impact of the covid-19 pandemic, see CAP 2279 'Exceptional measures for the economic regulation of NATS (En Route) plc: decision on licence modifications'.

[53] See paragraph 2.9 of CAP 2553 'Economic Regulation of NATS (En Route) plc: Provisional Decisions for the NR23 (2023 to 2027) price control review' .

Capacity

Introduction

2.11 NERL's capacity performance is measured by delays to aircraft caused by its en route air traffic services. While NERL can influence delays on a day-to-day basis through the delivery of air traffic management, it can also improve and mitigate delay through operating expenditure and capital investment to upgrade its technology systems and by supporting the modernisation of airspace to increase capacity and improve traffic flows.

2.12 The capacity metrics used to measure NERL's delay performance are:

- C1 – a measure of all causes of en route air traffic flow management (ATFM) delay;
- C2 – a measure consistent with C1 but excluding causes of delay deemed to be outside of NERL's direct control. The measure is also referred to as NERL-attributable delay;
- C3 – a metric based on NERL attributable delay, also referred to as the Impact Score, which weights the score by time of day and duration of delay and is aimed at incentivising reductions in delays in peak periods; and
- C4 – a metric based on NERL attributable delay, also referred to as the Daily Excess Delay Score, which is based on weighted delays exceeding pre-determined thresholds on a daily basis. This metric is intended to capture the impact of major service outages.

2.13 C2, C3 and C4 metrics have a financial incentive attached to them to incentivise NERL to provide high levels of service quality.

2.14 Appendix C sets out further details of the metrics and the associated financial incentives.

Our Provisional Decision

2.15 Table 2.1 shows our Provisional Decision on the targets for the C1, C2, C3 and C4 metrics. These were unchanged from our Initial Proposals. The difference between C1 and C2 targets remains 3.84 seconds per flight, and the penalty threshold for C3 remains at twice the C2 target (with the C3 target set at five-thirds of the C2 target).

Table 2.1: CAA Provisional Decision for C1, C2, C3 and C4 targets

		2023	2024	2025	2026	2027
C1	seconds / flight	12.29	12.79	12.79	12.79	12.79
C2	seconds / flight	8.45	8.95	8.95	8.95	8.95
C3	seconds / flight	14.08	14.91	14.91	14.91	14.91
C4	Score	1800	1800	1800	1800	1800

Source: CAA

2.16 Our Provisional Decision also covered the financial incentives associated with the C2, C3 and C4 targets. In summary:

- there will be deadbands of ±15% around the target for C2 and ±20% around the target for C3 before any penalties or bonuses become payable. There is no deadband for C4, which is a penalty only incentive;
- the thresholds for penalties and bonuses for both C2 and C3 will be adjusted if actual traffic levels are more than 4% higher or lower than our forecasts. This was a change from our Initial Proposals (and the RP3 incentives) which included traffic modulation only for the C3 metric;
- penalties and bonuses will be calculated on a sliding scale basis up to the maximum levels shown in Table 2.2. below; and
- NERL will be allowed up to 100 “exemption days” during NR23 when new major new systems or airspace changes are being implemented or transitions are made. Any delays experienced on these scheduled exemption days will not count towards the C3 and C4 targets.

Table 2.2: CAA Provisional Decision for the maximum strength of incentives

	Bonus (% of Determined Costs)	Penalty (% of Determined Costs)
C1	0%	0%
C2	0.05%	0.25%
C3	0.25%	0.75%
C4	0%	0.25%

Source: CAA

2.17 Our Initial Proposals had asked for stakeholders' views on an option to make achieving the C1 target a pre-condition for bonuses to be paid in relation to the C2 and C3 metrics, even though some delays contributing to the C1 metric might be outside NERL's direct control. Stakeholders did not support this option and we did not take it forward in our Provisional Decision. Instead, we said that NERL should take steps to provide more transparency on whether delays take place in elemental or collapsed sectors. In particular, we said that NERL should start coding and reporting using two new delay codes proposed by the Eurocontrol Performance Review Commission at the earliest opportunity in NR23, and should then integrate reporting against these two new codes into its existing quarterly performance reporting.[54]

Summary of stakeholders' views

2.18 NERL stated that the service quality targets in our Provisional Decision were set more tightly than would be in users' broader long-term interests. It said it believed the Provisional Decision was undeliverable.

2.19 In relation to both capacity and environmental targets, NERL said that we had not taken sufficient account of the most recent evidence that it had provided. This included:

- the continuing uncertain environment in the aviation sector, reflecting factors such as labour disputes and increased flow regulations applied by other European ANSPs, and the impacts of a major military exercise across central Europe and of diversions away from Ukrainian, Russian and Belarussian airspace. NERL stated that these specific reasons could readily continue throughout the rest of NR23, and said we should give material weight to this context in setting both our targets and the deadbands around the targets; and
- NERL's own detailed "bottom up" approach to estimating service performance over NR23, which it said provided a sounder basis for setting regulatory targets than our approach.

2.20 NERL also said that, in applying our regulatory discretion, we should consider explicitly the risks to the delivery of the targets, and whether the balance of financial incentives applied to the targets is appropriately calibrated. It said our targets will distort its responses towards minimising the reputational impact of the inevitable service penalties that would arise, and constrained ATCO and operational management resource would be deployed towards this priority, thus

[54] See paragraphs 2.84 to 2.89 of CAP 2553.

reducing capacity to train future controllers and to support the technology transformation programme and airspace modernisation.

2.21 Specifically in relation to capacity targets, NERL stated that:

- we had misinterpreted our econometric analysis of the relationship between traffic levels and C2 capacity delays and, in particular, our statement that "We place more weight on the results generated using the linear relationship as it appears to better represent outcomes under "normal" traffic levels, whereas we have some concerns that the exponential relationship may be unduly influenced by the very highest and very lowest observations. We are also concerned that the exponential relationship may not reflect the impact of traffic growth where this is predicted in advance and therefore NERL can make appropriate plans to accommodate it, or where the severe delays are mitigated through other management actions."[55] NERL contended that the relationship is exponential and not linear, citing the higher R2 value and stating that, by excluding data points at either end of the traffic range, we had artificially constrained the range of relationship types that the data could support. It also stated that the non-linear relationship maps closely to the management in practice of air traffic flow through individual sectors as they each approach their specific capacity limits, and that a relatively small increase in traffic concentrated in the busiest sectors could have a much more than linear impact on total delays; and
- for the C3 metric, NERL said that its analysis of the relationship between C2 and C3 delays, using more recent data for the period up to 2022, showed that the C3-C2 ratio is 2.4 rather than the estimate of 2 that we had used.[56]

2.22 In order to address this situation, NERL proposed that we should:

- recalculate our C2 targets by applying an exponential relationship between traffic levels and delays (instead of the linear relationship that we had used as part of our bottom-up analysis). This would increase the C2 target in 2027 from 8.95 seconds (as in our Provisional Decision) to 11.41 seconds;
- further recalculate our C3 targets by setting them at 2.4 times the revised C2 targets. The combined effect of these changes would increase the C3 target in 2027 from 14.91 seconds (as in our Provisional Decision) to 27.38 seconds; and

[55] See paragraph E24 in appendix E of CAP 2553C.

[56] Specifically, we set the C3 penalty threshold at two times the C2 target.

- widen the deadbands around the C2 and C3 targets before NERL starts incurring penalties or earning bonuses. It proposed that the deadband for C2 should be raised from ±15% to ±25%, and that the deadband for C3 should be raised from ±20% to ±30%.

2.23 Regarding the adopting of new delay codes, NERL stated that the proposed codes have yet to be adopted by the Eurocontrol Network Manager, and that the previous trial had required a manual post-operation process. NERL said that it will continue to follow the current requirements within the Eurocontrol ATFCM Operations Manual until the new codes are incorporated into the document and communicated to ANSPs with guidance on the consistent application in both the tactical and post-operational analysis phases. However, to address our wish for greater transparency in its quarterly performance reporting, NERL agreed to propose and consult on additional reporting into the Quarterly Condition 11 Report as part of the Service Standards Statement Consultation for 2024 onwards.

2.24 Finally, NERL stated that it estimates that it will incur a financial penalty for C2 and C3 metrics every year from 2024 to 2027 (and also for the environmental 3Di metric from 2025 to 2027). It said that this undermines the “fair bet” principle for equity investors and that, if we do not address the situation by adjusting our targets and other thresholds, then we should increase the point estimate for the cost of capital.

2.25 Prospect made several similar points to NERL, supporting an exponential relationship between traffic levels and capacity delays and highlighting the risk that stretching targets can distort organisational behaviour. It also drew attention to the impact of NERL’s reprofiled capex programme, and said that the benefits from an increased number of ATCOs and technology improvement will not be felt until later in the period. Airspace development will also take time. It welcomed traffic modulation being extended to the C2 metric.

2.26 IATA, British Airways, easyJet, Ryanair and Airlines for America all supported the capacity targets in our Provisional Decision. IATA stated that the targets appeared suitable in consideration of 2023 performance to date, NERL’s acceptance of the 2023 targets, outturn traffic levels and the ATM environment. British Airways said that NERL’s acceptance of our targets for 2023 raises the question of whether the targets are sufficiently stretching. British Airways also supported our decision on the C2 to C3 relationship, rather than adopting the 1:2.4 ratio proposed by NERL.

2.27 IATA, British Airways and Ryanair disagreed with the extension of traffic modulation to the C2 metric, referring to the reasons we gave for not adopting this in our Initial Proposals. Further, British Airways did not support the inclusion of 100 exemption days for metric C3 and C4, saying that there is no clear justification for this and that there should be a clear link between planned transitions in NERL's capex programme and the number of allowed exemption days.

Our views

2.28 We disagree with NERL's suggestion that our targets do not adequately incorporate the most up to date information. As explained in our Provisional Decision, we had regard to a range of different types of evidence when considering whether our previously proposed targets remain reasonable.[57] This included the latest traffic forecasts, NERL's planned capex benefits for NR23, our own analysis of the impact of traffic on capacity delays, comparisons with the five largest European ANSPs, the Eurocontrol Network Operations Plan (NOP), and actual observed performance in the second half of 2022. We also said that we had carefully reviewed NERL's own analysis, and noted that we had concerns around the magnitude of the deterioration in performance suggested by this analysis.

2.29 Where we have not made changes in response to recent information, this generally reflects our preferred approach of excluding observations from the period affected by the covid-19 pandemic when assessing key relationships, such as the relationship between traffic levels and different performance metrics, or the relationship between different performance metrics. We have adopted this approach consistently when considering service quality targets throughout the current review, including in our assessment of the relationship between the C2 and C3 metrics.

2.30 Much of NERL's (and Prospect's) criticism of our analysis centres on the relationship between traffic levels and C2 capacity delays, which it states is exponential whereas we said we placed more weight on the linear relationship. One source of difference between us and NERL is the treatment of outliers, which we view as a matter of judgement rather than an error or misreading of the evidence as suggested by NERL. We continue to consider that we should place more weight on the results generated using the linear relationship, which is less influenced by the highest and lowest observations. We consider this better represents the expected impact of traffic growth on delay metrics in normal conditions, especially considering that:

- the charts show monthly data, whereas we are dealing with targets that are set and performance that is assessed at a much less granular annual level; and

[57] See paragraphs 2.76 to 2.80 of CAP 2553 'Economic Regulation of NATS (En Route) plc: Provisional Decisions for the NR23 (2023 to 2027) price control review' and paragraphs E21 to E28 in appendix E of CAP 2553C 'Appendices A to G to Provisional Decisions for the NR23 price control review'.

- when setting targets for C2 and C3 delays, we are reflecting the impact of traffic growth that is predicted several years in advance and, therefore, NERL has the opportunity to make appropriate plans to accommodate that traffic or take other management actions to mitigate the most severe impacts.

2.31 As noted in our Provisional Decision, we had regard to a range of different types of evidence. The results from the linear (rather than exponential) relationship between traffic and capacity delays were just one of a number of different sources that all pointed in the same direction and gave us confidence that our proposed targets were reasonable.

2.32 Neither do we agree that the various factors identified by NERL as creating an uncertain environment in the aviation sector justify either a relaxation of our proposed targets or a widening of the deadbands around those targets. NERL stated that these factors could readily continue throughout the rest of NR23, but these factors may also diminish over time and NERL will also have more experience of how to adapt to difficulties in the external environment.

2.33 In addition, we note that our targets are for delays that are attributable to NERL. It is not clear how far the various external factors identified by NERL would translate into delays attributable to it, rather than delays attributable to other causes. Furthermore, to the extent that uncertainty manifests itself in higher or lower traffic growth, this will lead to adjustments to the penalty and bonus thresholds for both C2 and C3 metrics.

2.34 Importantly, we have also had regard to recent performance levels when setting our targets, and those levels will already reflect the impact of the various factors identified by NERL. Therefore, we do not consider that any adjustment to our targets or deadbands is required, especially as the deadbands for the C2 and C3 metrics are already quite wide at ±15% and ±20% respectively.

2.35 We also strongly reject the suggestion that our targets would require NERL to divert resources away from training future controllers or investing in technology transformation and airspace modernisation. In line with our statutory duties, we have set targets that we consider are achievable, and we have funded NERL both to maintain its current operation and to take necessary steps to secure future service levels. It is essential that NERL continues to train future controllers and to invest in technology transformation and airspace modernisation regardless of the current level of performance, and this Final Decision provides NERL with a price control that will fund NERL sufficiently to achieve that.

2.36 Because we consider the targets are achievable, we disagree with NERL's statement that they undermine the fair bet principle and that we need to adjust either the targets themselves or NERL's allowed cost of capital. We note that there are already quite wide deadbands around the C2 and C3 targets and that any penalties that are payable beyond these thresholds will be calculated on a sliding scale basis up to a relatively modest maximum, so we would not expect any financial impact on NERL to be large. More importantly, we consider the targets are achievable and, therefore, do not expect NERL to incur penalties if it operates reasonably efficiently.

2.37 We note IATA and British Airways' disagreement with the extension of traffic modulation to the C2 metric, and British Airways' lack of support for 100 exemption days for the C3 and C4 metrics. We consider that the evidence for a relationship between traffic levels and C2 delays is stronger than for a relationship between traffic levels and 3Di (see below), for which we are not implementing traffic modulation. Moreover, as stated in our Provisional Decision, traffic modulation could provide appropriate flexibility for delay targets if traffic growth is significantly higher or lower than our forecast, particularly in the later years of the NR23 period. As for exemption days for C3 and C4, we note that 100 days is simply a cap and NERL will still be required to consult airspace users in advance on the exemption days it proposes to use, and then include information on the number of proposed and used exemption days in its quarterly performance reports.

2.38 We note NERL's position in respect of adopting additional codes for operational recording of delay causes and its intention to maintain consistency with the current requirements within the Eurocontrol ATFCM Operations Manual. We strongly encourage NERL to engage with Eurocontrol positively on the introduction of the new codes into the ATFCM Operations Manual in a timely manner. In the meantime, we welcome NERL's intention to propose and consult on additional reporting in its Quarterly Condition 11 Report as part of the Service Standards Statement Consultation for 2024 onwards. It is our expectation that NERL's proposal will include information on the reporting of delay codes J and K[58] in its quarterly reports from 2024, albeit recognising this information will be generated retrospectively, rather than automatically as part of operational delay recording. If NERL's proposal or reporting falls short of our expectations, we will consider whether further modifications to NERL's reporting obligations set out in its licence are required.

Our Final Decision

2.39 Our Final Decision is, therefore, to confirm the delay targets and associated financial incentives included in our Provisional Decision. These targets are set out in Table 2.3 below.

[58] The J code captures capacity delays (normally coded as C) that could have been potentially reduced by splitting the "collapsed" sectors with the use of additional staff. Similarly, the K code captures instances of delay (normally coded as W) where adverse weather has further decreased capacity in a "collapsed" sector.

Table 2.3: CAA Decision for C1, C2, C3 and C4 targets

		2023	2024	2025	2026	2027
C1	seconds / flight	12.29	12.79	12.79	12.79	12.79
C2	seconds / flight	8.45	8.95	8.95	8.95	8.95
C3	seconds / flight	14.08	14.91	14.91	14.91	14.91
C4	Score	1800	1800	1800	1800	1800

Source: CAA

2.40 The financial incentives are described in CAP 2597b appendix C. In summary:

- there will be deadbands of ±15% around the target for C2 and ±20% around the target for C3 before any penalties or bonuses become payable. There is no deadband for C4, which is a penalty only incentive;
- the thresholds for penalties and bonuses for both C2 and C3 will be adjusted if actual traffic levels are more than 4% higher or lower than our forecasts;
- penalties and bonuses will be calculated on a sliding scale basis up to the maximum levels shown in Table 2.4 below; and
- NERL will be allowed up to 100 scheduled "exemption days" during NR23 when new major new systems or airspace changes are being implemented or transitions are made. Any delays experienced on these scheduled exemption days will not count towards the C3 and C4 targets.

Table 2.4: CAA Decision for the maximum strength of incentives

	Bonus (% of Determined Costs)	Penalty (% of Determined Costs)
C1	0%	0%
C2	0.05%	0.25%
C3	0.25%	0.75%
C4	0%	0.25%

Source: CAA

2.41 NERL should introduce reporting of delay codes J and K in its quarterly service standard reports from 2024. If it does not, we will consider whether further modifications to NERL's licence are required to make such reporting an obligation. We consider transparency around the causes of ATFM delay plays an important role in understanding how NERL is performing and managing its operation and furthers the interests of its customers and consumers.

2.42 By setting strong but achievable targets for NERL-attributable delays in NR23, we are furthering the interests of customers and consumers regarding the availability, continuity and quality of air traffic services, as well as promoting efficiency and economy on the part of NERL. While we consider that the targets are achievable, even if NERL's performance were to fall below them:

- there are already quite wide deadbands around the C2 and C3 targets; and
- any penalties that are payable will then be calculated on a sliding scale basis up to a relatively modest maximum level (1.25% of Determined Cost in total for all of the delay metrics).

Therefore, these targets and associated incentives will not make it unduly difficult for NERL to finance its licensed activities or jeopardise its focus on safety.

Environmental incentives

Introduction

2.43 NERL's consumer research indicates that environmental performance is a key priority for them after safety. Improved environmental performance and flight efficiency were also recognised as priorities for NERL's stakeholders during NERL's customer consultation process.

2.44 Since 2012, NERL's price controls have included a financial incentive on a metric that acts as a proxy measure for aircraft fuel burn and emissions, referred to as 3Di. 3Di stands for 3-Dimensional Inefficiency/Insight and is a metric that calculates the score for the efficiency of a flight based on comparing the actual path flown to an optimal profile. The annual score is a combined score for all flights in UK airspace. Further details of how the 3Di score is calculated are provided in CAP 2597b appendix C.

Our Provisional Decision

2.45 We confirmed that NERL's environmental performance in NR23 will continue to be measured using the 3Di metric. However, we also stated that a wider review of how environmental performance is measured will be undertaken to help inform the next price control review.

2.46 Our Provisional Decision on 3Di targets for NR23 is set out in Table 2.5 below. These are unchanged from our Initial Proposals. There will be a deadband of

±5% around these targets, beyond which penalties or bonuses will be calculated on a sliding scale basis up to a maximum of 0.5% of Determined Costs.

Table 2.5: CAA Provisional Decision for 3Di targets

	2023	2024	2025	2026	2027
3Di target	27.59	26.99	26.45	25.91	25.33

Source: CAA

2.47 Other aspects of our Provisional Decision included that we would:

- continue to apply a proxy adjustment of 0.6 to take account of non-revenue flights, rather than excluding these flights from both the data and the targets as suggested by NERL;
- not to introduce traffic modulation for 3Di thresholds; and
- require NERL to carry out an annual review of the 3Di metric in 2023, though we noted the possibility of requiring less frequent reviews in future.

Summary of stakeholders' views

2.48 Some of NERL's views, in particular those reported in paragraphs 2.18 to 2.20 above, apply to both capacity and environmental performance targets. These include its views that:

- we have not taken sufficient account of the most recent evidence that it provided, including in relation to the continuing uncertain environment in the aviation sector and NERL's own detailed 'bottom up' analysis of performance levels over NR23; and
- our targets will lead to NERL diverting constrained ATCO and operational management resource to minimising the reputational impact of service penalties, thus reducing capacity to train future controllers and to support the technology transformation programme and airspace modernisation.

2.49 NERL's specific comments on environmental performance targets focused on the relationship between traffic and the 3Di score, and on the treatment of non-revenue flights.

2.50 On the relationship between traffic and environmental performance, NERL submitted that our own assessment was limited as it considered a period when traffic growth was relatively low and when 3Di scores were lower than they otherwise would have been as a result of the benefits from major investments. It said that, in its judgement, its own previously-submitted evidence had demonstrated the relationship. It also referred to the following two items of new evidence:

- a June 2023 Performance Review Body report which NERL said showed that capacity delay reduces horizontal flight efficiency. NERL said that the report shows that non-ATC capacity delay has the largest impact on flight efficiency: one minute of additional delay reduces horizontal flight efficiency by 1.23 percentage points in summer and 2.9 percentage points in winter; and
- the prediction for 2023 from NERL's own model, which it states demonstrates the predictive capability of the model and that the inherent 3Di-traffic relationship holds true.

2.51 On the treatment of non-revenue flights, NERL stated that its assessment was that the impact of non-revenue flights in the first seven months of 2023 lay between -1.2 and -1.5,[59] as compared with our proxy adjustment of -0.6. As such, it said that our adjustment is now out of date and does not capture the current impact of non-revenue flights. It considered that its 2022 mid-year review of the 3Di score showed that the model is more stable and accurate when non-revenue flights are excluded than when they are included and a proxy adjustment applied.

2.52 To address these points, NERL put forward revised targets that reflected its estimate of the impact of future traffic growth (as well as the benefits of future investment). It also proposed that these targets should be subject to traffic modulation, and that both the targets and the data should exclude non-revenue flights (rather than continuing our proxy adjustment of -0.6).

2.53 Prospect stated that no account seems to have been taken of the reprofiling of the capex programme and the successful implementation of the 'West Airspace' redevelopment which will make further improvements more difficult to achieve in future.

2.54 As with our capacity targets, IATA, Ryanair, Airlines for America and British Airways also supported the 3Di targets in our Provisional Decision, however easyJet stated that it would like to see the targets further improved, such as a 10% reduction in CO_2 emissions by 2035. Both British Airways and easyJet welcomed the proposal to review the 3Di metric ahead of the NR28 price review. British Airways also supported our decision not to introduce traffic modulation, and stated that it would be inconsistent to remove non-revenue flights without adjusting the base coefficients. It said we should consider such an assessment, but if this is not feasible before the Final Decision then it should be completed as part of the wider review of the 3Di metric.

59 We note that NERL's table actually shows the difference falling over time, with the difference in July (-1.14) lying outside of the range cited in NERL's response.

Our views

2.55 As with our comments above on capacity targets, we do not agree that the various factors identified by NERL as creating an uncertain environment in the aviation sector justify a relaxation of our proposed targets. We also reject the suggestion that our targets would require NERL to divert resources away from training future controllers or investing in technology transformation and airspace modernisation for the reasons set out in paragraph 2.35 above.

2.56 We have carefully considered both NERL's new evidence and the evidence it resubmitted on the relationship between traffic levels and 3Di scores. However, as in our Provisional Decision, we continue to consider there is not suitably robust evidence of a sufficiently material impact of traffic growth on 3Di scores to justify either adjusting our targets or introducing traffic modulation.

2.57 On the specific new evidence and arguments NERL presented:

- we have a number of concerns about the conclusion that NERL appears to draw from the 2023 Performance Review Body study. NERL draws attention to an apparent relationship between one specific category of delays and one of the components of 3Di (horizontal flight efficiency). This is indirect evidence, based on the possible impact of traffic growth on another variable (a specific category of capacity delays), rather than direct evidence of a link between traffic growth and 3Di. Furthermore, the results cited by NERL suggest that the relationship could be relatively weak. We also have concerns about whether the variability of some of the detailed estimates set out in the study indicates a lack of robustness, and also whether any estimated relationship (however weak) can be assumed to hold in UK airspace; and
- we do not consider the accuracy or otherwise of prediction by NERL's model sheds any light on whether or not there is a relationship between traffic growth and 3Di.

2.58 We also do not consider the updated evidence submitted by NERL supports the existence of a strong relationship between traffic levels and 3Di scores. Figure B-5 in NERL's response, for example, appears to show traffic levels rising and 3Di scores falling prior to the pandemic and, importantly, the 3Di scores do not show the strong seasonal pattern that is readily observable in traffic levels. Furthermore, the relationships shown in Figures B-6 and B-7 appear to be driven in very large part (if not completely) by observations from months with unusually low traffic levels.

2.59 In the light of our own analysis of the data[60] and the above observations, we continue to consider that there is not suitably reliable evidence of a sufficiently material relationship to justify either adjusting our targets or introducing traffic modulation.

2.60 As for the treatment of non-revenue flights, in previous consultations we have explained that we consider that the existing 0.6 adjustment should be maintained for reasons of consistency with the original source data.[61] We have acknowledged that current impacts are somewhat higher, but noted we would expect this to reduce during NR23 as traffic levels increase. The data presented by NERL for the first seven months of 2023 provide some support for this. More generally, we have stressed the importance of a wider review of how environmental performance is measured before the NR28 price control review, and continue to consider this is the best approach while, for the moment at least, maintaining the historical adjustment that we have used in previous periods.

Our Final Decision

2.61 Our Final Decision is to confirm the 3Di targets and financial incentives set out in our Provisional Decision. The targets are set out in Table 2.6 below.

Table 2.6: CAA Decision for 3Di targets

	2023	2024	2025	2026	2027
3Di target	27.59	26.99	26.45	25.91	25.33

Source: CAA

2.62 Details of the financial incentives associated with these targets are set out in CAP 2597b appendix C. In summary, there will be a deadband of ±5% around these targets, beyond which penalties or bonuses will be calculated on a sliding scale basis up to a maximum of 0.5% of Determined Costs.

2.63 We also confirm that:

- we will continue to apply a proxy adjustment of 0.6 to take account of non-revenue flights;

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60 See paragraphs 2.38 to 2.40 of CAP 2394 'Economic regulation of NATS (En Route) plc: Initial Proposals for the next price control review (NR23)' and paragraphs D23 to D30 of CAP 2394b 'Initial Proposals for the next price control review (NR23) – Appendices A to G'. Note also, contrary to the statement in section 2.4.1.1 of NERL's response to our Provisional Decision that our analysis only looked at data from January 2018 to March 2020, we actually considered data from January 2015 to March 2020.

61 See paragraphs 2.34 and 2.34 of CAP 2394 'Economic regulation of NATS (En Route) plc: Initial Proposals for the next price control review (NR23)' and paragraphs 2.38 to 2.40 of CAP 2553 'Economic Regulation of NATS (En Route) plc: Provisional Decisions for the NR23 (2023 to 2027) price control review'.

- we will not be introducing traffic modulation for 3Di thresholds; and
- NERL will be required to carry out an annual review of the 3Di metric in 2023, although we could consider proposals for less frequent reviews in future.

2.64 In preparation for a full review of 3Di during NR23, NERL should continue to provide monitoring of 3Di performance and collate data on the impact of non-revenue flights.

2.65 By setting strong but achievable targets for NERL-attributable delays in NR23, we are furthering the interests of customers and consumers regarding the quality of air traffic services, as well as promoting efficiency and economy on the part of NERL. We consider that these arrangements will further the interests of customers and consumers by leading to more efficient flights and lower operating costs. While we consider that the targets are achievable, even if NERL's performance were to fall below them, there are deadbands around the targets and any penalties that are payable will then be calculated on a sliding scale basis up to a relatively modest maximum level (0.5% of Determined Cost). Therefore, we consider that these targets and associated incentives will not make it unduly difficult for NERL to finance its licensed activities or distract from its focus on safety.

Next steps and implementation

2.66 This chapter sets out our Final Decision on the applicability of financial incentives for service quality for 2021 and 2022, along with our Final Decision on the target levels and financial incentives for capacity and environmental measures that will apply during NR23. Further detail on the operation of the incentives is provided in CAP 2597b appendix C.

2.67 The modifications we have made to NERL's licence to implement these decisions are set out in CAP 2597c appendix E.

2.68 During NR23 we expect NERL to introduce reporting of delay codes J and K in its Condition 11 Quarterly Service Standard reports from 2024. We also expect NERL to continue to provide monitoring of 3Di performance and collate data on the impact of non-revenue flights, with a view to conducting a wider review of how environmental performance is measured before the NR28 price control review.

Chapter 3

The reconciliation review

Introduction

3.1 The RP3 price control provided NERL with a relatively high level of protection from unexpected variations in traffic levels by the operation of a traffic risk sharing (TRS) mechanism. This mechanism is consistent with the approach to these matters specified in the EU performance scheme regulation and the Eurocontrol Principles, and other European ANSPs benefit from similar arrangements.

3.2 Due to the very significantly lower than expected traffic levels, resulting from the impact of the covid-19 pandemic, and the lower costs that NERL faced as a result, the CMA determination for RP3 confirmed that we should conduct a reconciliation exercise with reference to actual flight volumes and costs for 2020 to 2022. This was intended to support the appropriate functioning of the TRS arrangements in the circumstances of the covid-19 pandemic.

3.3 This reconciliation review enables us to set the price control for the NR23 period in a way that furthers the interests of consumers by ensuring that the costs that are passed on to them through the functioning of the TRS arrangements are no higher than are reasonably needed to implement those arrangements. While we have made modest disallowances relative to NERL's proposals for cost inefficiency this should not have a significant adverse effect on NERL’s financeability, particularly in the context of the very significant protections that NERL has from the broader impact of the TRS arrangements.

3.4 Our approach to these matters has taken account of the Eurocontrol Principles (which are notified international obligations under the TA00). Given the impact of the covid-19 pandemic, the TRS provisions under the EU performance scheme regulation were amended to allow for adjustments in exceptional circumstances. These changes:

- allowed for the recovery of actual efficient costs; and
- extended the period of recovery for 2020 to 2021 costs.

3.5 Similar amendments were reflected in the Eurocontrol Principles, with additional flexibility to allow the recovery of actual efficient costs for 2020 to 2022 over a longer period of 5 to 7 years.

3.6 Consistent with our commitment to the TRS mechanism and reflecting the exceptional circumstances arising from the impact of the covid-19 pandemic, we are allowing NERL to recover only its efficient actual costs for the period 2020 to 2022.

We have reviewed NERL's actual costs (but with the intention of avoiding adjustments based on the benefit of hindsight), to set the efficient baseline for Determined Costs for 2020 to 2022. This should ensure that NERL only recovers efficient expenditure, and that customers and consumers continue to benefit from NERL operating under a stable and predictable regulatory framework.

3.7 This chapter sets out our Final Decision on the efficient cost baseline under the reconciliation review and retains the broad approach and cost allowances included in our Provisional Decision. It summarises the responses we received to the Provisional Decision and our views on them, but it is important to note that NERL did not provide any further comments on the reconciliation review in its response to the Provisional Decision. NERL did make an overall comment that it stood by the evidence it had submitted previously and that it should not be inferred, from the absence of further specific comment on this topic, that it agreed with our conclusions.

3.8 While the focus of this chapter is the efficient costs baseline for the UK en route price control because it uses the same resources as the en route service and is subject to the same TRS arrangements, we have also estimated an efficient cost baseline for the London Approach service. We have not carried out a similar exercise for the Oceanic service as there were no TRS arrangements in place for these activities.

Overall approach

3.9 The Provisional Decision said that we would not use hindsight in assessing efficiency and that we would take in to account the significant uncertainties NERL faced at the time in making our assessment. Specifically, we said that we would seek to establish whether there is clear evidence of inefficiency by NERL in the costs it incurred over 2020 to 2022. For our Final Decision, we have not made any changes to our approach from that used for our Provisional Decision.

3.10 Our work on the reconciliation review has involved:

- assessing NERL's opex in detail, as this was the focus of NERL's actions to save costs during the RP3 period and is a very material part of the cost baseline. As part of this work, we considered DC pension costs. We have not conducted a detailed review of the DB pension costs as these will be considered under the separate pension pass-through arrangements; and
- conducting only a high-level review of NERL's capex. As there were significant reductions and delays in capex projects in RP3, we considered it would be premature to assess the relative efficiency of capex incurred in RP3. We propose to carry out an *ex post* assessment of NERL's capex efficiency as part of the NR28 price review.

3.11 We have not considered the efficiency of regulatory depreciation or regulatory return on the RAB as part of the reconciliation review, as both of these were fixed for the RP3 period and there are existing regulatory mechanisms which provide for differences in forecast and actual efficient capex to be trued up in future periods. We have not reviewed the efficiency of non-regulatory revenue given NERL would have incentives to maximise revenues during this period and the limited materiality of these issues.

3.12 In contrast we have assessed the financial restructuring costs NERL incurred in 2021 against a counterfactual which we consider represents an efficient approach to restructuring. Our Provisional Decision set out an updated counterfactual in the light of feedback from NERL and further analysis conducted by our advisors.

3.13 Further details on each of the building blocks in the efficient costs baseline are set out below. We are not proposing any changes from the allowances set out in the Provisional Decision.

Staff Opex

Our Provisional Decision

3.14 In our Provisional Decision we said that the actions that NERL took to reduce its staff costs over 2020 to 2022 were reasonable, with the exception of the approach to voluntary salary reductions and the voluntary redundancy scheme that NERL implemented. This assessment was based on advice from our external advisors, Steer.[62]

3.15 On voluntary salary reduction, we proposed a £2 million disallowance from NERL's 2020 staff opex on the basis that NERL could have expanded the scheme to all staff, and applying an assumption that, if it had, there would have been the same level of take-up as was achieved with the management voluntary salary reduction scheme (that is, 50% take up).

3.16 On NERL's voluntary redundancy (VR) scheme costs, we disallowed £9 million from the costs of NERL's VR scheme on the basis that it would have been reasonable for NERL, with the information it had available at the time, to have sought to implement either an exceptional VR scheme or a VR scheme with a 12-month payback period from May 2021. We estimated that such action would have saved £9 million over and above the net saving that NERL achieved.

3.17 Taken together, these adjustments reduced NERL's baseline opex by £11 million.

[62] Steer, NR23 price control review: support on cost assessment for NR23 period and reconciliation review, (2022).

Summary of stakeholders' views

3.18 As set out above, NERL chose not to engage further with our Provisional Decision on the reconciliation review. However, in its response to our Initial Proposals, NERL said that it disagreed with our assumptions on the take-up of a voluntary salary reduction scheme and also set out an alternative calculation for the VR scheme adjustment.

3.19 In their responses to our Provisional Decision, airlines disagreed with the level of voluntary salary reduction costs that we disallowed from NERL's staff opex baseline. British Airways, IATA and Aer Lingus said that the baseline for these costs is overstated because the adjustment the CAA proposed did not account for NERL staff being paid 100% staff wages while on furlough. They stated that the reduction in the opex baseline should reflect a 20% pay reduction for furloughed staff which would align with the approach of numerous UK airlines.

3.20 Furthermore, airlines disagreed with the level of VR costs that we disallowed from NERL's staff opex baseline:

- British Airways, IATA and Aer Lingus stated that the cost reduction was not aligned to the recommendations from the Steer report. Aer Lingus referenced that the Steer report set out that the impact of providing 12 months would have saved approximately £26 million (instead of 21 months of staff costs), and that the scheme did not reflect the voluntary salary reductions that employees in other companies took during the covid period;
- IATA said that level of disallowance is not consistent with the actions taken by airlines which faced comparable challenges; and
- Aer Lingus and British Airways claimed that NERL could have acted sooner to terminate its pre-existing Redeployment and Redundancy Agreement (RRA). They also claimed that the allowance for voluntary redundancy is too high because it is based on a 12 month pay back period and state that a smaller payback period is more appropriate and in line with those comparators assessed by Steer.

Our views

3.21 We recognise that unprecedented decisions had to be made by all businesses as a result of the impact of the covid-19 pandemic. The government's furlough scheme was new and different companies therefore applied different policies for the level of furlough pay (for example, some capped pay at 80% while others topped up salaries to 100%), dependant on their business requirements.

3.22 NERL set out in its response to our Initial Proposals that its collective agreement with the trade unions on the use of the furlough scheme enabled the rotation of operational staff to ensure operational skills were maintained.[63] Given the importance of NERL retaining access to staff with appropriate operational skills we are not proposing to make any adjustments to NERL's costs for its approach to furlough pay.

3.23 While we agree there are elements of the VR scheme implemented by NERL that might, with hindsight, appear to have been inefficient in the context of the covid-19 pandemic, our assessment is based on what would have been reasonable for NERL to achieve at the time.

3.24 Although the Steer report does set out that the saving from providing 12 months of staff costs instead of 21 months was approximately £26 million, NERL could not have implemented a scheme that had a 12-month payback period because it was legally bound by the terms of its RRA, which had a 12 month notice period.[64] Therefore, it would not have been reasonable to apply the full £26 million reduction. Steer therefore suggested a reduction of between £3 million to £9 million, depending on when NERL could have reasonably implemented a new scheme with a 12-month payback period.

3.25 We also note NERL's earlier comments that reducing the payback period on a voluntary scheme would reduce the take-up of the scheme. On balance, the assumptions underlying the Provisional Decision appear reasonable, irrespective of whether there were less generous schemes operating elsewhere. In the light of the above, we consider the adjustment made in our Provisional Decision remains reasonable.

Our Final Decision

3.26 Our Final Decision is to retain both adjustments from our Provisional Decision made to the opex baseline during the reconciliation period, which reduces NERL's opex by £11 million in 2020 (£2.4 million from assumptions about voluntary salary reductions and £8.6 million from assumptions about the voluntary redundancy scheme). The level of allowed opex is set out in the table below. Table 3.1 sets out the allowance for staff opex from 2020 to 2022.

Table 3.1: Total staff opex (including pension costs) over 2020 to 2022

£m, 2020 prices	2020	2021	2022	Total
Staff opex	401	301	334	1,036

63 NERL response to CAA NR23 Initial Proposals, CAP2394, para 6.2.1

64 NR23 price control review: support on cost assessment for NR23 period and reconciliation review (2020-2022) (caa.co.uk), Table 2

Source: CAA calculations

Non-staff opex

Our Provisional Decision

3.27 In our Provisional Decision, we allowed the majority of NERL's forecasts for non-staff costs. However, we did find elements in NERL's capex programme which were expected to deliver additional efficiencies in terms of non-staff costs over the reconciliation period. As a result, we proposed to adjust NERL's non-staff costs for these further efficiencies.

Summary of stakeholders' views

3.28 No stakeholder responses were received in respect of non-staff opex.

Our Final Decision

3.29 We remain of the view that our assessment of non-staff opex as set out in the Provisional Decision was reasonable and we have retained the disallowance of £0.10 million of non-staff costs in 2020, £0.34 million in 2021 and £0.34 million in 2022 (total per annum) in this Final Decision, with resulting estimate of efficient non-staff costs is set out in Table 3.2 below.

Table 3.2: Total non-staff opex over 2020 to 2022*

£m, 2020 prices	2020	2021	2022	Total
Non-staff opex	123	118	145	385

Source: CAA calculations

Capex

Our Provisional Decision

3.30 Our Provisional Decision said we would undertake an *ex post* review of key RP3 and NR23 programmes as part of our overall review of NR23 capex, or at the earliest opportunity for those programmes that are not complete by the end of the NR23 period. We expect this review to focus on key programmes (including but not limited to DP En Route, Common Platform and airspace) and, in particular, any programmes where the cost of the programmes has exceeded the allowances in the CMA determination for RP3. The findings from our review will be subject to consultation and representations from stakeholders.

Summary of stakeholders' views

3.31 No stakeholder responses were received in respect of capex in the reconciliation period.

Our Final Decision

3.32 We remain of the view that it is not practicable at this stage to robustly assess the efficiency of NERL's capex programme from 2020 to 2022 and the position set out in the Provisional Decision of conducting a later review remains appropriate. While we have now received and published the Egis review on some of the changes that NERL has made to its capex programme the focus of the Egis review has not been the efficiency of the capex incurred in 2020, 2021 and 2022. Therefore, as noted above we will review the efficiency of capex incurred in 2020, 2021 and 2022 alongside the efficiency of NR23 capex towards the end of the NR23. In doing so we will take account of the principles of demonstrably inefficient and/or wasteful expenditure (DIWE) which were part of the RP3 review and our published guidance on judging whether there should be any disallowance of historical capex.

3.33 This approach will allow us both to reasonably assess capital efficiency (and so be consistent with the promotion of efficiency and economy), while the continued use of DIWE principles should provide NERL with a relatively high degree of certainty, and so reasonably support its financeability (and be consistent with our financeability duty).

Regulatory depreciation

Our Provisional Decision

3.34 Our approach to calculating actual regulatory depreciation is summarised in chapter 5 (Financial framework) and further details are provided in the published RAB rules.

3.35 The RAB rules describe the mechanism (backlog depreciation) that corrects the depreciation cost in future periods to reflect the lower actual capex than forecast in the CMA determination for RP3. Our Provisional Decision was to retain the CMA depreciation figures for 2020 to 2022 in the reconciliation review, because the backlog depreciation mechanism will ensure that appropriate adjustments are made as part of the normal price control arrangements.

Summary of stakeholders' views

3.36 No stakeholder responses were received in respect of regulatory depreciation.

Our Final Decision

3.37 Consistent with our Provisional Decision, our Final Decision is to retain the CMA depreciation figures for 2020 to 2022 from the Provisional Decision. These are set out in Table 3.3 below.

Table 3.3 Regulatory depreciation over 2020 to 2022

£m 2020 prices	2020	2021	2022	Total
Regulatory depreciation	194	158	139	491

Source: CAA calculations

Regulatory return

Our Provisional Decision

3.38 Our approach to calculating actual regulatory return is summarised in chapter 5 (Financial framework) and further details are provided in the RAB rules.

3.39 We consider separately the issue of the allowed regulatory return on the TRS revenue and TRS indexation in chapter 6 (Charges and financeability).

3.40 Our Provisional Decision was to use the regulatory return forecasts set out in the CMA determination for RP3 in our calculation of the efficient cost baseline. We have not re-opened the CMA's determination on the weighted average cost of capital and, similar to allowed regulatory depreciation, there is an existing mechanism in the RAB rules (capitalised financing costs) to correct for differences in the regulatory return to reflect actual efficient capex. The allowed return on the TRS is discussed separately in chapter 6 (Charges and financeability).

Summary of stakeholders' views

3.41 No stakeholder responses were received in respect of regulatory return.

Our Final Decision

3.42 Consistent with our Provisional Decision our Final Decision is to retain the CMA regulatory return figures for 2020 to 2022 in the reconciliation review. These are set out in Table 3.4 below.

Table 3.4: Regulatory return over 2020 to 2022

£m 2020 prices	2020	2021	2022	Total
Regulatory return	34	38	40	113

Source: CAA calculations

Non-regulated revenue

Our Provisional Decision

3.43 In our Provisional Decision, as in our Initial Proposals, we broadly accepted NERL's view of non-regulatory revenue. However, we did update NERL's view to reflect our view of London Approach costs/revenues, which we estimated using the same cost allocation method as used in RP3.[65]

3.44 Over the reconciliation review period, NERL's view of non-regulatory revenue was £14 million (5%) lower than the CMA determination for RP3. NERL attributed this to its lower cost base on contracts that include gainshare clauses for shared costs (mainly, its Future Military Area Radar Service (FMARS) contract), lower levels of intercompany demand and fewer opportunities to generate non-regulatory revenue income because of the impact of covid-19 restrictions.[66]

3.45 In our Provisional Decision we recognised that the level of non-regulatory revenues reflect cost reductions made by NERL and that any increases in these revenues may, in any case, have had limited benefit for customers and consumers after considering the corresponding increase in costs, since any extra revenues would tend to be offset (at least to an extent) by additional costs.

Summary of stakeholders' views

3.46 No stakeholder responses were received in respect of non-regulated revenue.

Our Final Decision

3.47 We remain of the view that our assessment of non-regulatory revenue as set out in the Provisional Decision was reasonable and we have retained this approach in this Final Decision with our allowance for the efficient costs baseline shown in Table 3.5 below.

Table 3.5: Non-regulatory revenue over 2020 to 2022*

£m 2020 prices	2020	2021	2022	Total
Non-regulatory revenue	(103)	(87)	(85)	(274)

Source: CAA calculations

65 London Approach costs were removed from UKATS Determined Costs to leave UK en route Determined Costs.

66 NERL response to CAP2291, NR23 business plan (7 February 2022)

Financial restructuring costs

Our Provisional Decision

3.48 Our Provisional Decision was based on an assessment on the efficient costs involved in refinancing. We described how we had received advice from our expert advisors, Centrus, and used this to inform our assessment. In making an assessment of the efficient costs, we constructed a counterfactual scenario for how the refinancing could have been undertaken so as to minimise the present value of its costs.

3.49 We also considered NERL's comments on the amount of debt assumed in the counterfactual scenario. [67] This led to us revising the assumptions we made about the timing and amount of new debt that NERL issues.

3.50 We concluded that our counterfactual scenario demonstrated that efficient costs were £3.2 million below the £22 million that NERL had actually incurred. We therefore provisionally decided to allow £18.8 million in respect of financial restructuring costs.

Summary of stakeholders' views

3.51 We did not receive any stakeholder comments in respect of financial restructuring costs.

Our Final Decision

3.1 We remain of the view that our assessment of these costs as set out in the Provisional Decision was reasonable and we have retained this approach in this Final Decision with our allowance shown in Table 3.6 below.

Table 3.6: Refinancing allowance

£m, (present value 2021 prices)	Final Decision
Interest cost difference	15.7
Assured Guaranty fee on new bonds	3.7
Consents for existing bondholders	1.6

[67] As described in paragraph 3.74 of our Provisional Decision

£m, (present value 2021 prices)	Final Decision
Consents for existing banks and Assured Guaranty	4.8
Total incremental costs	**25.8**
LESS	
Debt interest costs assumed to be capitalised in the RAB	(6.0)
Debt interest savings over 2020-2022 relative to CMA determination modelling assumptions	(1.0)
Allowance	**18.8**

Source: CAA analysis

Other reconciliation adjustments

Our Provisional Decision

3.2 As part of the reconciliation between RP3 and NR23, NERL included a number of adjustments to arrive at the efficient cost baseline to be recovered. These adjustments included those designed to reflect items that are compensated through other mechanisms in NERL's price control and so avoid double-counting.

3.3 Our Provisional Decision in respect of each of the relevant adjustments was as set out under the relevant adjustment headings below.

MoD uplift

3.4 This adjustment is necessary to ensure the reconciled costs are uplifted for the costs of military and exempt flights included in Total Service Units (TSU). This allows us to derive reconciled Determined Costs used for the purpose of setting unit rates under the Eurocontrol Principles.

3.5 In our Provisional Decision, our calculation of the MoD uplift over 2020 to 2022 was unchanged from our Initial Proposals.

Tax allowance

3.6 The tax allowance for the recovery of the TRS 2020 to 2022 revenue was already included in the efficient baseline for the TRS (in the pre-tax cost of capital).

3.7 We published the PCM as part of our Provisional Decision, providing stakeholders with access to the tax allowance calculation. This calculation addressed issues raised by respondents to Initial Proposals in respect of the calculation.

Adjusted regulatory return + inflation

3.8 This adjustment was designed to align the regulatory return in the efficient baseline with the CMA determination. We agreed with NERL's views that this adjustment would introduce double-counting as we had used regulatory return from the CMA determination. We therefore removed this adjustment in our Provisional Decision.

Condition 21 inflation adjustment

3.9 This adjustment is necessary to avoid double counting of inflation since as part of the setting of the 2022 unit rate and, consistent with Condition 21 of NERL's licence, an inflation adjustment for the year 2020 was carried over to the 2022 unit rate. To avoid refunding customers twice for inflation differences between allowed and outturn Determined Costs, through the efficient cost baseline for 2020 to 2022 and through indexation of the price control, our Initial Proposals included an adjustment of -£23 million.

3.10 In our Provisional Decision, we recalculated this adjustment using recent actuals and forecasts for CPI and traffic (TSUs and CSUs). This gave an adjustment between 2020 and 2022 which was around £9 million lower than Initial Proposals and primarily reflected the difference between the outturn and forecast CPI in 2022.

WACC uplift for CMA difference

3.11 This adjustment is intended to account for the difference between the WACC in the CMA determination and that assumed by the CAA in our RP3 determination. However, as part of our decision to modify NERL's licence in November 2021, we introduced new wording to Condition 21 that accounted for the difference between the revenues for 2020 due to the application of a temporary unit rate based on the CAA's decision for RP3 and the final 2020 unit rate established on the basis of the CMA determination.

3.12 Consistent with our Initial Proposals, we did not consider it necessary in our Provisional Decision to make a further adjustment for the difference between the CAA's decision for RP3 and the CMA determination for RP3 on WACC and so for our Provisional Decision we set this adjustment to zero.

Remove recovery for 2020 in the 2022 charge

3.13 This adjustment is required to ensure that an adjustment which was made in the 2022 unit rate to account for the difference between the CAA's decision for RP3 and the CMA determination is not double counted in the efficient cost baseline.

3.14 Our Provisional Decision included an adjustment of reconciled efficient Determined Costs which was unchanged from Initial Proposals.

Summary of stakeholders' views

3.15 No stakeholder responses were received in respect of baseline adjustments.

Our Final Decision

3.16 We remain of the view that our assessment of these adjustments as set out in the Provisional Decision was reasonable and we have retained this approach in this Final Decision with our allowance shown in Table 3.7 below.

Table 3.7: Efficient baseline adjustments over 2020 to 2022

£m nominal prices –	CAA Final Decision	CAA Final Decision	CAA Final Decision	CAA Final Decision
	2020	**2021**	**2022**	**Total**
MOD uplift	8	8	8	25
Refinancing	0	19	0	19
Actual/ forecast tax vs CMA allowance	(4)	(2)	2	(5)
Adjust regulatory return to NERL proposed return on TRS + impact of inflation	0	0	0	0
WACC uplift (CAA vs CMA)	0	0	0	0
Add back Condition 21 inflation adjustment	8	3	(43)	(32)
Remove recovery for 2020 in 2022 charge	(5)	0	0	(5)
TOTAL adjustments	7	28	(33)	2

Source: CAA calculations

Our Final Decision on the efficient costs baseline

3.17 Based on our analysis above, our view of the efficient cost baseline before taking account of the restructuring costs and adjustments is £1,832 million in nominal terms for the three years 2020 to 2022 as set out in Table 3.8 below. This reflects:

- estimates for efficient staff and non-staff costs;
- CMA determination figures for regulatory depreciation and regulatory return; and
- estimates for efficient non-regulatory revenues.

Table 3.8: Efficient costs baseline building blocks over 2020 to 2022

£m nominal prices	CAA Final Decision	CAA Final Decision	CAA Final Decision	CAA Final Decision
	2020	2021	2022	Total
Staff costs	401	309	373	1,083
Non-staff costs	123	121	162	406
Regulatory depreciation	194	162	155	511
Regulatory return	34	39	45	118
Non-regulatory revenue	(103)	(89)	(95)	(286)
En route total	650	541	641	1,832

Source: CAA calculations

3.18 To the CAA efficient baseline, we have applied an allowance for financial restructuring costs and our view of other reconciliation adjustments as set out above. These adjustments are summarised in nominal terms in Table 3.9 below and deliver an overall reconciled efficient costs baseline over 2020 to 2022 of £1,834 million. This is the efficient cost baseline from which we calculate the value of 2020 to 2022 TRS revenues to be recovered, as discussed in chapter 6 (Charges and financeability). Our view of the reconciled efficient costs baseline is unchanged from our Provisional Decision.

Table 3.9: Efficient costs baseline including adjustments over 2020 to 2022

£m, nominal prices	CAA Final Decision	CAA Final Decision	CAA Final Decision	CAA Final Decision
	2020	**2021**	**2022**	**Total**
En route total	650	541	641	1,832
TOTAL adjustments	7	28	(33)	2
Efficient costs baseline	657	570	607	1,834

Source: CAA calculations

3.19 Table 3.10 below shows how the above derived efficient costs baseline is used to calculate our Final Decision on the TRS revenues to be recovered.

Table 3.10: TRS revenue to be recovered

£m, nominal prices	CAA Final Decision	CAA Final Decision	CAA Final Decision	Total
	2020	**2021**	**2022**	
CAA Final Decision Reconciled Efficient Determined Cost baseline	657	570	607	1,834
CAA Final Determined costs recovered/forecast to be recovered by NERL	274	289	563	1,126
CAA Final Decision view of TRS revenue to be recovered	383	280	44	707

Source: CAA calculations

Next steps and implementation

3.20 This chapter sets out our Final Decision on the efficient cost baseline for the TRS mechanism. The TRS mechanism that allows for the recovery of this efficient baseline, balance and recovery profile is addressed in chapter 6 (Charges and financeability) and reflected in the relevant sections of the licence modification and RAB rules CAP 2597d appendix F.

3.21 During NR23, we will review the DB pension costs that NERL incurred during 2020 to 2022 along with our review of variations in pension costs during NR23 to consider any appropriate adjustments to reflect changes in costs due to unexpected changes in financial market conditions as well as any cost savings, for example, due to actions taken in response to the impact of the covid-19 pandemic on traffic levels.

3.22 We will undertake an *ex post* review of key RP3 capex programmes at an appropriate time when we are properly able to assess the efficiency of capex that takes into account the significant changes that NERL made to its capex plan since it submitted its NR23 business plan.

Chapter 4

NERL costs

Introduction

4.1 Ensuring that we make allowances for an efficient level of operating and capital costs in setting NERL's price control helps NERL to maintain a high standard of safety and also:

- furthers the interests of customers and consumers;
- promotes efficiency and economy on the part of NERL; and
- secures that NERL will not find it unduly difficult to finance its licensed activities.

4.2 Our assessment of efficient costs takes account of the range of services that NERL provides and the need to support those services being continuously available to an appropriate (including a safe) standard. Taking all this together, setting allowances for efficient operating (opex) and capital costs (capex) is the best way to secure that we discharge our duties under the TA00 appropriately.

4.3 We have reviewed NERL's staff costs, non-staff costs, pension costs, capex and costs and revenues associated with non-regulated activities. This chapter sets out our Final Decision in relation to these cost categories for UKATS, including London Approach (our Final Decision on costs relating to Oceanic is set out in CAP2597a chapter 9).

4.4 This chapter is structured as follows:

- a section on inflation that sets out a summary of our Provisional Decision on the impact of inflation on NERL's cost base, stakeholder feedback and our views on that feedback. It then sets out our Final Decision on these matters;
- sections on each of staff costs (excluding pensions), pension costs, non-staff opex, capex and non-regulated costs and revenues. Each section includes a summary of NERL's business plan and subsequent submissions, our Provisional Decision, stakeholder feedback and our views on that feedback. We then set out our Final Decision on each of these matters; and
- a summary of our Final Decision on UKATS costs.

Inflation

Our Provisional Decision

4.5 NERL submitted its NR23 business plan in 2020 CPI prices and provided inflation forecasts which could be used to convert the figures it submitted into nominal prices.

4.6 In the Provisional Decision, we explained that in previous price control periods, we had assessed Determined Costs from NERL's business plan in real terms, with any adjustments to take account of efficiencies or alternative assumptions, and then set an allowance for Determined Costs in nominal terms based on an appropriate forecast for inflation. We confirmed that we would continue to use that existing approach to inflation as part of this price control review, including having the in-period adjustment mechanism when actual inflation differs from the assumptions made as part of setting Determined Costs.

4.7 We also explained that we need to take account of inflation in setting appropriate cost allowances for the price control and this involved us reviewing all the evidence and taking a view around the extent to which NERL is able to manage inflationary pressures across different cost categories.

4.8 Following its response to our Initial Proposals, NERL submitted its actual costs for 2022 as part of its 2023 revised submission.[68] As we explained in our Provisional Decision, we used these as the basis for our assessment of NERL's efficient costs in place of the forecasts and adjustments for real price effects we used to develop our Initial Proposals.

4.9 We considered the additional evidence from NERL that its cost base generally increases with CPI (when looking at a reasonable timeframe). We agreed that NERL may be able to smooth short term increases but that it is reasonable to assume that its costs will be linked to CPI inflation when looking over the whole NR23 regulatory period. We also explained that since our Initial Proposals, we had seen inflation forecasts increase for 2023 but then reduce for the remaining years of the NR23 period. Bearing this in mind we decided not to implement additional adjustments to reflect real price effects.

4.10 We used an inflation forecast for our Provisional Decision based on March 2023 forecasts from the OBR. Our view was that this was a reasonable external source of inflation forecasts as well as being consistent with our approach in the Initial Proposals and for the H7 price controls. We no longer considered the

[68] In early 2023, NERL provided an updated view of both opex and capex in response to the Initial Proposals. NERL also provided supporting information in relation to the impact of inflation on its NR23 cost base. We have called this collection of submissions NERL's 2023 revised submission.

alternative high-inflation scenario (which had been part of our work to support Initial Proposals).

Summary of stakeholders' views

4.11 British Airways said that we should use updated inflation data for our Final Decision, as opposed to the OBR's forecast from March 2023 which we had used for our Provisional Decision. It considered that if we accepted NERL's updated costs this would remove incentives for NERL to reduce costs. British Airways also questioned whether we had overly relied on evidence from NERL to assess the impact of inflation on its costs.

4.12 IATA considered that we should undertake an annual review of inflation and consult on the results with all stakeholders, highlighting the actual cost compared to NERL's business plan.

4.13 easyJet disagreed with our assumption that NERL's costs will be linked to CPI over the course of NR23 and considered that NERL should have capacity to reduce the impact of inflation on its costs.

4.14 Ryanair said that adjustments relating to inflation should only be applied once costs have materialised so that NATS would not earn a return on unspent project costs.

Our views

4.15 The OBR has not produced an updated forecast of inflation since our Provisional Decision and in this context it is not practicable for us to update our assumptions for inflation for our Final Decision. We set out our rationale in paragraphs 5.36 to 5.41 of our Provisional Decision for why we proposed to use the OBR forecasts as our source for inflation forecasts for NR23. In summary, the OBR forecast is a reliable and recent source of inflation forecasts and is consistent with our approach in the Initial Proposals and the H7 price controls. No stakeholders objected to this rationale or proposed that we should use a different source for our inflation forecasts.

4.16 We also note that there are mechanisms built into the price control to ensure that both NERL and its customers are protected from windfall gains and losses from changes in inflation so that the interests of customers and consumers should be appropriately protected, while NERL will not find it unduly difficult to finance its activities as a result of the impact of inflation.

4.17 As explained in the previous section, some airlines expressed concerns over NERL's costs being linked to CPI inflation across the NR23 period (British Airways, easyJet). We agree that there may be elements of NERL's cost base that will not move in line with inflation, and agree that NERL does have the ability to smooth some sharp, short-term inflationary impacts on its costs. However, we have found no evidence of NERL's costs having significant real price effects,[69] and consider that they are likely to move broadly in line with CPI at an aggregate level. We do not consider that that there is evidence to suggest that NERL can better manage the impacts of inflation on its costs than can other businesses in the UK.

4.18 Where a particular item makes up a significant proportion of NERL's costs, we have assessed further to ensure that the baseline allowance is reasonable. For example, for staff costs we examined information from NERL, the ONS, the OBR and our advisors Steer (paragraphs 4.47 to 4.81 of our Provisional Decision).

Our Final Decision

4.19 Bearing the above in mind, our Final Decision is to retain our position from the Provisional Decision on the treatment of inflation. Specifically, we have decided not to implement additional adjustments to NERL's cost base in NR23 to reflect real price effects, as we do not consider there is sufficient evidence to support such an approach. We have also decided to continue using a single inflation forecast, based on March 2023 forecasts from the OBR (as the most recent OBR forecast available) and as set out in Table 4.1 below, to set Determined Costs in NR23.

Table 4.1: Annual inflation rates for CPI

Annual CPI Inflation (%)	2020	2021	2022	2023	2024	2025	2026	2027	Average
Actual Inflation	0.9	2.6	9.1						
NERL business plan submission				1.9	1.8	1.8	1.9	2.0	1.9
CAA Initial Proposals				4.0	1.5	1.9	2.0	2.0	2.3
CAA Provisional and Final Decision				6.1	0.9	0.1	0.5	1.6	1.8

Source: NERL submission, OBR published forecasts

[69] Real price effects refers to input prices increasing or decreasing in real terms relative to general consumer price inflation.

Staff costs

Our Provisional Decision

4.20 In our Provisional Decision, we set out our intention to apply two adjustments to the allowance for efficient staff costs for the NR23 period, based on advice we received from our external advisors, Steer[70], and our own analysis of the evidence available.

4.21 The first adjustment was a 1.5% productivity improvement each year for operational staff and 0.5% productivity improvement each year for non-operational staff, from 2024 onwards, the point at which we forecast traffic will have recovered to 2019 levels.

4.22 The second adjustment was in relation to wage growth, for which we assumed CPI+0.25% pay increases on average for all staff over the course of NR23.

4.23 We did not apply any adjustments relating to the number of graduates NERL should employ during NR23 (as we had done in the Initial Proposals), nor did we make any specific assumptions on the level of staff pay.

Summary of stakeholders' views

4.24 NERL stated that it did not accept the proposed level of staff costs in the Provisional Decision, on the basis that we had not provided a breakdown of the individual adjustments applied to staff costs for pay increases and productivity and, therefore, could not verify our calculations.

4.25 In a follow-up question to our Provisional Decision NERL asked us to provide it with a breakdown of the impact on each adjustment to staff costs we proposed to make to its NR23 cost baseline, in order to help it understand the difference between the opex allowance we had proposed and its updated costs submission.

4.26 IATA and British Airways disagreed with the removal of the downward graduate headcount adjustment from our Initial Proposals.

4.27 British Airways said that we should expand the evidence base for the level of NERL's staff costs for the Final Decision. British Airways, IATA and Aer Lingus also considered that we should further assess wage levels in the light of external benchmarks and consider the conflicting areas between the Steer report[71] and NERA benchmarking in more detail.

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70 Steer, NR23 price control review: support on cost assessment for NR23 period and reconciliation review, (2022)

71 Steer, NR23 price control review: support on cost assessment for NR23 period and reconciliation review, (2022)

4.28 easyJet disagreed with allowing above CPI wage increases over the period but agreed with our productivity assumption from 2024 onwards.

Our views

4.29 In terms of breaking down the impact of the individual adjustments we made to staff costs we note that the adjustments for productivity and wage growth were applied as a package to allow the calculation of the efficient staff cost baseline. We do not have a further breakdown and so have not been able to provide this further information to NERL.

4.30 This reflects the approach in our Provisional Decision (paragraph 4.43) in which we considered the overall efficient cost baseline, and it is for NERL to manage its staff costs and trade-offs in terms of pay and resourcing levels.

4.31 We chose not to apply a specific adjustment for the number of graduates in the Provisional Decision for two reasons. The adjustment we made for the Initial Proposals was based on a series of assumptions informed by NERL's business plan submission (including further requests for information), for example around the graduate retention rate and forecast staff attrition over the NR23 period. NERL's response to the Initial Proposals challenged some of these assumptions, and on the basis of additional information provided by NERL in response to requests for information we were not able to fully verify the assumptions we had made in our Initial Proposals around those parameters.

4.32 Secondly, the number of graduates NERL employs should be a decision made by NERL within the management of its overall allowance for staff costs. It is for NERL to decide the appropriate trade-offs that should be made within this allowance, including the number of graduates they consider it necessary to employ.

4.33 We understand the airlines' concerns around not proceeding with the adjustment to overall staff pay levels (rather than pay growth) by reference to the benchmarking undertaken by Steer (on behalf of the CAA) and by NERA (on behalf of NERL) and set out in the "high" case in our Initial Proposals. As airlines commented in their responses to our Initial Proposals, it is important that NERL has the appropriate level of capability and staff to maintain operational resilience during the period in which traffic recovers from the impact of the covid-19 pandemic without causing disruption to customers. It is difficult to benchmark such a level based on the data available. There may be scope to undertake this type of benchmarking for a future price review when traffic levels have recovered, for example as part of NR28 (if appropriate). However, for NR23, we have decided to focus on wage growth and staff productivity in setting the baseline for the efficient level of NERL's staff pay.

4.34 In its response, easyJet did not set out reasoning as to why NERL's staff costs should not grow above CPI. We made this assumption as part of our Provisional Decision based on evidence from NERL, the ONS, the OBR and our advisors Steer (discussed above and set out in full at paragraphs 4.47 to 4.81 of our Provisional Decision). Furthermore, our Provisional Decision to allow above CPI wage growth was also linked to our assumption on staff productivity.

Our Final Decision

4.35 Our Final Decision is to retain our adjustments for staff costs set out in our Provisional Decision. That is:

- a 1.5% productivity improvement per year for operational staff and 0.5% productivity improvement per year for non-operational staff, from 2024 onwards; and
- CPI+0.25% pay increases on average for all staff over NR23.

4.36 The staff costs allowance we have decided to use to calculate the price control is shown in Table 4.2 below. Some of the increase in staff costs between our Initial Proposals and our Provisional Decision resulted from a reduction in staff costs forecast to be capitalised due to an update to the accounting pension accrual rate (as explained in paragraph 4.160 in the Provisional Decision).

Table 4.2 – UKATS Staff Costs Building Block

£m, 2020 CPI prices	2023	2024	2025	2026	2027	NR23 Total
NERL BP	254.1	262.9	265.7	268.8	273.3	1,324.7
CAA Initial Proposals	252.8	259.2	260.0	260.8	263.3	1,296.2
CAA Provisional and Final Decision	**264.5**	**269.1**	**263.3**	**261.7**	**263.7**	**1,322.2**
CAA Final Decision vs NERL BP	*10.4*	*6.3*	*-2.4*	*-7.1*	*-9.6*	*-2.5*

Source: CAA Calculations, NERL submissions.

Pension costs

Our Provisional Decision

4.37 In our Provisional Decision, we retained the approach from our Initial Proposals and set allowances for pension costs that we considered to be reasonable and efficient based on recent information and available benchmarks. This approach was informed by advice we obtained from GAD and from Steer[72], and included:

- setting ongoing Defined Benefit (DB) contribution and deficit repair pension costs, from 2025 onwards, to be in line with the mid-point of the range of reasonable and efficient costs estimated by GAD. The range identified by GAD was based on valuation assumptions that would be broadly between the 70th and 95th percentile of comparator DB pension schemes. GAD explain in its report that the range was chosen with consideration to NATS section's investment strategy, strong employer covenant and relative immaturity;[73]
- adjusting Defined Contribution (DC) pension costs to reflect an assumed 12% average contribution rate for new joiners from 2024 onwards (when the Memorandum of Understanding, which was put in place at the closure of the DB scheme, is no longer enforceable), consistent with Steer's analysis; and
- adjusting DB and DC pension costs in proportion to the adjustments we made to the efficient range proposed for staff costs.

4.38 We did not make adjustments to Pension Cash Alternative (PCA)[74] costs for NR23 but set out that we will consider PCA costs again at NR28, particularly in terms of the costs to NERL of the PCA scheme compared to the DB scheme.

4.39 Given the high level of uncertainty around future pension costs, particularly in relation to DB costs given the impact of recent market conditions on valuation assumptions, our Provisional Decision reiterated that we would continue to work in line with the principles set out in the Regulatory Policy Statement on pensions[75] that we issued for RP3 (the RPS), including in terms of the operation of the pass-through mechanism.

Summary of stakeholders' views

DB Scheme Costs

4.40 While NERL did not challenge the level of the DB pension allowances included in the Provisional Decision, it stated that it was concerned with the lack of clarity on

[72] We engaged external consultants, Steer & Integra (Steer), to review the opex in NERL's business plan and propose ranges for efficient costs. The Steer report was published alongside our Initial Proposals.

[73] Analysis of pension costs for NATS (En Route) plc, Section 9

[74] The PCA is an alternative benefit offered by NERL to eligible members of the NATS DB scheme instead of continuing to accrue benefits within the scheme eligible members can opt to receive 25% of pensionable pay.

[75] Economic regulation of NATS (En Route) plc: Update on approach to the next price control review (caa.co.uk)

the approach we would apply to *ex post* assessments of NERL's pension costs during NR23, stating that the wording in our Provisional Decision was unclear. NERL set out three main issues:

- it said that it would be unreasonable for us to apply the benefit of hindsight in future regulatory judgements relating to DB pensions. NERL explained that the Pensions Regulator (TPR) tranche 14 data[76] used by the CAA to determine provisional DB allowances for NR23 was not available at the time the negotiations between NERL and the Trustee took place as part of the 2020 actuarial valuation;
- NERL requested clarity on whether the *ex post* assessment of DB costs would be conducted against a reasonable range (for example as estimated by GAD) or a single point within such a range. NERL considered that the latter would not be appropriate as the evidence shows a wide range of discount rates are applied; and
- it also said that the intent of the RPS is for the onus to be on NERL to articulate how DB pension costs are reasonable and efficient. NERL suggested that we should set out a clearer explanation of future assessments of NERL's DB costs against the 'reasonable and efficient' criterion for assessment contained in the RPS.

4.41 NERL also suggested that we should confirm that the assessment carried out under the pass-through mechanism would be undertaken relative to the reasonable and efficient range of discount rates evidence available to NERL and the Trustees at the time of the valuation.

4.42 Finally, NERL argued that we had not provided any rationale for the increase in allowance for DB pension costs for 2023 and 2024 (by £9.4 million).

4.43 CAAPS said that it was disappointed that the CAA's Provisional Decision did not address the points made in its previous response to our Initial Proposals.

4.44 CAAPS said that the data used in GAD's benchmarking did not include the 'actual valuation date for the NATS Section of the scheme. It also argued that GAD's approach of regarding the range being between the 70th and 95th percentile for the reasonable and efficient discount was arbitrary.

4.45 To comply with RPS, CAAPS said that the CAA would need to allow full funding of reasonable and efficient future service costs and efficient deficit repair contributions. By not using NERL's actual discount rate, the CAA is overriding the valuation assumptions by specifying an exact discount rate at the 85th percentile within GAD's range.

76 Updated for schemes with effective valuation dates falling from 22 September 2018 to 21 September 2019)

4.46 CAAPS set out that the higher yield environment in the past year means that GAD's focus on historical discount rates is no longer valid in this context as it is unrealistic that valuation in 2023 will use more optimistic assumptions than those used in 2020.

4.47 CAAPS followed up its main response with a supplementary response to our Provisional Decision submitted on 22 August 2023. In this supplementary response, CAAPS said that TPR has published its 'Scheme funding analysis 2023 annex', covering the actual date of NERL's valuation, since its previous response. CAAPS argued that if GAD had used the updated TPR data, then the 85th percentile point in the range (that is, the mid-point of the range) would have supported the Trustee's actual choice of discount rate and hence endorsed the reasonableness of NERL's DB pension cost proposals in the NR23 business plan.

4.48 IATA welcomed the CAA's position on DB pension costs but questioned whether the midpoint of the benchmark range represents the most efficient level of costs, given the regulatory protections in place for NERL.

4.49 British Airways generally supported our position on DB pensions. However, it argued that the CAA should introduce an 'overfunding mechanism' so that any 'unnecessary' deficit payments go towards funding any future pension deficit or benefit airspace users. It favoured a settlement that would reduce the likelihood of overpayment of pension deficit repair costs.

4.50 British Airways said that it supported future DB pension scheme valuations being more in line with benchmarks identified by GAD in its report.

4.51 easyJet supported the CAA's Provisional Decision to retain its assumptions as at Initial Proposals and said that allowances for pension costs should be set at a level that are deemed reasonable and efficient.

DC Scheme Costs

4.52 NERL expressed concern that the adjustments proposed to the DC scheme, coupled with reductions to staff costs, would reduce its ability to offer an attractive rewards package.

4.53 Prospect said there could be consequences for our proposal, referring to industrial action if pension arrangements change.

4.54 British Airways and Aer Lingus considered that the comparator group used in the benchmarking work carried out by Steer was too restricted, therefore limiting its findings. Both airlines consider that the approach in the GAD report of using FTSE100 companies is more representative of UK companies and market requirements for the attraction and retention of employees in similar companies to NERL.

4.55 British Airways also said that the CAA had been inconsistent in adopting the findings of Steer's benchmarking of DC scheme costs, but not adopting the findings of Steer's benchmarking of the level of staff pay.

4.56 IATA, British Airways, Airlines for America and Aer Lingus considered that we should base the DB scheme costs on an assumption of 11% contributions for new members, aligned to GAD analysis of the DC employer contribution rate for FTSE100 companies in 2021, rather than the 12% as in our Provisional Decision.

Pension Cash Alternative

4.57 We received no stakeholder comments on our Provisional Decision for Pension Cash Alternative (PCA) costs.

Our views

DB Scheme

General comments raised by stakeholders

4.58 Noting NERL's comments on the increase of £9.4 million in allowed DB pension costs for 2023 and 2024 over its business plan proposed in the Provisional Decision, as we explained in the Provisional Decision, this increase is as a result of the interaction between staff costs and pension costs. As our assessment of NERL's staff costs for these years was higher in our Provisional Decision we also applied a proportionate increase in allowed pension costs for those years. We note that, overall, we have reduced both staff and pension costs over the NR23 period compared to NERL's business plan. The allowances we have made represent our assessment of the reasonably efficient costs for these elements of NERL's cost base that we consider are appropriate and in the interests of consumers to be included in the calculation of the NR23 price control. However, as we have consistently stated in our Initial Proposals and the Provisional Decision, it is for NERL to manage its business and the overall level of its costs.

4.59 We do not consider that it would be appropriate for us to introduce an 'overfunding mechanism' of the kind British Airways suggested. This is because the RPS makes clear, in Principle 5, paragraph 19, that the DB pension scheme should be managed in a way such that the risk of any trapped surplus is remote. Under this principle, NERL and the Trustee are expected to minimise this risk by employing a balanced approach to de-risking alongside reduced contributions.

4.60 While we note stakeholders' various comments on the benchmark range chosen by GAD in its analysis, no stakeholder provided evidence that would suggest the assumptions used by GAD were incorrect. We are of the view that the evidence provided by GAD represents a reasonable basis for our Final Decision.

Data used by GAD in its analysis

4.61 The TPR published data covering schemes with effective valuation dates between 22 September 2020 and 21 September 2021, including the NATS scheme, on 17 August 2023 (under Tranche 16). This information was published too late for consideration in GAD's original analysis, or its updated analysis produced for the Provisional Decision.

4.62 After receiving responses to the Provisional Decision, we asked GAD to carry out supplementary analysis[77] to take account of this more recent data from TPR.

4.63 GAD's updated analysis of a reasonable and efficient range for NERL's DB pension costs using this data reflected:

- the most recent Scheme Funding data published by TPR covering Tranche 16; and
- an average of the data published under Tranches 14, 15 and 16.

4.64 GAD's supplementary note illustrates that, when looking at Tranche 16 in isolation, the midpoint of its reasonable and efficient range increases from that in its previous report produced for the Initial Proposals. However, when looking at Tranche 14, 15 and 16 on average, the midpoint of GAD's reasonable and efficient range decreases compared to GAD's previous reports.

4.65 As a result, we do not consider that the Tranche 16 data provides a clear basis to change the allowance for DB pension costs from the allowance set out in our Provisional Decision. We also note:

- we are setting a reasonable allowance for a notional company, rather than seeking to forecast NERL's actual costs. Therefore, it is appropriate to look at analysis which draws on a broader range of data (such as a number of different tranches of data from TPR), rather than looking at data covering NERL's actual valuation date in isolation. This is because while the pension schemes undertaking valuations during the same period (and therefore covered under the same tranche) might be affected by the same wider economic factors, they might be very different from each other in terms of the scheme characteristics. Drawing on data from a number of different tranches allows us (and GAD in producing its analysis), to smooth the impact of outliers within any specific tranche of data; and
- the analysis GAD has produced for the Initial Proposals, the Provisional Decision and this Final Decision shows that the choice of data used to calculate its reasonable and efficient range has a significant impact on the results, particularly during times of more volatile economic conditions. The

77 GAD (October, 2023), Analysis of pension costs for NATS (En Route) plc – supplementary note

results of the next valuation (to be undertaken after 2023 and which will affect DB pension costs from 2025 onwards) could be significantly different from any of the benchmarking ranges. We are committed to continuing to use the pass-through mechanism to assess NERL's actual costs, including for the period 2025-2027, which will be based on information available at the time of the most recent valuation rather than the historical data used to set the NR23 allowance.

Economic developments affecting future actuarial valuations

4.66 We used GAD's work to assist us in assessing the reasonableness of NERL's DB pension cost forecasts for the purpose of setting the price control for NR23. However, because of the pass-through mechanism which applies to DB pension costs, any reasonably efficient costs incurred above those we used in setting the NR23 price control would be eligible for pass-through into NERL's charges where consistent with the criteria in the RPS.[78] We will therefore review the reasonableness of NERL's actual costs as part of the pass-through assessment and will take relevant factors into account during this review.

4.67 GAD set out[79] that it is likely that the Trustee and NATS will negotiate the 2023 actuarial valuation against markedly different market and economic conditions and backdrop to the 2020 valuation. In particular, this is likely to prove favourable to the assessed cost of new accrual within the scheme, which will be valued on a significantly higher discount rate. Experience and changes in the investment strategy will be critical considerations to the decisions that stakeholders make.

4.68 As a result, taking these factors together, we do not consider that GAD's use of historical discount rates in its assessment creates any undue difficulties for NERL in recovering its reasonable and efficient actual costs.

Pass-through mechanism

4.69 In the Provisional Decision, we recommitted to the principles in the RPS, which sets out the overall framework for the pass-through assessment. Paragraph 27 of the RPS sets out that we envisage that "unforeseen and significant changes" to Pension Costs efficiently incurred by NERL, which have arisen from "unforeseeable changes" in the laws and market conditions would be eligible for the Pension Cost pass-through.

4.70 We note that as part of the pass-through assessment, particularly for costs in years 2025 to 2027 (where we have made adjustment to NERL's baselines), actual costs will be based on the results of the 2023 DB scheme valuation. As such, we will also need to make use of updated data to assess whether those

[78] For example, the criteria in Principle 7, para 26 (CAP 2119, March 2021)

[79] GAD (October, 2023), Analysis of pension costs for NATS (En Route) plc – supplementary note

costs were reasonable and efficient, rather than basing our assessment on the data used by GAD as part of its analysis which informed this document and our previous ones.

4.71 We consider that it is appropriate for us to clarify, in response to the points raised by NERL, that we will not simply apply a single mid-point estimate (equivalent to the 85th percentile of comparable schemes) to assess pass-through claims. The mid-point was used for setting cost allowances and may not be appropriate in assessing whether actual costs were reasonable and efficient and reflect actual market conditions, as specified in the RPS. However, for the same reasons we are also not committing to using the full "reasonable and efficient" range from GAD (equivalent to the 75th to 95th percentile) to assess actual pension costs during NR23, which was developed for setting pension cost allowances and may not be appropriate to assess pass-through claims.

4.72 As set out in the RPS, we expect NERL, where appropriate working with the Trustee, to provide evidence to demonstrate that they have done all they reasonably can to mitigate the burden on airspace users arising from its pension obligations and that they have taken steps to ensure that the level of NERL's pension costs remain efficient and reasonable.

4.73 As set out by the CMA[80], actual costs may differ from assumptions made today for a number of reasons. It is open to the regulator to take a different view on market conditions in determining allowed costs and NERL can also take a different stance to the regulator when deciding on the level of deficit repair costs it will make. If NERL has compelling evidence that its costs are efficiently incurred and reflective of actual market conditions, then it should expect that pass-through provisions will apply.

4.74 To illustrate this, if the financial market assumptions and the level of the required pension contributions from the next valuation are in line with NERL's business plan, then the reductions we have made to NERL's forecast costs in this Final Decision would be eligible to be funded through the pension cost pass-through. This would be subject to checks that the costs are efficient and take account of any offsetting cost savings that NERL has made. This follows from the RPS paragraph 26 as the financial market conditions at the next pensions valuation are unforeseeable and outside NERL's control, and NERL needs to demonstrate it has taken reasonable measures to manage any increase in pension costs.

4.75 Increases in costs that arise due to salaries and staff levels, for example, would not be eligible for pass-through as they are, in our view, "controllable" under the RPS paragraph 26.

80 Final report (publishing.service.gov.uk), paragraph 11.30

DC Scheme

4.76 Having reflected on the points raised by NERL, Prospect and the airlines (as set out above), we consider that setting DC pension costs in the NR23 period based on an assumed 12% employer contribution rate for new members joining the scheme from 2024 onwards is reasonable. This assumption represents a reduction in costs relative to the existing scheme and is consistent with the evidence from Steer's benchmarking, but also allows NERL to continue offering an attractive package of benefits to allow it to recruit necessary staff.

Our Final Decision

4.77 We have maintained the approach from our Provisional Decision to set allowances for pension costs that we consider to be reasonable and efficient based on recent information and available benchmarks. This includes:

- the reduction in DB scheme costs in line with the mid-point in the range from GAD;
- reduction in DC pension costs from 2024, consistent with analysis by Steer;
- adjustments to DB and DC scheme costs in proportion to adjustments we have made to overall staff costs.

4.78 While we have not made changes to PCA costs for NR23, we will consider PCA costs again at NR28, particularly in terms of the costs to NERL of the PCA scheme relative to the DB scheme.

4.79 Table 4.3 below summarises NERL's forecasts of pension costs and the allowances we have made to support this Provisional Decision.

Table 4.3: UKATS NR23 pension costs

£m, 2020 CPI prices	2023	2024	2025	2026	2027	NR23 Total
Defined Benefit-Ongoing Contributions						
NERL BP	64.3	63.5	61.5	60.9	59.2	309.4
CAA Initial Proposals	64.0	62.6	48.0	46.2	45.8	266.5
CAA Provisional and Final Decision	71.7	65.5	47.1	44.6	44.8	273.8

£m, 2020 CPI prices	2023	2024	2025	2026	2027	NR23 Total
CAA Final Decision vs NERL BP	7.4	2.0	-14.4	-16.3	-14.3	-35.7
Defined Benefit- Deficit Repair						
NERL BP	19.1	19.2	19.3	19.5	19.7	96.8
CAA Initial Proposals	19.1	19.2	-	-	-	38.3
CAA Provisional and Final Decision	19.1	19.2	-	-	-	38.3
CAA Final Decision vs NERL BP	-	-	-19.3	-19.5	-19.7	-58.5
Defined Contribution						
NERL BP	14.9	16.3	17.8	19.3	20.7	89.0
CAA Initial Proposals	14.7	15.8	17.0	17.9	18.8	84.2
CAA Provisional and Final Decision	15.5	16.6	17.4	18.4	19.4	87.3
CAA Final Decision vs NERL BP	0.6	0.3	-0.4	-0.9	-1.3	-1.7
PCA						
NERL BP	11.6	10.2	9.1	8.4	7.8	47.1
CAA Initial Proposals	11.6	10.2	9.1	8.4	7.8	47.1
CAA Provisional and Final Decision	10.7	10.1	9.5	8.9	8.1	47.3
CAA Final Decision vs NERL BP	-	-	-	-	-	-

Source: CAA analysis, NERL submissions

4.80 We note the continuing high level of uncertainty around future pension costs (particularly DB pension costs) given the volatility in valuation assumptions. The CAA will continue to apply the approach set out in the Pensions RPS and the pass-through mechanism as summarised above to help address this uncertainty.

Non-staff opex

Our Provisional Decision

4.81 Non-staff costs represent around 30% of total opex. In NERL's 2023 revised submission, it forecast that non-staff opex would total £765 million over NR23. There are five main categories of non-staff costs: facilities management, non-operational IT, asset management, business support and other costs that support, for example, capex programmes.

4.82 In our Provisional Decision, we proposed to apply the following adjustments to NERL’s allowance:

- CAA fees: we updated NERL’s allowance for the latest available information on CAA Scheme of Charges for FY23/24;
- DB Management Costs: we set an allowance in line with our initial proposals to reduce NERL’s admin costs in line with benchmarks as set out in GAD’s supplementary report;
- cost savings from RP3 Capex: we retained our view that there are efficiencies from RP3 capex projects that had not been applied to NERL’s forecast costs and we reflected an estimate of these efficiencies in our projections; and
- Unmanned Aircraft System Traffic Management (UTM) development fees: we continued to exclude these costs from our baseline allowance and assumed that NERL will develop new charging arrangements in NR23 to recover these costs.

4.83 We also noted that NERL made significant changes to the timing of its capex programme since its business plan submission and that an accelerated approach to ‘legacy escape’ no longer appeared viable.

4.84 In addition, NERL provided evidence that its cost base moves broadly in line with CPI. Therefore, we allowed increases in costs that were in line with CPI and considered other movements on a case by case basis, with reference to the evidence provided by NERL.

4.85 Overall, our Provisional Decision allowed for UKATS non-staff opex in NR23 of £741 million (3% below NERL’s updated non-staff opex forecast).

Summary of stakeholders’ views

4.86 NERL said set out that it continues to disagree with our position on DB management cost savings from RP3.

4.87 British Airways also said that we should review the latest stewardship report to assess if administration costs are efficient.

Our views

4.88 NERL has not put forward any new evidence to suggest that the analysis carried out by GAD is not reasonable and therefore we consider that it is appropriate to apply the reduction in DB management costs to NERL's allowance.

4.89 In response to the point raised by British Airways, we do not consider that further analysis is needed. NERL has not updated its forecast of DB management costs for the NR23 period and we note that the CAAPS annual report and accounts include pension management costs on a backwards looking basis.

Our Final Decision

4.90 Based on our views on stakeholder responses and the analysis set out in the Provisional Decision, we propose to retain the adjustments to non-staff opex we set out in our Provisional Decision. These are set out in Table 4.4 below.

Table 4.4: NR23 non-staff costs

£m, 2020 CPI prices	2023	2024	2025	2026	2027	NR23 Total
NERL BP	146.4	150.9	150.8	150.9	147.2	746.3
CAA Initial Proposals	145.3	149.3	149.4	148.2	144.4	736.6
CAA Provisional and Final Decision	145.8	150.1	150.3	149.5	145.6	741.2
CAA Final Decision vs NERL BP	-1	-1	-1	-1	-2	-5

Source: CAA calculations, NERL submissions

Capex

Our Provisional Decision

4.91 The significant changes NERL made to its capex plan between the February 2022 business plan, which we assessed as part of our Initial Proposals, and its

Service and Investment Plan published in January 2023, led us to reconsider the approach to setting capex allowances for our Provisional Decision. In this section we summarise the overall approach we took in our Provisional Decision when setting the capex allowance for the NR23 period, and then set out the specific adjustments we made, and our rationale for them.

Overall approach

4.92 NERL's February 2022 business plan included £551 million of capex for UKATS. The January 2023 iteration was of a similar magnitude, but with significant differences in the allocation of that overall envelope to different programmes and cost categories, including a significant reduction in the risk and contingency allowance, beyond the reduction we had proposed in our Initial Proposals.

4.93 In the light of the reductions made by NERL to the risk and contingency allowance for NR23, we did not apply any further adjustments to NERL's risk and contingency allowance in our Provisional Decision.

4.94 Our Provisional Decision set out a capex allowance for NR23 which was higher than the envelope NERL included in its most recent capex submission (£535 million for UKATS), due to the classification of costs from an IT system as capex (see further detail on this in the next sub-section), but below NERL's original business plan. Given the strategic importance of key parts of NERL's capex programme and the high degree of uncertainty surrounding them, we considered this approach is consistent with our primary duty on safety and our secondary duties, including to further the interests of customers and consumers.

4.95 In the light of the changes made by NERL to the NR23 capex plan, we commissioned Egis to undertake a review of the changes to the DP En Route and legacy escape programmes. We asked Egis to consider whether the revised programme NERL had put forward in January 2023 was deliverable, whether NERL had considered all appropriate options and whether NERL had fully considered the impacts on costs and customer benefits from changes to the programme.

4.96 Given our overall concerns around NERL's revised NR23 capex plan described in our Provisional Decision at paragraphs 4.161 to 4.162, we provisionally decided to set out a plan for developing a strengthened capex monitoring framework for NR23 and explore appropriate incentives around capex efficiency and delivery. This included considering the scope for introducing *ex ante* incentives at NR28 (or before if appropriate, subject to licence modifications).

4.97 We also set out that we would undertake an *ex post* review of key RP3 and NR23 programmes as part of our overall review of NR23 capex, or at the earliest opportunity for those programmes that are not complete by the end of the NR23 period. We expected this review to focus on key programmes (including, but not limited to, DP En Route, Common Platform and airspace) together with any programmes where costs during RP3 have exceeded the allowances in the CMA determination.

Adjustments applied to NERL's NR23 capex forecasts

4.98 In our Provisional Decision, we considered the most recent submission from NERL setting out its capex requirements for the NR23 period. This submission followed on from the January 2023 Service and Investment Plan submission, which NERL consulted on with stakeholders, but in addition showed the impact of some proposed reclassification of capex items as opex for the NR23 period.

4.99 Having considered the rationale put forward by NERL for the reclassification of capex items as opex, we reached the following Provisional Decisions:

- NERL's proposed reclassification of capitalised labour from capex to opex: having queried NERL and assured ourselves this will not result in any double counting between the opex and capex building blocks, we provisionally allowed the capex reduction proposed by NERL in relation to capitalised staff costs (with a corresponding increase in staff opex).
- NERL's proposed reclassification of £15 million of costs of an IT system as opex: we considered we had insufficient information to assess NERL's proposal and therefore we have classified these costs as capex (leading to an increase in capex of £15 million).

Summary of stakeholders' views

Overall approach

4.100 NERL does not consider that we have set out a rationale as to why further capex incentives are needed. NERL said that the evidence base should be considered and consulted on before policy action is decided.

4.101 NERL set out that appropriate capex governance processes are needed to make sure that they have the flexibility to invest appropriately while CAA and stakeholders have oversight, with safety as a top priority. NERL also considers that further capex measures and incentives may lead to a change NERL's approach to capex planning, leading to increased time and cost as a result of having to incorporate more risk into capex projects.

4.102 Airlines expressed their concerns over the changes that have been made to NERL's capex plan and set out their support for our proposed review of NERL's capex.

4.103 Aer Lingus suggested that the work carried out by Egis should be wider in scope to include assessing the efficiency of the solution, accuracy of forecasting, procurement practices and programme delivery.

4.104 IATA said we should undertake further targeted consultations aimed at strengthening capex delivery through associated incentives and that NERL should establish and publish cost, delivery and benefit expectations for projects following assessment by the Independent Reviewer[81] and customer support.

Adjustments applied to NERL's NR23 capex forecasts

4.105 NERL largely agreed with our Provisional Decision on capex allowances. It however disagreed with the inclusion of £15 million associated with a software project as capex rather than opex. NERL shared a summary of accounting advice it received setting out that Software as a Service (SaaS) cannot be capitalised and should, therefore, be treated as opex. Subsequently, NERL also shared details of its procurement exercise for this project, which set out the various options NERL is considering for the replacement of this project, and NERL's view on the accounting treatment of these different options.

4.106 We note that based on the evidence submitted by NERL subsequent to its response to the Provisional Decision, we understand that while NERL has identified a potential preferred option, it does not appear that NERL has committed to a particular solution for this project, and that the costs of the project are continuing to evolve and be refined by NERL based on discussions with its suppliers.

Egis review of key NR23 capex programmes

4.107 The scope of the review we commissioned from Egis was to consider key capex programmes included by NERL in its NR23 plan, namely the DP En Route programme, and associated capex programmes, in particular the Common Platform. The aim of the review is to assess the robustness of the approach taken by NERL to revising these programmes during 2022, and the extent to which the revised plan is efficient, deliverable, and is expected to deliver benefits that further the interests of customers and consumers.

4.108 Egis reviewed capex documentation produced by NERL as part of the NR23 process, and the parallel SIP22 and SIP23 process. Egis also sent a series of written information requests and had a number of meetings with NERL. We are publishing the report produced by Egis alongside this Final Decision.

4.109 In its report, Egis sets out a series of conclusions from its review, as well as four recommendations, which we have summarised below:

[81] The Independent Reviewer, appointed by the CAA in accordance with condition 10 of the NERL licence, provides the CAA with advice and, where appropriate, recommendations, on NERL's delivery, efficiency and engagement on its capex. This includes considering NERL's "Service and Investment Plans" ("SIPs") that set out capex plans that NERL is required to prepare in accordance with its price controls and making recommendations to the CAA on its decisions under capex engagement incentive.

- **Recommendation 1:** NERL should strengthen the change management procedures for capital projects and programmes. Egis' recommendation refers in particular to option development and assessment, documentation and timely engagement with the CAA.
- **Recommendation 2:** NERL should produce a comprehensive technical description of its plans for the DP En Route programme to completion which is more detailed than that provided in the SIPs. This description should also provide more transparency on the delivery of customer benefits and the relationship to legacy escape and opex.
- **Recommendation 3:** The CAA should consider mechanisms for incentivising efficiency, delivery and benefits in NERL's capex programme. Specifically, Egis recommends that the CAA should investigate mechanisms to monitor programme delivery, so that NERL can be incentivised to avoid slippage of milestones that deliver significant customer benefits.
- **Recommendation 4:** NERL should provide a more detailed presentation of the risks to delivery, benefits and costs. This would allow the risk and contingency budget to be estimated based on more detailed analysis and understanding of the risks.

Our views

Overall approach

4.110 We intend to engage with stakeholders on the findings and recommendations of the Egis report following the publication of this Final Decision. This engagement would inform any future work on developing additional monitoring and incentives for NERL's capex.

4.111 We note NERL's comments around the need to set out a rationale as to why further capex incentives or monitoring are needed. We agree and emphasise that we did not, either in the Provisional Decision or in this Final Decision, set out any specific proposals for additional monitoring or incentives.

4.112 Instead, we set out our plan to undertake further work in this area, which would involve defining the issues that we are seeking to address, identifying potential options and consulting on them with stakeholders.

Adjustments applied to NERL's NR23 capex forecasts

4.113 Following NERL's response to our Provisional Decision, we asked NERL to provide us with the information on which it had based its view that the costs of the software project would need to be classified as opex. From the information provided, it is not clear that NERL has committed to a particular solution. The solutions being considered could be categorised as capex with some proportion of opex, or mainly opex. It is also clear that the costs of the project and the classification between opex and capex are still developing. For example, the information we received from NERL on 20 September 2023 shows lower costs than what NERL requested be reclassified as opex in their submission on 3 February 2023 ahead of the Provisional Decision (and as re-stated in NERL's response to the Provisional Decision. Overall, this indicates the level of cost and classification remain uncertain at the time we made our Final Decision.

4.114 Furthermore, our overall approach has been to consider that the categorisation between capex and opex, at this level of detail, is a management matter for NERL, and not for the CAA to determine. We have not sought to assess other individual projects of this scale included in NERL's capex plan to this level of detail. As a result, we consider the overall allowances we set for NERL at Provisional Decision, for both capex and opex should continue to be materially appropriate. It will be for NERL to manage the relevant trade-offs within these allowances.

Our Final Decision

4.115 We did not receive specific feedback in terms of the overall approach for setting NR23 capex baselines. We noted in the previous section NERL's comments around clearly setting out the rationale for further capex monitoring and incentives, and as explained, we intend to engage with stakeholders on these issues following the publication of this Final Decision. However, we note that we are not setting out in this document any specific measure for monitoring and incentivising NERL's capex in the NR23 period.

4.116 In terms of specific adjustments to capex baselines for the software project, we have considered the further information provided by NERL in response to our questions, but we have decided this does not justify a change of approach from our Provisional Decision in terms of classification of opex and capex.

4.117 We did not receive significant feedback in terms of the NR23 capex allowance otherwise.

4.118 Overall, we have decided to retain the approach in our Provisional Decision for setting the NR23 capex allowance, including the specific annual capex allowances, as per Table 4.5 below.

Table 4.5: NR23 UKATS capex

£m, 2020 CPI prices	2023	2024	2025	2026	2027	NR23 Total
NERL BP	117.0	107.0	111.0	107.0	109.0	551.0
CAA Initial Proposals	117.0	113.6	108.6	95.6	97.6	532.5

£m, 2020 CPI prices	2023	2024	2025	2026	2027	NR23 Total
CAA Provisional and Final Decision	97.0	110.9	114.0	110.1	108.0	540.0
CAA Final Decision vs NERL BP	-20.0	3.9	3.0	3.1	-1.0	-11.0

Source: CAA calculations, NERL submissions

Non-regulated costs and revenues

Our Provisional Decision

4.119 NERL earns non-regulatory revenues from services it provides to, for example, NATS Services Limited (NSL), the Ministry of Defence (MoD), through the FMARS contract, and North Sea Helicopters. Under the single till calculations, these revenues, together with revenues from the London Approach service, are deducted from regulated revenue requirements in calculating its price control revenue and Determined Costs.

4.120 In its business plan, NERL forecast non-regulatory revenues of approximately £73 million per annum, for UKATS, over the NR23 period.

4.121 On the basis that NERL used the same approach to allocating the costs of non-regulatory revenues as at RP3 and having undertaken a high-level review of the forecast revenues and associated costs, we did not consider that any specific adjustments were required to non-regulatory revenues.

4.122 NERL's updated opex forecast for the NR23 period have not changed significantly since its business plan submission. The key change in relation to staff opex relates to a reallocation of costs which were previously capitalised as opex. Therefore, we considered that the best starting point for assessing NERL's non-regulated revenues continues to be its February 2022 business plan.

4.123 We re-ran our analysis of FMARS revenues to reflect the updated position in relation to NERL's cost base as per this Provisional Decision. This resulted in a smaller reduction in MoD related non-regulated revenues than previously proposed in our Initial Proposals. In addition, we also updated the pre-tax WACC figure used in the FMARS ready reckoner, and this value was higher than the one used for Initial Proposals, meaning that the "profit" element NERL can recover was higher.

4.124 Overall, this led to a very small reduction in our forecast of NERL's non-regulated revenues relating to UKATS during NR23 (around £0.018 million).

Summary of stakeholders' view

4.125 Comments from stakeholders were limited. NERL expressed its disappointment that we had not adjusted for formulaic or contractual effects of cost reductions related to a MoD gainshare payment in 2027 and intercompany revenues.

Our views

4.126 We set out our views as to why we do not consider it necessary to make the adjustments proposed by NERL (as part of their response to the Initial Proposals), in our Provisional Decision in paragraphs 4.203 to 4.206.

4.127 We calculated the adjustment to FMARS revenues resulting from efficiencies applied to NERL's cost base using the FMARS ready reckoner provided by NERL, consistent with the approach taken at RP3.

4.128 Our adjustment is applied at an overall cost category level which is set to reflect a reasonable allowance for the notional company. We therefore do not consider it is appropriate to seek to reflect all possible consequences of these reductions as part of NERL's allowance for non-regulated revenues and change our approach from the one applied at RP3.

Our Final Decision

4.129 Our Final Decision is to retain our position from our Provisional Decision based on the re-run of the FMARS analysis. Summary figures are presented in Table 4.6 below. The reduction to non-regulatory revenues over the NR23 period is £0.018 million. Due to the magnitude of this reduction, this is not visible in the summary figures presented in Table 4.6. This excludes revenues from London Approach.

Table 4.6: NR23 UKATS non-regulatory revenues

£m, 2020 CPI prices	2023	2024	2025	2026	2027	NR23 Total
NERL BP	73.1	72.5	72.7	72.5	72.2	363.1
CAA Initial Proposals	73.1	72.5	72.7	72.5	72.2	363.1
CAA Provisional and Final Decision	73.1	72.5	72.7	72.5	72.2	363.1
CAA Final Decision vs NERL BP	0	0	0	0	0	0

Source: CAA calculations, NERL submissions

Next steps and implementation

4.130 This chapter sets out our Final Decision on the efficient cost allowances for UKATS in NR23, which are summarised in Table 4.7. These Determined Costs are reflected in the proposed modifications to NERL's licence in CAP2597c appendix E.

Table 4.7: UKATS costs

£m, 2020 CPI prices	NR23 BP	CAA Initial Proposals	NERL updated	CAA Final Decision	CAA FD vs. NR23 BP
Staff costs	1,324.7	1,296.2	1,330.8	1,322.2	-2.5
Pensions:					
Defined benefit	406.2	304.8	406.2	312.1	-94.2
Defined contribution	89.0	84.2	91.1	87.3	-1.7
PCA	47.1	47.1	47.3	47.3	0.2
Non-staff opex	746.3	736.6	765.3	741.2	-5.1
Total opex	**2,613.4**	**2,468.9**	**2,640.8**	**2,510.1**	**-103.2**
Capex	**551.0**	**532.5**	**524.9**	**540.0**	**-11.0**

Source: CAA calculations, NERL submissions

4.131 In terms of any follow-on implementation work following the publication of this Final Decision, we have identified two key areas which flow from the matters discussed in this chapter.

4.132 Firstly, for DB pension costs, during NR23 we will undertake an assessment of NERL's actual costs relative to the baselines set out in this chapter, for the purpose of the pension pass-through mechanism. When undertaking this assessment for the period 2025-2027, we will also have regard to the results of the 2023 DB scheme valuation, which will affect pension contributions from 2025 onwards.

4.133 Secondly, in terms of NERL's capex programme, we intend to engage with stakeholders on the findings and recommendations of the Egis report on NR23 capex following the publication of this Final Decision. This engagement will inform our future work on developing future capex incentives, as set out earlier in this chapter.

Chapter 5
Financial framework

Introduction

5.1 In setting NERL's price control we use a financial framework to help ensure that NERL can finance investment in a timely and cost effective way. This supports the safe and resilient operation of NERL's regulated activities and helps protect the interests of consumers in accordance with our statutory duties under the TA00. This financial framework is also designed to be consistent with our duty to secure that NERL will not find it unduly difficult to finance its licensed activities (which we refer to as our 'financeability duty').[82]

5.2 As set out in our Provisional Decision, one of the key ways in which we discharge the financeability duty in setting the price controls, is to add efficient capital investment to NERL's regulatory asset base (RAB). The RAB is a measure of the total amount invested by NERL to provide services to customers and consumers that is yet to be recovered from customers through allowances for regulatory depreciation. In making projections of price revenue the RAB is used to:

- make projections of regulatory depreciation of the RAB (which is netted off the RAB each year and is in effect a smoothed allowance for efficient investment); and
- calculate the allowance for returns (which is based on our estimate of NERL's real weighted average cost of capital (WACC) on the RAB.

5.3 We also make an allowance for corporation tax and update the RAB and price controls for general price inflation. Taken together, this framework allows NERL to recover the efficient financing costs of its capex programmes (being both a return on the value of the sum invested and the return of that sum over time to the shareholders) over the longer term. This approach is consistent with that taken in other sectors where economic regulation applies and has the significant benefit to consumers that the costs of investment do not need to be recovered in the year that the investment is incurred. As investment in capital projects can be "lumpy", varying significantly from year to year, this is a key means by which we can smooth the prices that NERL charges its customers over time.

5.4 This chapter sets out our Final Decision in relation to each of the core elements of the financial framework:

[82] See section 2(2)(c) TA00

- the RAB;
- regulatory depreciation;
- inflation;
- corporation tax; and
- the WACC.

5.5 For each of the above areas, this chapter summarises our Provisional Decision and the responses which we received on these. It then provides our views on the matters raised by respondents and sets out our Final Decision.

5.6 Our assessment of financeability and the benchmarking of charges is included in chapter 6 (Charges and financeability).

RAB

Our Provisional Decision

5.7 In our Provisional Decision, we confirmed that we intend to retain a RAB-based price control given that this is central to the funding of efficient investment. On this basis we calculated the RAB by adding capex and subtracting regulatory depreciation in making projections of price control revenue for NR23. Our Provisional Decision on the RAB also retained a number of additional adjustments, most of which (with the exception of the TRS adjustments) are consistent with the approach adopted in the RP3 price control:

- movements in working capital, including a separate allowance for TRS revenues[83] to be recovered from 2023;
- pass-through of additional pension costs from past price control periods, including capitalised financing costs; and
- other adjustments such as RPI-CPI wedge reconciliation,[84] spectrum costs variance and tax clawback[85].

RAB indexation

5.8 In our Provisional Decision, we said that we intended to retain RPI indexation of the RAB for NR23, consistent with our approach for the H7 price control and with NERL's proposals. However, we said we would consider moving to CPI indexation for NERL's RAB at NR28.

[83] Our policy in respect of TRS revenues is described in chapter 6 of this Final Decision document.

[84] See CAP 2553, paragraph 5.17.

[85] See CAP 2553c, appendix D.

Working capital treatment

5.9 In our Provisional Decision, we confirmed in the RAB rules that the RAB will be updated for actual movements in working capital from NERL's regulatory accounts. This was to provide clarity in response to NERL's comment, regarding the process for updating working capital movements in the RAB.

Average RAB calculation

5.10 In our Provisional Decision, we stated that we disagreed with NERL's suggestion that we had incorrectly calculated the average RAB in the PCM.[86] We explained that we had retained the method of calculating the average RAB by discounting the closing RAB by the WACC as set out in our Initial Proposals. We also explained that we considered that this approach provided a more accurate calculation of the return on the average RAB and was consistent with the approach adopted for the H7 price control.

RAB rules for consultation

5.11 Alongside our Provisional Decision, to facilitate greater transparency, we published draft RAB rules for consultation which we said that we would finalise when publishing our Final Decision for NR23.

Summary of stakeholders' view

Stakeholder responses

5.12 Both NERL and British Airways responded to the RAB section of the Provisional Decision. These responses are summarised below.

Treatment of TRS in the RAB

5.13 NERL agreed with the CAA's revised approach to the treatment of TRS revenues in the RAB.

5.14 However, NERL stated that the CAA appeared to have made an error in the modelling of the TRS balance. Although the modelling correctly included the recovery of the regulatory return for the funding of the TRS balance in RP3, it excluded it from the opening NR23 RAB. As such, NERL considered that the RAB is understated each year by slightly over £60 million.

5.15 British Airways supported the separation of the TRS recoveries from 2020 to 2022, to form a separate line in the RAB as it said that this would improve transparency.

RAB indexation

5.16 NERL stated that it supported the CAA's decision to retain RPI indexation for NR23 and the "RPI-CPI wedge" true up mechanism. However, it said that the CAA

[86] We set out the reasons for this in CAP2553c appendix D

had understated the required calculation for RP3, leading to an understatement of the opening RAB by £3 million.

5.17 British Airways stated that it continues to advocate the introduction of CPI indexation of the RAB for NR23. While it would prefer this move was made for NR23, it understands that the CAA will look at this again in NR28. It also noted that plans to withdraw the RPI as a measure of inflation in future will strengthen the case for CPI indexation at NR28.

Working capital treatment

5.18 NERL noted that the CAA has confirmed that the RAB will be updated for actual movements in working capital from NERL's 2022 regulatory accounts. It stated that these accounts had been published enabling the CAA to use them for the Final Decision.

Average RAB calculation

5.19 NERL noted that the CAA's proposed approach to calculating the average RAB discounts the closing RAB to 1 January 2022. It claimed that this is not a rational assumption, as revenue is received throughout the year. NERL said that the CAA should revert to the method used in RP3 as this does not contain this shortcoming. Based on the RAB in the PCM and the cost of capital used for the Provisional Decision, NERL's view was that the CAA's new approach understated the allowed return over NR23 by £3 million.

Capitalised financing cost

5.20 NERL said that there is a capitalised financing cost of around £11 million in each year of NR23 which should not be present in the base case scenario. This is because outturn (*ex post*) capital expenditure and pension costs are assumed by the CAA to align with the CAA's *ex ante* NR23 assumptions.

Tax clawback mechanism

5.21 NERL noted that the documentation of the tax clawback mechanism has improved since the Initial Proposals, but further refinement of the definition of modelled interest costs and the mechanism more generally would improve the transparency of this calculation.

Our views

Treatment of TRS in the RAB

5.22 We have considered NERL's view that the CAA appears to have made an error in the modelling of the TRS balance. We agree that £60 million was incorrectly being deducted twice. The PCM has been adjusted so that only a single £60 million is deducted. Further details of this correction are provided in the Price Control Model (CAP2597e).

RAB indexation

5.23 We agree that our Provisional Decision understated the opening RAB by about £3 million in relation to the RP3 RPI-CPI wedge variance adjustment calculation and have resolved this in the PCM. Further details of how we have addressed this issue are as set out in the model changes log. The impact of this change on charges is negligible.

5.24 We note that respondents support the introduction of CPI indexation of the RAB for NR23. We commit to looking at this approach again for NR28.

Working capital treatment

5.25 We confirm that the RAB used in the PCM has been updated for actual 2021 and 2022 working capital amounts. In addition, we have updated all other RAB values for actual 2021 and 2022 amounts. These have been sourced from NERL's published 2022 regulatory accounts. We have updated sections 3 and 4 of the RAB rules (CAP 2597d appendix F) accordingly.

Average RAB calculation

5.26 We do not agree with NERL's suggestion that we have incorrectly calculated the average RAB used to calculate the allowed return and that, consequently, the allowed return on the RAB is lower than it should be.

5.27 As set out in our Provisional Decision, our approach is consistent with that used to calculate the return on the RAB in the Heathrow H7 price control. It is also the same approach used by Ofgem, Ofwat and URGENI in their price controls.[87]

5.28 Our approach to calculating the return on the RAB recognises that returns accrue within a year and can be reinvested. We consider that is important to allow for this cashflow timing and to ensure that in the PCM modelling the return that is available to NERL at the year-end is equal to the estimated cost of capital.

Capitalised financing cost

5.29 We agree with NERL that there is a capitalised financing cost charge of around £11 million in each year of NR23 which should not be present in the base case scenario. Therefore, we have corrected for it in the PCM. Further details of this change are provided in the model changes log.[88] We have also updated Section 5 and section 6g of the RAB rules so that these are aligned.

Tax clawback mechanism

5.30 In response to NERL's concern regarding the clarity of the tax clawback mechanism, including the definition of modelled interest costs, we have refined

87 Ofwat consulted on this issue in April 2023 and issued their position paper in July 2023.

88 This change affects Oceanic as well as UKATS and the RAB rules have been changes accordingly.

and expanded the description in section 7 of the RAB rules, to improve the transparency of this calculation.

5.31 As set out in our Provisional Decision, we do not consider it is necessary to include the stand-alone tax clawback model calculation in the PCM at this stage, as this calculation could be performed off-line in future if needed.

Our Final Decision

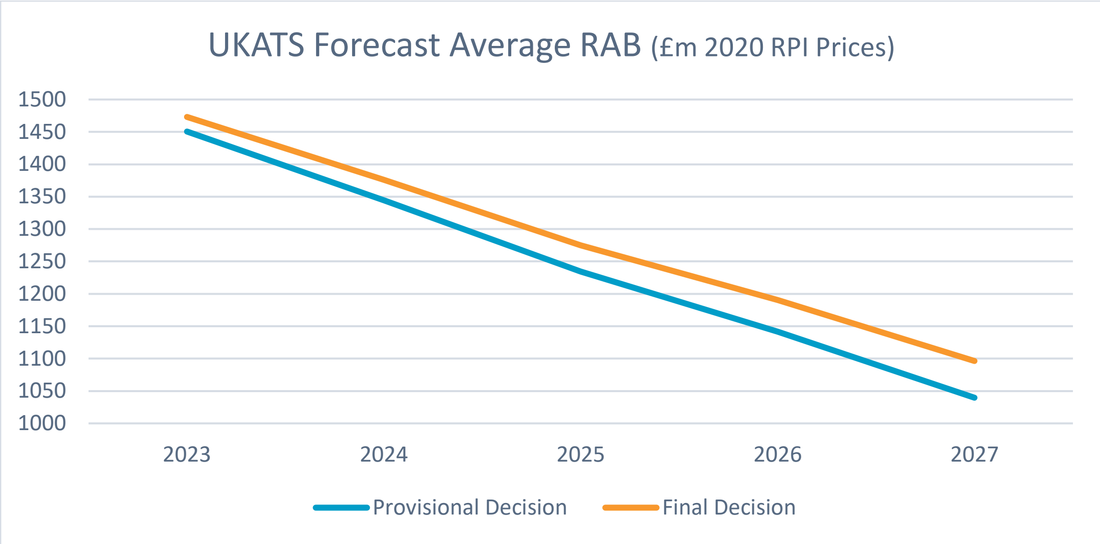
5.32 The table and figures below set out our forecast of NERL's RAB for NR23. The average RAB is approximately £34 million higher (in 2020 RPI prices) than set out in our Provisional Decision. The main drivers of this increase in the average RAB for NR23 are the corrections to the calculations of the TRS balance, the capitalised financed costs and the updating for 2020 to 2022 actuals as discussed above. Further details of these changes are provided in the model changes log.

Table 5.1: Forecast average RAB for NR23 – UKATS and Oceanic

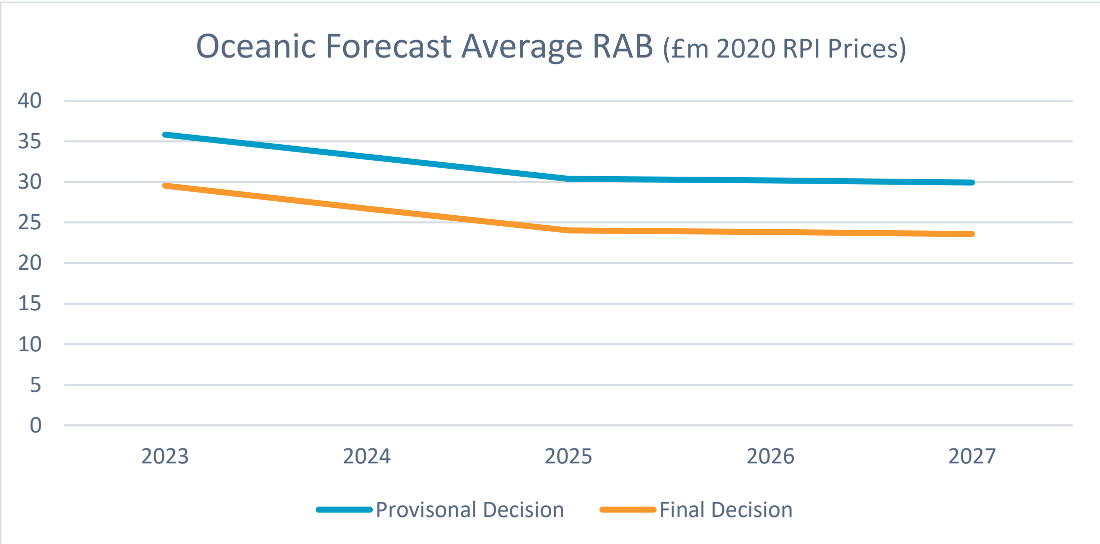
	Forecast Average RAB for NR23					
£m 2020 RPI prices **Forecast average RAB**	**2023**	**2024**	**2025**	**2026**	**2027**	**Average RAB**
Provisional Decision	1,486	1,378	1,265	1,172	1,070	1,274
Final Decision	1,503	1,403	1,299	1,214	1,120	1,308

Source: CAA calculations

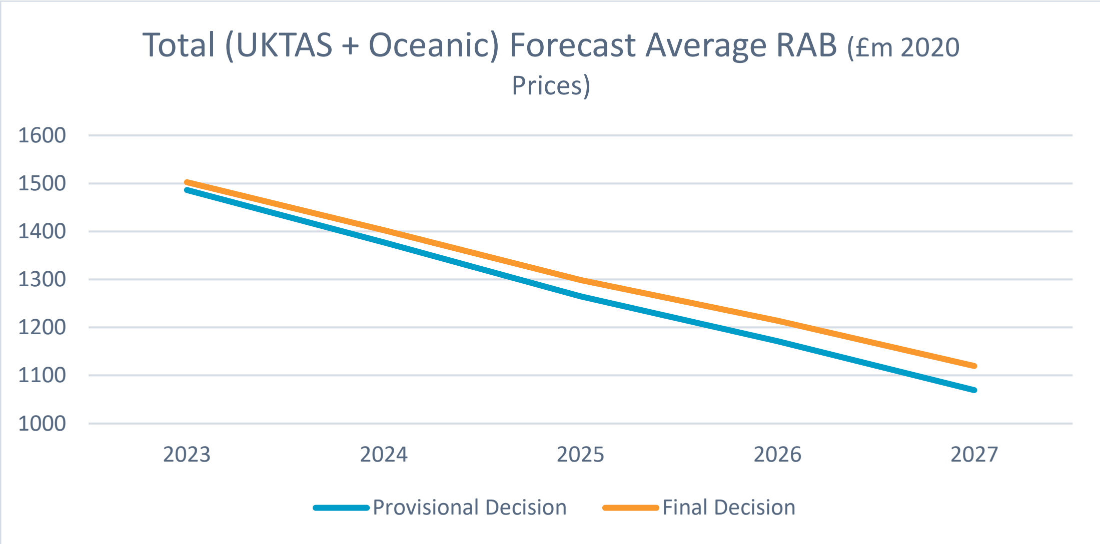
Figure 5.1: Forecast average RAB for NR23 – UKATS, Oceanic and combined



Source: CAA calculations



Source: CAA calculations



Source: CAA calculations

Regulatory depreciation

Our Provisional Decision

5.33 In our Provisional Decision, we set out our preference for maintaining a stable approach to regulatory depreciation policy. We also outlined two changes we were making to the regulatory depreciation profile so that it would be based on the latest available information.

5.34 We also stated that we were not proposing to defer depreciation because we had not seen evidence that doing so is necessary to achieve smooth charges in NR23.

5.35 The allowances in respect of regulatory depreciation that we included in our Provisional Decision are shown in Table 5.2 below.

Table 5.2: Provisional Decision for UKATS allowed regulatory depreciation

£m, CPI 2020 prices	2023	2024	2025	2026	2027
Backlog depreciation	1.4	1.4	(9.0)	(9.0)	(9.2)
Depreciation on existing and new capex	127.9	136.1	136.5	137.0	135.4
Total	129.3	137.5	127.5	128.0	126.3

Source: CAA analysis

Summary of stakeholders' views

5.36 British Airways supported our approach to regulatory depreciation. It noted that the approach was supported by the CMA in the appeal of the RP3 determination.

5.37 NERL highlighted a number of model errors.[89] While those errors did not pertain to depreciation directly correcting them leads to consequential updates to the depreciation figures.

Our views

5.38 We note British Airways' support for the approach we adopted in our Provisional Decisions.

Our Final Decision

5.39 The RAB has been updated as described in the RAB section above which leads to consequential changes in the allowances for regulatory depreciation.

5.40 We have updated the depreciation allowance in respect of the updated actual figures for 2021 and 2022. This results in an overall increase in the depreciation allowance of 0.2% and reflects the fact that an element of the depreciation allowance is calculated automatically based on the RAB figures.

5.41 Our Final Decision in respect of regulatory depreciation is to retain the policy used in our Provisional Decision with only consequential amendments to take account of the updated actual RAB figures for 2021 and 2022. Table 5.3 below summarises our allowances in respect of regulatory depreciation in NR23.

Table 5.3: Final Decision for UKATS allowed regulatory depreciation

£m, CPI-2020	2023	2024	2025	2026	2027	Total
Backlog depreciation	1.4	1.4	(9.0)	(9.0)	(9.2)	(24.4)
Depreciation on existing and new capex	125.7	134.8	135.4	136.1	134.9	666.9
Total	127.1	136.2	126.4	127.0	125.7	642.5

Source: CAA analysis

89 See chapter 6 for a description of the errors

Inflation

Our Provisional Decision

5.42 Our approach to setting the price control allows for inflation by indexing NERL's RAB (by RPI) and NERL's charges (by CPI).

5.43 In our Provisional Decision, we used the OBR's March 2023 forecasts for both CPI and RPI. We noted that this was a reliable source of inflation forecasts and consistent with our approach in the Initial Proposals and the H7 price controls.

5.44 We considered other independent forecasts from HM Treasury, the Bank of England and International Monetary Fund (IMF). While there were some differences between these different forecasts, the OBR forecasts followed a similar trend over the NR23 period of reducing inflation rates after 2022, so appeared to be reasonable.

5.45 In our Provisional Decision, we noted NERL's comments that the inflation in the RAB rules is defined using monthly inflation and sought to improve the clarity and accuracy of the calculations. We used monthly actual figures from the Office for National Statistics (ONS) up to January 2023 and used the quarterly forecasts from OBR to estimate monthly inflation forecasts to derive both the "within-year"[90] and "annual average"[91] inflation rates, using simple linear interpolation.

Summary of stakeholders' views

5.46 We did not receive any responses to the Provisional Decision in respect of the source of our inflation forecasts or our calculation of the corresponding inflation amounts.

5.47 In its responses in relation to costs, British Airways suggested that we should update the inflation forecasts to reflect the most recent information.

Our views

5.48 We have decided that we would not update the inflation forecasts for our Final Decision. We set out our reasons for this decision in chapter 4 (NERL costs).

[90] The RPI for the last month of calendar year t, divided by the average of the monthly RPI figures for calendar year t (i.e. January RPI + February RPI + . . . + December RPI, divided by 12)

[91] The average of the monthly RPI figures for calendar year t (i.e. January RPI + February RPI + . . . + December RPI, divided by 12), divided by the average of the monthly RPI figures for calendar year t-1

Our Final Decision

5.49 Table 5.4 and Table 5.5 below shows our Final Decision on the RPI and CPI annual inflation assumptions for the NR23 period. These are consistent with the assumptions set out in our Provisional Decision.

Table 5.4 Forecast annual inflation rates for CPI and RPI

Annual Inflation (%)	2020	2021	2022	2023	2024	2025	2026	2027	Average
Actual Inflation RPI	1.5	4.0	11.6						
Actual Inflation CPI	0.9	2.6	9.1						
NERL RPI				3.2	3.0	3.1	3.2	3.2	3.1
CAA IPs RPI				5.5	2.3	2.5	2.7	2.7	3.2
CAA Provisional and Final Decision RPI				8.9	1.6	1.0	1.7	2.8	3.2
NERL CPI				2.1	1.9	1.8	1.9	1.9	1.9
CAA IPs CPI				4.0	1.5	1.9	2.0	2.0	2.3
CAA Provisional and Final Decision CPI				6.1	0.9	0.1	0.5	1.6	1.8

Source: NERL Business Plan, CAA IP forecasts, final CAA forecasts based on OBR March 2023 forecasts.

Table 5.5 Forecast within year inflation growth

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027
RPI – within year growth (%)	1.1	0.8	4.2	5.9	1.9	1.4	1.5	2.2	2.3
CPI – within year growth (%)	0.6	0.4	3.2	4.6	1.2	0.9	0.6	1.3	1.6

Source: NERL Business Plan, CAA IP forecasts, final CAA forecasts based on OBR March 2023 forecasts.

Corporation tax

Our Provisional Decision

5.50 In our Provisional Decision, we retained the broad approach to setting a tax allowance that we had adopted in our Initial Proposals. That approach involved calculating the tax that would be payable by the notional company[92] and providing a specific allowance for the tax payable.

5.51 We also described the updates to our calculation method since Initial Proposals. Key elements of the updates were that we included an allowance for indexation of TRS revenues and simplified our modelling approach. We also confirmed that an allowance for tax was provided within the efficient cost baseline for 2020 to 2022, which is used in the calculation of TRS revenues to be recovered.

5.52 In addition, the Provisional Decision noted the government's introduction of so-called 'full expensing' rules under which qualifying costs are fully deductible against taxable profits in the year they are incurred. Our Provisional Decision took account of the full expensing rules and assumed that they would end on 31 March 2026, as in the relevant legislation currently provides. We described our expectation that we would use tax uncertainty mechanisms to true up in respect of any change to the duration or nature of the full expensing rules.

5.53 The tax allowances in our Provisional Decision were as shown in Table 5.6 below.

Table 5.6: Provisional Decision for UKATS allowance for tax

£m, CPI 2020 prices	2023	2024	2025	2026	2027	Total
Provisional decision	14.1	8.9	4.1	26.6	29.5	83.1

Source: CAA analysis

Summary of stakeholders' view

5.54 IATA and British Airways welcomed the improved transparency from presenting the allowance for tax as a separate item within NERL's Determined Costs. British Airways also supported the overall approach of calculating a tax allowance for the notional company rather than just calculating the tax allowance as an uplift to the cost of capital.

92 See chapter 6 (Financial framework) for an explanation of why we refer to the notional company.

Our views

5.55 We note the support for our approach from IATA and British Airways and have decided to retain the approach to corporation tax set out in the Provisional Decision.

Our Final Decision

5.56 Our policy in respect of tax allowance remains unchanged since our Provisional Decisions. The actual allowance for tax has been updated to take account of the revised RAB figures described in the RAB section above. Our Final Decision on the allowance for tax is shown in Table 5.7 below.

Table 5.7 Final Decision for UKATS allowance for tax

£m, CPI 2020 prices	2023	2024	2025	2026	2027	Total
Provisional decision	14.1	8.9	4.1	26.6	29.5	83.1
Final decision	14.3	8.4	3.8	26.7	30.0	83.2
Change	0.2	(0.5)	(0.3)	0.1	0.5	0.1

Source: CAA analysis

WACC

Our Provisional Decision

Cost of equity

5.57 Our work on the cost of capital has used the Capital Asset Pricing Model (CAPM) to determine the cost of equity. The CAPM is an established method with well-understood theoretical foundations. It is used by all UK regulators when calculating the WACC, and was the framework used by NERL in its NR23 business plan.

5.58 CAPM estimates the cost of equity on the basis of three parameters:

- the equity beta;
- the risk free rate; and
- the Total Market Return (TMR).

5.59 A company’s equity beta is a function of its asset beta, its debt beta and notional gearing. To estimate the equity beta, we used common regulatory practice of estimating the asset beta of comparator companies. This was converted into an estimate of the equity beta by ‘re-levering’ the comparator companies’ asset betas using our assumption for the notional company.

5.60 The debt beta represents the proportion of a company's systematic risk exposure that is attributable to debt.

5.61 Our estimate of NERL's asset beta was informed by the findings from a report from Flint,[93] which specifically relied on the estimation of:

- non-covid affected asset beta for NERL; and
- the impact of covid on NERL's asset beta.

5.62 This analysis led to an estimation of 0.52 to 0.70 for NERL's asset beta in our Provisional Decision (paragraph 5.106).

5.63 We proposed to maintain a debt beta of 0.05 for NR23: the same as the value we adopted for the RP3 price control.[94] Taken with our estimated range for NERL's asset beta implied an equity beta of 0.76 to 1.03.

5.64 The risk free rate is the return required on a risk free or "zero beta" asset within the CAPM. For our Provisional Decision, we estimated the risk free rate as the simple average of the following values:

- the 1-month trailing average yields on 10-year index-linked gilts (ILGs) to 15th March 2023 which was 0.32%; and
- the 1-month trailing average yields on 10-year ILGs to 15th March 2023 uplifted using a convenience yield of 49 basis points (bps), which equals 0.82%.

5.65 This implied a range for the risk free rate of 0.32% to 0.82%, RPI- deflated.[95]

5.66 The TMR reflects the return that an investor expects to receive by investing in the market portfolio (typically assumed to be a market index). We used the CMA's estimate in its decisions on the PR19 price controls of 5.2% to 6.5% RPI-deflated for the TMR.

Cost of debt

5.67 The cost of debt allowance is calculated by estimating NERL's cost of embedded debt, the cost of new debt to be issued in NR23 together with issuance and liquidity costs. Given that NERL was not planning to issue new debt in NR23, for our Provisional Decisions we applied a zero weighting to the cost of new debt.

5.68 For the cost of embedded debt, we benchmarked each of NERL's bonds based on corporate bond indices of similar credit rating and duration. This was reasonable

[93] Flint (April, 2023), Support to the Civil Aviation Authority: NR23 Updated Beta Assessment

[94] Paragraph 5.107 of our Provisional Decision

[95] Paragraphs 5.95 to 5.99 of our Provisional Decision

given that we assume that, for the purposes of setting the WACC, the notional company has a similar financial structure to NERL.

5.69 We assumed the notional company would only have issued fixed-rate debt and, as such, we considered the appropriate deflator for NERL's cost of embedded debt cost was the forecast level of RPI over the period. This implied an RPI-real cost of embedded debt of -1.05%.

5.70 We retained NERL's previously proposed issuance and liquidity cost allowance of 13bps.

WACC

5.71 Using the above estimates, we derived a range for NERL's "vanilla" real WACC[96] range of 2.31% to 4.06%, with a midpoint of 3.19%.[97]

Summary of stakeholders' views

5.72 NERL stated that the WACC in our Provisional Decision was too low. To support this, it submitted an updated report[98] commissioned by Oxera Consulting LLP (Oxera), setting out an updated view of the appropriate cost of capital for NERL, together with its views on our approach in respect of certain WACC parameters.

5.73 In this report, Oxera estimated a range for the RPI-real, vanilla WACC of 3.27% to 3.94%. Based on this assessment, NERL advocated a point estimate of 3.61%.

5.74 Responses from the airlines were mixed. IATA and easyJet broadly supported our Provisional Decision on the WACC. By contrast, British Airways stated that the WACC in our Provisional Decision was too high. To support this, British Airways submitted a note from CEPA consulting,[99] setting out specific issues with the CAA's approach to estimating the WACC, and the asset beta in particular.

5.75 We summarise the main issues raised by stakeholders below.

Risk free rate

5.76 Oxera's report set out two issues with our approach to the risk free rate:

- it disagreed with our approach of only applying the convenience yield to top of the range; and
- it continued to advocate for the application of a forward rate adjustment.

96 A vanilla WACC is a combination of a post-tax cost of equity and a pre-tax cost of debt. It is commonly used by other UK regulators when setting the allowed revenue.

97 Paragraph 5.125 of our Provisional Decision.

98 Oxera (2023), "NR23 cost of capital: update to 31 March 2023", August.

99 CEPA (2023), "Appendix A to British Airways response to CAP2553: Cost of capital", August.

5.77 Despite these concerns, NERL said that the risk free rate set out in our Provisional Decision *"could stand"*, on the basis that it makes relatively little difference to the overall WACC estimate.

Asset beta

5.78 Both CEPA and Oxera disagreed with the approach we adopted towards estimating the asset beta for NR23.

5.79 Oxera raised the following concerns.

- Estimate of pandemic uplift: Oxera continued to disagree with our approach to estimating the uplift to the baseline asset beta in respect of the prospect of future pandemic-like events. It noted that NERL would be significantly under-remunerated under this approach if it was only applied in a single price control, and that there could be no guarantee that we would continue to apply in future price controls. Oxera also stated that the definition of pandemic-affected and non-pandemic-affected data was essentially arbitrary, and highlighted the change in the assumption regarding when the pandemic ended materially influences comparator airport asset betas as a case in point.
- Weight placed on ENAV: Oxera continued to advocate for relying principally on ENAV as a comparator for NERL. It argued that the apparent shift in ENAV's beta is only relevant as a consequence of Flint's method, which relied on the hypothesis that the beta should be unchanged compared to the period prior to the pandemic. It argued that the inability of CAA and Flint's method to account for the change in ENAV's beta is not a sufficient reason to exclude it from consideration. It also stated that ENAV's greater volatility similarly does not provide a reason for exclusion and in fact suggests greater weight should be placed on ENAV since it demonstrates a clear difference from airport comparators.
- Interpretation of the baseline asset beta: Oxera challenged our estimate of the baseline asset beta. It noted that Flint reduced the bottom end of the range from 0.52 to 0.50, but made no corresponding adjustment to the top end of the range. It indicated that the basis for this change, and for the revised range for the baseline asset beta is unclear, and appeared to be driven by inconsistent measurement.

5.80 CEPA stated that we made three errors in respect of the asset beta. Specifically, that we:

- assumed a shorter period over which the pandemic materially affected comparator asset betas, but we have failed to update our asset beta estimates to align with that assumption;

- used inconsistent values to estimate the combined asset beta. In particular, it raised concerns with our use of ENAV data in conjunction with airport data; and
- "double counted" the impact of the pandemic by including post-pandemic data to estimate the baseline asset beta.

5.81 British Airways said the French Transport Regulatory Authority (ART) had found that potential adjustments to the asset beta may appear arbitrary if they are based on assumptions about the length of the covid-19 pandemic and frequency of future similar events. British Airways stated that ART did not make any covid-19 adjustments to the beta.

5.82 British Airways also said that we have not addressed why the airports retained in the comparator group are comparable to NERL. It stated that these airports are subject to different regulatory regimes and non-regulated activities, leading to different systematic risk exposures.

Cost of debt

5.83 Oxera challenged our use of benchmark indices to estimate the cost of debt for NERL. It argued that we have not proven that NERL's debt issuance is inefficient and, as such, there is no basis for setting a cost of debt below NERL's actual cost of debt.

5.84 It further noted that the date that we assumed for the issuance of NERL's tapping bond in our Provisional Decisions (15th March 2023) differed from the pricing date of NERL's actual tap issuance (7th March 2023), and that this resulted in a significant understatement of the actual cost of the bond by around 30bps.

5.85 Oxera also continued to advocate for a long-term RPI inflation assumption in favour of our proposed use of the OBR's March 2023 five-year inflation forecast.

Our views

Overall approach

5.86 Having carefully considered stakeholder responses and the CMA's Provisional Findings on our H7 Final Decision, we have decided to retain the broad approach to estimating the cost of capital that we had set out in our Provisional Decision.

5.87 We have reviewed the CMA's Provisional Findings and Final Determination in respect of our H7 Final Decision, which did not find errors in the main elements of our calculation of the H7 WACC. Given that our Provisional Decisions for NR23 and our Final Decision for H7 employed a similar method in various respects, this has provided us with comfort that our NR23 approach is appropriate.

5.88 Consistent with the Provisional Decision we have retained our previous cut-off date of 15 March 2023, which is aligned with the publication date of the latest OBR inflation forecasts. Oxera's point on the issuance date for the tapping bond is dealt with below in the section relating to cost of debt.

5.89 As in our Provisional Decision (paragraphs 5.121 to 5.122), we have estimated a range of estimates for NERL's RPI-real vanilla WACC, and then selected a point estimate for our Final Decision.

5.90 We respond to individual stakeholder views below.

Risk free rate

5.91 We do not consider that stakeholders have advanced any substantially new arguments in respect of the risk free rate.

5.92 With respect to Oxera's statement that we have not placed sufficient weight on the convenience yield, we explained previously that we assigned equal weight to measures of the risk free rate with and without a convenience yield to reflect the uncertainty regarding whether government bonds exhibited such a pricing premium. We consider that this approach remains reasonable.

5.93 With respect to Oxera's view that we should include a forward adjustment, we have previously explained our view that forward prices exhibit little or no predictive power over future spot rates. The approach of not including a forward adjustment is consistent with the CMA in its decision on the PR19 water sector price controls.[100] As such, we remain of the view that it is not appropriate to include any adjustment based on forward curves.

Asset beta

5.94 We firstly address each of the issues raised by Oxera below:

Estimate of pandemic uplift

5.95 We do not consider that Oxera's supposition of how we might or might not apply the pandemic uplift in future is a persuasive critique of our approach. In setting future price controls we will take account of the advantages of a consistent approach and act in a proportionate manner, and NERL will be able to appeal our decisions to the CMA.

5.96 Nor do we agree that our approach is unreasonably complex or subjective. Assigning different weights to historical observations is inherent in any estimate of the asset beta. While we have based our estimate on an assumption regarding the period over which the pandemic affected airport share price movements, Flint has demonstrated that its findings are robust to alternative assumptions regarding the pandemic end date.[101]

[100] CMA PR19 Final report (publishing.service.gov.uk), paragraphs 9.228- 9.234

[101] Flint (April, 2023), NR23 Updated Beta Assessment, Appendix 1. Sensitivity Analysis

Weight placed on ENAV

5.97 As for Oxera's observations on the higher volatility of ENAV's share price movements, we have explained previously that this volatility implies a greater degree of uncertainty and lesser degree of statistical robustness compared with airport betas.[102] In our view, this is a reasonable basis for not placing weight on ENAV's beta.

5.98 Even so, we note that our estimated range for ENAV's post-pandemic beta fell within our estimated range for airport betas. As such, even had we placed explicit weight on ENAV's beta, this would not have materially affected our estimated range for NERL's beta in NR23.

5.99 We therefore propose to continue to rely on the set of airport comparator asset betas, in line with the approach adopted by the CMA at RP3.

Interpretation of the baseline asset beta

5.100 We consider that Oxera's interpretation of the derivation of the baseline asset beta constitutes an overly narrow and mechanistic perspective. Our range for the baseline asset beta represented a reasonable view of plausible values for NERL's asset beta in the absence of the pandemic. This was informed by estimates for comparator asset betas over various measurement periods, and the range represents a reasonable judgement based on the full range of information that is available.

5.101 As for the points raised by British Airways, we address the specific points it makes on Flint's approach first, before turning to the additional comments.

CAA/Flint now adopt a shorter duration of COVID impacts, but fail to update beta estimates to align with that

5.102 British Airways' statement that "pandemic duration acts as a linear scalar to the assumed COVID adjustment" is incorrect. If we were to narrow the pandemic window in the manner it has suggested, this would have the effect of reducing the weight we assigned to data from March to November 2020, and increasing the weight we assigned to data from November 2020 to the end of the current pandemic window. Numerically, this would have very little impact on our estimated pandemic adjustment, since these two effects would effectively offset one another.

5.103 This issue was explicitly considered in our Provisional Decision: in the accompanying report by Flint, a scenario was presented in which the pandemic window was reduced from 23 months to 17 months[103]. As we noted then, the

[102] CAA (2023), CAP 2553c Appendices to Provisional Decisions for the NR23 price control review, paragraphs C39 to C44

[103] Flint (April, 2023), NR23 Updated Beta Assessment, Appendix 1. Sensitivity Analysis

period over which we defined the pandemic adjustment made little difference to the estimated pandemic adjustment, providing that the overall period from March to November 2020 was classified as “pandemic-affected”.

<u>CAA/Flint apply inconsistent measures to artificially inflate the inferred asset beta</u>

5.104 It is important to reiterate that we have relied only on data from airport comparators to estimate the asset beta for NR23. While we have also estimated the asset beta for ENAV based on a consistent method, this was only used as a cross-check and did not directly influence our estimated range.

5.105 For avoidance of doubt, we continue to view ENAV data as being subject to a greater degree of volatility and hence as being inherently less reliable than airport comparator data. We therefore consider that it is reasonable for us to base the asset beta estimate for NR23 on airport comparator data only, with ENAV data being used as a cross-check.

5.106 British Airways’ statement that “Flint’s analysis identifies a preferred baseline beta of 0.55 for the three airport comparator set (that is, excluding ENAV), with empirical asset beta data in the range 0.49-0.57” misrepresents what we said in our Provisional Decision. We did not identify a point estimate for the baseline beta, pandemic impact or combined beta at all, but rather presented a range for each. The range for the baseline beta was clearly stated as 0.50-0.62 based on a broad view of the observed airport betas over different measurement periods. We are, therefore, unclear on what basis British Airways identifies 0.55 as our “preferred baseline beta” or 0.49-0.57 as our range for the baseline asset beta: neither correctly reflects our views.

5.107 The upper bound for our range for the combined asset beta was then estimated as the sum of the upper bound for the baseline beta of 0.62, together with the upper bound for the pandemic adjustment of 0.08. Both were based on estimated ranges for comparator airports. This is consistent and not “artificially inflated”.

<u>The CAA/Flint ‘double count’ through incorrectly interpreting post-COVID data as ‘baseline beta’</u>

5.108 British Airways’ statement that “observed beta values already reflect the atypical shocks of the covid-19 pandemic and therefore adjustments are not necessary” is inconsistent with the position it adopted during its appeal of our H7 Final Decision and its intervention in HAL’s appeal of the same Decision. In that context, British Airways appeared to accept the need for a pandemic-related uplift to the baseline asset beta, and, in fact, estimated its own uplift.

5.109 We do not agree that the use of post-pandemic data to estimate the baseline beta is incorrect. While investors are likely to expect pandemic-like events in the future, there remains very significant uncertainty regarding when such an event will take place. Therefore, the relatively short term movements in the stock prices of the comparator companies that are used to estimate beta are unlikely to fully reflect perceptions of a longer-term risk. When such an event does take place, it could reasonably be expected to trigger a significant market reaction, even though it was expected to take place at some point.

5.110 Overall, it appears more reasonable to expect a significant increase in the asset beta, akin to that observed during the covid-19 pandemic, in the event of a future pandemic-like event rather than to expect little or no market reaction.

5.111 We also note that British Airways has proposed the use of an asset beta estimated on the basis of post-pandemic data as a cross-check on the overall asset beta for NR23. However, even if we felt that such an approach was appropriate (which, for the reasons set out above, we do not), it is unlikely to be practical given that only a limited quantum of post-pandemic data (less than two years) is currently available.

5.112 We respond to British Airways' other comments below:

April 2023 ART report

5.113 The ART report expressed a different view to the CAA in respect of the appropriateness of applying a pandemic-related uplift to the baseline beta. However, this does not, in and of itself, mean that our approach is wrong. We would reiterate we do not view the application of such an uplift to be arbitrary, but rather an uncertain forecast based on an objective and evidenced set of assumptions.

Different risk profile of comparator airports

5.114 We have explained in previous consultation documents why we consider that listed airport groups represent appropriate comparators for NERL[104]. Moreover, the CMA, which used a similar comparator set at RP3, provided additional explanation that largely addresses the concerns raised by British Airways, and which were known and acknowledged at the time of the RP3 determination.[105] We would also note that the ownership of airports outside of the home region does not necessarily lead to higher systematic risk exposure, and could indeed lead to lower systematic risk exposure. This is because these assets are subject to different value drivers unrelated to those present in the home region. As such, they could provide a degree of global diversification to the airport groups' portfolio leading to lower systematic risk exposure. As a result, we do not consider that there is a compelling reason for us to change our approach on this issue.

[104] CAA (2023), CAP 2553c Appendices to Provisional Decisions for the NR23 price control review, paragraph C26

[105] See the CMA's discussion of relative risk in paragraph 13.82 of its Final Determination for RP3.

Cost of debt

5.115 We respond to Oxera/NERL’s views on the cost of debt below:

No evidence actual issuance is inefficient

5.116 As we have previously stated, we have not at any point sought to comment on the efficiency or otherwise of NERL's actual debt issuance. Our intent is to estimate a benchmark for the notional company's cost of debt. This is based on a plausible, hypothetical alternative debt structure that need not, in principle, rely on NERL's actual debt structure. This ensures that the consequences of NERL's actual financing choices are borne by management and shareholders and not passed through automatically to consumers. We continue to consider that the use of a notional company is justified on this basis and is consistent with regulatory practice in the setting of price controls by both the CAA and other economic regulators in the UK.

Alignment of benchmark with pricing date

5.117 Oxera’s suggestion that we should have based the estimate of the cost of debt on the precise issuance dates of NERL’s actual bonds implies a specification of the notional company that precisely matches the actual company. By contrast, we have specified a financial structure for the notional company that we consider is reasonable, plausible and consistent with our own previous approach. That being said, even if we were to make the amendment proposed by Oxera, this would only increase the WACC by around 1bps. As such, Oxera’s suggestion does not indicate that our approach is materially incorrect.

Use of long-term inflation to deflate nominal debt costs

5.118 Oxera has referred to "extensive regulatory precedent for using long-term inflation forecasts", but omits any reference to a similarly extensive regulatory precedent for using 5-year forecasts. It also refers to increased regulatory risk associated with time-inconsistent inflation policy decisions. We do accept our approach is time inconsistent and overall we are satisfied that our approach is both reasonable and necessary to avoid embedding an expected over-recovery within the cost of debt allowance caused by the recent spike in inflation, which would not be in the interest of consumers.

Our Final Decision

5.119 For our Final Decision, we have retained the RPI-real, vanilla WACC range of 2.31% - 4.06% we set out in our Provisional Decision, together with a mid-point estimate of 3.19%. We consider that the use of the WACC calculated on this basis will best further the interests of consumers, while also being best calculated to secure that the notional company (and, in practice, NERL) will not find it unduly difficult to finance its regulated activities.

Table 5.8: Proposed range for WACC parameters

Component	Ref	CAA Low	CAA High	Point Estimate
Gearing	A	34%	34%	34%
Risk free rate	B	0.32%	0.82%	0.57%
TMR	C	5.20%	6.50%	5.85%
Asset beta	D	0.52	0.70	0.61
Debt beta	E	0.05	0.05	0.05
Equity beta	F = (D-E*A)/(1-A)	0.76	1.03	0.90
Post-tax cost of equity	**G = B + F*(C-B)**	**4.04%**	**6.70%**	**5.31%**
RPI Cost of debt	**H**	**(1.05%)**	**(1.05%)**	**(1.05%)**
Vanilla WACC	**I = H*A + G*(1-A)**	**2.31%**	**4.06%**	**3.19%**

Source: CAA analysis

Next steps and implementation

5.120 The licence modifications set out in CAP2597c appendix E have been prepared on the basis of the inflation forecasts which will implement the Final Decision set out above. The Determined Costs in the proposed licence modifications reflect our Final Decision in this chapter on the RAB, depreciation, WACC and tax costs.

5.121 We have published our final RAB rules in CAP2597d appendix F alongside our decision notice on modifications to NERL’s licence.

Chapter 6

Charges and financeability

Introduction

6.1 In discharging our statutory duties, we seek to set price controls which enable NERL to provide a resilient and high-quality level of service, but also represent efficient costs, which are no higher than necessary and provide value for money. We have set out in the other chapters in this Final Decision how we consider that the individual elements that go to make up the price control further the interests of customers and consumers.

6.2 In considering our duty to secure that NERL does not find it unduly difficult to finance its activities, we consider that it is important that NERL is able to retain access to financial markets on reasonable terms. This allows NERL to fund necessary investments efficiently (so that customers pay no more than is necessary to support financing NERL) and deliver an appropriate level of service.

6.3 In this chapter we describe the analysis we have conducted as part of our duty to secure that NERL does not find it unduly difficult to finance its activities. Consistent with the broad approach taken by other economic regulators, our approach is to focus on whether an efficiently financed licence holder (the “notional company”) carrying on its licensed activities would be financeable. Nonetheless, we do not (and cannot) provide an absolute guarantee that the notional company will be financeable in all possible scenarios.

6.4 In this context, this chapter starts by summarising our Final Decision on the overall level of NERL’s Determined Costs and Determined Unit Cost (DUC) for NR23. We then set out forecasts for the average UK en route charges that airlines will pay to NERL during NR23, which reflect forecasts of a number of adjustment factors, including in inflation, traffic levels and costs subject to pass-through (which can be recovered on an n+2 basis or recovered over a longer time period). The actual charges that airlines will pay during NR23 will then be based on the DUC and the actual revenue adjustments that will crystallise during the NR23 period.

6.5 In chapter 3 (the reconciliation review), we explain that, in addition to NERL’s Determined Costs, NERL will be allowed to recover the TRS “debtor” of revenues from RP3 following our reconciliation review. This chapter sets out our Final Decisions on:

- how this revenue will be recovered over NR23 and subsequent price control periods; and
- the profiling of revenues within the NR23 period.

6.6 We also reprise[106] our benchmarking of NERL against other European ANSPs to check that NERL's charges provide reasonable value for money. These steps are consistent with our statutory duty to further the interests of customers and consumers.

6.7 For ease of reference, this chapter summarises our Final Decision[107] on the costs of the other entities that contribute to the provision of en route ATS. These other elements of the total UK Determined Costs include:

- meteorological service costs from the Met Office that relate to UK aviation ("Met Office costs");
- the UK's share of Eurocontrol costs ("DfT costs"); and
- relevant ATS and airspace costs of the CAA ("CAA costs").

6.8 The costs and charges for the London Approach and Oceanic services are covered in a CAP 2597a, chapters 8 and 9.

6.9 Consistent with our secondary statutory duty, this chapter finally sets out our assessment of the financeability of our Final Decision on the NR23 price controls for UK en route, London Approach and Oceanic services.

Determined costs

6.10 In July 2023, we published our Provisional Decision on the Determined Costs in respect of NERL costs and our Final Decision on the Non-NERL costs. The NERL costs are the subject of this Final Decision and the stakeholder views on our Provisional Decision in respect of these costs are discussed in the other chapters of this Final Decision. In this chapter we summarise the costs for ease of reference and to show the building blocks for the overall forecast level of charges for NR23.

NERL's UK en route Determined Costs

6.11 The building blocks we used for our Final Decision for NERL's UK en route Determined Costs are set out in chapters 3 (the reconciliation review) and 4 (NERL costs) and summarised in Table 6.1 below. This shows that NERL's Determined Cost allowance for UK en route is around £182 million (or around 6 %) lower than that set out in NERL's business plan.

Table 6.1 – Final Decision for en route Determined Costs (£ million, 2020 CPI prices)

[106] The benchmarking of charges analysis presented in this document is the same as that presented in our Provisional Decisions (with updates to the forecast levels of charges in our Final Decision). We present it again here for ease of reference.

[107] NR23 Review: UK performance plan Decision on DfT, Met Office and CAA en route costs (2023 to 2027) (CAP 2553b)

£ million, 2020 CPI prices	2023	2024	2025	2026	2027	NR23 total	NERL BP total	Difference
Opex (excl. pension costs)	410.2	419.2	413.6	411.2	409.3	2063.5	2077.0	-13.5
Pension costs	117.0	111.5	74.0	71.8	72.3	446.6	542.3	-95.7
Depreciation	127.1	136.2	126.4	127.0	125.7	642.5	650.0	-7.5
Regulatory return and tax	48.7	45.5	42.9	40.6	38.0	215.8	367.0	-151.2
Tax	14.3	8.4	3.8	26.7	30.0	83.2	0.0	83.2
Non-regulatory revenues	-86.2	-85.3	-86.2	-86.3	-86.1	-430.0	-433.0	3.0
Total Determined Costs (CSU-based)	**631.2**	**635.6**	**574.6**	**591.1**	**589.2**	**3021.6**	**3203.3**	**-181.7**
Uplift to get to TSUs	8.0	7.5	6.6	6.6	6.5	35.2	34.9	0.3
Total Determined Costs (TSU-based)	**639.2**	**643.0**	**581.1**	**597.7**	**595.8**	**3056.8**	**3238.2**	**-181.4**
CPI inflation index	1.187	1.198	1.199	1.205	1.224	-	-	-
Total Determined Costs (TSU-based) - nominal prices	**758.9**	**770.0**	**696.7**	**720.2**	**729.1**	**3675.0**	**-**	**-**

Source: CAA analysis and NERL business plan Appendix I

Non-NERL Determined Costs

6.12 The NR23 price control includes allowances for the recovery of Met Office costs, DfT costs and CAA costs, and these were set in our Final Decision on these costs which was published in July 2023 (CAP2553b).

6.13 For ease of reference, we refer to our Final Decision on these costs in Table 6.2 below.

Table 6.2 – summary of Non-NERL Determined Costs

£ million, 2020 CPI, TSU based	2022 Base	2023	2024	2025	2026	2027	NR23 total
Met Office	30.4	29.5	32.7	32.8	32.5	32.5	160.0
DfT	47.1	43.9	43.6	45.0	46.2	46.2	224.8

£ million, 2020 CPI, TSU based	2022 Base	2023	2024	2025	2026	2027	NR23 total
CAA	20.7	23.7	23.3	23.2	23.7	23.3	117.2
Total Non-NERL costs	98.2	97.1	99.6	101.0	102.4	102.0	502.0

Source: Met office, Eurocontrol forecast cost base 2023 to 2027, CAA analysis

Summary of overall UK en route total and unit cost

6.14 The Eurocontrol Principles require DUCs to be expressed using total service units (TSUs), to take account of both civil and military flights. As military and exempt flights are funded separately, NERL's DUCs are expressed in terms of CSUs for civil flights only. To express NERL's DUC in a way consistent with Eurocontrol Principles, NERL's Determined Costs have been grossed up for military and exempt flight service units (the difference between CSUs and TSUs) in a way that means the DUC calculated using TSUs is the same as calculated using CSUs.

6.15 The Determined Costs and DUC are set out in Tables 6.3, 6.4 and 6.5.

Table 6.3 - Final Decision for overall UK Determined Costs for NR23

2020 prices £ million	2022 Base	2023	2024	2025	2026	2027	NR23 Total
NERL	582.0	639.2	643.0	581.1	597.7	595.8	3,056.8
MET	30.4	29.5	32.7	32.8	32.5	32.5	160.0
CAA & DFT	67.8	67.5	66.9	68.2	69.9	69.4	342.0
UK	680.2	736.2	742.6	682.2	700.1	697.7	3,558.8

Source: CAA analysis

Table 6.4 - Final Decision for UK Determined Unit Costs for NR23

2020 Prices £ per TSU	2020 Base	2023	2024	2025	2026	2027	NR23 Average
NERL	54.0	53.5	49.7	43.9	44.3	43.5	47.0
MET	2.8	2.5	2.5	2.5	2.4	2.4	2.5
CAA & DFT	6.3	5.6	5.2	5.2	5.2	5.1	5.2

2020 Prices £ per TSU	2020 Base	2023	2024	2025	2026	2027	NR23 Average
UK	63.1	61.6	57.4	51.5	51.9	50.9	54.7

Source: CAA analysis

Table 6.5 - Final Decision for UK Performance Plan summary

Real in 2020 CPI prices	2020 Base	2023	2024	2025	2026	2027	NR23 Total
DC nominal (£000)	761.0	874.1	889.3	817.9	843.6	853.9	4,278.7
Inflation Index	111.9	118.7	119.8	119.9	120.5	122.4	601.2
DC real (£000)	680.2	736.2	742.6	682.2	700.1	697.7	3,558.8
Total Service Units (000)	10,782	11,956	12,930	13,247	13,490	13,700	65,323
DUC real (£)	63.09	61.57	57.43	51.50	51.90	50.93	54.67

Source: CAA analysis

TRS recovery and benchmarking the NERL unit rate

Context

6.16 The impact of the covid-19 pandemic significantly reduced traffic volumes in 2020, 2021 and 2022. NERL benefits from a TRS mechanism which means that it is able to recover in later periods a portion of the revenue that it was unable to recover from 2020 to 2022. We discuss the detailed assessment of the amount of revenue to be recovered in chapter 3 (the reconciliation review).

6.17 In this section we describe the policy considerations in respect of how and when that revenue is recovered. These considerations span four areas:

- TRS recovery;
- allowed return on TRS;
- the indexation used for the recovery of TRS; and
- the appropriate length and profile of the recovery period.

Our Provisional Decision

6.18 Our Provisional Decision on the TRS was to allow NERL to recover its efficient costs from 2020 to 2022 and to include the balance in the RAB. Our Provisional

Decision set out our reasoning for this decision and how this is linked to our statutory duties. In summary, our reasoning was that such an approach would:

- maintain the credibility and stability of the regulatory framework;
- support NERL to continue to finance the investment necessary to support the safe and reliable operation of air traffic services;
- prevent NERL from making any windfall gains; and
- be consistent with the TRS mechanism under the Eurocontrol Principles, as required by our secondary statutory duties.

6.19 Our Provisional Decision presented the TRS amount separately from working capital (we had previously combined these two in our Initial Proposals).

6.20 In respect of the allowed return on TRS, our Provisional Decision was to allow NERL to earn a return equal to the allowed cost of capital. We specified that we would allow a return at the level of the RP3 cost of capital for the years 2020 to 2022 and at the level of the NR23 cost of capital for the duration of the NR23 price control.

6.21 Our Provisional Decision on indexation of the TRS was to uplift them in line with actual RPI. We noted that this was consistent with our approach to the indexation of the overall RAB.

6.22 The final policy issue we considered in respect of the TRS in our Provisional Decision was the appropriate length of the recovery period. Our Provisional Decision was to allow for the recovery of the TRS over a period of 10 years, being the five years of NR23 plus the five years of NR28.

Summary of stakeholders' views

6.23 In response to our Provisional Decision, IATA maintained the view it had expressed in response to our Initial Proposals that customers and consumers should not fully mitigate the under recovery of revenue in 2020 and 2021 as it was beyond airlines' control. IATA outlined that the TRS mechanism was intended to incentivise NERL to make its services available regardless of normal traffic variation and that it was not intended to provide absolute protection. IATA submitted an appendix of policy documents relating to other European ANSPs and highlighted that those regimes included either full state support or a degree of the volume risk being borne by the ANSP.

6.24 Aer Lingus and British Airways stated their support for our Provisional Decision to spread the recovery of the TRS over two price control periods. Airlines for America similarly supported the recovery period, although it also suggested that it was inappropriate to allow full recovery of revenues and further that the recovery should not be uplifted in line with inflation since the costs have already been incurred.

6.25 easyJet stated that airspace users should not bear the burden of financing NERL's losses from 2020 to 2022. IATA and easyJet suggested that the TRS should not be uplifted with inflation and that it should not attract a return. Ryanair made a similar point, objecting to airlines ultimately facing higher charges because of the pandemic. Ryanair suggested that NERL should be assisted financially by the UK government and implied that NERL is a wholly owned state entity.[108]

6.26 NERL made a number of comments about specific errors it had identified within the price control model (PCM). These issues related to the:

- double counting of a transfer of £60m out of the TRS debtor;
- calculation of capitalised financing costs;
- calculation of the RPI-CPI wedge;
- calculation of the average RAB for the purpose of calculating the return on RAB; and
- updating in respect of actual values for 2021 and 2022.

Our views and Final Decisions

Model issues

6.27 We have engaged with NERL to understand their concerns with the PCM. We have updated the model in respect of the errors that NERL identified. We calculate the average RAB as the average of the opening and closing RAB values, which have been rebased to the same average year prices (to retain a consistent price base), and where the closing RAB value is discounted by the cost of capital (to preserve NPV-neutrality of the allowed return).[109] These changes are described in the change log found within the PCM itself.

6.28 We also updated our assumption in respect of the pensions charge in the income statement. We have aligned it with the cash cost in respect of pensions to avoid any discrepancy between the two.

6.29 The net impact of these changes is to increase the RAB by £81 million compared to our Provisional Decision (which represents a 4% increase). The changes also

[108] NERL is not wholly owned by the state. NERL is the defined term we use to refer to NATS (En Route) Plc which has been granted a licence under the TA00. NERL is a subsidiary of NATS Holdings Limited which is 49% owned by the UK government with the rest privately owned.

[109] This average RAB is subsequently multiplied by the cost of capital to generate the allowed return. Discounting the closing RAB and NPV-neutrality of the allowed return is discussed in Ofwat's recent decision on this issue, see: https://www.ofwat.gov.uk/wp-content/uploads/2023/04/Position-Statement-on-return-on-RCV-calculations-in-the-PR24-Financial-model.pdf).

increase total determined costs by £1.8 million (CSU basis, CPI-2020). This change represents an increase of less than 0.1%.

TRS recovery

6.30 We note the views of IATA and Airlines for America that customers and consumers should not fully mitigate the impact of the covid-19 pandemic and we have reviewed the supporting evidence IATA submitted. We acknowledge that the policy response to the covid-19 pandemic in France, Germany, Italy and Norway was different from the approach we set out in our Provisional Decision.

6.31 It is natural that policy responses will vary between nation states and the evidence IATA submitted demonstrates that there were a variety of policy responses across different states. Our policy is determined in the way that we calculate will best discharge our statutory duties. We note that regulators in other jurisdictions will have different statutory duties which may well lead them to different policy decisions. We therefore do not consider that the evidence from IATA justifies a change in our policy approach.

6.32 We also note the comments from Ryanair which suggest that NERL should receive financial assistance from the government. It is not our role to comment on the extent of any financial support the government might choose to give in response to the impact of the covid-19 pandemic. We have reached our Final Decision in respect of recovery of the TRS by considering our statutory duties alone.

6.33 For the reasons summarised above and set out in our Provisional Decision, our Final Decision is to retain our policy to allow NERL to recover its efficient costs from 2020 to 2022 and to include the balance in the RAB.

Allowed return on the TRS to be recovered

6.34 We note the comments from easyJet and IATA suggesting that the TRS should not be uplifted by the cost of capital. However, there is a financing cost associated with the costs which NERL incurred during the pandemic period and which will now be recovered over a period of ten years. This underpins our policy in respect of allowing both a real return on the TRS as well as an uplift for inflation.

6.35 We have set out our views above on the additional evidence from IATA. We acknowledge that the policy response to the covid-19 pandemic in France, Germany, Italy and Norway was different from the approach we set out in our Provisional Decision, but that we need to set policy in a way that we calculate will best discharge our statutory duties. These duties, as well as ownership structures and levels of government support will be different between states.

6.36 We also retain the same views from paragraph 6.36 in our Provisional Decision that there is a financing cost associated with recovery of the costs that have been efficiently incurred over 10 years and that our estimate of the WACC takes account of the implicit and explicit costs of raising finance, which would include the revenue shortfall.

6.37 Therefore, our Final Decision in respect of the allowed return on the TRS is to preserve the present value of the amount to be recovered. We do this by applying the allowed cost of capital to the TRS revenue to be recovered. We will use the RP3 WACC for the RP3 period (2020 to 2022) and the NR23 WACC for the NR23 period (2023 to 2027).

Indexation of the TRS to be recovered

6.38 The suggestion by Airlines for America that the TRS should not be uplifted for inflation because the costs have already been incurred does not recognise that in order to return the same real value to NERL over time the TRS would need to be uplifted for inflation.

6.39 Our Final Decision is to index the TRS balance in line with RPI inflation, consistent with our approach to NERL's RAB and our use of a real WACC. We have decided to amend Condition 21 of the NERL Licence so that the TRS revenues will be indexed to actual rather than forecast inflation (see CAP 2597c appendix E). We consider this is appropriate given the relatively long recovery period for the TRS revenue, which we discuss further below.

Recovery period for the TRS

6.40 We note that, where stakeholders responded in respect of the recovery period those responses supported our approach. We continue to consider that our approach provides an appropriate and reasonable balance between, on the one hand, ensuring that the impact on charges in NR23 is no higher than necessary and, on the other hand, providing appropriate certainty around recovery of the TRS revenues to support continued investment and a low cost of capital.

6.41 In this light, our Final Decision in respect of the length of the recovery period is, therefore, the same as in our Provisional Decision, namely to allow for the recovery of the TRS revenue shortfall over the 10 years of the NR23 and NR28 price controls, with 50% in each price control period.

TRS revenue to be recovered

6.42 Our Final Decision on the TRS revenue to be recovered is summarised in Table 6.6 below. We estimate that the TRS revenue increases NERL's charges by around £6 per TSU in NR23, compared to the increase of £9 per TSU in NERL's business plan.

Table 6.6 – TRS revenue to be recovered by NERL (nominal prices)

£ million, nominal prices[110]	TRS revenue to be recovered in NR23	Total TRS revenue to be recovered in NR23 and NR28
Final Decision	354	707

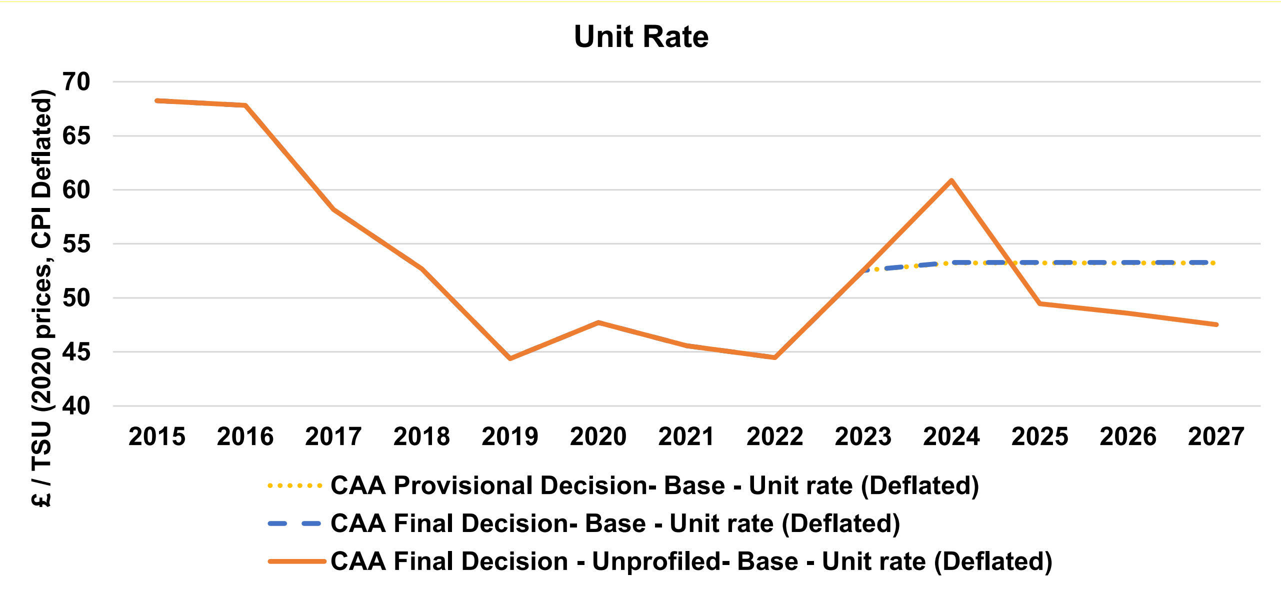
Source: CAA analysis

Profiling of charges

6.43 Our Provisional Decision was to profile charges for the UKATS price control to be flat over the NR23 period.[111] In response to our Initial Proposals, a number of stakeholders expressed support for this profile. Few stakeholders commented on the profile of charges in response to our Provisional Decision, although British Airways did comment that there is a strong argument for smoothing charges so as to support affordability in the early years of the price control.

6.44 Our Final Decision in respect of charges for the UKATS price control is that they are to be profiled flat in real terms over the remaining years of the NR23 period in a way that preserves the net present value of the unprofiled charges. The unprofiled charges and the flat profile of charges are shown in Figure 6.1 below.

Figure 6.1 – Final Decision for the NERL en route unit rate, profiled and unprofiled



Source: CAA analysis

110 These nominal prices relate to the period 2020-2022

111 With the exception of the charges for 2023 as these have already been set by means of a temporary unit rate.

6.45 NERL commented on the profile of charges for the Oceanic price control. NERL said that the declining profile of charges was not adequately explained and suggested that a flat profile would better serve customers but did not expand on this. No airlines responded to express any preferences over the profiling of the Oceanic price control.

6.46 We are not persuaded by NERL's central point that it would better serve customers. We also note that profiling charges adds some complexity which can make the algebra in the licence less transparent. In the case of the charges for the UKATS price control, there is sufficient benefit in terms of smoothing the recovery of the TRS revenues to justify the additional complexity.

6.47 No TRS revenues are recovered through the Oceanic price control and there are no other characteristics of the Oceanic price control which would appear to justify the additional complexity. In addition, no airlines have raised this issue in their responses. We have, therefore, decided not to profile Oceanic charges and the year to year profile of charges will reflect the underlying profile of the building blocks.

Allowed revenue and the forecast en route unit rate in NR23

6.48 After taking into account the TRS revenue from RP3 and other revenue adjustments, we forecast that NERL's unit rate over NR23 will be £53.28 per TSU compared with £61 in NERL's business plan (CPI-real 2020 prices), as set out in Table 6.7 below.

Table 6.7 – Final Decision forecasts for the NERL NR23 unit rate, after re-profiling (2020 CPI prices)

£ million and £ per TSU, 2020 CPI prices	2023	2024	2025	2026	2027
Determined Cost Revenue (£m)	639	643	581	598	596
Inflation (INF) (£m)	(3)	36	-	-	-
Traffic risk sharing (£m)	21	136	80	81	82
Re-profiling adjustments (£m)	(0)	(121)	47	36	48
Cost sharing mechanism (£m)	8	7	4	4	4
INEA and other revenues (£m)	(5)	(3)	(6)	-	-

£ million and £ per TSU, 2020 CPI prices	2023	2024	2025	2026	2027
Traffic variance (TVAR) (£m)	(32)	(9)	-	-	-
Total Revenue Allowance (£m)	**628**	**689**	**706**	**719**	**730**
Forecast TSU ('000)	11,956	12,930	13,247	13,490	13,700
Unit Rate (profiled) (£ per TSU)	**52.53**	**53.28**	**53.28**	**53.28**	**53.28**
Unit rate in NERL's Business Plan (£ per TSU)	*60.99*	*60.96*	*60.89*	*60.99*	*60.91*

Source: CAA analysis

6.49 We note that this is the forecast unit rate for NR23. The actual unit rate may change depending on the actual traffic levels, inflation and incentives during NR23 that may lead to increases or reductions to actual allowed revenues.

Benchmarking NERL’s charges

6.50 The analysis set out in appendix E of our Provisional Decision and summarised/updated in Figure 6.2 below shows NERL’s charges for NR23 are below the average levels for the RP2 period and are broadly comparable with those of other European ANSPs. While some ANSPs (notably Spain) currently have lower unit rates than NERL, there is uncertainty about the future level of the charges for these comparators.

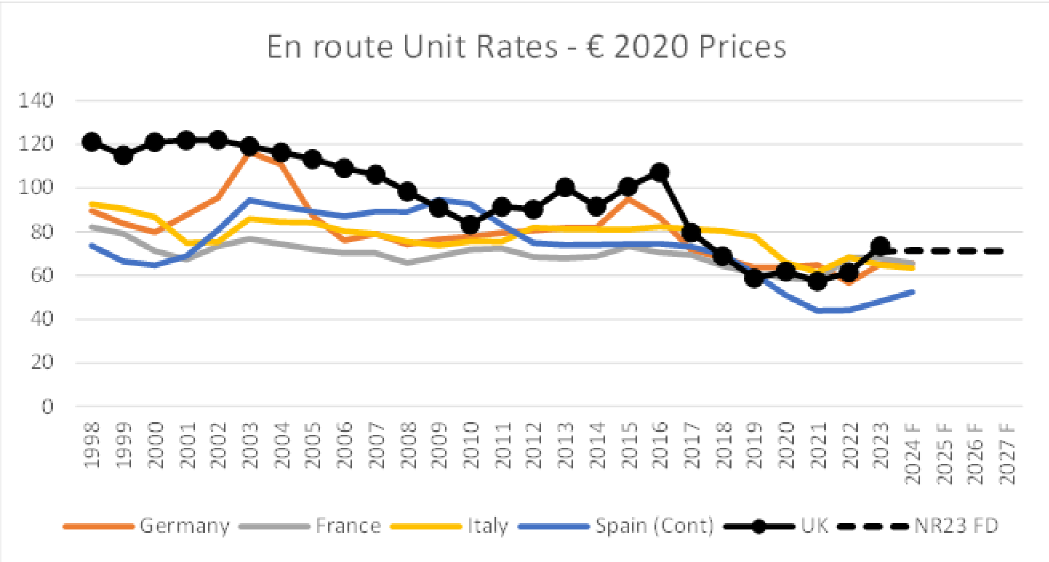
6.51 While the services provided by NERL are a relatively small proportion of the costs of operating a flight for airlines and air fares paid by passengers,[112] nevertheless we understand that airline customers and consumers will be affected by higher charges and by any significant increases in charges in a single year, particularly as the traffic levels recover from the impact of the covid-19 pandemic. While there is an increase in NERL’s charges in NR23, particularly due to the recovery of TRS revenue from RP3, the steps we have taken to extend recovery of TRS revenues over 10 years and to smooth revenues should reduce and smooth the average charge over NR23.

[112] We estimate that this final decision lead to a unit rate of around £2.08 per passenger per flight (in CPI 2020 prices). Our analysis of UK airline financial data for 2019 shows that navigation charges from all ANSPs globally represent between 3% to 9% of airline revenues.

6.52 As for quality of service, our Final Decision includes a target for NERL's ATFM delays of approximately 0.21 minutes per flight. As shown in Figure 6.3 this is consistent with NERL's performance in RP2, comparable to recent and forecast performance in Spain (ENAIRE) and Italy (ENAV), and better than recent and forecast performance in Germany (DFS) and France (DSNA), both of which have experienced higher delays than the UK in recent years.

6.53 Overall, we consider our approach leads to forecast charges that are reasonable and provide good value for money to customers and consumers given the benchmarks from the RP2 period and from European comparisons. As such, we consider that our approach is consistent with our statutory duties, because it leads to us setting price controls that allow NERL to continue to deliver a safe and resilient service, and further the interests of customers and consumers, while also allowing NERL to continue to finance new investment and its activities.

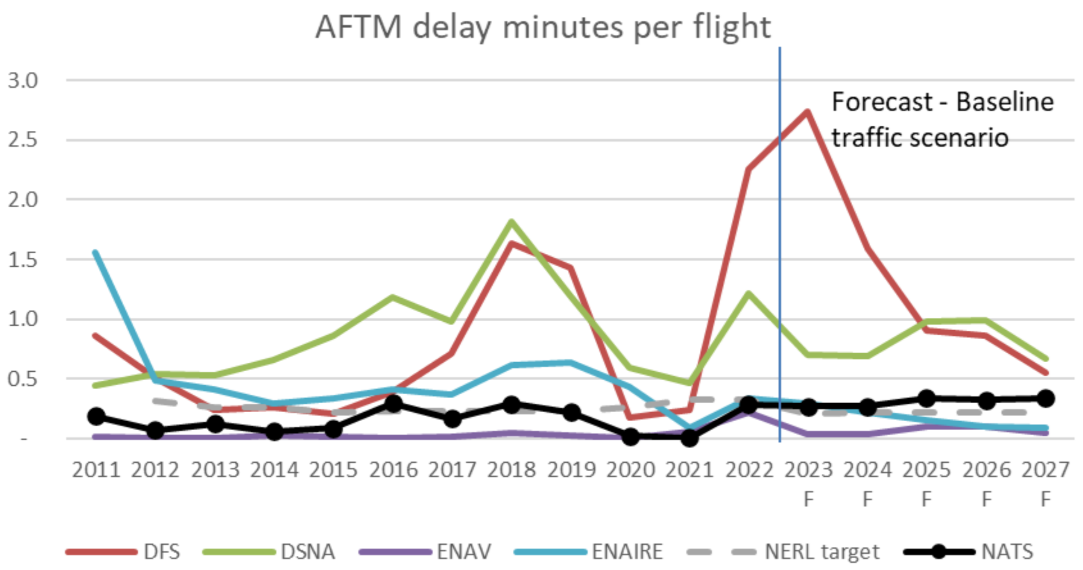
Figure 6.2 – Unit rates for NERL and European ANSPs (Euros per TSU, 2020 prices)



Source: CAA analysis of Eurocontrol unit rate dashboard, November 2022 CRCO tables and CAA final decision with profiling.

Note: Comparator unit rates for 2022-2024 are based on States' submissions produced in a different context and for a different timeframe to our Initial Proposals and Provisional Decision for NR23. EU Member States revised their numbers in mid-2021, at a time of greater uncertainty and still very much focused on cost-containment for their RP3 period (up to 2024), so it is possible that these numbers will change somewhat over the NR23 period.

Figure 6.3 – Forecast AFTM delay minutes per flight for NERL and Euopean ANSPs



Source: CAA analysis of En-route ATFM delay data in ansperformance.eu/data/ansperformance.eu/data/ and European Network Operations Plan 2023-2027.

Financeability

Our Provisional Decision

6.54 Our Provisional Decision described how we discharge our statutory duty in respect of financeability and how we do so by assessing financeability in respect of a notional company. We set out our reasons for maintaining our view that such an approach was appropriate. We also described our rationale for continuing to use the dividend profile that we had set out in our Initial Proposals.

6.55 We then provided a description of the assessment of financeability that we had conducted. This assessment examined financeability from the perspectives of both debt and equity investors.

Debt financeability

6.56 In our Provisional Decision, we noted that BBB+ would be an appropriate credit rating for the notional company to enable it to access efficient finance appropriately and provided our rationale for taking this view.[113] In summary, we concluded that a BBB+ rating would allow for cost effective access to debt markets and noted that the notional company is not projected to issue any debt within NR23. We also set

[113] See paragraphs 6.77-6.78 of CAP 2553 Economic Regulation of NATS (En Route) plc: Provisional Decision for the NR23 (2023 to 2027) price control review.

out the relevant thresholds that each of the credit metrics would need to achieve in order to be consistent with a BBB+ credit rating.[114]

6.57 We provided in our Provisional Decision a detailed assessment of the position of the notional company against each of the credit metrics. This assessment was based on our quantitative analysis using our price control model and we presented charts showing the credit metrics and the relevant thresholds required to achieve a BBB+ rating.

6.58 We concluded that the credit metrics were consistent with a rating of at least BBB+ and noted that this supports overall financeability.

6.59 We also looked at a downside with traffic volumes 10% below our base case level. As part of our commentary on this analysis we responded to NERL's suggestion that the downside be more extreme by noting that 10% was already more extreme than any event besides the impact of covid-19. We concluded that our downside scenario was still consistent with a BBB+ credit rating and, therefore, that the notional company would be financeable in such circumstances.

Equity financeability

6.60 In our Provisional Decision we presented our analysis of equity financeability based on the internal rate of return (IRR) measure and the dividend profile. We noted that the IRR in the base case was below the cost of equity and explained how this outcome was sensitive to assumptions about the dividend profile and how there was sufficient cash being generated to deliver an IRR consistent with the cost of equity.

6.61 We presented the dividend profile that we had assumed and noted that it was essentially unchanged from the approach we used to develop our Initial Proposals. We did not accept NERL's suggestion that we should match what we did in H7 price control review when making the projections of the notional company (in the case of H7 this was HAL) as the circumstances faced by the notional company in the H7 review are different to those faced by NERL.

6.62 We considered NERL's criticism that other building block allowances were so low as to threaten equity financeability. We set out our view that we have made reasonable allowances for both operating costs and pension costs, which have been allowed for in our financeability assessment.

Summary

6.63 We concluded that our Provisional Decision was financeable from the perspective of both debt and equity investors, even in the case of the traffic downside scenario.

[114] These thresholds are unchanged for our Final Decision and are illustrated on the charts of each of the credit metrics shown below.

Summary of stakeholders' views

6.64 Stakeholders provided limited responses to our Provisional Decision. The only comments we received which addressed this part of our Provisional Decision directly were from NERL.

6.65 NERL reiterated its previous view that the downside scenario we had used in our assessment of financeability was too benign. However, NERL did not provide any new evidence to support this suggestion.

6.66 It stated its view that the outturn returns to shareholders were too low. This was based on NERL's assessment of our IRR analysis. NERL noted that the expected return for shareholders is 17% lower than the proposed post-tax real allowed cost of equity.

6.67 NERL also said that in conducting the financeability assessment we should have taken account of the expected impact of the service quality incentives. NERL was concerned that failing to do so would mean that the price control was not a 'fair bet'.[115]

Our views

6.68 NERL did not provide any new evidence to support its suggestion that the downside scenario was too benign. We have reconsidered our approach to these matters and remain of the view that our downside scenario is appropriate.

6.69 We have reviewed our calculation of the IRR and found that it was inaccurate. We have updated our analysis with the corrected formula and present our findings below as part of the overall assessment of the financeability of the Final Decision.

6.70 In response to NERL's concerns about the impact of the service quality incentives we have reviewed the calibration of those incentives. The impact of the incentives will be a function of the target level of performance as well as the parameters of the incentive itself (size of deadbands, sharing factors etc.). As described in chapter 2 (Service quality), we consider that the targets that we are setting for these incentive mechanisms are achievable and reasonable.

6.71 Given this calibration of the incentives we assess that there is sufficient scope for outperformance to offset the potential for underperformance. Consequently, we do not consider that there is any need to modify the equity financeability assessment to take account of the impact of the service quality incentives.

6.72 Finally, we also note the recent issuance by S&P of a ratings report that revised the outlook for NERL to stable, citing improved financial prospects. The same ratings

[115] The term 'fair bet' is sometimes used on the context of economic regulation to describe a price control incentive where the regulated company can be expected, on average, to not be subject to any bonus or penalty, and has upside opportunity as well as downside risks.

report also affirmed the rating a A+. This rating concerns the actual company, rather than the notional company. It does not, therefore, have a direct bearing on our financeability assessment, although it does provide some assurance that the rating agency view of qualitative factors (which would affect notional and actual company equally) is broadly consistent with the view adopted at the time of our Provisional Decision.

Our Final Decision

Our approach

6.73 Section 2(2)(c) TA00 provides that we must exercise the relevant functions in the manner we think best calculated to (among other things) “secure that licence holders will not find it unduly difficult to finance activities authorised by their licence” and we refer to this as the ‘financeability’ duty.

6.74 We remain of the view that assessing financeability in respect of the notional company is the manner best calculated to secure that NERL will not find it “unduly difficult” to finance its activities and to discharge our other statutory duties. This approach avoids the distortion of incentives that would arise were we to assess the financeability of the actual company and it protects consumers from funding any imprudent financing decisions that management or shareholders might take.

6.75 Our approach is also consistent with that of other economic regulators. For example, Ofwat sets determinations on the basis of a notional capital structure and notional financing costs. The CMA has also endorsed the notional company approach: in rejecting an appeal against the Gas and Electricity Market Authority (GEMA) in the RIIO-2 price control, the CMA noted that GEMA was not required “to secure the actual financeability of particular licence-holders” and observed that “the notional company approach has been used in a variety of regulatory contexts.”[116]

Debt financeability

6.76 Our assessment of debt financeability considers whether the notional company can retain access to cost effective investment debt financing, including under reasonable downside scenarios. The nature of our assessment, the credit metrics we use and the threshold against which we assess the results are all unchanged from our Provisional Decision. This approach allow us to assessing financeability in a robust and reliable way and allows us to gauge whether the notional company would be able cost effectively to access the debt finance it might reasonably need.

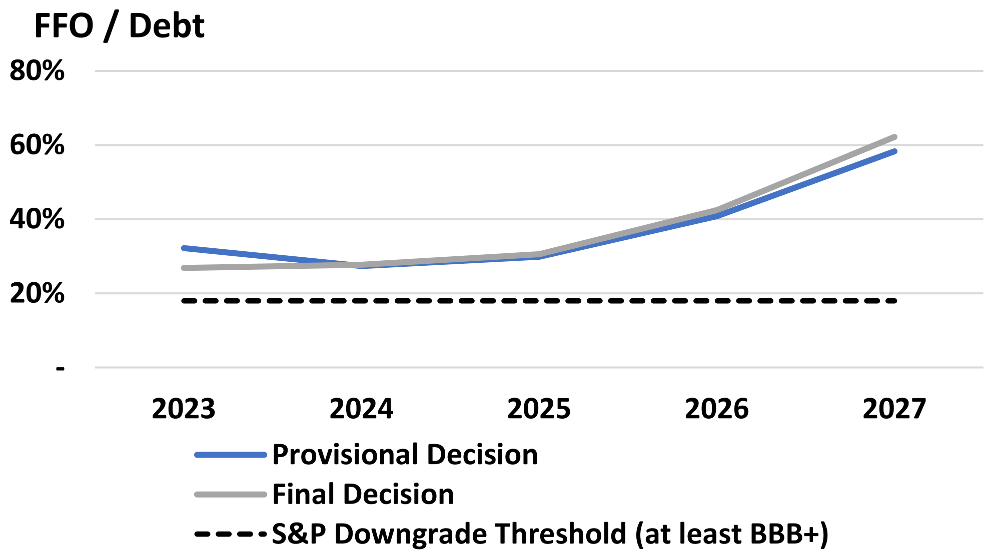
6.77 In summary, the credit metrics and thresholds that we use for our assessment are as follows:

[116] CMA Final Determination, Energy Modification Licence Appeals (28 October 2021), vol 3, paragraphs 14.70, 14.82.

- FFO to net debt ratio of greater than 18% over a two year rolling period would be consistent with a rating of at least BBB+;
- an adjusted net debt to RAB ratio of less than 65% would be compliant with the licence restriction on gearing; and
- an AICR of above 1.4x over a three year rolling period would be consistent with a Baa1 rating and above 1.2x would be consistent with a Baa2 rating.

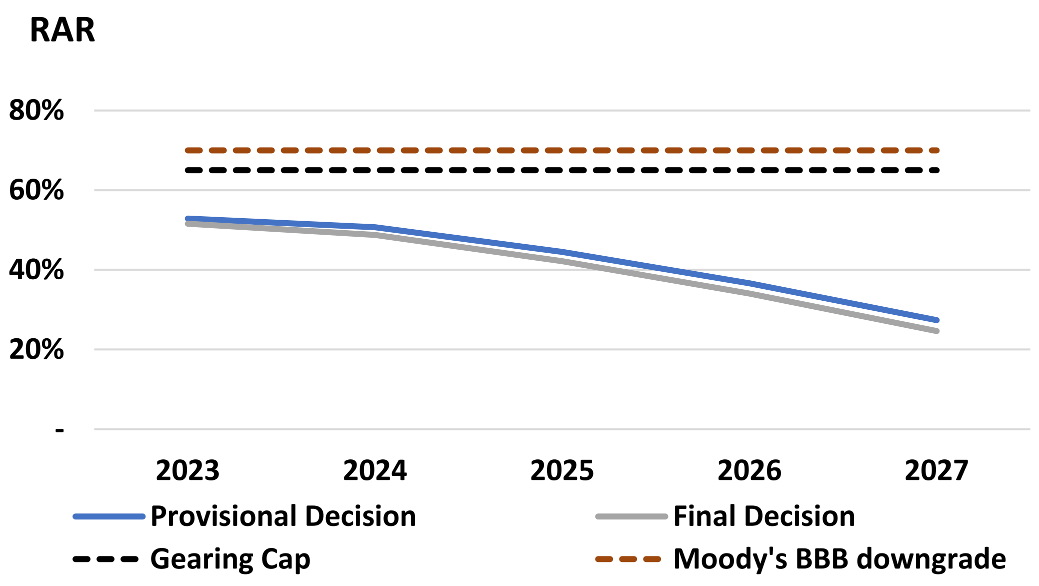
6.78 We have used the PCM to assess the credit metrics the notional company is projected to achieve in the NR23 period in a scenario where outturns match our allowances in respect of all elements of the price control. The results of this analysis are presented in Figures 6.4 to 6.6 below.

Figure 6.4: FFO to net debt



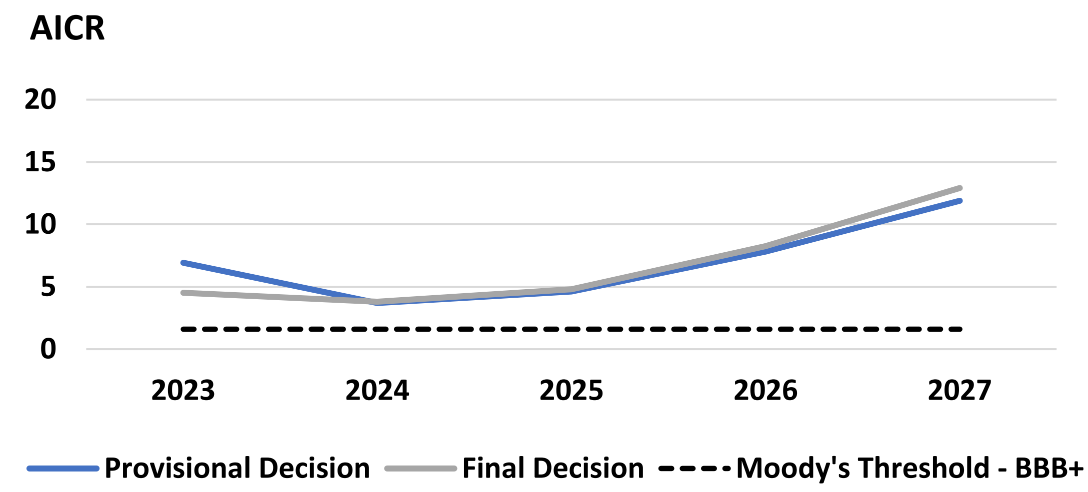
Source: CAA analysis

Figure 6.5: adjusted net debt to RAB



Source: CAA analysis

Figure 6.6: adjusted interest cover ratio



Source: CAA analysis

6.79 As Figures 6.4 to 6.6 above show, our Final Decision produces credit metrics that are comfortably above the thresholds required to maintain a BBB+ credit rating. The reduction in the measure of FFO to net debt and the adjusted interest cover ratio in 2023 shown in Figures 6.4 and 6.6 are mainly the result of two factors:

- the correction of the double counting of £60 million of TRS revenues; and
- the increase by £25 million in the figure used for the pension charge in the income statement so that it matches cash costs for pensions.

6.80 Both of these changes are the result of correcting inaccuracies in the modelling and do not reflect any change in our policy from our Provisional Decision. The resulting FFO to net debt measure is still well above the threshold which would be consistent with a BBB+ credit rating. The same factors are also the driver of the reduction in adjusted interest cover in 2023 and, again, the credit metric remains comfortably above the relevant threshold.

6.81 We observe the significant reduction in the measure of net debt to RAB. The trajectory is similar to that in our Provisional Decision. The reduction in net debt to RAB over NR23 reflects the fact that the notional company generates a significant amount of ‘surplus’ cash – i.e. cash that is not offset by costs in the NR23 period. This is the result of three key factors:

a. regulatory depreciation – regulatory depreciation is approximately £81 million (real, CPI-2020) larger than capex over the NR23 period due to the projection of capex being lower than historical levels;

b. recovery of TRS revenues - £396 million (real, CPI-2020) of TRS revenues are recovered in NR23[117] reflecting under-recoveries during the years affected by the covid-19 pandemic;

c. price control creditor recoveries – during 2021 and 2022 NERL accrued a balance of approximately £62 million (real, CPI-2020) due to under-recovery of charges in respect of DfT, CAA and Met Office fees. In the NR23 period these balances are recovered.

6.82 The absence of equal and opposite cash outflows leads to the accumulation of cash in the NR23 period which in turn drives the reduction in the measure of net debt to RAB. By the end of NR23 this measure of gearing has reduced to a level of approximately 25%, well below our starting level of gearing. Had we made higher assumptions about dividends in the base case then the reduction in gearing would not have been so marked. While we have explored a scenario with higher dividends as explained below, we have chosen to leave the base case consistent with our Provisional Decision. This reflects our view that this level of dividends is reasonable, although NERL will likely have the flexibility to make significantly higher dividend payments. We will need to consider carefully what assumptions to make about the pattern of dividends and gearing for the notional company when it comes to the NR28 price control review, and we may not simply roll forward our base case.

6.83 In light of the above analysis, we are confident that our Final Decision produces credit metrics consistent with at least a BBB+ credit rating for the notional company in the base case. As we have noted above, a BBB+ credit rating would allow the

[117] This number is larger than the £354 million (nominal) quoted in Table 6.6 because this figure also includes the impact of inflation uplift and financing costs.

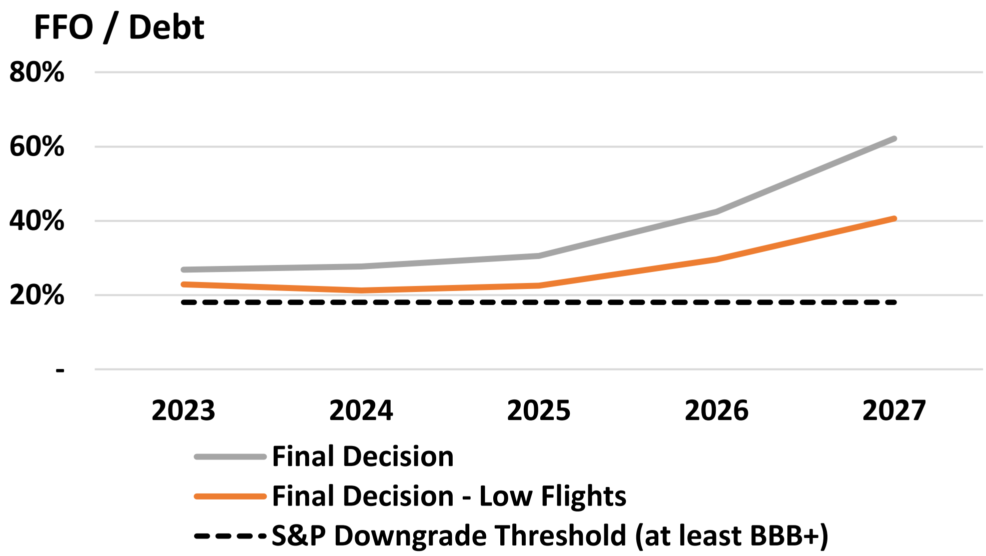
notional company to raise cost effective debt finance and this supports our overall assessment of financeability.

Downside scenario

6.84 As in our Provisional Decision, we have examined the impact of a scenario in which traffic volumes are 10% below the base case assumption in each year. We have also assumed that operating costs would reduce by 2.5% based on a high-level assumption of the variability of costs with traffic levels. We also assume that the TRS operates in this scenario albeit that the TRS will provide support over an extended period so the reduction in traffic will, in the short term, still lead to a reduction in cash received.

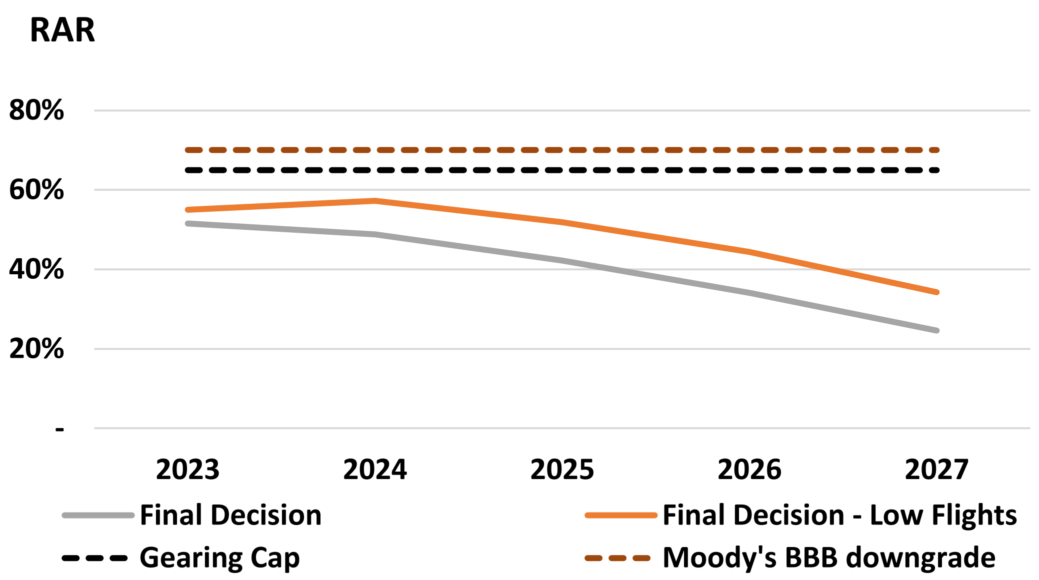
6.85 The impact of the downside scenario on credit metrics is shown in Figures 6.7 to 6.9 below.

Figure 6.7: FFO to net debt



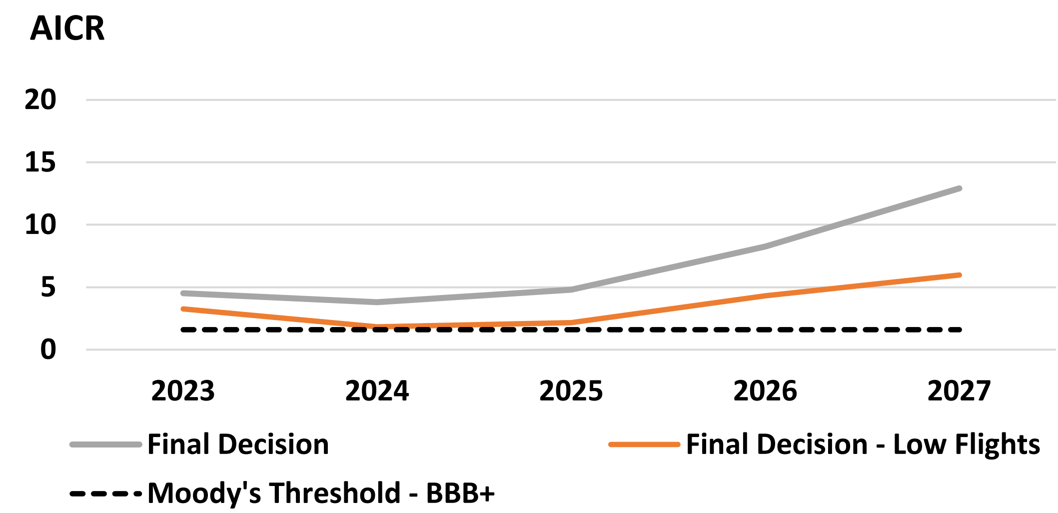
Source: CAA analysis

Figure 6.8: adjusted net debt to RAB



Source: CAA analysis

Figure 6.9: adjusted interest cover ratio



Source: CAA analysis

6.86 We observe from Figures 6.7 to 6.9 above that the “low flights” scenario causes a deterioration in all of the credit metrics. For each metric, we observe a largely parallel shift in the level of the metric in the low traffic scenario. This reflects the reduced cash flow in such a scenario.

6.87 As the results of the downside scenario analysis demonstrate, even if traffic volumes were 10% below our base case assumption, we still anticipate that the notional company would be able to maintain credit metrics consistent with a BBB+ credit rating. This strongly supports our overall view that, from a debt perspective, our Final Decision is financeable.

Equity financeability

6.88 No stakeholders commented on the appropriateness of the measures we proposed to use for our assessment of equity financeability. For the reasons stated in our Initial Proposals,[118] we will assess equity financeability with reference to IRR. As described below, the IRR analysis examines a range of dividend profile scenarios, so we do not separately assess dividend profile.

6.89 In our Provisional Decision, we observed that the IRR can vary quite significantly as a result of different assumptions about the profile of dividends. This is somewhat at odds with traditional corporate finance theory which states that the timing of dividends does not alter the value of a business.

6.90 Consequently, we have considered the calculation of the IRR and the assumptions implicit within it. In the PCM, cash held within the business earns interest at a rate equal to the cost of debt, rather than being reinvested or paid out as dividends. But in a simple IRR calculation, retained cash not paid out as dividends could be reinvested to earn the IRR. This means the current approach in the PCM could bias the IRR downwards, particularly when assuming a relatively modest dividend profile.

6.91 Instead of changing the approach to modelling dividends and retained cash at this stage of the price control review, we conducted additional sensitivity analysis around the IRR. In particular, we considered:

- a higher dividend profile, to mitigate the potential downward bias to IRR mentioned above when we assume a relatively modest dividend profile. The higher dividend assumptions are the same as the high dividend case we used in assessing our Provisional Decision and are shown in Table 6.8;
- both a RAB based measure (RAB less a measure of net debt) and asset based measure of the purchase price and sale value of the notional company, given there are different and reasonable approaches to business valuation; and
- both including and excluding the recovery of TRS revenues. NERL is forecast to recover significant TRS revenues during NR23, in line with our TRS policy but, in economic terms, this relates to the IRR in the period affected by the covid-19 pandemic rather than to NR23.

6.92 Table 6.9 illustrates that the IRR calculation is highly sensitive to different sets of reasonable assumptions. The cost of equity allowance falls within the full range of results and is below the estimated IRR in most cases. However, in the cases where the IRR is below the allowed cost of equity, we consider the IRR could be

118 See paragraphs 9.86-6.90 of our CAP 2394 Economic regulation of NATS (En Route) plc: Initial Proposals for the next price control review ("NR23").

downward biased as dividends are relatively modest and retained cash is not reinvested. Therefore, on balance we consider our Final Decision for the NR23 price control allows sufficient potential for shareholders to earn returns in line with the cost of equity.

6.93 Moreover, as described in chapter 5 (Financial framework), we have conducted a detailed exercise in determining the cost of equity to ensure it provides a return commensurate with the risk profile of the investment. Therefore, we consider that there is robust evidence that our Final Decision is financeable from an equity perspective.

Table 6.8: Dividend profiles

£million, nominal	2023	2024	2025	2026	2027
Base case	-	-	35,591	35,591	53,387
High dividends	-	-	150,000	150,000	150,000

Source: CAA analysis

Table 6.9: Summary of IRR analysis

Real (RPI deflated)	Base case dividends	High dividends
RAB based measure of business value		
Including TRS revenues	3.55%	9.42%
Excluding TRS revenues	1.71%	7.53%
Net assets based measure of business value		
Including TRS revenues	7.01%	7.41%
Excluding TRS revenues	5.50%	5.80%
Benchmark: post-tax cost of equity	5.31%	5.31%

Source: CAA analysis

6.94 We have also considered the impact of the higher dividends scenario on the debt financeability analysis. All of the metrics remain at a level consistent with at least a BBB+ credit rating.

Summary

6.95 Our debt financeability assessment indicates that the notional company would be able to maintain strong credit metrics even in the event of the traffic downside scenario. These credit metrics would allow the notional company to maintain at least a BBB+ credit rating which would be more than sufficient for its needs in NR23 given it is not projected to need to issue any debt in NR23.

6.96 Our equity financeability analysis shows that the notional company is able to earn returns broadly in line with our allowed cost of equity in the base case scenario. In a downside scenario, shareholders' returns within the NR23 period would be reduced, although we consider that this is reasonable as shareholders expect to bear these types of risks.

6.97 Taking our debt and equity financeability assessments together, we are confident that our Final Decision for the NR23 period is financeable[119] and that the approach we have taken discharges our duties to further the interests of customers and consumers by ensuring that the financing costs we allow NERL to recover are no higher than is necessary, while at the same time securing that the notional company would not find it unduly difficult to finance its activities.

Next steps and implementation

6.98 The licence modifications set out in CAP 2597c appendix E specify the level of charges which would implement the Final Decision set out above. The licence modifications reflect our Final Decisions in this chapter in respect of the profiling of charges.

[119] The most constrained levels of the credit metrics are as follows (with threshold levels in brackets): FFO to net debt metric was 25.9% (18.0%), the maximum net debt to RAB was 52.2% (65.0%), adjusted interest cover ratio 3.7x (1.6x).

Chapter 7

Regulatory incentives and mechanisms

Introduction

7.1 We have developed a range of regulatory mechanisms to help ensure risks (especially risks that fall outside the control of NERL) are shared between NERL and its customers in an appropriate way. The purpose of these mechanisms is to help ensure that there is no undue upward pressure on NERL's cost of capital and to help it finance investment in a cost effective way, to support change and innovation (including in respect of services to new airspace users for NR23), and to provide NERL with incentives to operate efficiently (including in relation to how NERL engages with users on its capital expenditure programme). Some of these mechanisms continue arrangements that have been in place for previous NERL price controls, and some are new for this NR23 period. These mechanisms:

- further the interests of customers and consumers by ensuring there is no undue upward pressure on NERL's charges from a higher cost of capital;
- further the interests of customers and consumers by promoting airspace modernisation and by providing for new types of airspace user;
- promote efficiency and economy on the part of NERL, by allocating risks in a way that will support the efficient financing of NERL's activities, by providing greater opportunity for scrutiny of NERL's expenditure, and by enhancing opportunities for stakeholders to review and challenge NERL's capex plans (which should both encourage efficiency and lead to lower prices for customers and consumers in the longer term); and
- secure that NERL will not find it unduly difficult to finance its licensed activities, by ensuring an appropriate and sustainable allocation of risks.

7.2 This chapter has the following four sections:

- uncertainty mechanisms (including in relating to the risks associated with traffic volumes, costs and inflation);
- airspace modernisation;
- new users; and
- capex engagement incentive.

7.3 In each section we summarise our Provisional Decision and the key points raised in stakeholders' responses. We then set out our views on the issues raised and explain our Final Decision.

Uncertainty mechanisms

Our Provisional Decision

7.4 Our Provisional Decision included mechanisms to address traffic risks, cost risks, inflation risks and capex, and we also considered asymmetric risks (as NERL had requested an asymmetric risk allowance). These are discussed below, except for capex delivery incentives which are addressed in chapter 4 (NERL costs).

Traffic risk

7.5 For NERL's en route and London approach price controls, our Provisional Decision was to retain a traffic risk sharing (TRS) mechanism for the NR23 period with the same parameters as in recent price control periods:

- for traffic variations up to 2%, NERL would bear full traffic risk;
- for traffic variations between 2% and 10%, NERL would bear 30% of traffic risk; and
- for traffic variations greater than 10%, NERL would bear no traffic risk.

7.6 In order to mitigate the burden of revenue recovery on airlines where traffic is below our forecast, the adjustments for traffic variations up to 10% would be made in year n+2, and adjustments for traffic variations over 10% would be spread evenly over years n+3 and n+4. Where traffic is higher than our forecast, the entire adjustment would be made in year n+2.

7.7 In addition to spreading the adjustment for significant shortfalls over several years, we said we would retain the flexibility to consider re-opening the price controls for traffic variations greater than 10%. Rather than adopting a specific threshold for reopening a price control, we said we would consider each event on a case-by-case basis, in light of our statutory duties.

7.8 We said that, in line with previous price controls, the Oceanic price control would not include a TRS mechanism.

Cost risk

7.9 In our Provisional Decision we said that we would continue to apply the Eurocontrol Principles which allow for cost pass-through in cases of:[120]

- unforeseen changes in costs of new and existing investments;

[120] Eurocontrol Principles, paragraph 3.3.4.2.

- unforeseen and significant changes in pension costs (limited to differences resulting from unforeseeable changes in market conditions or pensions/accounting law);
- unforeseen and significant changes in costs resulting from unforeseeable changes in interest rates on loans to finance services; and
- unforeseen and significant changes in costs resulting from unforeseeable changes in national taxation law or other new cost items required by law.

7.10 The cost pass-through mechanisms would continue to apply in the case of unforeseen changes in DB pension costs as a result of unforeseeable changes in financial market conditions. Nonetheless, consistent with our recent regulatory policy statement,[121] costs eligible for pass-through must be reasonable and efficient. We also said that the pass-through mechanism would not cover the cost of transfers to NERL's PCA scheme. But we would continue to consider any cost savings, including PCA cost savings, when assessing any claim for recovery of additional pension costs.

7.11 We also said that, should tax rules in NR23 be different from the assumptions about corporation tax rates and capital allowance rules that underpin our allowance for tax costs, and this difference has a material impact on tax costs, we would consider whether these should be eligible for pass-through as an unforeseen and significant change in cost resulting from unforeseeable changes in national taxation law.

Inflation risk

7.12 In our Provisional Decision we said that NERL would continue to be protected from unexpected changes in inflation through:

- CPI indexation of the unit rate: determined Costs are expressed in NERL's licence in nominal terms, based on an inflation forecast, and there is an adjustment to revenues (the 'INF' term in the licence) to correct for the difference between forecast and actual CPI inflation with a two-year lag; and
- RPI indexation of the RAB.

7.13 We also said we would retain the adjustment introduced in RP3 to correct for differences between the forecast and actual wedge between RPI and CPI inflation.

[121] See Appendix C to CAP 2119.

Asymmetric risks

7.14 The Provisional Decision explained that we remained of the view that there was not a case for including an additional adjustment for asymmetric risk in the NR23 price control.

Summary of stakeholders' views

Traffic risk

7.15 IATA and a number of individual airlines welcomed our proposal that adjustments for traffic shortfalls in excess of 10% should be spread over several years. Some also suggested possible refinements to this approach, including basing any adjustment for shortfalls of more than 10% on a new assessment of efficient costs, adopting a different approach if there are consecutive shortfalls, or spelling out the specific circumstances that would trigger a review of the price control.

7.16 NERL stated that it disagreed with our rationale for not including TRS in the Oceanic price control, but recognised this is a matter of regulatory judgement. It said it hopes that this issue will be reconsidered in the future. IATA and British Airways both supported our Provisional Decision on this issue.

Cost risk

7.17 NERL stated that it agreed with the continued application of the Eurocontrol Principles, but said it is important to clarify how they would be applied to specific cost categories, notably pension costs and tax. It disagreed with our view that costs associated with transfers to its PCA scheme should be excluded from the pass-through mechanism but accepted that this is our regulatory judgement. IATA supported our view.

7.18 While noting our regulatory judgement on the issue, NERL also disagreed with the rationale we provided in our Provision Decision for not adopting an asymmetric risk allowance. It stated that its case was based on evidence pertaining to NERL itself, which it said showed there is a downward bias to the difference between actual and forecast traffic. In contrast, British Airways supported our view.

Our views

7.19 We consider that the TRS mechanism set out in our Provisional Decision remains the approach most likely to further the interests of customers and consumers. We have said that we may consider re-opening the price controls for traffic variations greater than 10%, and this could include (as some airlines have suggested) a new assessment of efficient costs. However, we think it important to retain the flexibility to consider the best course of action in each individual case, in light of our statutory duties, rather than adopting a mechanistic approach based on predetermined thresholds which may or may not turn out to be appropriate in such circumstances as may arise.

7.20 We note NERL's recognition of our regulatory judgement in deciding not to include a TRS mechanism in the Oceanic price control. We continue to consider that such a mechanism would introduce additional complexity and have only a small impact on NERL's overall financial position. Our judgement on these matters has been informed by the relatively high degree of protection from traffic risk available to NERL through the TRS mechanism for the en route and London Approach price controls.

7.21 We also note that NERL has recognised our regulatory judgement on the treatment of PCA transfer costs (we discuss other aspects of pension costs in chapter 4) and asymmetric risk. On this latter issue, we do not agree with NERL that there is a downward bias in our traffic forecasts, and note that our continued use of STATFOR traffic forecasts received strong support from a wide range of stakeholders, including NERL itself.

Our Final Decision

7.22 Our Final Decision on uncertainty mechanisms for NR23 is unchanged from our Provisional Decision, as described above. In summary it is that:

- the NR23 price control will contain a TRS mechanism for the UK en route and London Approach price controls that protects NERL from 70% of traffic risk for traffic variations between 2% and 10%, and 100% of traffic risk for traffic variations greater than 10%. Adjustments for traffic shortfalls greater than 10% will be spread evenly over years n+3 and n+4, and other adjustments (for higher than expected traffic or shortfalls below 10%) will be made in year n+2. We will also retain the flexibility to consider re-opening the price controls for traffic variations greater than 10%, considering the circumstances of each individual case in light of our statutory duties;
- the Oceanic price control will not contain a TRS mechanism;
- we will continue to apply the Eurocontrol Principles to investment costs, pension costs, financing costs and taxation (potentially including changes to tax rules during NR23). This will not include a pass-through of the costs of transfers to NERL's PCA scheme, but we will continue to consider any cost savings (including in PCA costs) when assessing any claim for recovery of additional pension costs;
- the unit rate will continue to be indexed by CPI, the RAB will continue to be indexed by RPI, and we will retain a potential adjustment to correct for differences between the forecast and actual wedge between RPI and CPI inflation; and
- we will make no additional adjustment for asymmetric risk.

7.23 We consider that the mechanisms set out above will promote an appropriate and sustainable allocation of risks between NERL and its customers and consumers, and will contribute to the continuation of a stable and consistent regulatory framework. This will promote efficiency and economy on the part of NERL, by allocating risks in a way that will support the efficient financing of its activities, and will further the interests of customers and consumers by ensuring there is no undue upward pressure on NERL's charges from a higher cost of capital. An appropriate and sustainable allocation of risks will also help ensure that NERL will not find it unduly difficult to finance its licensed activities.

7.24 Notwithstanding the mechanisms described above, we will expect NERL to take reasonable steps to manage uncertainty appropriately during NR23, respond efficiently to the challenges it faces, and mitigate risks in a way that is in the best interests of customers and consumers.

Airspace modernisation

Our Provisional Decision

7.25 In our Provisional Decision we noted the strategic importance of airspace modernisation, highlighting the refreshed 2023 Airspace Modernisation Strategy (AMS). Ensuring that NERL's price control supports delivery of the AMS furthers the interests of consumers by supporting an efficient system of air traffic management and supporting future demand. In the context of the NR23 review, we said that we had considered:

- adequate resourcing for the Airspace Change Organising Group (ACOG) function within NERL, (addressed further below);
- the delivery of NERL airspace and technology initiatives that contribute to airspace modernisation, which is addressed in chapter 4 (NERL costs); and
- the impact of new types of airspace users on NERL's licensed activities, which is addressed in the following section on new users.

7.26 For the ACOG function, our Provisional Decision proposed to:

- maintain the funding allowance of £3.3 million per year (CPI, 2020 prices) as part of NERL's opex allowance;
- retain the reporting requirements for programme management and delivery by the ACOG function set out in our Initial Proposals;[122]
- review NERL's overall expenditure on the ACOG function at the end of NR23, with a view to returning any significant underspend to airline

[122] See paragraph 7.51 of CAP 2394 Economic regulation of NATS (En Route) plc: Initial Proposals for the next price control review (NR23).

customers through an appropriate adjustment to as part of our NR28 review; and

- not permit applications by the ACOG function to the CAA AMS Support Fund, because the ACOG function is an impartial unit within NERL and funded through NERL's Determined Costs.

Summary of stakeholders' views

7.27 NERL said that its business plan had been shaped with the delivery of the AMS in mind and that it supported the CAA's emphasis in the Provisional Decision on the links and obligations between the AMS and NERL's role in delivery. It said that its plan retained its focus on the continuing replacement of its technology platform and the delivery of airspace modernisation for the benefit of its customers and consumers.

7.28 Airlines said that delivery of airspace modernisation was a strategic priority for UK aviation. British Airways said the links and obligations maintained in our Provisional Decision between the AMS and NERL's role in its delivery, including facilitating the ACOG function, are a key component of the NR23 period. It said that it was imperative that NERL is able to deliver on its obligations including airspace and technology initiatives.

7.29 Airlines for America requested the CAA and the UK government make improvements to the infrastructure that are critical to achievement of the AMS. Both IATA and Ryanair noted their ongoing support for the CAA AMS Support Fund.

7.30 Prospect said that airspace development would take time but should improve with the AMS and the ACOG.

Our views

7.31 We welcome stakeholders' general support for the continued importance of airspace modernisation and the AMS as a key focus in NR23, including NERL's role in its delivery. We agree that it is important that NERL delivers key investments to support airspace modernisation and discuss this further in chapter 4.

7.32 We note support for the continuation of the CAA AMS Support Fund: allowances for this have already been built into the CAA en route Determined Costs, as set out in our UK performance plan Decision on DfT, Met Office and CAA en route costs (2023 to 2027), on 7 July 2023.[123]

7.33 We also note support for the ACOG function, though stakeholders did not comment specifically on our proposed funding allowance and reporting arrangements. The

[123] See Table 3.2 of CAP 2553b NR23 Review: UK performance plan Decision on DfT, Met Office and CAA en route costs (2023 to 2027).

ACOG function plays an important role in supporting the delivery of airspace modernisation and we therefore consider it should be appropriately funded for the tasks it is required to deliver, and there should be appropriate programme management, reporting and oversight arrangements in respect of those tasks. We have therefore maintained our Provisional Decision on these issues.

Our Final Decision

7.34 Our Final Decision on airspace modernisation is unchanged from our Provisional Decision, as described above. In summary it is to:

- maintain the funding allowance of £3.3 million per year (CPI, 2020 prices) for the ACOG function as part of our NERL opex allowance;
- implement reporting requirements for the ACOG function on programme management and delivery, including progress tracking, identification of risks and opportunities, stakeholder engagement, benefits delivery and cost reporting;
- review NERL's overall expenditure on the ACOG function at the end of NR23. Any significant underspend will be returned to airlines through an appropriate adjustment as part of our NR28 review; and
- exclude applications from the ACOG function to the CAA AMS Support Fund, because the ACOG function is an impartial unit within NERL and funded through NERL's Determined Costs.

7.35 This Final Decision is consistent with our primary duty to maintain a high standard of safety in the provision of ATS, and our duties to further the interests of consumers, airspace users and airports, as it will allow the continuation of the ACOG function and its delivery of a coordinated UK airspace masterplan, which supports an efficient air traffic management system and future demand. Formalising the existing reporting arrangements will promote efficiency and economy on the part of NERL by ensuring continued transparency and opportunities to scrutinise the ACOG function's expenditure.

New users

Our Provisional Decision

7.36 In our Provisional Decision we said that NERL should provide services to new users where to do so would be consistent with its licence obligations and the TA00. We consider that taking steps to support the development of systems and procedures to allow the integration of new types of airspace user is consistent with our primary duty to maintain a high standard of safety in the provision of ATS. It will also further the interests of customers and consumers, as they will benefit from the services provided to new types of airspace users.

New user cost recording

7.37 We said that, from the start of NR23, NERL should bear the cost of providing these services and should put in place a 'new user cost recording' mechanism and make information available to us that would:

- create an evidence base that is transparent and proportionate;
- demonstrate the efficiency of the costs it incurs;
- show it has engaged properly with stakeholders in the design and cost of the services it develops;
- review the 'baseline' provided in its business plan in light of the latest available information, maintain a rolling 12-month forward look of expected activities and costs and make this available to us as appropriate; and
- make proposals for how best to update its Regulatory Accounting Guidelines to reflect this new user cost recording requirement.

7.38 We also said that we might conduct an *ex post* assessment of recorded costs, either specifically in relation to new user activity or as part of a wider assessment of NERL's efficiency. We clarified that any *ex post* efficiency review of capex relating to new user costs would be carried out in line with our principles and approach to assessing demonstrably inefficient and/or wasteful expenditure ("DIWE")[124] and, where it relates to opex we would assess whether costs are reasonable and efficient.

New user charging mechanism

7.39 We proposed that, in the medium term and by no later than 30 June 2025, NERL should submit a proposal for a new user charging mechanism to us. Before doing so, it should have engaged broadly on the new proposal, including:

- ensuring there is a well-developed, transparent and robust evidence base; and
- demonstrating that it had consulted on its proposals with all relevant stakeholders and responded to their feedback.

7.40 We said that NERL would not be able to recover the efficient costs it had incurred in relation to new users until we had considered, consulted on and implemented any new charging mechanism. Nevertheless, where NERL could set out a compelling case, we would consider supporting the use of commercial bilateral arrangements between NERL and new users on an interim basis.

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[124] Appendix D of CAP 2011 contains a regulatory policy statement on ex post efficiency assessment of NERL's capital expenditure, and sets out our principles and approach to assessing DIWE.

Summary of stakeholders' views

7.41 NERL accepted the approach proposed in our Provisional Decision and identified areas of activity it planned to pursue in terms of:

- engaging with new airspace users;
- seeking alignment with the CAA on a high-level service framework;
- developing the service architecture infrastructure to support the development of integrated services and facilitate airspace integration; and
- developing and submitting a new users charging mechanism for consideration by the CAA.

7.42 IATA, Airlines for America and easyJet supported any new charging mechanism centred on the user pays principle. However, IATA requested that the CAA oversee the development of the new charging mechanism as, in its view, the CAA is better positioned than NERL. Airlines for America opposed the proposal to delegate to NERL the responsibility for setting charges for new users. easyJet said that the CAA should monitor (and consult on) NERL's work to propose a new charging mechanism.

7.43 British Airways said it supported the Provisional Decision and considered that it addressed concerns regarding the existing user pays principle that had arisen from NERL's proposed approach and the risk of cross subsidy.

Our views

7.44 We welcome NERL's acceptance of our Provisional Decision and that it has already begun planning how to meet the necessary requirements.

7.45 We note some reservations from airlines regarding NERL's role in the development of a new user charging mechanism. We continue to consider that NERL is well placed to understand industry developments and new users' service requirements. On this basis, it is reasonable to task NERL to do some development and consultation work, with a view to making a *proposal* to the CAA. However, for clarity, any new charging mechanism must still be consulted on, and can only be implemented by us through our statutory and regulatory powers. Specifically, NERL will not be able raise any charges for its regulated activities without our intervention. We expect that we will monitor NERL's work in this area and actively engage in the development of its proposals, ahead of NERL making any submission to us for formal consideration and action.

Our Final Decision

7.46 Our Final Decision on new users is unchanged from our Provisional Decision, as described above.

New user cost recording

7.47 From the start of NR23, NERL should:

- bear the cost of providing these services and should put in place a 'new user cost recording' mechanism and make information available to us that:
  - (i) creates an evidence base that is transparent and proportionate;
  - (ii) demonstrates the efficiency of the costs it incurs; and
  - (iii) shows it has engaged properly with stakeholders in the design and cost of the services it develops;
- review the 'baseline' provided in its business plan in light of the latest available information and maintain a rolling 12-month "forward look" of its expected activities and costs, and make this available to us as appropriate; and
- make proposals for how best to update its Regulatory Accounting Guidelines to reflect this new user cost recording requirement.

7.48 We may conduct an *ex post* assessment of recorded costs, either specifically in relation to new user activity or as part of a wider assessment of NERL's efficiency. Where we do so, capex relating to new user costs will be assessed in line with our DIWE guidance, and opex will be assessed on the basis of whether costs are reasonable and efficient.

New user charging mechanism

7.49 By no later than 30 June 2025, NERL should submit a proposal for a new user charging mechanism to us, before which it should have engaged broadly on the new proposal, including:

- ensuring there is a well-developed, transparent and robust evidence base; and
- demonstrating that it has consulted on its proposals with all relevant stakeholders and responded to their feedback.

7.50 NERL will not be able to recover the efficient costs it has incurred in relation to new users until we have considered, consulted on and implemented any new charging mechanism. Nevertheless, where NERL can set out a compelling case, we will consider supporting the use of commercial bilateral arrangements between NERL and new users on an interim basis.

7.51 This Final Decision is consistent with our primary duty to maintain a high standard of safety in the provision of ATS as it will allow the development of systems and procedures to allow the integration of new types of airspace user. In doing so it will further the interests of customers and consumers, as new types of entrants will be able to operate. The requirements for an interim new user cost recording mechanism and the possibility of *ex post* efficiency assessments will promote efficiency and economy on the part of NERL. As the initial costs incurred by NERL are likely to be relatively modest (NERL included £3.3 million of opex in its business plan), we consider that delaying NERL's recovery of these costs until new charging arrangements are implemented (or commercial bilateral arrangements agreed) will not make it unduly difficult for NERL to finance its activities.

Capex engagement incentive

7.52 Recognising the importance of the effective management and delivery of NERL's investment programme, which will further the interests of customers and consumers and promote efficiency on the part of NERL, as part of the RP3 price control arrangements we introduced a suite of new capex incentives and governance requirements. This included a new incentive focused specifically on NERL's engagement with stakeholders on its capex plan. This was a "penalty only" incentive, informed by reviews carried out by a CAA-appointed "Independent Reviewer" that awarded NERL scores on a range from 1 ("Weak") to 5 ("Excellent") across six different assessment criteria. To avoid a penalty in RP3, NERL needed to achieve an average score of at least 3 ("Average").

Our Provisional Decision

7.53 As part of our Provisional Decision we said we would retain a capex engagement incentive with many of the same properties as the incentive we applied in RP3. It would continue to be a "penalty only" incentive, based on the quality of NERL's capex engagement (rather than delivery) and informed by scores awarded by an Independent Reviewer appointed by us. We would continue to engage with stakeholders to determine the projects and programmes that will be covered by the incentive, including any changes that may be appropriate during the course of NR23, for example, if there were to be changes to NERL's capex programme. Any penalty would continue to be applied on a "sliding scale" basis, with the maximum penalty (equivalent to NERL's return on equity applied to its actual capex in NR23) payable if NERL's score is 1.5 points or more below the score it needs to achieve in order to avoid any penalty.

7.54 However, for NR23 our Provisional Decision on the capex engagement incentive included several changes from the incentive that applied in RP3. In particular:

- scores would now be awarded on a scale from 1 to 4. The lowest category ("Weak") from RP3 would be dropped and the middle two categories renamed. The scale for NR23 would therefore comprise 1 ("Poor"), 2 ("Below expectations"), 3 ("Baseline expectations") and 4 ("Excellent");

- the score that NERL would need to achieve in order to avoid a penalty would now be 3 (“Baseline expectations”);[125] and
- the number of assessment criteria would be reduced from six to four, as we would be combining the previous “Timeliness”, “User-focus” and “Proportionality” criteria.

7.55 We also consulted stakeholders on some proposed changes to our guidance for the Independent Reviewer, including:

- revisions to the detailed scoring criteria, aimed at clarifying what NERL would need to achieve in order to avoid a penalty, and also allowing the Independent Reviewer to award half marks;
- confirmation that NERL would continue to be scored twice yearly, but for assessing any possible penalty the relevant score would be the final score for each project or programme awarded during NR23; and
- other revisions to the drafting of the guidance, including a new statement of the overall aim of the incentive and confirmation that stakeholders will have an opportunity to express their views on the quality of NERL’s engagement to the Independent Reviewer.

Summary of stakeholders’ views

7.56 NERL acknowledged and accepted the changes to the incentive set out in our Provisional Decision. Nevertheless, it stated that it wished to highlight the considerable challenges that they would present, and that they would make it materially harder for NERL to avoid a penalty. It stressed the importance of absolute clarity in the assessment guidance and the need to provide unambiguous directions to the Independent Reviewer. It proposed careful monitoring to evaluate the effectiveness of the incentive and considered it would be valuable to carry out a short consultation or workshop with the CAA and the Independent Reviewer to analyse scoring methods and expected evidence in order to minimise any remaining level of ambiguity.

7.57 On the draft guidance, NERL welcomed several of our changes and clarifications, including that the incentive is focused on engagement rather than delivery, the ability of the Independent Reviewer to award half marks, and the guidance on how the optioneering criterion should be applied in the case of mature projects (although it noted that this could still be challenging where programmes contain a mix of projects at different maturity levels, and proposed regular consultations with the Independent Reviewer). It acknowledged that we had adopted some of its specific proposed drafting changes and that this had helped to improve clarity.

[125] This is equivalent to a score of 4 (“Good”) in RP3.

Nevertheless, it stated that there was still a lack of clarity, for example, about the difference between "good" and "excellent" information or between "comprehensive" and "excellent" substantiation. It said that explicit definitions or examples would offer far greater assistance in distinguishing between scores.

7.58 In relation to other aspects of the draft guidance, NERL:

- proposed that "where appropriate" or "where practicable" be added under the "user information" criterion to the list of information to be provided to stakeholders;
- agreed with the first bullet point in the new "overall aim" statement,[126] but proposed a change to the drafting of the second bullet point to focus on engagement rather than stating that the incentive encourages NERL to seek improvements "to the development of its capex plan"; and
- accepted our decision that assessments should take place twice a year during NR23, though it stressed the need for feedback to be both prompt and specific, and recommended that assessment scores be produced no more than 10 weeks after the submission of the final version of each SIP.

7.59 IATA and several individual airlines supported our changes to the incentive. More specific comments on the incentive included:

- IATA stating that simplification of the scoring process will drive stronger and much needed users' engagement. It also supported the incentive continuing to be applied on a penalty only basis;
- Ryanair stating that the higher baseline expectation will be beneficial in terms of driving continuous improvement; and
- Airlines for America stating that the incentive would attract greater participation if the scoring process were simplified.

Our views

7.60 We welcome NERL's acceptance of the changes to the incentive included in our Provisional Decision, and the support for these changes from airlines. We agree with NERL that it will be important for us to continue monitoring the effectiveness of the incentive.

7.61 While we included some of NERL's drafting suggestions in the draft guidance published alongside our Provisional Decision, we consider that this now provides an

[126] This statement is in paragraph 3 of Appendix G1 of CAP 2553c Appendices to Provisional Decisions for the NR23 price control review.

appropriate level of clarity for the Independent Reviewer to assess NERL's capex engagement during the course of NR23.

7.62 We note NERL's suggestions to expand on this guidance, including explicit definitions or examples to define certain terms, or further discussions with the CAA and Independent Reviewer to analyse scoring methods and expected evidence. However, we are satisfied that the guidance now provides sufficient clarity for the Independent Reviewer to reach a considered view on NERL's overall performance under each of the assessment criteria, and are concerned that any attempt to codify or define these provisions in more detail could risk creating a list of specific requirements that NERL would be able to meet without necessarily providing the underlying quality of engagement that the incentive is meant to encourage. We are not minded, therefore, at this stage, to expand the guidance on scoring any further as we consider that doing so may undermine the ability of the Independent Reviewer to assess the substantive quality of NERL's engagement with stakeholders. For similar reasons, are we not minded to impose rigid timescales on the process, although we agree with NERL that feedback from the Independent Reviewer should be delivered promptly.

7.63 We agree with NERL's suggestion to add the words "where practicable" to the list of information to be provided to stakeholders under the "user information" criterion. However, we do not agree with NERL's proposed change to the "overall aim" statement, which, in our view, if adopted, would change the meaning of the statement. In any case, we note that this statement provides context for the Independent Reviewer rather than forming part of the detailed scoring criteria.

Our Final Decision

7.64 Our Final Decision is, therefore, to adopt the revised capital engagement incentive as set out in our Provisional Decision:

- as in RP3, this will be a "penalty only" incentive, informed by scores awarded by the Independent Reviewer for a selected group of projects and programmes. Any penalty will to be applied on a "sliding scale" basis, with the maximum penalty (equivalent to NERL's return on equity applied to its actual capex in NR23) payable if NERL's score is 1.5 points or more below the score it needs to achieve in order to avoid any penalty; and
- scores will be awarded on a scale from 1 ("Poor") to 4 ("Excellent") for each of four assessment criteria ((i)"User Focus, including timeliness of information, traceability and proportionality", (ii) "Optioneering", (iii) "Responsiveness", and (iv) "Mitigating/corrective actions"). NERL will need to achieve an overall score of 3 ("Baseline expectations") in order to avoid a penalty.

7.65 We are also adopting the guidance that was set out in Appendix G1 of our Provisional Decision as final guidance, subject only to changes to insert “where practicable” in the list of information to be provided to stakeholders under the “user information” criterion (as suggested by NERL) and to clarify under the “optioneering” criterion that the information provided to stakeholders should include consideration of delivery risks. The final guidance is set out in appendix D.

7.66 Overall, we consider that this revised incentive will encourage improvements in the quality of NERL’s engagement with customers on its capex programme. This will help to ensure that the programme is better aligned with the interests of customers and consumers and will promote efficiency and economy through the process of review and challenge that stakeholders provide to NERL’s plans.

Next steps and implementation

7.1 This chapter sets out our Final Decision on:

- uncertainty mechanisms, relating to the risks associated with traffic volumes, costs and inflation;
- costs and reporting requirements for the ACOG function, in support of airspace modernisation;
- provisions to support new airspace users (where for NERL to provide services would be consistent with its licence obligations and the TA00); and
- updates to the capex engagement incentive. Updated guidance on the operation of the capex engagement incentive is provided in CAP 2597b appendix C.

7.2 The modifications we have made to NERL’s licence to implement this decision are set out in CAP 2597b appendix E.

7.3 Consistent with condition 10 of NERL’s licence, we will appoint an Independent Reviewer to support the functioning of the capex engagement incentive and our oversight of NERL’s capex more generally.