
Three's response to Ofcom's consultation: aligning licence terms in the 3.4-3.8 GHz band.

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Executive Summary.

Three supports Ofcom's innovative proposal to align the terms of UKB's 3.4-3.6GHz licence with the terms of auctioned licences in the 3.4-3.6GHz band, and those of UKB's 3.6-3.8GHz licence with the terms of auctioned licences in the 3.6-3.8GHz band.

3.4-3.8GHz is the primary 5G band in Europe and supports all 5G deployments in the UK to date. However, the disparity in licence terms and fees in the band is problematic for two main reasons:

- There is a large disparity between the Annual Licence Fee (ALF) that Three pays in respect of UKB's 120MHz in the band and what other MNOs paid for equivalent spectrum in the April 2021 3.6-3.8GHz auction; and
- Despite Ofcom's efforts the 3.4-3.8GHz band remains fragmented following the 3.6-3.8GHz auction – Three has explored potential trades [§<] but progress has been impossible due to the difference in licence terms – particularly the ALF liability attached to UKB's licences.

Ofcom's proposal solves both problems at once as it i) puts operators on a fair, level-playing field in relation to fees paid for equivalent spectrum (one of Ofcom's key objectives for the band); and ii) removes the disparity between licence terms, paving the way for potential spectrum trades that would help defragment the band (consistent with Ofcom's duty to secure optimal use of spectrum).

For the above reasons, the proposal is unambiguously in the public interest. Vodafone and Telefónica previously urged Ofcom to ensure that all MNOs pay the same fee for equivalent spectrum. Ofcom adopted this principle as an explicit policy objective when setting our ALF for the 3.4-3.8GHz band. We therefore expect no objections to Ofcom's proposal from other MNOs.

We confirm that Three would consent to the proposed licence variations if Ofcom proceeds on the terms proposed in the consultation. We ask Ofcom to implement its proposals promptly so that MNOs can get on with the task of defragmenting the band for the benefit of UK consumers.

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1. Ofcom's proposal addresses a large disparity in fees and could pave the way for defragmentation of the 3.4-3.8GHz band.

This section discusses how the difference in licence terms in the 3.4-3.8GHz band has created a large discrepancy in fees paid for equivalent spectrum and an obstacle to potential spectrum trades that would help defragment the band.

We explain that Ofcom's proposal to align licence terms and fees in the band solves both problems at once and go on to confirm our support for the proposal if taken forward on the same terms shared in the consultation.

Why the current differences in spectrum licence terms and fees in the 3.4-3.8GHz band are problematic

Spectrum Access licences in the 3.4-3.6GHz and 3.6-3.8GHz bands currently have different terms and are subject to different fees, reflecting that they were granted at different times. In particular:

- **Spectrum Access licences in the 3.4-3.6GHz band** – these licences were auctioned in April 2018 and were awarded to BT, Vodafone, Telefónica and Three. As shown in Table 1, the auction price was £37.8m per 5MHz block.¹ The licences are indefinite (the earliest they can be revoked is 2038, subject to 5 years' notice) and become subject to ALF from 2038.
- **Spectrum Access licences in the 3.6-3.8GHz band** – these other licences were allocated by auction in April 2021 and were won by BT, Vodafone and Telefónica only. Table 1 shows that the auction price was much lower at only £21.0m per 5MHz block.² These licences are also indefinite (the earliest they can be revoked is 2041, subject to 5 years' notice) and become subject to ALFs from 2041.

¹ Telefónica paid one more price increment as the bidder randomly selected to face a higher price of £39.7m per MHz

² In this case Vodafone paid one more price increment as the bidder randomly selected to face a higher price

Table 1: the 2018 and 2021 3.4-3.8GHz auctions

MNO	3.4-3.6GHz 2018 auction			3.6-3.8GHz 2021 auction		
	MHz	Price (£m)	Price per 5MHz (£m)	MHz	Price (£m)	Price per 5MHz (£m)
EE	40	302.6	37.8	40	168.0	21.0
Three	20	151.3	37.8	-	-	-
O2	40	317.7	39.7	40	168.0	21.0
VF	50	378.2	37.8	40	176.4	22.1
Total	150	1,149.8		120	512.4	

Three UK also holds two other licences in the name of our subsidiary UKB. These authorise use of 120MHz in the band. UKB's licences are subject to different terms and fees however:

- **A Spectrum Access licence authorising use of 40MHz at 3.4-3.6GHz** in two separate 20MHz blocks (3480-3500MHz and 3580-3600MHz) – this licence was granted by auction in 2003 and is indefinite (subject to 5 years' notice).³ ALFs were applied from July 2019 by reference to the price in the April 2018 3.4-3.6GHz auction (£37.8m per 5MHz plus inflation).
- **A Spectrum Access licence authorising use of 80MHz at 3.6-3.8GHz**⁴ – this licence was assigned by administrative grant in 1992. The licence is indefinite (subject to 5 years' notice) and has been subject to ALF since grant. The ALF was revised in 2019, also by reference to the price in the April 2018 3.4-3.6GHz auction (£37.8m per 5MHz plus inflation).

The above differences between spectrum licences auctioned in 2018 and 2021 on the one hand and UKB's licences on the other are problematic for two main reasons:

- First, there is a large disparity between the ALF that Three pays for UKB's 120MHz in the band and what other MNOs paid for equivalent spectrum in the April 2021 3.6-3.8GHz auction;

³ The licence has been subject to fees since grant. It was initially granted for a 5-year term on payment of an initial bid fee. Two further optional 5-year periods were exercised on payment each time of the same bid fee. As part of making it indefinite, the licence became subject to ALFs after the third 5-year period.

⁴ The licence also authorises use of 84MHz at 3925-4009MHz

- Second, the difference in licence terms has prevented trades that would help defragment the 3.4-3.8GHz band – in the past, Three has explored potential swaps [X] but progress has not been possible due to the ALF liability and uncertainty about its future level.

Ofcom's innovative proposal to align licence terms and fees across both bands solves both problems. We discuss each problem in turn.

Ofcom's proposal puts operators on a fair, level-playing field in relation to fees paid for equivalent spectrum in the band

Three's 3.4-3.8GHz ALF is based on a lump-sum value of £42.0m (in March 2022 prices) annualized over 20 years. This fee reflects the April 2018 3.4-3.6GHz auction price (£37.8m) plus inflation and applies uniformly across our entire 3.4-3.8GHz.⁵

However, as discussed above other MNOs paid only £21.0m per 5MHz for equivalent spectrum in the April 2021 3.6-3.8GHz auction (or £22.3m per 5MHz in March 2022 prices). In effect, other MNOs have paid 47% less than Three is currently paying on an annualized basis.

This situation is plainly inconsistent with Ofcom's stated policy objective for the 3.4-3.8GHz band, so Ofcom is right to address it.

When Ofcom set UKB's 3.4-3.8GHz ALF in 2019, Vodafone and Telefónica urged it to ensure that Three paid the same as other MNOs had paid in the April 2018 3.4-3.6GHz auction. Both MNOs strongly objected to Ofcom's consultation proposals, which gave Three a 18-22% discount compared to the auction price in April 2018.

Following these submissions, Ofcom decided to withdraw its proposals and to base UKB's ALF on the 2018 auction price to "*put all operators on a fair, level playing field*". This was for the following reasons:⁶

- **Risk of discrimination and/or an unfair outcome** – Ofcom agreed with Vodafone and Telefónica that having different MNOs pay different amounts for equivalent spectrum could be said to be unfair and raise questions of discrimination.
- **Impact on competition** – Ofcom found that setting Three's ALF at the same level as that paid by rival MNOs was more consistent with

⁵ Para 2.12a: https://www.ofcom.org.uk/data/assets/pdf_file/0013/151231/statement-annual-licence-fees-uk-3.4-ghz-and-3.6-ghz-spectrum.pdf

⁶ www.ofcom.org.uk/data/assets/pdf_file/0013/151231/statement-annual-licence-fees-uk-3.4-ghz-and-3.6-ghz-spectrum.pdf

the promotion of competition, as Three could otherwise be said to receive a discount or “subsidy” relative to MNOs who acquired 3.4-3.6GHz spectrum at auction.

- **Securing the optimal use of spectrum** – Ofcom concluded that setting different fees for different MNOs could have adverse consequences for spectrum swaps in the 3.4-3.8GHz band, which would be avoided by setting ALFs which were not licensee-specific.
- **Efficient and effective spectrum management** – finally, Ofcom took the view that setting the same fee for equivalent spectrum was simpler and more consistent with efficient spectrum management. Where the regulator sets the price, Ofcom said, it is more common to do so by means of a uniform price rather than a price that varies depending on the identity of the purchaser.

Following the April 2021 auction of 3.6-3.8GHz spectrum – which yielded a much lower price than the April 2018 award on which Three's ALF is based – Three is now paying nearly twice as much by way of ALF as other MNOs have paid for equivalent spectrum in the latest auction.

A consistent application of Ofcom's stated policy for the 3.4-3.8GHz band – i.e. that MNOs should pay the same amount for equivalent spectrum – requires that Three pays for its 3.4-3.6GHz spectrum the same as others paid in the April 2018 auction, and similarly that Three pays no more in respect of its 3.6-3.8GHz spectrum than what other MNOs paid in the April 2021 auction.

Under Ofcom's proposal, instead of continuing to pay ALFs, Three would:

- a) Pay upfront for UKB's 3.4-3.6GHz and 3.6-3.8GHz spectrum based on the respective auction prices for each band – i.e. £42.0m for UKB's 40MHz at 3.4-3.6GHz and £22.3m per 5MHz for UKB's 80MHz at 3.6-3.8GHz (both in March 2022 prices), and assuming a 20-year initial licence term starting on the date of each auction (like other MNOs' licences in the band).
- b) All ALFs paid by Three since the auction date for each band would be deducted – as no ALF is payable during the initial 20-year period of their licences.

With this proposal, prior to April 2021 Three would have paid a 3.6-3.8GHz ALF based on the higher auction price for 3.4-3.6GHz in the Apr 2018 auction – i.e. more than other MNOs have subsequently paid for identical spectrum in that range. Strictly speaking, we believe that Ofcom

should also deduct from the upfront payment the difference between our actual ALF payments for 3.6-3.8GHz in Dec 2019 (and a share of our Dec 2020 ALF paid) and what the respective payments would have been had the lower 2021 auction price been used to set the ALF.

Notwithstanding the above, we are satisfied that, if taken forward in its current terms, Ofcom's proposal would put all licence holders of 3.4-3.8GHz spectrum "*on a fair, level playing field*" in relation to fees, consistent with Ofcom's previously stated policy for the band.

We expect other MNOs – Vodafone and Telefónica in particular – to raise no objection to Ofcom's proposal, given their principled submissions to Ofcom demanding that all MNOs pay the same price for equivalent spectrum in the band.

Ofcom's proposal could also pave the way for potential spectrum swaps that would help defragment the band

The disparity in licence terms and fees has also raised major obstacles in agreeing trades that would help defragment the 3.4-3.8GHz band. Removing those obstacles is an added benefit of Ofcom's proposal, as the band is the primary 5G band in Europe and the consensus is that 5G works best when it leverages large contiguous blocks of spectrum.

For several years now Three has supported Ofcom's efforts to facilitate spectrum trading in the 3.4-3.8GHz band. In 2019 we ran a process (facilitated by consultancy Flint) which enabled other MNOs to secure their preferred band locations ahead of Ofcom's 3.6-3.8GHz auction. We abandoned the process following feedback from other MNOs that [REDACTED].

In 2021 Three held bilateral trading discussions with other MNOs during Ofcom's Negotiation Stage of the 3.6-3.8GHz auction, [REDACTED].

Discussions did not progress, however, due to the ALF liability attached to UKB's 3.4-3.8GHz spectrum (which did not feature in other MNOs' licences) and uncertainty about the future level (since the 2021 auction price was much lower than the price on which UKB's ALF is based). [REDACTED]

Hence, despite Ofcom's best efforts the band remains highly fragmented. Only Vodafone and Telefónica agreed to trade during the four-week negotiation process included of the 3.6-3.8GHz auction. As shown in Figure 1:

- Following their agreement, Telefónica and Vodafone hold concurrent licences to 3500-3540MHz and 3720-3760MHz until 31 December 2025 – so that they can swap frequencies area by area gradually over time.

Ofcom’s proposal resolves a large disparity in spectrum fees and could pave the way for defragmentation of the 3.4-3.8GHz band continued

- After that date, Telefónica will hold the rights to an 80MHz contiguous block at the top of the band, but Vodafone and EE will continue to have non-contiguous spectrum separated by Three’s 40MHz and 100MHz holdings in the band.

Figure 1: status and potential configurations of the 3.4-3.8GHz band

VF/O2 trade	10MHz Guard	Vodafone 50MHz	Three 40MHz	O2/VF 40MHz	BT 40MHz	Three 100MHz	BT 40MHz	VF/O2 40MHz	O2 40MHz
Post VF/O2 trade	10MHz Guard	Vodafone 50MHz	Three 40MHz	VF 40MHz	BT 40MHz	Three 100MHz	BT 40MHz	O2 80MHz	

[X]

Source: Three

As shown in Figure 1, [X]

In that context, Ofcom’s proposal to require Three to pay a lump-sum amount for its 3.4-3.8GHz spectrum upfront would remove the key stumbling block in commercial discussions to date – i.e. the ALF liability attached to UKB’s 3.4-3.8GHz licences and uncertainty about its future level.

With that obstacle out of the way, we are hopeful that MNOs will find it easier to compromise and negotiate an acceptable solution to the problem of spectrum fragmentation. As Ofcom has previously found, there are financial benefits to everyone from defragmenting the band and Three has every incentive to trade positions with other MNOs in order to share in these gains.

We confirm that Three would consent to the proposed licence variations

For the reasons set out above, we believe that Ofcom’s proposal is unambiguously in the public interest, as i) it ensures that all MNOs pay the same amounts for equivalent spectrum in the 3.4-3.8GHz band (consistent with Ofcom’s stated policy for the band) and ii) would remove a key obstacle to spectrum trades that would help defragment the band in the interest of UK consumers.

Ofcom's proposal resolves a large disparity in spectrum fees and could pave the way for defragmentation of the 3.4-3.8GHz band **continued**

Ofcom has estimated lump-sum payments of £278.2m in respect of the 3.4-3.6GHz band and £292.9m in respect of 3.6-3.8GHz. These amounts are expressed in March 2022 prices and would be indexed by CPI to the final payment date (with any ALF payments made by Three after 30 April 2022 in respect of either band being offset).

We confirm that Three would consent to the licence variations if Ofcom were to proceed on the terms proposed (including the proposals to remove leasing rights in UKB's 3.6GHz licence and the transfer of our 3.9GHz spectrum rights into a new, separate licence).

[§]. We ask Ofcom to implement its proposals at the earliest opportunity so that MNOs can get on with the task of defragmenting the band for the benefit of UK consumers.