

Heathrow Airport

Airport Charges for 2021 Consultation Document

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Executive Summary

Heathrow has partnered across industry in the global response to the challenges aviation has faced in 2020.

We have provided onsite relief for airline partners to get their fleets, crews and colleagues through the worst of the crisis – while staying open as an airbridge for the UK's vital food and medical supplies. We continue to work closely with airlines on the impacts of Covid-19, listening and responding to their needs and priorities for the months and years to come.

In parallel, Heathrow has played a full role in the conversation within the UK and internationally on how to create regulatory and logistical frameworks to support long-term, sustainable industry recovery. We have partnered with industry bodies to successfully call for regulatory alleviations on slot use requirements, and for the process allowing airlines to share available slots across industry to be eased. We continue to lobby hard for agreement on universal passenger testing standards to create a base on which governments and passengers around the World can have confidence in aviation; Stimulating strong passenger recovery.

Through these challenges, Heathrow has created new opportunities for our airline partners, helping many consolidate their operations at Heathrow, or enable them to trial new Heathrow-based routes. Where capacity exists, Heathrow has also welcomed new airline partners to our runways, opening up new commercial opportunities for airlines and showcasing the best of our terminal facilities and customer services to a wider mix of passengers than before.

Challenges remain, but long-term recovery will be secured through stimulating and stabilising passenger volumes - this objective sits at the heart of Heathrow's proposed pricing structure. We will do this while retaining our collective focus on sustainability through attracting the cleanest, quietest fleet.

To secure the recovery of passenger volumes, the broad thrust of our pricing proposal seeks to attract passengers, while maintaining responsible investment in our world class passenger terminals and operational facilities. We will do this while maintaining a safe, reliable operation which balances service and affordability.

Heathrow is proposing to set 2021 prices to recover the maximum allowable yield permitted by the current regulatory settlement. The forecast maximum allowable yield for 2021 is £21.078 per passenger, a 10.5% reduction on 2020.

Our 2021 consultation proposal includes:

- Reducing passenger charges to stimulate demand (as above)
- Scaling up charging incentives to encourage airline build-back
- Proportionately adjusting the percentage value of Movement Fees
- Pausing consideration of an overhaul of fee structures until 2022 to support recovery and enable meaningful consultation on issues such as carbon.
- Proportionately adjusting parking charges to reflect aircraft use

Publication of this consultation document initiates the consultation process. We are keen to listen to customer feedback throughout this process and we thank those who have already expressed early views.

Heathrow will be holding a consultation meeting on 9 September 2020. To help inform the consultation, Heathrow requests written responses from the airline community by 9 October 2020. Heathrow will consider all comments received during the consultation period, ahead of issuing a decision by 31 October 2020 for implementation from 1 January 2021.

Chapter 1 – Introduction and Consultation Programme

Purpose

- 1.1 The purpose of this document is to set out Heathrow's proposal for the level of airport charges and invite the airline community to provide views on the proposals.
- 1.2 Heathrow is proposing to set airport charges for 2021 to recover the forecast maximum allowable yield.
- 1.3 This consultation document sets out the calculations for the 2021 forecast maximum allowable yield based on the CAA's Q6 price control licence condition and the implementation of the iH7 commercial agreement.
- 1.4 This document also includes information on major capital investment projects subject to capital triggers, passenger number forecasts/actuals and financial information on revenues and costs.

Economic Regulation

- 1.5 In December 2012, the Civil Aviation Act 2012 (the Act) came into force. The Act allows the CAA to set the maximum yield per passenger that may be levied by Heathrow through the application of the price control conditions under a new licence.
- 1.6 The CAA modified Heathrow's licence on 21 December 2016 under section 22 of the Act. The modifications extended the current price control for Heathrow, which initially ran from 1 April 2014 to 31 December 2018, by one year so that it would end on 31 December 2019. The modification rolled over the existing control in the last year of Q6 on the same terms, i.e. a price path of the Retail Price Index (RPI) -1.5%. In April 2018, the CAA confirmed that an interim regulatory period would be implemented ahead of the H7 period. This period started on 1 January 2020 and runs until 31 December 2021 and is known as the interim H7 period or iH7. The CAA confirmed the implementation of the iH7 period through its notice of licence modifications in November 2019, with modifications effective from 1 January 2020.
- 1.7 2021 is the second year of the iH7 period. Calculation of the airport charge for the iH7 period will be in line with the current regulatory settlement and will continue to apply a price path of RPI -1.5%. In addition to this, a commercial agreement is in place between Heathrow and the airline community determining the additional rebates to be paid to the airline community through the period.
- 1.8 The basis of the price control regulation remains the application of the RPI-X formula under Single Till regulation to determine the maximum airport charge revenue yield.
- 1.9 Airport charges are levied on operators of aircraft in connection with the landing, parking or take off of aircraft at the airport (including charges that are to any extent determined by reference to the number of passengers on board the aircraft)¹.
- 1.10 The CAA also requires Heathrow to (i) meet service quality conditions and (ii) consult on capital investment and other regulated charges.
- 1.11 The CAA conditions for service quality require Heathrow to make payments to airlines if it fails to meet the assigned targets. The service quality measures include: seat availability; cleanliness; way-finding; flight information; passenger-sensitive

¹ The Airport Charges Regulations 2011

equipment; arrivals reclaim; stands; jetties; pier service; fixed electrical ground power; pre-conditioned air; central security queuing; transfer security queuing; staff security queuing; control post queuing; stand entry guidance; and track transit system. Further details on the service quality measures, including targets and penalties, can be found at www.heathrow.com².

- 1.12 Details of Heathrow's capital investment plan can be found at www.heathrow.com³, a list of other regulated facilities and services can be found at www.heathrow.com/orc and a list of property accommodation can be found at www.heathrow.com/property. In addition, the full schedule of airport charges is listed in the Conditions of Use, which can be found at www.heathrow.com/cou.

Heathrow Expansion

- 1.13 On 25 October 2016, Heathrow welcomed the Government's decision to support its expansion and confirmed it will begin work to deliver the new runway, which will connect all of Britain to the world, bringing new jobs and economic growth to every nation and region in the UK.
- 1.14 In July 2016, the CAA commenced its consultation on the regulatory treatment of costs incurred in obtaining the DCO required to proceed with expansion, Category B costs. The CAA modified Heathrow's licence on 21 December 2016 to allow it to recover up to £10 million per annum of Category B costs through airport charges.
- 1.15 Following Parliament's unambiguous support for Heathrow expansion on 25 June 2018 and the Secretary of State's subsequent designation of the NPS, Heathrow prepared our application for development consent, which was scheduled to be submitted to the Planning Inspectorate in mid-2020.
- 1.16 In June 2019, Heathrow began its Statutory Consultation, the Airport Expansion Consultation. This consultation exercise is required by law as part of the planning process and the feedback from this consultation will inform Heathrow's DCO submission.
- 1.17 In July 2019, the CAA consulted on its policy for the regulatory treatment of construction costs which are required to be incurred in advance of Heathrow obtaining DCO consent. The CAA's proposals include that, once a programme of pre-DCO Category C expenditure consistent with the needs of consumers has been agreed, efficiently incurred pre-DCO Category C costs should be recoverable by Heathrow⁴.
- 1.18 In February 2020, the Court of Appeal ruled against the Secretary of State for Transport relating to the Government's decision to designate the Airports National Policy Statement and work on expansion was paused. In May 2020 we secured permission from the Supreme Court to legally challenge the Court of Appeal's decision. We remain of the view that a robust process has been applied to date, including the extensive evidence gathered by the independent Airports Commission, multiple rounds of public consultation and the overwhelming vote in Parliament.
- 1.19 In June 2020, the CAA proposed that the regulatory treatment of the early expansion costs that HAL has incurred up to the end of February 2020 is consistent

²<http://www.heathrow.com/company/investor-centre/results-and-performance/service-quality>

³<http://www.heathrow.com/company/investor-centre/document-centre/capital-investment-plans>

⁴ Economic regulation of capacity expansion at Heathrow airport: consultation on early costs and regulatory timetable (CAP1819)

with the established regulatory principle that costs should be added to HAL's RAB unless there is evidence of inefficiency or misallocation.⁵

Consultation Programme

1.20 Heathrow is consulting on the level of charges for 2021 with the airline community and plans to announce its final decision by 31 October 2020. The publication of this consultation document is the start of our consultation on the annual setting of airport charges.

1.21 The consultation programme is as follows:

Table 1

Date	Milestone
30 Aug 2020	Publication of Heathrow consultation document
09 Sep 2020	Consultation meeting
09 Oct 2020	Airline written responses submitted by close of business
31 Oct 2020	Heathrow announces 2021 prices
1 Jan 2021	Prices and updated Conditions of Use applicable

1.22 The consultation meeting will be held on 9 September 2020 which will provide the airline community with the opportunity to comment on the pricing and Conditions of Use proposals, in addition to providing any written comments by 9 October 2020. The meeting will be open to all airlines and their representative bodies.

Date: Wednesday 9 September 2020
 Time: 14:30 to 16:30
 Location: Microsoft Teams Meeting

1.23 Please let us know if you would like to attend the consultation meeting using the email address provided below.

How to Respond

1.24 We invite interested parties to submit written responses to the proposals set out in this document by close of business on 9 October 2020. Responses should be sent to: airline_relations@heathrow.com. You should also use this email address in the event you have any questions on the consultation document or associated process.

Please clearly mark any information that should be treated as confidential in responses to this consultation.

⁵ Economic regulation of Heathrow: policy update and consultation (CAP1940).

Chapter 2 – iH7 Commercial Agreement and Regulatory Implementation

- 2.1 As set out in chapter 1, the iH7 period started on 1 January 2020 and runs until 31 December 2021. The regulatory framework for this period is consistent with the Q6 framework and decision, i.e. setting a price path of RPI -1.5%; and maintains all other conditions included in Heathrow's economic licence including but not limited to service quality, consultation and engagement conditions.
- 2.2 In addition to extending the Q6 conditions, Heathrow and a significant proportion of the airline community have signed a commercial agreement for the iH7 period, the terms and conditions of which are set out in those separate agreements.
- 2.3 The commercial agreement is implemented through Heathrow's economic licence. The agreement is additional to Heathrow's price control condition and the rebates paid through the agreement do not form part of the calculation of the maximum allowable yield. Calculation of the maximum allowable yield will continue to be based on the formula set out in the CAA's Q6 decision, and confirmed in its November 2019 CAP1852 notice, with a price path of RPI -1.5%.

Chapter 3 – Calculating the Maximum Allowable Yield

Calculating the Maximum Allowable Yield

- 3.1 Based on the CAA's Q6 price control licence condition the following price formula has been used for calculation of the 2021 yield:

$$M_{2021} = (1 + RPI_{t-1} + X + B_{t-2})Y_{t-1} + \frac{D_t}{Q_t} - \frac{T_t}{Q_t} + \frac{A_t}{Q_t} + \frac{BR_t}{Q_t} - K_t$$

Where:

M_{2021}	=	maximum revenue yield per passenger using Heathrow airport in Regulatory Year ("2021") expressed in pounds.
RPI_{t-1}	=	is the percentage change (positive or negative) in the Office for National Statistics (ONS) CHAW Retail Price Index between April in year t-1 and the immediately preceding April. For 2021 this would be the change from April 2019 to April 2020.
X	=	-1.5%
B_{t-2}	=	bonus factor based on certain service quality performance in 2019.
Y_{t-1}	=	specified average revenue yield per passenger for the period t-1 (2020).
D_t	=	cumulative development capex adjustment.
T_t	=	reduction in maximum allowable charges when the airport has not achieved specific trigger dates associated with relevant projects (Triggers).
A_t	=	cost pass-through for runway expansion.
BR_t	=	business rates revaluation factor.
K_t	=	correction factor (K Factor) per passenger (whether positive or negative value) for 2019.
Q_t	=	forecast passengers using Heathrow airport in 2021.

- 3.2 The relevant year "2021", means the period of twelve months from 1 January 2021 to 31 December 2021.

Maximum allowable yield forecast for 2021

- 3.3 The combined impact of all the elements of the formula results in a forecast 2021 maximum allowable yield of £21.078 (passenger only flights). The full details of the formula are shown below.

Bonus Factor

- 3.4 The formula includes a bonus factor that allows the airport to recover a bonus when performance on certain service quality measures exceeds a specified service standard. The bonus term in any given year is based on actual service quality, based on the two-year period preceding the relevant year i.e. 2019. Heathrow achieved a bonus in 2019. Further detail is provided in Chapter 4.

Cumulative development capex adjustment

- 3.5 The cumulative development capex adjustment adjusts the maximum allowable yield to account for the cumulative difference between the development capex allowance in the Q6 settlement and forecast development capex spend. Heathrow forecasts to transition less cumulative development capex up to 31 December 2021 than the CAA's allowance. Further detail is provided in Chapter 5.

Triggers

- 3.6 Triggers reduce the maximum allowable charges when the airport has not met specified capital investment project dates. As at 1 June 2020, nineteen trigger projects have been agreed with the airline community. There is only one project that is forecast to not meet its trigger milestone date that falls into 2021, which is the Main Tunnel Life Safety Systems project.
- 3.7 The Main Tunnel Life Safety Systems project is forecast to be completed by November 2022 and has a trigger milestone date of December 2016. Therefore 2021 airport charges take account of the full twelve months in 2021.
- 3.8 Any trigger payment which may arise in 2021 due to new triggered projects or any deviation in actual completion dates will be corrected through the K Factor when setting 2023 airport charges.

Cost pass through of Category B costs

- 3.9 If applied, cost pass through of Category B costs increases the maximum allowable yield Heathrow can recover by up to £10 million per year for costs associated with obtaining planning permission for a new northwest runway (i.e. Category B costs).
- 3.10 Heathrow is not recovering any costs associated to Category B for 2021.

Business rates revaluation factor

- 3.11 The business rates revaluation factor adjusts the forecast maximum allowable yield to account for the difference between the actual change in the rates revaluation

undertaken by the Valuation Office Agency in 2018 compared to the 9% allowance in the settlement.

- 3.12 The actual business rates revaluation has been lower than the 9%. This reduces the forecast maximum allowable yield. Full details are shown in Chapter 7.

Passengers

- 3.13 Heathrow passenger forecast for 2021 is 62,824k (twelve months – January 2021 to December 2021).

K Factor

- 3.14 The K Factor in the formula has decreased the 2021 forecast maximum allowable yield to compensate for the unanticipated over-recovery against the maximum allowable yield in 2019, including with an allowance for interest. The K Factor calculation is shown in Chapter 8.

Application of the Regulatory Pricing Formula

- 3.15 Based on the regulatory pricing formula, the 2021 forecast maximum allowable is set out below.

$$M_{2021} = (1 + RPI_{t-1} + X + B_{t-2})Y_{t-1} + \frac{D_t}{Q_t} - \frac{T_t}{Q_t} + \frac{A_t}{Q_t} + \frac{BR_t}{Q_t} - K_t$$

Where :

RPI _{t-1}	=	1.5%	
X	=	-1.5%	
B _{t-2}	=	0.059%	- actual bonus achieved in 2019
Y _{t-1}	=	£23.531	
D _t	=	-£89,689k	- this figure is a forecast
A _t	=	£0	
T _t	=	£1,440	- this figure is a forecast
BR _t	=	-£40,639k	
K _t	=	0.369	- this figure is a forecast
Q _t	=	62,824k	- this figure is a forecast

Hence:

$$M_{2021} = (1 + RPI_{t-1} + X + B_{t-2})Y_{t-1} + \frac{D_t}{Q_t} - \frac{T_t}{Q_t} + \frac{A_t}{Q_t} + \frac{BR_t}{Q_t} - K_t$$

$$M_{2021} = (1 + 1.5\% + -1.5\% + 0.059\%)23.531 + \frac{(-89,689)}{62,824} - \frac{1,440}{62,824} + \frac{0}{62,824} + \frac{(-40,639)}{62,824} - (0.369)$$

$$M_{2021} = (1.001 * 23.531) + (-1.428) - (0.023) + 0 + (-0.647) - (0.369)$$

$$M_{2021} = 21.078$$

Charges in 2020

3.16 The forecast maximum allowable yield at Heathrow in 2020 was calculated at £23.560.

Table 2

Specified yield 2020	£23.183
12 months RPI movement to April 2017	£0.695
X	-£0.348
Bonus term	£0.010
Trigger payments	£0.000
Development capex	-£0.022
Category B	£0.123
Business rates	-£0.425
K factor from 2017 under recovery	£0.344
Forecast 2019 maximum allowable yield	£23.560

Proposed pricing for 2021

3.17 Heathrow is proposing to set prices for 2021 to recover the forecast maximum allowable yield of £21.078 per passenger (details of the charges are shown in Chapter 9).

3.18 Full details of the individual tariffs are shown in Chapters 9 and 10.

Chapter 4 – Bonus Factor

- 4.1 The price control licence condition for the maximum allowable yield includes a bonus component for performance of certain service quality measures. A service quality bonus can be achieved when performance for certain measures exceeds the specified target levels. Full details of the bonus can be found in the Licence granted to Heathrow Airport Limited.
- 4.2 The service quality bonus can be recovered from 2014 to 2021 for departure lounge seating availability, cleanliness, way-finding and flight information. For the purposes of the 2021 forecast maximum allowable yield the service quality bonus can be recovered for the Regulatory Period 2019 from 1 January 2019 to 31 December 2019.
- 4.3 Heathrow has achieved the service quality bonus for 2019 at 0.059%. This is included in the 2021 forecast maximum allowable yield.
- 4.4 Table 3 sets out the 2019 performance of these measures for the purpose of the bonus.

Table 3

Departure lounge seating availability	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Total
Terminal 1 (actual)	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	
Terminal 2 (actual)	4.37	4.37	4.36	4.36	4.36	4.36	4.36	4.34	4.35	4.35	4.34	4.35	
Terminal 3 (actual)	4.17	4.17	4.17	4.18	4.18	4.18	4.17	4.17	4.18	4.18	4.18	4.19	
Terminal 4 (actual)	4.28	4.28	4.28	4.28	4.28	4.28	4.28	4.29	4.30	4.31	4.32	4.33	
Terminal 5 (actual)	4.10	4.11	4.11	4.10	4.10	4.09	4.08	4.08	4.09	4.09	4.09	4.09	
BNS(T1)KJ	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	
BNS(T2)KJ	0.0203%	0.0203%	0.0195%	0.0195%	0.0195%	0.0195%	0.0195%	0.0180%	0.0188%	0.0188%	0.0180%	0.0188%	
BNS(T3)KJ	0.0053%	0.0053%	0.0053%	0.0060%	0.0060%	0.0060%	0.0053%	0.0053%	0.0060%	0.0060%	0.0060%	0.0068%	
BNS(T4)KJ	0.0135%	0.0135%	0.0135%	0.0135%	0.0135%	0.0135%	0.0135%	0.0143%	0.0150%	0.0158%	0.0165%	0.0173%	
BNS(T5)KJ	0.0000%	0.0008%	0.0008%	0.0000%	0.0000%	-0.0007%	-0.0015%	-0.0015%	-0.0007%	-0.0007%	-0.0007%	-0.0007%	
Bonus term =	0.0000%	0.0008%	0.0008%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.002%
Cleanliness	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Total
Terminal 1 (actual)	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	
Terminal 2 (actual)	4.38	4.38	4.37	4.37	4.37	4.37	4.37	4.38	4.38	4.38	4.38	4.38	
Terminal 3 (actual)	4.18	4.18	4.18	4.18	4.18	4.17	4.17	4.17	4.18	4.18	4.17	4.18	
Terminal 4 (actual)	4.25	4.25	4.25	4.25	4.26	4.27	4.27	4.26	4.27	4.27	4.27	4.28	
Terminal 5 (actual)	4.31	4.31	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	
BNS(T1)KJ	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	
BNS(T2)KJ	0.0180%	0.0180%	0.0170%	0.0170%	0.0170%	0.0170%	0.0170%	0.0180%	0.0180%	0.0180%	0.0180%	0.0180%	
BNS(T3)KJ	-0.0020%	-0.0020%	-0.0020%	-0.0020%	-0.0020%	-0.0030%	-0.0030%	-0.0030%	-0.0020%	-0.0020%	-0.0030%	-0.0020%	
BNS(T4)KJ	0.0050%	0.0050%	0.0050%	0.0050%	0.0060%	0.0070%	0.0070%	0.0060%	0.0070%	0.0070%	0.0070%	0.0080%	
BNS(T5)KJ	0.0110%	0.0110%	0.0120%	0.0120%	0.0120%	0.0120%	0.0120%	0.0120%	0.0120%	0.0120%	0.0120%	0.0120%	
Bonus term =	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.000%
Way finding	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Total
Terminal 1 (actual)	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	
Terminal 2 (actual)	4.31	4.31	4.31	4.31	4.31	4.31	4.30	4.30	4.30	4.31	4.32	4.32	
Terminal 3 (actual)	4.24	4.24	4.24	4.24	4.25	4.25	4.26	4.25	4.25	4.25	4.25	4.26	
Terminal 4 (actual)	4.26	4.26	4.26	4.27	4.27	4.28	4.27	4.27	4.27	4.28	4.28	4.30	
Terminal 5 (actual)	4.25	4.25	4.25	4.26	4.25	4.26	4.25	4.26	4.26	4.26	4.26	4.26	
BNS(T1)KJ	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	
BNS(T2)KJ	0.0110%	0.0110%	0.0110%	0.0110%	0.0110%	0.0110%	0.0100%	0.0100%	0.0100%	0.0110%	0.0120%	0.0120%	
BNS(T3)KJ	0.0040%	0.0040%	0.0040%	0.0040%	0.0050%	0.0050%	0.0060%	0.0050%	0.0050%	0.0050%	0.0050%	0.0060%	
BNS(T4)KJ	0.0060%	0.0060%	0.0060%	0.0070%	0.0070%	0.0080%	0.0070%	0.0070%	0.0070%	0.0080%	0.0080%	0.0100%	
BNS(T5)KJ	0.0050%	0.0050%	0.0050%	0.0060%	0.0050%	0.0060%	0.0050%	0.0060%	0.0060%	0.0060%	0.0060%	0.0060%	
Bonus term =	0.0040%	0.0040%	0.0040%	0.0040%	0.0050%	0.0050%	0.0050%	0.0050%	0.0050%	0.0050%	0.0050%	0.0060%	0.057%
Flight information	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Total
Terminal 1 (actual)	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.70	4.70	
Terminal 2 (actual)	4.44	4.43	4.43	4.43	4.43	4.42	4.41	4.40	4.41	4.41	4.40	4.40	
Terminal 3 (actual)	4.41	4.40	4.40	4.41	4.41	4.41	4.40	4.41	4.42	4.42	4.42	4.42	
Terminal 4 (actual)	4.37	4.37	4.37	4.37	4.37	4.38	4.38	4.39	4.38	4.39	4.41	4.42	
Terminal 5 (actual)	4.38	4.39	4.39	4.39	4.39	4.39	4.39	4.39	4.39	4.39	4.40	4.40	
BNS(T1)KJ	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	0.0300%	
BNS(T2)KJ	0.0040%	0.0030%	0.0030%	0.0030%	0.0030%	0.0020%	0.0010%	0.0000%	0.0010%	0.0010%	0.0000%	0.0000%	
BNS(T3)KJ	0.0010%	0.0000%	0.0000%	0.0010%	0.0010%	0.0010%	0.0000%	0.0010%	0.0020%	0.0020%	0.0020%	0.0020%	
BNS(T4)KJ	-0.0030%	-0.0030%	-0.0030%	-0.0030%	-0.0030%	-0.0020%	-0.0020%	-0.0010%	-0.0020%	-0.0010%	0.0010%	0.0020%	
BNS(T5)KJ	-0.0020%	-0.0010%	-0.0010%	-0.0010%	-0.0010%	-0.0010%	-0.0010%	-0.0010%	-0.0010%	-0.0010%	0.0000%	0.0000%	
Bonus term =	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.000%
Bonus term =	0.0040%	0.0048%	0.0048%	0.0040%	0.0050%	0.0050%	0.0050%	0.0050%	0.0050%	0.0050%	0.0050%	0.0060%	0.0585%
Rounded to 3 decimal places Bt =	0.004%	0.005%	0.005%	0.004%	0.005%	0.005%	0.005%	0.005%	0.005%	0.005%	0.005%	0.006%	0.059%

Chapter 5 - Development Capital

- 5.1 Heathrow, the airlines and the CAA have recognised that agreeing investment plans at the time of the price review for the next five to six years does not reflect the need for flexibility. Therefore, it was agreed that a two-tier approach would be adopted where capital investment would be classified as either Development or Core, to ensure flexibility of the capital investment programme throughout Q6. This mechanism has been continued for the iH7 period.
- 5.2 Core capital represents firm investment commitments where scope and cost estimates can be reasonably certain. Core capital investment is estimated at a P50 level (where the likelihood of the cost being higher than the estimate is equal to the likelihood being lower). Development capital projects have a lower definition of scope and cost estimations than Core projects (and are estimated at a P80 level).
- 5.3 Development and Core capital investment are subject to the Gateway process with airlines. The Gateway process has a number of Gateway events. The first two Gateways are where the scope and cost estimates are developed. The project is transitioned to Core after Gateway 3 when the scope and cost estimates are well defined. The project is then progressed through the remaining Gateways.
- 5.4 This two-tier approach to capital investment is designed so that Heathrow does not earn a return on any Development capital allowance that has not been used. The mechanism to take this into effect is the cumulative development capex adjustment in the maximum allowable yield. This requires Heathrow to make an estimate (on a cumulative basis throughout Q6 and continued into iH7) of how much Development capital allowance will be spent or transitioned to Core. This adjustment only applies to Development capital investment.
- 5.5 Capital projects are subject to the on-going Gateway process with the airline community and the current trajectory of project approvals. Heathrow anticipates fewer projects are transitioning to Core than originally anticipated in the settlement. Therefore, a lower cumulative capex spend to 2021 than the CAA's Q6 and iH7 settlement of up to £2.3bn (2021 prices) is now expected.
- 5.6 The anticipated lower cumulative capex spend to 2021 results in an adjustment to the maximum allowable yield.
- 5.7 Table 4 sets out the actual and projected Development and Core capex compared to the settlement in 2021 prices.

Table 4

£m and in 2021 prices	2014*	2015	2016	2017	2018	2019	2020	2021	Q to date
Development plus core	426.2	675.1	774.6	744.4	676.9	621.4	363.5	347.0	4,629.1
Settlement	576.7	878.6	847.9	694.5	701.2	680.0	965.2	1,576.2	6,920.3
Difference	(150.5)	(203.5)	(73.3)	49.9	(24.3)	(58.6)	(601.7)	(1,229.2)	(2,291.2)

*9 months

- 5.8 The cumulative spend translates into a lower 2021 average RAB of £1,676m. Applying the cumulative development adjustment results in the 2021 maximum allowable yield reducing by £89.69m, equivalent to £1.43 pence per passenger.
- 5.9 Any subsequent change in actual development capex transitioning to Core capex will be adjusted in the K Factor when setting charges for 2023.
- 5.10 The formula to calculate the 2021 cumulative development capex adjustment of £89.69m is set out below:

Year t =	9mo.2014	2015	2016	2017	2018	2019	2020	2021
Additional revenue requirement for 2014 projects	$0.5 \times d_{2014}$	$\frac{P_{t-1}}{P_{t-2}} \times d_{2014}$	$\frac{P_{t-1}}{P_{t-3}} \times d_{2014}$	$\frac{P_{t-1}}{P_{t-4}} \times d_{2014}$	$\frac{P_{t-1}}{P_{t-5}} \times d_{2014}$	$\frac{P_{t-1}}{P_{t-6}} \times d_{2014}$	$\frac{P_{t-1}}{P_{t-7}} \times d_{2014}$	$\frac{P_{t-1}}{P_{t-8}} \times d_{2014}$
Additional revenue requirement for 2015 projects	0	$0.5 \times d_{2015}$	$\frac{P_{t-1}}{P_{t-2}} \times d_{2015}$	$\frac{P_{t-1}}{P_{t-3}} \times d_{2015}$	$\frac{P_{t-1}}{P_{t-4}} \times d_{2015}$	$\frac{P_{t-1}}{P_{t-5}} \times d_{2015}$	$\frac{P_{t-1}}{P_{t-6}} \times d_{2015}$	$\frac{P_{t-1}}{P_{t-7}} \times d_{2015}$
Additional revenue requirement for 2016 projects	0	0	$0.5 \times d_{2016}$	$\frac{P_{t-1}}{P_{t-2}} \times d_{2016}$	$\frac{P_{t-1}}{P_{t-3}} \times d_{2016}$	$\frac{P_{t-1}}{P_{t-4}} \times d_{2016}$	$\frac{P_{t-1}}{P_{t-5}} \times d_{2016}$	$\frac{P_{t-1}}{P_{t-6}} \times d_{2016}$
Additional revenue requirement for 2017 projects	0	0	0	$0.5 \times d_{2017}$	$\frac{P_{t-1}}{P_{t-2}} \times d_{2017}$	$\frac{P_{t-1}}{P_{t-3}} \times d_{2017}$	$\frac{P_{t-1}}{P_{t-4}} \times d_{2017}$	$\frac{P_{t-1}}{P_{t-5}} \times d_{2017}$
Additional revenue requirement for 2018 projects	0	0	0	0	$0.5 \times d_{2018}$	$\frac{P_{t-1}}{P_{t-2}} \times d_{2018}$	$\frac{P_{t-1}}{P_{t-3}} \times d_{2018}$	$\frac{P_{t-1}}{P_{t-4}} \times d_{2018}$
Additional revenue requirement for 2019 projects	0	0	0	0	0	$0.5 \times d_{2019}$	$\frac{P_{t-1}}{P_{t-2}} \times d_{2019}$	$\frac{P_{t-1}}{P_{t-3}} \times d_{2019}$
Additional revenue requirement for 2020 projects	0	0	0	0	0	0	$0.5 \times d_{2020}$	$\frac{P_{t-1}}{P_{t-2}} \times d_{2020}$

Year t =	9mo.2014	2015	2016	2017	2018	2019	2020	2021
Additional revenue requirement for 2021 projects	0	0	0	0	0	0	0	0.5 × d ₂₀₂₁
D _t =	Sum Rows x W	Sum Rows x W	Sum Rows x W	Sum Rows x W	Sum Rows x W	Sum Rows x W	Sum Rows x W	Sum Rows x W

Where:

- W = Weighted Average Cost of Capital of 5.35%
- d₂₀₁₄ = Annual development capex adjustment in 2014
- d₂₀₁₅ = Annual development capex adjustment in 2015
- d₂₀₁₆ = Annual development capex adjustment in 2016
- d₂₀₁₇ = Annual development capex adjustment in 2017
- d₂₀₁₈ = Annual development capex adjustment in 2018
- d₂₀₁₉ = Annual development capex adjustment in 2019
- d₂₀₂₀ = Annual development capex adjustment in 2020
- d₂₀₂₁ = Annual development capex adjustment in 2021
- P_{t-1} = ONS CHAW Retail Price Index in April 2020 is 292.6
- P_{t-2} = ONS CHAW Retail Price Index in April 2019 is 288.2
- P_{t-3} = ONS CHAW Retail Price Index in April 2018 is 279.7
- P_{t-4} = ONS CHAW Retail Price Index in April 2017 is 270.6
- P_{t-5} = ONS CHAW Retail Price Index in April 2016 is 261.4
- P_{t-6} = ONS CHAW Retail Price Index in April 2015 is 258.0
- P_{t-7} = ONS CHAW Retail Price Index in April 2014 is 255.7
- P_{t-8} = ONS CHAW Retail Price Index in April 2013 is 249.5

The annual development capex adjustment for d₂₀₁₄, d₂₀₁₅, d₂₀₁₆, d₂₀₁₇, d₂₀₁₈, d₂₀₁₉, d₂₀₂₀ and d₂₀₂₁ is calculated as follows:

$$d_t = O_t - \left(V_t * \frac{P_{t-1}}{222.80} \right)$$

Where:

- O_t = total capex in Regulatory Period or Regulatory Year t associated with all development capex that has transitioned to core projects including the actual capital spend incurred during development stages of projects (irrespective of whether projects have transitioned from development to core)
- V_t = development capex allowance in Regulatory Period or Regulatory Year t

P_{t-1} = Value of the ONS CHAW Retail Price Index in April in Regulatory Period or Regulatory Year t-1

Hence d_{2014} :

$$d_{2014} = O_{2014} - \left(V_{2014} * \frac{P_{t-1}}{222.80} \right)$$

O_{2014} = £363,400k

V_{2014} = £439,100k

P_{t-1} = ONS CHAW Retail Price Index in April 2013 is 249.5

$$d_{2014} = 363,400 - \left(439,100 * \frac{249.5}{222.8} \right)$$

d_{2014} = -£128,321k

Hence d_{2015} :

$$d_{2015} = O_{2015} - \left(V_{2015} * \frac{P_{t-1}}{222.80} \right)$$

O_{2015} = £590,000k

V_{2015} = £669,000k

P_{t-1} = ONS CHAW Retail Price Index in April 2014 is 255.7

$$d_{2015} = 590,000 - \left(669,000 * \frac{255.7}{222.8} \right)$$

d_{2015} = -£177,789k

Hence d_{2016} :

$$d_{2016} = O_{2016} - \left(V_{2016} * \frac{P_{t-1}}{222.80} \right)$$

$$O_{2016} = \text{£}683,000\text{k}$$

$$V_{2016} = \text{£}645,600\text{k}$$

$$P_{t-1} = \text{ONS CHAW Retail Price Index in April 2015 is 258.0}$$

$$d_{2016} = 683,000 - \left(645,600 * \frac{258.0}{222.8} \right)$$

$$d_{2016} = \text{£}64,598\text{k}$$

Hence d_{2017} :

$$d_{2017} = O_{2017} - \left(V_{2017} * \frac{P_{t-1}}{222.80} \right)$$

$$O_{2017} = \text{£}665,000\text{k}$$

$$V_{2017} = \text{£}528,800\text{k}$$

$$P_{t-1} = \text{ONS CHAW Retail Price Index in April 2016 is 261.4}$$

$$d_{2017} = 665,000 - \left(528,800 * \frac{261.4}{222.8} \right)$$

$$d_{2017} = \text{£}44,586\text{k}$$

Hence d_{2018} :

$$d_{2018} = O_{2018} - \left(V_{2018} * \frac{P_{t-1}}{222.80} \right)$$

$$O_{2018} = \text{£}626,000\text{k}$$

$$V_{2018} = \text{£}533,900\text{k}$$

$$P_{t-1} = \text{ONS CHAW Retail Price Index in April 2017 is 270.6}$$

$$d_{2018} = 626,000 - \left(533,900 * \frac{270.6}{222.8} \right)$$

$$d_{2018} = \text{-£}22,444\text{k}$$

Hence d_{2019} :

$$d_{2019} = O_{2019} - \left(V_{2019} * \frac{P_{t-1}}{222.80} \right)$$

$$O_{2019} = \text{£}594,000\text{k}$$

$$V_{2019} = \text{£}517,769\text{k}$$

$$P_{t-1} = \text{ONS CHAW Retail Price Index in April 2018 is 279.7}$$

$$d_{2019} = 594,000 - \left(517,769 * \frac{279.7}{222.8} \right)$$

$$d_{2019} = \text{-£}56,000\text{k}$$

Hence d_{2020} :

$$d_{2020} = O_{2020} - \left(V_{2020} * \frac{P_{t-1}}{222.80} \right)$$

$$O_{2020} = \text{£}358,000\text{k}$$

$$V_{2020} = \text{£}734,927\text{k}$$

$$P_{t-1} = \text{ONS CHAW Retail Price Index in April 2019 is 288.2}$$

$$d_{2020} = 358,000 - \left(734,927 * \frac{288.2}{222.8} \right)$$

$$d_{2020} = \text{-£}592,655\text{k}$$

Hence d_{2021} :

$$d_{2021} = O_{2021} - \left(V_{2021} * \frac{P_{t-1}}{222.80} \right)$$

$$O_{2021} = \text{£}347,000\text{k}$$

$$V_{2021} = \text{£}1,200,173\text{k}$$

$$P_{t-1} = \text{ONS CHAW Retail Price Index in April 2020 is 292.6}$$

$$d_{2021} = 347,000 - \left(1,200,173 * \frac{292.6}{222.8} \right)$$

$$d_{2021} = - \text{£}1,229,170\text{k}$$

Therefore d_{2014} , d_{2015} , d_{2016} , d_{2017} , d_{2018} , d_{2019} , d_{2020} , and d_{2021} is applied to the development capex adjustment table as follows to determine the adjustment:

Hence:

Year t =	2021	Results in
Additional revenue requirement for 2014 projects	$\frac{292.6}{249.5} \times -128,321$	-150,488
Additional revenue requirement for 2015 projects	$\frac{292.6}{255.7} \times -177,789$	-203,445
Additional revenue requirement for 2016 projects	$\frac{292.6}{258.0} \times -64,598$	-73,261
Additional revenue requirement for 2017 projects	$\frac{292.6}{261.4} \times 44,586$	49,907
Additional revenue requirement for 2018 projects	$\frac{292.6}{270.6} \times -22,444$	-24,269
Additional revenue requirement for 2019 projects	$\frac{292.6}{279.7} \times -56,000$	-58,583
Additional revenue requirement for 2020 projects	$\frac{292.6}{288.2} \times 592,655$	-601,703
Additional revenue requirement for	$0.5 \times -1,229,170$	-614,585

Year t =	2021	Results in
2021 projects		
D _t =		-1,676,427 x 5.35%

$$D_t = -£89,689$$

The 2021 forecast maximum allowable yield is therefore lowered to account for the -£89,689 cumulative development capex adjustment.

Chapter 6 – Capital Triggers

- 6.1 The CAA's maximum allowable yield formula for Q6 includes a trigger element which means that if a trigger project is not complete by a specified project trigger date then the allowable yield is reduced.
- 6.2 Q6 triggers are placed around a subset of "key projects". However, unlike Q5, projects that triggers will be attached to have not been defined in the CAA's Q6 price control licence condition. In Q6, triggers are attached to projects at Gateway 3 of the projects process. This means trigger projects will be developed during the Gateway Process with airlines, where triggers for individual projects will be developed, and then formally attached to applicable key projects at Gateway 3.
- 6.3 As at 1 June 2020, nineteen capital trigger projects have been agreed with the airline community. Table 5 sets out the agreed trigger projects.

Table 5

Project	Trigger date	Completion date	Actual/Forecast
Northern Runway Returned to Cat III Operations	Sep-14	Sep-14	Actual
Reconfigure Stand 410 to handle Code F Aircraft	Dec-14	Nov-14	Actual
T3IB cut-ins completed and baggage system operational	Jan-16	Jul-16	Actual
Main Tunnel Life Safety Systems	Dec-16	Nov-22	Forecast
Bravo taxiway open for code f operations	Sep-17	Oct-17	Actual
Access via new South escalator from transfer arrivals (from level 10 to level 30)	May-16	Mar-16	Actual
T3 Pier 7 Roof - Permanent M&E services to be fully operational and temporary plant	Mar-17	Mar-17	Actual
Replacement of 12 airbridges on 9 stands across T3	Jan-18	Jan-18	Actual
To deliver a new Permanent FCC to T3 and demolish the interim Facility on Stand 323	Jan-19	Jan-19	Actual
T5 additional fast track capacity	Jun-17	Feb-17	Actual
New Cellular platform available for MNO connection (G5)	Mar-18	Feb-18	Actual
Hold baggage screening standard 3 machines installed in Terminal 2	Sep-18	Mar-20	Actual
Proposed % of Hold baggage screening standard 3 machines installed and in use in Terminal 5	Sep-18	Sep-18	Actual
kilo apron developments - delivery of stands 211, 212 and 213 into operational use	Mar-19	Feb-19	Actual
T4 LV power on to the replaced final switch	Oct-19	Jun-19	Actual
Completion of the conversion of 4 racks to 6 racks in existing bag store in Terminal 5	Oct-19	Jun-19	Actual
Completion of the kilo substructure excavation	Sep-20	Nov-19	Actual
Out of gauge facility relocated and ready for operations including a recovery facility to support the operation	Dec-19	Dec-19	Actual

Hold baggage screening standard 3 machines & asset replacement works in T4	Sep-20	Sep-20	Forecast
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- 6.4 There is only one project that is forecast to not meet its trigger milestone date that falls into 2021, the Main Tunnel Life Safety Systems project.
- 6.5 The Main Tunnel Life Safety Systems project is forecast to be completed by November 2022 and has a trigger milestone date of December 2016. Therefore 2021 airport charges take account of the full twelve months in 2021 resulting in a trigger value of £1,4m. Full details are shown below.

Main Tunnel Life Safety Systems

Trigger date	= December 2016
Forecast Completion	= November 2022
Expected Delay	= 59 months
Months falling into 2021	= 12 months
Monthly Payment	= £91,400 in 2011/12 prices
Expected Payment	= £1,096,800 in 2011/12 prices
Inflation Index (RPI)	= 1.313 ⁶
Expected Payment	= £1,440,411 in 2021 prices
Forecast Passengers (000s)	= 62,824 in 2021
Impact on Yield	= £0.023 in 2021

- 6.6 Therefore the 2021 maximum allowable yield reduces to account for the expected trigger payment of £1,440,411.
- 6.7 Any triggers that are attached to projects and have trigger dates for 2021, which are finalised after 1 June 2020, will be accounted through the K Factor when setting 2023 airport charges.

⁶ The monthly payment for triggers is shown in 2011/12 prices and then is required to be adjusted to account for the difference in ONS CHAW Retail Price Index in April 2020 and April 2010 i.e. 292.6/222.8 in accordance with Heathrow's Licence granted under the Civil Aviation Act 2012 (latest version 5 May 2015) page 14.

Chapter 7– Business Rates Revaluation Factor

- 7.1 The business rates revaluation factor (i.e. BRt) adjusts the forecast maximum allowable yield to account for the difference between the actual change in the rates revaluation undertaken by the Valuation Office Agency in 2018 compared to the 9% allowance in the settlement. This impacts the Regulatory Year 2021 i.e. the 2021 forecast maximum allowable yield.
- 7.2 The actual business rates revaluation has been lower than the 9%. The final revaluation outcome at Heathrow resulted in a 17% decrease in potential liability. Heathrow will not benefit from the full saving generated through revaluation until 2021.
- 7.3 However, the Government has put in place transitional relief. Transitional relief limits how much a rates bill can change each year as a result of the revaluation. This applies when rates increase or decrease to avoid any shocks in the market. This means changes to the rates bill are phased in gradually and apply to all UK properties.
- 7.4 Heathrow must apply the Government's transitional arrangements for the 2017 business rates revaluation which in effect phases the reductions. Heathrow will not benefit from the 17% decrease because it is greater than the actual saving after the transitional relief. The Government's transitional arrangements for the 2017 business rates revaluation when a rates bill is decreasing (i.e. downwards cap) are as follows:

Table 7

Transitional Arrangements 2017 revaluation (before inflation) funded by 3 caps on reductions⁷						
	Property Size	2017/18	2018/19	2019/20	2020/21	2021/22
Upwards cap	Small	5.0%	7.5%	10.0%	15.0%	15.0%
	Medium	12.5%	17.5%	20.0%	25.0%	25.0%
	Large	45.0%	50.0%	50.0%	16.0%	5.0%
Downwards cap	Small	20.0%	30.0%	35.0%	55.0%	55.0%
	Medium	10.0%	15.0%	20.0%	25.0%	25.0%
	Large	4.1%	4.6%	5.9%	5.8%	4.8%

- 7.5 Transitional relief is applied to calculate the actual change in the business rates revaluation for the purposes of the business rates revaluation factor. For the purposes of the transitional arrangement, Heathrow is designated as a large property (i.e. property with rateable value over £100,000). Therefore, the downward cap percentage for a large company is used.
- 7.6 This involves two steps before applying to the business rates revaluation factor. Firstly, to adjust to a calendar year to reflect the regulatory year. Secondly to accumulate the annual percentage for the relevant years, 2017, 2018, 2019, 2020 and 2021. This is set out below:

⁷https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/572823/Transitional_Relief_consultation_response.pdf

Table 8

Regulatory Year	Adjusted transitional relief	Cumulative
2017	-3.08%	-3.08%
2018	-4.48%	-7.41%
2019	-5.58%	-12.57%
2020	-5.83%	-17.67%
2021	-5.05%	-21.82%

7.7 Therefore -21.82% is used for the purposes of the calculation as actual percentage change in the Cumulo Rateable Value due to the revaluation and the actual percentage increase in the national Uniform Business Rate. This results in a lower forecast maximum allowable yield by £40.6m. The formula to calculate the business rates revaluation factor is set out below:

$$BR_t = 0.8 * Z_{2020}$$

Where:

Z_t = business rate forecast variance in Regulatory period or Regulatory Year t, calculated in accordance with the below table:

Period t =	Z_t =
9mo. 2014	0
2015	0
2016	0
2017	$(U_t - £136,900,000) * \frac{P_{t-1}}{222.80}$
2018	$(U_t - £136,800,000) * \frac{P_{t-1}}{222.80}$
2019	$(U_t - £136,800,000) * \frac{P_{t-1}}{222.80}$
2020	$(U_t - £136,800,000) * \frac{P_{t-1}}{222.80}$
2021	$(U_t - £136,800,000) * \frac{P_{t-1}}{222.80}$

Where:

U_t = regulatory allowance for business rates (that is £136,800,000 in 2021) multiplied by the revaluation impact⁸.

P_{t-1} = value of the ONS CHAW Retail Price Index in April in Regulatory Period or Regulatory Year t-1.

⁸ revaluation impact is equal to one plus the difference between the actual increase in rateable value measured as a percentage change and +9%, (being the percentage increase assumed in the regulatory allowance) occurring as a result of the rate revaluation undertaken by the Valuation Office Agency in 2017. The actual change will be calculated by multiplying the actual percentage increase in the Cumulo Rateable Value due to the revaluation and the actual percentage increase in the national Uniform Business Rate.

Hence Z_{2021} :

$$Z_{2021} = (U_t - \text{£}136,800,000) * \frac{P_{t-1}}{222.80}$$

$$U_t = [\text{£}136,800,000 / (1+9\%)] * (1+-21.82\%)$$

$$P_{t-1} = \text{ONS CHAW Retail Price Index in April 2020 is 292.6}$$

$$Z_{2021} = (\text{£}98,119,486 - \text{£}136,800,000) * \frac{292.6}{222.8}$$

$$Z_{2021} = -50,798,556$$

BR_t formula is applied:

$$BR_{2021} = 0.8 * -50,798,556$$

$$BR_{2021} = -40,638,845$$

Chapter 8- Correction Factor for 2019

The Correction factor

8.1 The K Factor sets out the level of over recovery or under recovery on a per passenger basis. This over recovery is when Heathrow exceeds the maximum allowable yield on a per passenger basis. The under recovery is when Heathrow does not achieve the maximum allowable yield on a per passenger basis. This over/under recovery generally reflects a change in mix of actual passengers and movements compared to the forecasts used to set the airport charges for that relevant year.

8.2 The K Factor formula has a component to calculate the actual allowable yield, the K Factor formula is shown below:

$$K_t = \frac{R_{t-2} - (Q_{t-2}M_{t-2})}{Q_t} \left(1 + \frac{I_{t-2}}{100}\right)^2$$

Formula for 2019 actual maximum allowable yield

8.3 The combined impact of all the elements of the formula results in 2019 actual maximum allowable yield of £22.790 (passenger only flights). 2019 is the Regulatory Period from 1 January 2019 to 31 December 2019. The section below presents the components of the formula.

8.4 M_{t-2} relates to 2019 and its calculation is shown below:

$$M_{2019} = (1 + RPI_{t-1} + X + B_{t-2})Y_{t-1} + \frac{D_t}{Q_t} - \frac{T_t}{Q_t} + \frac{A_t}{Q_t} + \frac{BR_t}{Q_t} - K_t$$

Where:

M_{2018} = maximum revenue yield per passenger using Heathrow airport in Regulatory Year ("2019") expressed in pounds.

RPI_{t-1} = is the percentage change (positive or negative) in the Office for National Statistics (ONS) CHAW Retail Price Index between April in year t-1 and the immediately preceding April. For 2019 this would be the change from April 2017 to April 2018.

X = -1.5%

B_{t-2} = The formula includes a bonus factor that allows the airport to recover a bonus when performance on certain service quality measures exceed a specified service standard. The bonus term in any given year is based on actual service quality, based on the two year period preceding the relevant year.

Y_{t-1}	=	specified average revenue yield per passenger for the period t-1 (2018).
D_t	=	cumulative development capex adjustment.
T_t	=	reduction in maximum allowable charges when the airport has not achieved specific trigger dates associated with relevant projects (Triggers).
A_t	=	cost pass-through for runway expansion.
BR_t	=	business rates revaluation factor.
K_t	=	correction factor (K Factor) per passenger (whether positive or negative value) for 2017.
Q_t	=	actual passengers using Heathrow airport in 2019.

Application of the Regulatory Pricing Formula

Where :

RPI_{t-1}	=	3.4%	
X	=	-1.5%	
B_{t-2}	=	0.031%	- this figure is an actual
Y_{t-1}	=	£22.751	
D_t	=	-£22,034k	- this figure is an actual
T_t	=	£7,794	- this figure is an actual
A_t	=	£10,000	- this figure is an actual
BR_t	=	-£27,188	
Q_t	=	80,886k	- this figure is an actual
K_t	=	0.181	- this figure is an actual

Hence:

$$M_{2019} = (1 + RPI_{t-1} + X + B_{t-2})Y_{t-1} + \frac{D_t}{Q_t} - \frac{T_t}{Q_t} + \frac{A_t}{Q_t} + \frac{BR_t}{Q_t} - K_t$$

$$M_{2019} = (1 + 3.4\% + -1.5\% + 0.031\%)22.751 + \frac{(-22,034)}{80,886} - \frac{7,794}{80,886} + \frac{10,000}{80,886} + \frac{-27,188}{80,886} - (-0.181)$$

$$M_{2019} = (1.02 * 22.751) + (-0.272) - 0.096 + 0.124 + (-0.336) - 0.181$$

$$M_{2019} = 22.790$$

8.5 The actual maximum allowable yield for 2019 is £22.790.

8.6 The components of the formula are explained in the following sections.

Bonus term (2017)

- 8.7 The regulatory pricing formula includes a bonus component for performance of certain service quality measures.
- 8.8 The CAA decided through its Q6 price control licence condition to formalise the recovery of the bonus on actual performance based on two-year lag. The recovery of the actual bonus for 2012/13 and 2013/14 was recovered through the K Factor when setting charges for 2014 and 2015, respectively. The actual bonus for these two periods, 2012/13 and 2013/14, was calculated by reference to the conditions as to airport charges imposed to the Airport under the Airports Act 1986 in force at 31 March 2014⁹.
- 8.9 The actual bonus for the period 2014 to 2021 shall be calculated by reference to the Licence conditions that came into force 1 April 2014.
- 8.10 A bonus of 0.031% was achieved in 2017

Cumulative development capex adjustment

- 8.11 The cumulative development capex adjustment adjusts the actual maximum allowable yield to account for the actual difference between the development capex allowance and actual development capex spend. Heathrow has used less than the development capex allowance on a cumulative basis to 2019.
- 8.12 The below table sets out the formula used to calculate the cumulative development capex adjustment. The 2019 formula is used:

⁹ Economic regulation at Heathrow from April 2014: Notice granting the licence, page 131.

Year t =	9mo.2014	2015	2016	2017	2018	2019
Additional revenue requirement for 2014 projects	$0.5 \times d_{2014}$	$\frac{P_{t-1}}{P_{t-2}} \times d_{2014}$	$\frac{P_{t-1}}{P_{t-3}} \times d_{2014}$	$\frac{P_{t-1}}{P_{t-4}} \times d_{2014}$	$\frac{P_{t-1}}{P_{t-5}} \times d_{2014}$	$\frac{P_{t-1}}{P_{t-6}} \times d_{2014}$
Additional revenue requirement for 2015 projects	0	$0.5 \times d_{2015}$	$\frac{P_{t-1}}{P_{t-2}} \times d_{2015}$	$\frac{P_{t-1}}{P_{t-3}} \times d_{2015}$	$\frac{P_{t-1}}{P_{t-4}} \times d_{2015}$	$\frac{P_{t-1}}{P_{t-5}} \times d_{2015}$
Additional revenue requirement for 2016 projects	0	0	$0.5 \times d_{2016}$	$\frac{P_{t-1}}{P_{t-2}} \times d_{2016}$	$\frac{P_{t-1}}{P_{t-3}} \times d_{2016}$	$\frac{P_{t-1}}{P_{t-4}} \times d_{2016}$
Additional revenue requirement for 2017 projects	0	0	0	$0.5 \times d_{2017}$	$\frac{P_{t-1}}{P_{t-2}} \times d_{2017}$	$\frac{P_{t-1}}{P_{t-3}} \times d_{2017}$
Additional revenue requirement for 2018 projects	0	0	0	0	$0.5 \times d_{2018}$	$\frac{P_{t-1}}{P_{t-2}} \times d_{2018}$
Additional revenue requirement for 2019 projects	0	0	0	0	0	$0.5 \times d_{2019}$
D_t =	Sum Rows x W	Sum Rows x W	Sum Rows x W	Sum Rows x W	Sum Rows x W	Sum Rows x W

Where:

W	=	Weighted Average Cost of Capital which shall have a value of 5.35%
d ₂₀₁₄	=	Annual development capex adjustment in 2014
d ₂₀₁₅	=	Annual development capex adjustment in 2015
d ₂₀₁₆	=	Annual development capex adjustment in 2016
d ₂₀₁₇	=	Annual development capex adjustment in 2017
d ₂₀₁₈	=	Annual development capex adjustment in 2018
d ₂₀₁₉	=	Annual development capex adjustment in 2019
P _{t-1}	=	ONS CHAW Retail Price Index in April in 2018 is 279.7
P _{t-2}	=	ONS CHAW Retail Price Index in April in 2017 is 270.6
P _{t-3}	=	ONS CHAW Retail Price Index in April in 2016 is 261.4
P _{t-4}	=	ONS CHAW Retail Price Index in April in 2015 is 258.0
P _{t-5}	=	ONS CHAW Retail Price Index in April in 2014 is 255.7
P _{t-6}	=	ONS CHAW Retail Price Index in April in 2013 is 249.5

D₂₀₁₇: Annual development capex adjustment is calculated as follows:

$$d_{2014} = O_{2014} - \left(V_{2014} * \frac{P_{t-1}}{222.80} \right)$$

$$O_{2014} = \text{£}363,400\text{k}$$

$$V_{2014} = \text{£}439,100\text{k}$$

$$P_{t-1} = \text{ONS CHAW Retail Price Index in April 2013 is 249.5}$$

$$d_{2014} = 363,400 - \left(439,100 * \frac{249.5}{222.8} \right)$$

$$d_{2014} = \text{-£}128,321\text{k}$$

Hence d_{2015} :

$$d_{2015} = O_{2015} - \left(V_{2015} * \frac{P_{t-1}}{222.80} \right)$$

$$O_{2015} = \text{£}590,000\text{k}$$

$$V_{2015} = \text{£}669,000\text{k}$$

$$P_{t-1} = \text{ONS CHAW Retail Price Index in April 2014 is 255.7}$$

$$d_{2015} = 590,000 - \left(669,000 * \frac{255.7}{222.8} \right)$$

$$d_{2015} = \text{-£}177,789\text{k}$$

Hence d_{2016} :

$$d_{2016} = O_{2016} - \left(V_{2016} * \frac{P_{t-1}}{222.80} \right)$$

$$O_{2016} = \text{£}683,000\text{k}$$

$$V_{2016} = \text{£}645,600\text{k}$$

$$P_{t-1} = \text{ONS CHAW Retail Price Index in April 2015 is 258.0}$$

$$d_{2016} = 683,000 - \left(645,600 * \frac{258.0}{222.8} \right)$$

$$d_{2016} = \text{-£}64,598\text{k}$$

Hence d_{2017} :

$$d_{2017} = O_{2017} - \left(V_{2017} * \frac{P_{t-1}}{222.80} \right)$$

$$O_{2017} = \text{£}665,000\text{k}$$

$$V_{2017} = \text{£}528,800$$

$$P_{t-1} = \text{ONS CHAW Retail Price Index in April 2016 is 261.4}$$

$$d_{2017} = 665,000 - \left(528,800 * \frac{261.4}{222.8} \right)$$

$$d_{2017} = \text{£}44,586$$

Hence d_{2018} :

$$d_{2018} = O_{2018} - \left(V_{2018} * \frac{P_{t-1}}{222.80} \right)$$

$$O_{2018} = \text{£}626,000\text{k}$$

$$V_{2018} = \text{£}533,900\text{k}$$

$$P_{t-1} = \text{ONS CHAW Retail Price Index in April 2017 is 270.6}$$

$$d_{2018} = 626,000 - \left(533,900 * \frac{270.6}{222.8} \right)$$

$$d_{2018} = \text{-£}22,444\text{k}$$

Hence d_{2019} :

$$d_{2019} = O_{2019} - \left(V_{2019} * \frac{P_{t-1}}{222.80} \right)$$

$$O_{2019} = \text{£}594,000\text{k}$$

$$V_{2019} = \text{£}517,769\text{k}$$

$$P_{t-1} = \text{ONS CHAW Retail Price Index in April 2018 is 279.7}$$

$$d_{2019} = 594,000 - \left(517,769 * \frac{279.7}{222.8} \right)$$

$$d_{2019} = \text{-£}56,000\text{k}$$

8.13 Therefore d_{2014} , d_{2015} , d_{2016} , d_{2017} , d_{2018} and d_{2019} is applied to the development capex adjustment table, as follows to determine the adjustment:

Year t =	2017	Results in
Additional revenue requirement for 2014 projects	$\frac{279.7}{249.5} \times -128,321$	-143,853
Additional revenue requirement for 2015 projects	$\frac{279.7}{255.7} \times -177,789$	-194,476
Additional revenue requirement for 2016 projects	$\frac{279.7}{258.0} \times -64,598$	-70,031
Additional revenue requirement for 2017 projects	$\frac{279.7}{261.4} \times -44,586$	47,707
Additional revenue requirement for 2018 projects	$\frac{279.7}{270.6} \times -22,444$	-23,199
Additional revenue requirement for 2019 projects	$0.5 \times -56,000$	-28,000
D _t =		-411,852 x 5.35%

$$D_t = -£22,034k$$

Triggers

- 8.14 The K Factor for 2019 adjusts the completion dates for trigger projects that had trigger completion dates in 2019.
- 8.15 There are six projects that had a completion date falling into 2019: (i) B006 Completion of the conversion of 4 racks to 6 racks in the existing bag store in T5 – providing additional 1980 redundant positions and 552 non redundant positions (ii) B243 Kilo Apron Developments - Delivery of stands 211, 212, 213 into operational use (iii) B116 To deliver a new permanent flight connections centre to T3 and to demolish the interim facility on stand 323 (iv) B097 Out of gauge facility relocated and ready for operations including a recovery facility to support the operation (v) B101 T4 LV Power on to the replaced failed switchboard (vi) B243 Completion of the Kilo Substructure Excavation.
- 8.16 Two projects, Main Tunnel Life Safety Systems and Hold baggage screening standard 3 machines installed in Terminal 2 have not met their milestone dates. Therefore, there is a trigger payment in 2019.

Table 9

	Trigger Month	Forecast Completion Date
Main Tunnel Life Safety Systems	Dec-16	Nov-22

- Main Tunnel Life Safety Systems**

Trigger date	= December 2016
Forecast Completion	= November 2022
Actual Delay	= 59 months
Months falling into 2019	= 12 months
Monthly Payment	= £91,400 in 2011/12 prices
Actual Payment	= £1,096,800 in 2011/12 prices
Inflation Index (RPI)	= 1.255 ¹⁰
Actual Payment	= £1,376,907 in 2019 prices
Actual Passengers (000s)	= 80,886 in 2019
Impact on Yield	= £0.017 in 2019

Table 10

	Trigger Month	Actual Completion Date
Hold baggage screening standard 3 machines installed in Terminal 2	Sep-18	Mar-20

- Hold baggage screening standard 3 machines installed in Terminal 2**

Trigger date	= September 2018
Actual Completion	= March 2020
Actual Delay	= 18 months
Months falling into 2019	= 12 months
Monthly Payment	= £426,000 in 2011/12 prices
Actual Payment	= £5,112,000 in 2011/12 prices
Inflation Index (RPI)	= 1.255
Actual Payment	= £6,417,533 in 2019 prices
Actual Passengers (000s)	= 80,886 in 2019
Impact on Yield	= £0.079 in 2019

¹⁰ The monthly payment for triggers is shown in 2011/12 prices and then is required to be adjusted to account for the difference in ONS CHAW Retail Price Index in April 2018 and April 2010 i.e. 279.7/222.8

K factor for 2019

Actual passengers	80,886
Actual airport charges revenue	1,865,000
Actual yield	23.057
Actual maximum allowable yield	22.790
Under/Over Recovery	<i>Over Recovery</i>

Total revenue from airport charges (passenger only flights) at Heathrow in	2019	Actual (£000s)	R_{t-2}	1,865,000
Passengers using Heathrow Airport in	2019	Actual (000s)	Q_{t-2}	80,886
Maximum allowable revenue yield at Heathrow in	2019	Actual (£)	M_{t-2}	22.790
Interest rate from weekly Treasury Bill Discount rate	2019	Actual %	I_{t-2}	3.644
Forecast Passengers using Heathrow in	2021	Forecast (000s)	Q_t	62,824
Correction amount	$K_t = ((R_{t-2} - (Q_{t-2} \times M_{t-2})) / Q_t \times (1 + I_{t-2} / 100))^2$		K_t	0.369

Table 11

Tender Date	Maturity date	Size (£ mn)	Cover	Avg Yield (%)
03-May-19	05-Aug-19	1,500	3.43	0.735
10-May-19	12-Aug-19	1,000	4.41	0.732
17-May-19	19-Aug-19	1,000	3.69	0.723
24-May-19	27-Aug-19	1,000	3.25	0.714
31-May-19	02-Sep-19	1,500	2.75	0.709
07-Jun-19	09-Sep-19	1,000	3.00	0.704
14-Jun-19	16-Sep-19	2,000	1.44	0.723
21-Jun-19	23-Sep-19	2,000	1.71	0.735
28-Jun-19	30-Sep-19	1,000	2.10	0.749
05-Jul-19	07-Oct-19	2,000	1.69	0.749
12-Jul-19	14-Oct-19	2,500	1.65	0.756
19-Jul-19	21-Oct-19	2,500	2.66	0.757
26-Jul-19	28-Oct-19	2,500	2.24	0.748
02-Aug-19	04-Nov-19	2,500	2.21	0.740
09-Aug-19	11-Nov-19	2,500	1.88	0.744
16-Aug-19	18-Nov-19	2,500	1.80	0.739
23-Aug-19	25-Nov-19	2,500	1.65	0.743
30-Aug-19	02-Dec-19	2,500	1.69	0.738
06-Sep-19	09-Dec-19	2,500	1.88	0.741
13-Sep-19	16-Dec-19	2,500	1.32	0.749
20-Sep-19	23-Dec-19	2,500	2.16	0.772
27-Sep-19	30-Dec-19	1,500	3.76	0.766
04-Oct-19	06-Jan-20	3,000	2.17	0.723
11-Oct-19	13-Jan-20	3,000	1.72	0.736
18-Oct-19	20-Jan-20	3,000	2.10	0.746
25-Oct-19	27-Jan-20	3,000	1.81	0.750
01-Nov-19	03-Feb-20	3,000	1.47	0.754
08-Nov-19	10-Feb-20	3,000	1.76	0.758
15-Nov-19	17-Feb-20	3,000	1.73	0.757
22-Nov-19	24-Feb-20	2,500	2.26	0.756
29-Nov-19	02-Mar-20	2,500	2.93	0.741
06-Dec-19	09-Mar-20	2,500	2.48	0.733
13-Dec-19	16-Mar-20	2,500	2.56	0.731
20-Dec-19	23-Mar-20	1,000	3.68	0.709
03-Jan-20	06-Apr-20	1,000	4.29	0.697
10-Jan-20	14-Apr-20	1,000	3.29	0.694
17-Jan-20	20-Apr-20	1,000	4.72	0.627
24-Jan-20	27-Apr-20	1,000	3.88	0.617
31-Jan-20	04-May-20	1,000	4.56	0.671
07-Feb-20	11-May-20	1,000	3.99	0.691
14-Feb-20	18-May-20	1,000	4.62	0.675
21-Feb-20	26-May-20	1,000	3.84	0.671
28-Feb-20	01-Jun-20	1,500	2.80	0.627
06-Mar-20	08-Jun-20	1,500	2.72	0.466
13-Mar-20	15-Jun-20	1,500	1.95	0.218
20-Mar-20	22-Jun-20	2,000	0.87	0.199
27-Mar-20	29-Jun-20	2,000	3.55	0.178
03-Apr-20	06-Jul-20	2,000	3.92	0.175

Tender Date	Maturity date	Size (£ mn)	Cover	Avg Yield (%)
09-Apr-20	13-Jul-20	2,000	3.01	0.165
17-Apr-20	20-Jul-20	2,500	2.71	0.169
24-Apr-20	27-Jul-20	2,500	3.49	0.154

Application of the Regulatory Pricing Formula

8.17 The actual maximum allowable yield for 2019 is £22.790 compared to the actual yield recovered of £23.057 which results in an over recovery of £0.369 (taking into account interest rate). This over recovery is included in the K Factor for 2019 in setting airport charges in 2021, which lowers the forecast maximum allowable yield.

Chapter 9 – Overview of charges

9.1 The 2021 yield of £21.078 decreases by £2.482 compared to 2020, as detailed in Chapter 8.

Covid-19

9.2 As we are all aware, Covid-19 has had a significant impact on travel demand. Heathrow's pricing proposals for 2021 are being set to help stimulate demand through cheaper PSC charges to the passenger and a growth incentive which airlines can use to target opportunities to stimulate passenger volumes.

Passenger Charges

9.3 Heathrow proposes to reduce the amount of revenue recovered through the passenger charge from 67% in 2020, to 62% in 2021. This helps to provide an average reduction in passenger prices vs 2020. This furthers our commitment to build back passenger volumes.

9.4 The revenue recovered through the Rest of World passenger charge has also been reduced to reflect the changing mix of passengers forecast and help reduce the passenger charge to these destinations. Further detail is outlined in Chapter 10.

European and Non-European passenger charges

9.5 On 1 January 2017 Heathrow introduced a £5.00 passenger discount on European routes with a further £5.00 discount on UK routes. This was supported through an increased emphasis on environmental charges and the introduction of a quieter noise chapter. The passenger discount to European routes was increased to £10.00 on 1 January 2018.

9.6 The decision to introduce a departing passenger charge discount for European destination passengers was taken to address an imbalance in the load factors of flights to European destinations when compared with flights to Non-European destinations. Since the introduction of the discounts in 2017, the European load factor increased by 3 percentage points.

9.7 The IATA average load factor figure for 2019 was 81.9%¹¹. As shown in table 13, European load factors at Heathrow continue to be lower than average while Non-European load factors remain close to the global ICAO average.

Table 13¹²

Year	EU	Non-EU	Δ
2012	70.70%	80.10%	9.40%
2013	71.70%	80.60%	8.90%
2014	73.20%	79.70%	6.50%
2015	73.50%	79.30%	5.80%
2016	73.60%	78.10%	4.50%
2017	75.30%	80.60%	5.30%
2018	76.65%	81.27%	4.62%
2019	76.61%	82.78%	6.17%
Av	73.85%	80.30%	6.46%

¹¹ <https://www.iata.org/contentassets/a686ff624550453e8bf0c9b3f7f0ab26/wats-2019-mediakit.pdf>

¹² Data Source: Heathrow Database

- 9.8 It is reasonable to expect that a European destination total ticket price is more open to influence by small fluctuations to Heathrow's passenger charges when compared with Non-European destinations where Heathrow's charges represent a significantly lower percentage in the total ticket price. For this reason, Heathrow proposes to continue to discount the European passenger charge.

UK Connectivity

- 9.9 From 1 January 2017 Heathrow introduced a departing passenger charge discount of a further £5.00 to the existing European Destination passenger departing to UK destinations (including nations and crown dependencies). This passenger discount was in direct response to the National Connectivity Task Force (NCTF) report. The NCTF identified the need to make routes to regional airports more attractive to airlines to support them.
- 9.10 As explained in relation to the price of tickets to European destinations, it is reasonable to expect that the ticket prices to these destinations are more open to changes in the passenger charge. Heathrow therefore proposes to maintain the £5.00 UK connectivity discount to the European Destination passenger charge. Therefore, during 2021 departing passengers to UK destinations will receive a total £15.00 discount (this is based on a £10.00 European departing passenger load factor discount and £5.00 UK connectivity discount).

Transfer and Transit passenger charges

- 9.11 Heathrow currently has a discount applied to departing passenger charges for passengers transferring or transiting through the airport. This discount was introduced to encourage transfer passengers to travel through Heathrow to support the hub status of the Airport. The key to any hub is to have a good mix of transfer and origin and destination passengers, to feed the entire network and this is beneficial for all airlines.
- 9.12 The following table sets out a summary of the level of transfer/transit passengers at Heathrow:

Table 14¹³

Period	Total Passengers	Transfer passengers	Transfer passengers %
2012	69,985k	19,199k	27.4%
2013	72,333k	19,479k	26.9%
2014	73,375k	19,966k	27.2%
2015	74,959k	19,754k	26.4%
2016	75,676k	19,500k	25.8%
2017	78,040k	19,588k	25.1%
2018	80,102k	19,895k	24.8%
2019	80,900k	18,577k	23.0%

- 9.13 As the above table shows, transfer passengers make up a significant proportion of Heathrow's passenger volume. Transfer passengers are key to a hub operation and provide benefit to the connecting network. In some cases, transfer passengers are

¹³ Data source: ADB Heathrow Airport Limited

vital to route viability. Therefore, Heathrow proposes to continue with transfer discounts for 2021.

Seasonal Passenger Charge Temporary Suspension

- 9.14 In 2020, Heathrow introduced seasonality across all passenger charges to address the periods where the majority of empty seats across the year were held.
- 9.15 With the impact of Covid-19 on passenger numbers and the uncertainty regarding the shape in which demand will return, we propose suspending seasonality of the passenger charge for 2021 and reintroducing for 2022, at the earliest.

Minimum Departure Charge

- 9.16 There are currently two categories of Minimum Departure Charge (MDC), “Domestic destinations” and “Other”. This does not reflect the current departing passenger charge where passengers are grouped according to “domestic” “EU” or “RoW”. We therefore propose to revise the MDC structure to reflect the structure that applies to the passenger charges. The table below shows the current passenger threshold and equivalent load factor for volumes to fall below before the MDC is triggered by market.

Market	Current Charge	Pax	LF%
UK	£814.53	56	38%
EU	£1466.04	76	44%
RoW	£1466.04	36	13%

- 9.17 Heathrow proposes introducing a new MDC for the Rest of World destinations at the level of £2,065.50 to help address this asymmetry and reflect the structure of the passenger charge.

Growth Incentive Scheme

- 9.18 In 2019, Heathrow launched its first passenger growth incentive scheme within the structure of airport charges.
- 9.19 With the impact of Covid-19 on passenger numbers, we see incentivising growth as an increasingly significant aspect of airport charges and propose to again run an incentive scheme within the structure.
- 9.20 The scheme operates with an incentive rebate per incremental departing passenger above specified baselines. In order for an airline to receive the rebate, Heathrow’s total passenger numbers must also meet its specified baseline.
- 9.21 These incentive levels are proposed to be market-based to more closely reflect the differentials between the market-based passenger charges and would provide a credit of the below amounts per incremental departing passenger:
- Domestic: £5
 - European: £10
 - Rest of World: £20

- 9.22 Due to the impact of Covid-19 on 2020 passenger numbers, baselines will be calculated by way of proportion of 2019 passenger volumes. Heathrow's total departing passenger forecast for 2021 is 31m passengers. This equates to 78% of 2019 total departing passengers and creates the airport level baseline. Therefore, the airline departing passenger baselines will be set at 78% of their 2019 departing passenger volumes.
- 9.23 A growth incentive scheme in the structure of charges allows airlines to target incentive credits to the routes and distribution channels which have the most impact based on their insight into, and experience of, consumer behaviour.
- 9.24 Heathrow proposes to continue to include an allowance for the growth incentive scheme within in the structure of charges for 2021. The allowance built into 2021 Airport Charges is proposed to be £50million.
- 9.25 In the event that the total growth incentive credit would exceed £50 million, the credit would be paid proportionally to all qualifying Airlines.
- 9.26 It is proposed that the £50m million allowance is recovered through departing passenger charges and any over/under recovery would be adjusted through the correction factor in 2023.
- 9.27 Full proposed terms for the passenger growth incentive scheme are laid out in the Conditions of Use Draft Consultation Proposal for 2021 in Schedule 5.

Environmental Charges

- 9.28 In 2017, Heathrow introduced a new structure of environmental charges, recognising the implementation of the Chapter 14 noise classification and incentivising airlines to bring their cleanest and quietest aircraft to Heathrow.
- 9.29 These charges have been successful in increasing the proportion of clean and quiet aircraft which arrive at Heathrow, as laid out in the table below.

Table 17¹⁴

% Mix	2016	2017	2018	2019	2020 YTD
Chapter 3	0.1%	0.1%	0.1%	0.0%	0.0%
Chapter 4 High	12.8%	11.2%	8.8%	8.9%	7.6%
Chapter 4 Base	27.6%	28.6%	28.6%	25.7%	26.1%
Chapter 14 High	8.8%	8.6%	7.6%	8.4%	9.3%
Chapter 14 Base	35.9%	35.4%	34.0%	30.5%	23.8%
Chapter 14 Low	14.8%	16.2%	21.0%	26.6%	33.1%

- 9.30 Heathrow proposes to continue the emphasis on environmental performance by it acting as the balancing factor to recover the shortfall in revenues from the

¹⁴ Data source: Heathrow Database

passenger discounts in order to continue to encourage the use of quieter and cleaner aircraft.

- 9.31 We propose to rebalance the reduction in revenue recovered through the passenger charge, to the movement charges to further strengthen our commitment to drive the cleanest and quietest fleet at Heathrow. We propose to place the emphasis of this move on to Chapter 4 aircraft to increase the incentive for Chapter 14 aircraft at Heathrow.

Future Airport Charges

- 9.32 During our 2020 Airport Charges Consultation we signalled our intent to engage this year on a restructure of Airport Charges for 2021. With the obvious impact of Covid-19 on our businesses, this has not been possible, but we remain committed to working with the airline community to shape future airport charges for 2022.
- 9.33 The re-structure of charges will focus on sustainability and promoting efficient use of infrastructure. We seek to shape this restructure with the airline community and value ongoing constructive dialogue on this proposal.
- 9.34 Climate change is possibly the greatest long-term challenge faced by aviation. There are different initiatives which can contribute to decarbonising flying but it is widely accepted that sustainable aviation fuels (SAF) will play a significant role in decoupling aviation growth and emissions.
- 9.35 At Heathrow, we see SAF as key to achieving net zero and we want to be a leading hub for the development and deployment of sustainable aviation fuels. To this end, we would like to consult with airlines on the role that movement charges can play in reducing the high cost premium of SAF compared to standard aviation fuel and supporting the scale-up of SAF at Heathrow.
- 9.36 Heathrow is interested in introducing an incentive scheme starting on the first year that SAF production in the UK begins (likely around the mid 2020s). In our future charges, we currently intend to base at least 20% of our charges on the reduction of carbon emissions or use of SAF's from aircraft at Heathrow.
- 9.37 Flying cargo in and out of Heathrow shares much of the same infrastructure as passenger movements. It is our intention to recognise this by introducing a factor for cargo carried into the aeronautical charging structure.
- 9.38 As per our update in last year's consultation, we propose to achieve the objectives set out above through a move to a sustainable growth model of pricing, ensuring airlines are encouraged to bring the cleanest, quietest and largest aircraft of type to Heathrow and operate efficiently and sustainably.
- 9.39 The structure would replace the current aircraft movement charges, NOx and parking charges with a single charge per movement. The structure of departing passenger charges would be unchanged.
- 9.40 All movements would attract a basic flat movement charge. The charge would be increased by a certain amount based on the airline / aircraft's performance across several factors. The lowest multiplier to the charge would result from the best performance on each specific factor.
- 9.41 Heathrow is considering the most effective factors to deploy in such a model including: aircraft noise chapter, Carbon emissions, weight of cargo carried, NOx emissions, ground time (in lieu of parking), aircraft age, seats per movement (versus the maximum for type). Heathrow seeks airline feedback on the principle of the

sustainable growth charging model and the move away from a solely noise chapter-based approach to landing fees. Feedback is also sought on the weight that should be afforded to each factor.

9.42 Heathrow will consult with all stakeholders when considering these future changes.

Chapter 10 – Calculating airport charges tariffs for 2021

- 10.1 The following steps have been applied to calculate the individual tariffs for 2021, as follows:
- 10.2 The forecast maximum allowable yield for 2021 is £21.078 per passenger, a 10.5% reduction on 2020 (£23.560). The decrease of £2.48 is due to overyielding in 2019 and the reduction in capitalisation due to Covid-19.
- 10.3 The proposed proportion of the Movement and Passenger charges have been rebalanced, parking charges remain unchanged.
- 10.4 New charges propose a 5% rebalance levying further charges onto the Movement charges, thus a reduction in Passenger charges. Charges are recovered through the following apportionment: Passenger 62%, Movement 34% and Parking 4%.

Pax charges

- 10.5 The 2021 maximum allowable yield uses a passenger forecast of 62.8 million;
- 10.6 In 2020 there were 18 passenger charge categories, where both Transfer & Transit and Origin & Destination passenger volumes are disaggregated into High, Shoulder and Low season volumes. These are then further categorised into the relevant market; Domestic, EEA and ROW.
- 10.7 In 2021 new passenger charges comprise of charges for Origin & Destination and Transfer & Transit passengers which are then split by market (Domestic, EEA and RoW) are proposed for 2021. These proposed charges have removed seasonality (see table below).

Pax charge table	Market	Single Tariff
O&D	Domestic	X
O&D	EEA	X
O&D	RoW	X
Transfer	Domestic	X
Transfer	EEA	X
Transfer	RoW	X

- 10.8 The departure charge shall be calculated with reference to the set baseline charge then apportioned out based on transfer and UK connectivity discount. There will be two individual baseline charges one for RoW and one for Domestic/EEA. The first step is to set the baseline charges which are determined by the departing passenger revenue required, this total revenue is then split into market shares where RoW is allocated 70% and Domestic/EEA is allocated 30%.
- 10.9 For Domestic and EEA Origin & Destination the baseline calculation is calculated in three separate steps;
- 10.10 Step 1 applies a transfer multiplier to the baseline charge, 100% for O&D passengers and 75% for transfer passengers.
- 10.11 Step 2 is only applicable to the Domestic, where a Domestic connectivity discount of £5.00 exists. The Domestic connectivity discount has the appropriate transfer multiplier applied as defined above to determine the final connectivity discount for

the fare. This means that an O&D passenger receives the full £5.00 discount whereas transfer passengers receive a proportion of the £5.00 discount.

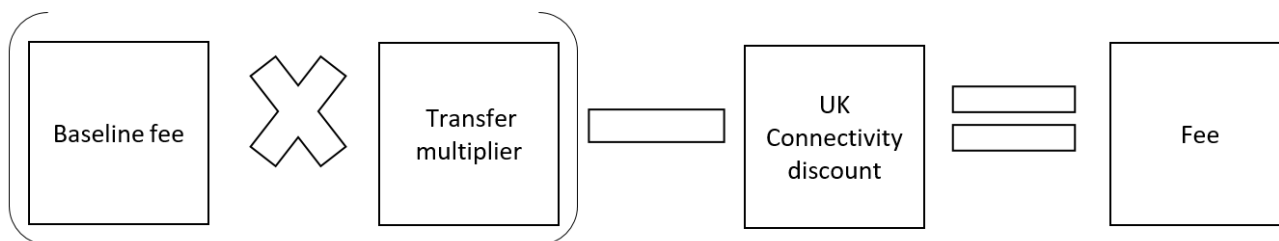
10.12 The final step is to deduct the calculated applicable Domestic connectivity discount (step 2) from the value calculated in step 1.

10.13 For RoW Origin & Destination the baseline calculation is calculated in one step;

10.14 Step 1 the baseline charge applies a transfer multiplier to the baseline charge, 100% for O&D passengers and 75% for transfer passengers.

10.15 No change to remote stand rebate held at £4.00 per passenger;

10.16 Growth incentive rebate is proposed to be £50 million, this is a £42 million increase compared to 2020, which will be added to the departing passenger charge;



Movement

10.17 Movement charges remain unchanged, where airlines will incur a movement charge for both take-off and landing.

10.18 The movement charge shall be calculated with reference to the set baseline charge then apportioned out based on the multiplier. The first step is to set the baseline charge which is determined by the environmental and noise revenue required. This baseline is then apportioned out based on a multiplier to the individual noise chapters, this multiplier is structured by weightings which are measured to incentivise the cleanest, quietest fleet i.e. cleaner and quieter aircraft results in a lower multiplier therefore a lower movement charge. This focus on the cleanest and quietest fleet has resulted in price uplift in the Chapter 4 High and Chapter 4 Base aircraft with limited change to Chapter 14's to further incentivise positive environmental choices. The actual charge will be calculated by multiplying the baseline charge against the multiplier;

10.19 No change to continued balancing of environmental charges so that 80% of the total environmental charge is recovered through noise charges and 20% of the total environmental charge is recovered through NOx charges.

Parking

10.20 The proposed parking charge multiplier remains constant for the narrow-bodied aircraft with a slight reduction applied to the wide bodied aircraft to provide support as long haul routes return. The change in ratio of narrow to wide has been updated to better reflect expected aircraft mix.

Chapter 11 – Forecast Revenue for 2021

	Traffic Volume Units	Traffic Volume	Proposed Charge	Forecast Revenue
Landing Charge				
Noise Charge				
<u>Peak</u>				
Chapter 3	[Landings]	0	£6,132.00	£0
Chapter 4 High	[Landings]	6,691	£2,268.84	£15,180,255
Chapter 4 Base	[Landings]	34,009	£1,737.40	£59,086,982
Chapter 14 High	[Landings]	18,483	£1,154.86	£21,345,604
Chapter 14 Base	[Landings]	58,390	£823.73	£48,097,348
Chapter 14 Low	[Landings]	75,669	£494.65	£37,429,543
Total	[Landings]	193,241		£181,139,732
<u>Peak</u>				
Chapter 3	[Departures]	0	£6,132.00	£0
Chapter 4 High	[Departures]	6,691	£2,268.84	£15,180,255
Chapter 4 Base	[Departures]	34,009	£1,737.40	£59,086,982
Chapter 14 High	[Departures]	18,483	£1,154.86	£21,345,604
Chapter 14 Base	[Departures]	58,390	£823.73	£48,097,348
Chapter 14 Low	[Departures]	75,669	£494.65	£37,429,543
Total	[Departures]	193,241		£181,139,732
<u>Super Night Peak</u>				
Chapter 3	[Landings]	0	£30,660.00	£0
Chapter 4 High	[Landings]	4	£11,344.20	£45,377
Chapter 4 Base	[Landings]	18	£8,687.00	£156,366
Chapter 14 High	[Landings]	7	£5,774.30	£39,265
Chapter 14 Base	[Landings]	26	£4,118.65	£107,085
Chapter 14 Low	[Landings]	28	£2,473.25	£70,240
Total	[Landings]	83		£418,333
<u>Super Night Peak</u>				
Chapter 3	[Departures]	0	£30,660.00	£0
Chapter 4 High	[Departures]	6	£11,344.20	£72,603
Chapter 4 Base	[Departures]	28	£8,687.00	£246,711
Chapter 14 High	[Departures]	11	£5,774.30	£62,362
Chapter 14 Base	[Departures]	42	£4,118.65	£171,336
Chapter 14 Low	[Departures]	45	£2,473.25	£110,802
Total	[Departures]	132		£663,814
Emissions Charge				
Total kg Nox rating	[kg]	4,648,562	£19.54	£90,832,905
Average kg Nox per landing	[kg]	24.1		£90,832,905
Total Landing Revenue	(a)			£454,194,516

Departing Passenger Charge				
Departing OD Passenger Charge				
European charge with dual discount	[Dep Pax]	1,708,854	£14.29	£24,419,528
European charge with single discount	[Dep Pax]	9,833,090	£19.29	£189,680,300
Other	[Dep Pax]	12,095,008	£41.31	£499,644,799
Total	[Dep Pax]	23,636,952		£713,744,627
Departing Transfer Passenger Charge				
European charge with dual discount	[Dep Pax]	539,347	£10.72	£5,781,804
European charge with single discount	[Dep Pax]	3,099,164	£14.47	£44,844,901
Other	[Dep Pax]	3,804,984	£30.98	£117,878,416
Total	[Dep Pax]	7,443,496		£168,505,121
Remote Stand Rebate				
Remote Stand Rebate	[Dep Pax + Arr Pax]	3,250,000	-£4.00	-£13,000,000
Passenger Growth; Incentive Rebate		5,000,000	-£10.00	-£50,000,000
Total Departing Passenger Charge Revenue	(b)	31,080,448		£819,249,748

Parking Charge				
Narrow bodied Chargeable Period	[Units of 15 minutes]	506,033	£23.55	11,917,071
Wide bodied Chargeable Period	[Units of 15 minutes]	785,770	£49.46	38,864,200
Total Parking Charge	(c)	1,291,803		£50,781,271

Terminal Pax Flights: Total Revenue	£1,324,225,535
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Total Regulated Revenue (Pax Only Flights)		
Total Regulated Revenue		
Landing Revenue	(a)	£454,194,516
Departing Passenger Revenue	(b)	£819,249,748
Parking Revenue	(c)	£50,781,271
Total Regulated Revenue		£1,324,225,535
Total Passengers		62,824,006
Total Regulated Yield		£21.078

Chapter 12 – Proposed Airport Charges Tariffs effective 1 January 2021

	Proposed 2021 £ GBP	Final 2020 £ GBP
Charges on Movement		
Peak - Landings		
Chapter 3	£6,132.00	£5,737.66
Chapter 4 High	£2,268.84	£1,967.20
Chapter 4 Base	£1,737.40	£1,475.40
Chapter 14 High	£1,154.86	£1,147.53
Chapter 14 Base	£823.73	£819.67
Chapter 14 Low	£494.65	£491.80
Peak - Departures		
Chapter 3	£6,132.00	£5,737.66
Chapter 4 High	£2,268.84	£1,967.20
Chapter 4 Base	£1,737.40	£1,475.40
Chapter 14 High	£1,154.86	£1,147.53
Chapter 14 Base	£823.73	£819.67
Chapter 14 Low	£494.65	£491.80
Super Night Peak - Landings		
Chapter 3	£30,660.00	£28,688.30
Chapter 4 High	£11,344.20	£9,836.00
Chapter 4 Base	£8,687.00	£7,377.00
Chapter 14 High	£5,774.30	£5,737.65
Chapter 14 Base	£4,118.65	£4,098.35
Chapter 14 Low	£2,473.25	£2,459.00
Super Night Peak - Departures		
Chapter 3	£30,660.00	£28,688.30
Chapter 4 High	£11,344.20	£9,836.00
Chapter 4 Base	£8,687.00	£7,377.00
Chapter 14 High	£5,774.30	£5,737.65
Chapter 14 Base	£4,118.65	£4,098.35
Chapter 14 Low	£2,473.25	£2,459.00
Emissions charge (on landing)	£19.54	£16.84

Charges on Departing Passengers		
Origin and Destination - High		
European charge with dual discount <i>(with EU load factor and UK connectivity discount)</i>	£14.29	£18.06
European charge with single discount <i>(with EU load factor discount)</i>	£19.29	£23.06
Other	£41.31	£55.64
Origin and Destination - Medium		
European charge with dual discount <i>(with EU load factor and UK connectivity discount)</i>	£14.29	£15.53
European charge with single discount <i>(with EU load factor discount)</i>	£19.29	£19.83
Other	£41.31	£47.85
Origin and Destination - Low		
European charge with dual discount <i>(with EU load factor and UK connectivity discount)</i>	£14.29	£13.00
European charge with single discount <i>(with EU load factor discount)</i>	£19.29	£16.60
Other	£41.31	£40.06
Transfer and Transit - High		
European charge with dual discount <i>(with EU load factor and UK connectivity discount)</i>	£10.72	£13.55
European charge with single discount <i>(with EU load factor discount)</i>	£14.47	£17.30
Other	£30.98	£41.73
Transfer and Transit - Medium		
European charge with dual discount <i>(with EU load factor and UK connectivity discount)</i>	£10.72	£11.65
European charge with single discount <i>(with EU load factor discount)</i>	£14.47	£14.88
Other	£30.98	£35.89
Transfer and Transit - Low		
European charge with dual discount <i>(with EU load factor and UK connectivity discount)</i>	£10.72	£9.76
European charge with single discount <i>(with EU load factor discount)</i>	£14.47	£12.46
Other	£30.98	£30.05
Remote Stand Rebate	-£4.00	-£4.00
Minimum charge - UK destinations - High	£814.53	£938.60
Minimum charge - UK destinations - Shoulder	£814.53	£807.04
Minimum charge - UK destinations - Low	£814.53	£676.00
Minimum charge - EEA destinations - High	£1,466.04	£1,705.70
Minimum charge - EEA destinations - Shoulder	£1,466.04	£1,466.68
Minimum charge - EEA destinations - Low	£1,466.04	£1,228.40
Minimum charge - RoW destinations - High	£2,065.50	£1,705.70
Minimum charge - RoW destinations - Shoulder	£2,065.50	£1,466.68
Minimum charge - RoW destinations - Low	£2,065.50	£1,228.40

Charges on aircraft parking		
Narrow bodied	£23.55	£25.47
Wide bodied	£49.46	£61.13

Chapter 13 - Financial and Traffic Information

Traffic statistics and charging parameters

- 13.1 The actual traffic statistics from 2008/09 to 2019 are set out to provide more detailed data on those elements of the traffic mix at Heathrow airport which affect the airport charges yield per passenger.

Regulatory accounting information

- 13.2 Heathrow is a privately-owned company and a summary of its regulatory accounts are presented for the 12-month period to 31 December 2019. These accounts compare the airport's financial performance for the year ended 31 December 2018 to the CAA forecast for revenues and operating costs underpinning the Q6 price cap.
- 13.3 The regulatory accounts include revenue and cost comparisons, and calculations of the Regulated Asset Base.
- 13.4 The full regulatory accounts and annual reports are available from <http://www.heathrow.com/company/investor-centre/regulation/regulatory-accounts>.

£million (unless otherwise stated)	2019 Actual	2018 Actual	Variance	Variance %
Total Passengers (thousands)	80,886	80,102	784	1%
Revenue				
Airport Charges	1,831	1,745	86	5%
Other Revenue	1,239	1,207	32	3%
Total Revenue	3,070	2,952	118	4%
Expenditure				
Operating costs	(1,148)	(1,130)	(19)	2%
Assumed ordinary depreciation	(823)	(802)	(21)	3%
Total Expenditure	(1,971)	(1,932)	(40)	2%
Regulatory operating profit	1,098	1,020	78	8%
Capital expenditure	856	783	72	9%
Opening RAB	16,202	15,786	416	3%
Closing RAB	16,598	16,202	396	2%
Average RAB	16,399	15,994	405	3%
Return on average RAB	6.70%	6.38%	0.32%	
Note: Negative indicates adverse				

Passenger only flights – actual and forecast

	Actual													Actuals 2020 Jan-Jul	Forecast 2020 Jan - Dec
	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014 Apr - Dec	2014 Jan - Dec	2015 Jan - Dec	2016 Jan - Dec	2017 Jan - Dec	2018 Jan - Dec	2019 Jan - Dec		
Arriving Passengers	33,055,283	33,167,916	33,282,772	35,092,421	35,305,114	36,597,073	28,931,264	37,099,981	38,007,791	38,366,587	39,412,880	40,462,508	40,942,699	7,571,615	14,721,645
Departing passengers															
Origin and destination															
Europe	14,688,784	14,661,948	14,743,673	11,716,309	11,661,207	12,079,601	9,626,253	12,265,144	12,624,009	12,741,755	13,174,509	13,668,591	13,930,655	2,376,657	4,618,528
Other	18,185,232	18,302,809	18,084,452	14,213,133	13,699,869	14,069,905	11,034,173	14,113,855	14,531,642	14,903,829	15,695,509	16,105,068	16,805,579	3,120,028	6,299,978
Transfer passengers															
Europe	Transfer passengers not separately identified			3,856,432	4,028,131	4,081,838	3,307,956	4,220,781	4,299,434	4,274,123	4,346,998	4,306,358	3,973,195	778,538	1,513,903
Other				5,172,212	5,579,652	5,585,627	4,439,514	5,675,064	5,496,182	5,389,922	5,358,837	5,559,489	5,234,538	1,007,470	2,065,064
Transit passengers															
Europe	1,859	2,834	1,623	646	1,462	1,293	699	1,103	349	3,757	1,258	2,617	1,371	294	n/a
Other	160,859	119,384	96,303	47,738	47,004	34,106	25,337	32,467	30,625	35,273	24,126	21,686	2,503	251	n/a
Departing passengers	33,036,734	33,086,975	32,926,051	35,006,470	35,017,325	35,852,370	28,433,932	36,308,414	36,982,241	37,348,659	38,601,237	39,663,809	39,947,841	7,283,238	14,497,472
Total terminal passengers	66,092,017	66,254,891	66,208,823	70,098,891	70,322,439	72,449,443	57,365,196	73,408,395	74,990,032	75,715,246	78,014,117	80,126,317	80,890,540	14,854,853	29,219,117
PATMs	467,130	453,780	453,938	473,761	464,686	467,779	356,773	468,359	469,671	470,764	471,082	472,744	473,235	101,394	227,904
UK (departing - origin and destination)	Transfer passengers not separately identified			1,363,803	1,370,661	1,508,293	1,212,869	1,558,413	1,480,713	1,340,789	1,367,353	1,345,333	1,440,158	274,147	953,087
UK (departing - transfers)				949,214	975,181	1,031,366	840,890	1,067,349	1,089,749	986,012	1,058,093	1,079,454	1,006,443	192,332	300,975
UK (departing - total)	2,741,311	2,573,120	2,460,251	2,313,017	2,345,842	2,539,659	2,053,759	2,625,762	2,570,462	2,326,801	2,425,446	2,424,787	2,446,601	466,479	1,254,062

