Response to Ofcom's consultation on Equinox 2

INCA, INCA members: Community Fibre, Fibrus, Freedom Fibre, FullFibre, ITS, NexFibre and Spring Fibre and non-INCA-member Zzoomm

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1 Executive summary

1. The Government's policy to encourage investment in new fibre networks by Openreach[1] and other providers has, to date, been successful.
2. Collectively, altnets are expected to invest over £20bn in FTTH networks by 2025[2][3] significantly exceeding Openreach's own £12bn FTTP investment plans.
3. Despite this early success, Ofcom is proposing to allow Openreach to introduce a new discount scheme – Equinox 2 - (building on a prior discount scheme introduced in October 2021 – Equinox 1) - which would
    a. raise and create barriers to ISPs using altnet infrastructure to serve their customers;
    b. starve altnets of demand; and
    c. consequently, reduce investment and competition in the UK fibre market, contrary to the Government's policy.
4. To avoid causing harm to new full-fibre infrastructure network investment by altnets, Ofcom must reassess Equinox 2 and block it.
5. This document responds to Ofcom's proposal to allow BT[4] to introduce Equinox 2 from INCA, specifically sponsored by the following INCA members: Community Fibre, Fibrus, Freedom Fibre, FullFibre, ITS, NexFibre and Spring Fibre, and by

[1] In this document the terms BT and Openreach are used interchangeably except where the context makes it clear that we refer specifically to one or other of those entities.

[2] £17.7bn altnet investment as identified in the INCA/Point Topic 2022 report, Metrics for the UK independent network sector: https://www.inca.coop/sites/default/files/inca_metrics_report_2022.pdf; since report publication further investments have been made, including CityFibre £4.9bn raise: https://cityfibre.com/news/cityfibre-completes-a-4-9bn-debt-raise-in-one-of-europes-largest-ever-full-fibre-financings

[3] Note that this estimate does not exclude the projected £4.5bn investment by NexFibre, which would take the total to around £25bn.

[4] In this document the terms BT and Openreach are used interchangeably except where the context makes it clear that we refer specifically to one or other of those entities.

non-INCA-member Zzoomm. We have also engaged in detailed consultations with CityFibre and Virgin Media O2.[5]

6. Ofcom should take decisions by reference to relevant legal duties, including:
    a. the requirement for consistency and transparency;
    b. the duty not to discriminate between providers of electronic communications network and services; and
    c. the duty to have clear regard to the Government's Statement of Strategic Priorities. This requires Ofcom to prioritise the promotion of infrastructure investment and competition above delivering short-term price benefits to consumers.
7. Whilst the Competition Appeal Tribunal's judgment relating to Equinox 1 did not find that Ofcom had acted so unreasonably or irrationally as to require the court to set aside Ofcom's decision, the Court's judgment was not without criticism of Ofcom's conduct in its review of Equinox 1. Ofcom should be mindful of the Court's comments in its judgment.
8. In summary, the respondents submit:
    a. **Network overlap** between Openreach and altnets offering wholesale access is **already material and will increase substantially** between now and 2026.
    b. The **failsafe mechanism** is complex, it would consume significant ISP resources to operate and **would not in practice address the competitive harm** it purports to mitigate.
    c. The **absolute price levels** resulting from Equinox 2 are likely **below the costs of an efficient market entrant.**

[5] Annex 5 provides details about the respondents.

d. E2 will create **additional barriers** to the use of altnet wholesale services by ISPs, and **Ofcom must consider questions 2 and 3** in its test.

   i. However, when Ofcom comes to consider question 3, we further submit that Ofcom should conclude that Question 3 is not required. The question addresses whether BT's internal business case is promoted – which should not - and cannot be a relevant consideration for Ofcom in exercising its legal powers.

e. BT's practice of introducing ongoing uncertainty in the market by discussing potential new pricing offers (aka '**drip-feeding'**) is, of itself, causing **harm to the competitive process and market structure** and should be further investigated by Ofcom.

9. Ofcom's analysis as set out in the Equinox 2 consultation document is deficient, incomplete, and flawed. In particular:

   a. Ofcom considers the impact of Equinox 2 on the three largest ISPs and the three largest altnets only. Ofcom should not take this approach because:

      i. This conflicts with Ofcom stated objective (in WFTMR) to protect 'nascent competitors' to Openreach from potentially anticompetitive pricing levels and structures introduced by Openreach.

      ii. Around 80 - 100 small altnets are building competitive fibre networks and plan to enter the wholesale market often through partnerships with small and medium-sized ISPs. Ofcom fails to consider the impact of Equinix 2 on either of those groups. If small and medium-sized ISPs cannot use altnets due to the Equinox 2 Order Mix Targets and the complexity of the failsafe mechanism, this raises and/or creates barriers to small altnets entering the wholesale market, impacting investment levels and the wider fibre investment ecosystem we describe in more detail later.

b. Ofcom does not engage in any analysis of whether the failsafe mechanism is workable for ISPs (of any size), mischaracterises the failsafe mechanism as being similar to the GEA volume relief mechanism and dismisses concerns about the failsafe mechanism's workability, stating simply that the large ISPs are '*sophisticated businesses*'. Ofcom fails to consider or address the (lack of) impact of the failsafe mechanism on the wider ecosystem of medium and small altnets and ISPs.

c. In Equinox 2, Ofcom has changed the measure for when a price level would cause it competition concerns from the level used in E1. Ofcom's change is not justified and neither consistent nor transparent. However, the outcome of the change is that BT's new Equinox 2 prices are not caught by the test when they would have failed the E1 test. In particular:

    i. For E1, Ofcom stated that if a price did not go below the regulated 40/10 anchor price, then Ofcom would not have competition concerns; but,

    ii. In contrast, for Equinox 2, Ofcom now states that only if the weighted average of Openreach's FTTP prices go below the regulated 40/10 anchor price would Ofcom have competition concerns.

    iii. No explanation or justification is provided by Ofcom for this change in approach, which goes against the legal requirement for Ofcom to act consistently.

d. Ofcom refuses to correct obvious and clear flaws and errors in its fibre costing model:

    i. The model is out of date.

    ii. The model makes unrealistic and irrational assumptions about altnet business plans and network deployment.

    iii. The model is consistently biased towards reducing the calculated unit costs for market entrants.

iv. Ofcom's justification for not correcting the model is based on its own convenience.

v. The model shared with stakeholders had significant errors that could not have arisen from changing inputs to preserve the confidentiality of BT data.

vi. Those errors were notified to stakeholders a week before the consultation response deadline with a statement that it would not affect the Equinox 2 consultation.

vii. The corrected module, when published, was not linked correctly to other modules and required manipulation by stakeholders before it was workable.

e. Ofcom has refused to assess the impact of Equinox 2 in the Area 3 geographic market, despite providers operating in that market explaining to Ofcom that the impact of the OMT in Area 3 would be different and more severe in Area 3 than in Area 2 and that the impact of the absolute price levels resulting from E2 would be more severe in Area 3 as well.

f. By tying in ISPs purchase commitments, Equinox 2 enables Openreach to justify overbuilding altnets in Area 3 locations that would otherwise not justify overbuild (due to a combination of cost per premises passed and the low density of premises). Openreach effectively uses the tied ISPs as anchor tenants for its overbuild. This will discourage future investment by altnets in area 3, adversely impacting customers who will have to wait longer for FTTH.

10. Ofcom's assessment of the Equinox 2 offer appears to reflect a strong bias in Ofcom to protect Openreach's FTTP business plan and a complete disregard for the many smaller market entrants and the billions of pounds invested in those networks. One example of that bias is Ofcom's undue concern to support the

Openreach copper to fibre migration process. That is contrary to Ofcom's legal duties and not in accordance with Government policy.

2 Context and background

2.1 The respondents

11. This response was produced for INCA, specifically sponsored by the following INCA members: Community Fibre, Fibrus, Freedom Fibre, FullFibre, ITS, NexFibre and Spring Fibre, and non-INCA-member Zzoomm.6

12. The response was further developed with input from other stakeholders including CityFibre and VMO2 (but notes that they have submitted their own individual responses).

13. The respondents are altnets investing in, and operating, new full-fibre to the home networks across the UK in rural and urban settings. The respondents represent a wide cross-section of the industry - differing in size and business models: vertically integrated, vertically integrated with a wholesale offer and wholesale-only.

14. Regardless of size, business model and whether they have urban, sub-urban or a rural focus, the respondents agree that Ofcom must block Equinox 2 **(E2)**. Allowing E2 to be implemented, would have a chilling effect on investment incentives for altnets of all sizes and across all business models.

15. Some altnets have provided confidential statements in support of the harm to altnet businesses from E2 as set out in this document. Those statements will be submitted to Ofcom in strictest confidence and under separate cover.

[6] Annex 5 provides details about the respondents.

2.2 Equinox 2 in outline

16. We outline the key features of Equinox 2 in the table below and compare with Equinox 1.

Table 1: Comparison of Equinox 2 with Equinox 1

	Equinox 1	Equinox 2
Geographic scope	All areas where Openreach has FTTP ready for service[7]	No change
Offer expiry	September 2031	No change
Rental discount expiry	September 2031	No change
Rental discount levels	Full discounts are: no discount on 40/10 product, 11-30% discount on other FTTP products depending on speed. Ramp-up discounts are: no discount on 40/10 product, 7-23% discount on other FTTP products depending on speed (these prices are the same as for the FTTP v2 offer) Full discounts apply: 1. If national ratio from Openreach of FTTP/total >80%; 2. During on-boarding period 1 (Oct-21 – Mar-22), if national ratio from Openreach of FTTP/total >75%; 3. During on-boarding period 2 (Apr-22 – Sep-22), if national	See table 6 No change to threshold levels for rentals, but fail-safe mechanism introduced to remove overbuild areas from the Fibre-only measure. Fail-safe may be modified if CPs copper orders increase in the overbuild footprint.

[7] Except the time limited 12 months, which, by default, applies only to where altnets have network as well as to new build.

	Equinox 1	Equinox 2
	ratio from Openreach of FTTP/total >80%. Ramp-up discounts apply only: 1. During the ramp-up period (Oct-21 – Mar-22), if FTTP/total >80%	
Time-limited additional rental discount	For a period of 12 months after connection, FTTP lines new to the Openreach network (NTN)[8] between 160Mbps and 550Mbps will be charged at the 160Mbps discounted rental price. This applies only to lines connected before Sep-26.	No change
Rental indexation	From Mar-22 to Sep-26, FTTP prices for 40Mbps – 115Mbps will maintain a constant differential to the 40Mbps price, and products of 160Mbps and higher will follow a CPI-1.25% trend (subject to a floor of zero nominal price reduction).	E2 prices are set for 1-4-2023. From 1-4-2024: • 40/10 prices remain at list • 55/10 to 330/50 increase at the highest of 0% or CPI • 550/75 and higher speeds are at the highest of 0% or CPI-1.25%
ARPU revenue sharing	Subject to meeting the offer threshold, where the CP achieves a rental ARPU >£17 per month then 50% of the excess ARPU over the threshold will be paid back to the CP. From 1-4-23 the share level is increased to £18.95	ARPU revenue share continues but with a revised threshold of >£16.95 per month (for year beginning 1-4-2023). For future years, indexation of threshold will be at highest of 0% or CPI

[8] According to the contract, NTN means a Premise where there have been no Openreach products and services including any FTTP and Legacy products on the relevant line at any point in the last 90 consecutive days prior to the date of an Order for the Primary Service excluding any Premise on New Sites (Greenfield / New development premises).

	Equinox 1	Equinox 2
	Openreach may reduce the ARPU sharing threshold by CPI-2% each October.	
Volume criteria	None	None
Service mix criteria	Target for FTTP new orders as % of total new orders (FTTP + legacy) –75% or 80% as outlined above. Legacy orders are defined as WLR, MPF, SMPF/WLR, FTTC/WLR, FTTC/MP. New orders (FTTP and Legacy) are defined as provides or transfers, excluding modify orders (e.g., speed), novation, and bulk moves.	
Year 6 review	From Apr-2026, Openreach may: - amend rental charges and ARPU share level by up to £1.50/month - if Ofcom changes the anchor product to a different speed, or no longer applies the CPI limit to the 40/10 product, then Openreach may change the rental charges and indexation mechanism.	Year 6 review continues, but potential price increase is reduced to £1 per month with 12 months' notice of increase
Forecasting accuracy criteria	Forecasts are required from the CPs as a condition of the offer. Inaccuracy in the forecast may affect connection discounts, but not rental.	New requirements are: In a particular Contract Quarter, CPs are required to forecast accurately within a 10% quarterly variance, calculated as the average of monthly variances. Lack of compliance will result in a proportional loss of discount: for every % outside the permitted

	Equinox 1	Equinox 2
		variance, CPs will lose £1 of the applicable connection discount – maximum deduction capped at £12.50 applicable to all lines connected in that Contract Quarter. CPs are also required to notify Openreach in advance if their forecasts are expected to be inaccurate by more than 20%
Connection charges	**For Area 2:** NTN lines, the connection charge is £25, indexed at CPI-0% per year (£28.94 from Apr-23) (cf £99.39 standard price (£114.78 from Apr-23)) Non-NTN lines, the connection charge is £50 (£57.88 from Apr-23), indexed at CPI-0% per year (cf £99.39 standard price (£114.78 from Apr-23)) Where CPs do not meet the fibre-only target, but do meet the fibre-only threshold, the above discounted prices are increased by: - For NTN until Mar-2022, £7.50 for every percentage point downwards deviation from the fibre-only target - For non-NTN until Mar-2022, £5 for every percentage point downwards deviation from the fibre-only target - For both NTN and non-NTN, for every percentage point downwards deviation from the fibre-only target, 10% of the	**For Area 2:** NTN charge is £28.94 indexed at CPI-0% Non-NTN charge is £57.88 indexed at CPI-0% Migrations (from 80M) are charged at £28 indexed at CPI-0% For CPs not meeting the fibre-only target but meeting the fibre-only threshold, the changes on connection discount are as for E1. **For Area 3:** Migrations (from 80M) are charged at £78. All other connections at list price. **For all Areas:** Bulk migration – as before, bulk moves to copper for all-IP transition purposes are excluded from the fibre-only calculation; under E2, also one-off moves from WLR to MPF or vice versa may be excluded from the fibre-only

	Equinox 1	Equinox 2
	difference between the discounted price and the standard price list. **For all Areas:** NTN bandwidth modify from 550Mbps to a lower speed is £0 (£5.64 standard) NTN bandwidth modify from any speed to a higher speed is £0 (£5.64 standard)	calculation at the time a base of end customers is acquired by a CP
Failsafe mechanism	None.	See detailed analysis in section 4.

2.3 Legal and procedural background

17. On 18 March 2021 Ofcom reviewed the wholesale fixed telecoms market (including fibre to the premises (**FTTP**) services) and published a statement setting out its conclusions and imposing various regulatory requirements on Openreach[9] **(Wholesale Fixed Telecoms Market Review** or **WFTMR**).

18. In the WFTMR Ofcom:

    a. found Openreach to have significant market power (i.e., the ability to act independently of consumers and competitors) in wholesale local access market areas 2 and 3; and

    b. required Openreach to provide 90 days advance notice of commercial terms where the price or other contractual conditions are conditional on the volume and/or range of services purchased.

[9] In this document the terms BT and Openreach are used interchangeably except where the context makes it clear that we refer specifically to one or other of those entities.

19. The WFTMR also prohibited geographic pricing for some services without consent. On 2 July 2021, Ofcom published a statement granting consent to three existing BT price offers (**GEA Statement**).

20. On 1 July 2021, Openreach notified proposed new FTTP pricing arrangements from 1 October 2021 (**Equinox 1** or **E1**). On 30 September 2021 Ofcom concluded that Equinox 1 did not raise competition concerns requiring ex ante intervention and decided to take no further action (**E1 Decision**).

21. The E1 Decision was appealed to the Competition Appeal Tribunal (and in July 2022 the Tribunal dismissed the appeal (**E1 CAT Judgment**)[10]. Whilst the court dismissed the appeal on the basis that Ofcom's conduct had not reached the very high level of unreasonableness or unfairness required to succeed under a 'judicial review', the court made a number of comments about Ofcom's conduct of the E1 review:

    a. **Ofcom could have gathered more evidence about overlap** (see paras 116, 122, 126, 127 and 128):

    "*122. In our judgment, any failure by Ofcom to ask CityFibre (or other altnets) about their expectations for short term overlap with Openreach's network falls short of establishing unfairness to CityFibre. While the consultation process could perhaps have been improved on, it was not so flawed as to be unlawful.*

    […]

    126. CityFibre has not met the high hurdle required to establish that Ofcom has failed in its duty to make sufficient enquiry. We consider that there were further questions which Ofcom could have asked, and which it may indeed have been desirable to ask. However, it is not for this Tribunal to substitute

[10] *CityFibre Limited v Office of Communications and British Telecommunications PLC* [2022] CAT 33.

our views on that subject for those of an expert regulator with deep knowledge of the subject.

128. In relation to whether Ofcom had reasonable evidence on which to base the Overlap Conclusion, we decide it did by reason of:

(1) The expressed preference of altnets (including CityFibre) not to overbuild Openreach;

(2) The limited current overlap at the time of the Statement, as assessed by Ofcom with the benefit of information from Openreach and CityFibre;

(3) Published plans about network build, supplemented by information provided privately by CityFibre, which allowed extrapolation between the current position and the longer term anticipated outcomes; and

(4) The expectation that the business models for altnets other than CityFibre would remain focused on retail sales, not wholesale. This conclusion was based on work done in the WFTMR and supplemented by discussions with ISPs and altnets in the Equinox consultation process."

b. **Ofcom's analytical framework for E1 was less clear than the WFTMR framework** (see para 143):

"143. In our view, there was less clarity in Ofcom's analytical framework for assessing the Equinox offer once that was modified to three questions in the Consultation Document. We consider that the formulation set out in paragraph 7.154 of the WFTMR is easier to follow than the reformulation in paragraph 2.39 of the Consultation Document. The new Question 1 may be taken to suggest a lower and more definite threshold than Ofcom perhaps intended."

c. **Regulatory clarity and consistency is important** (see para146):

"146. That said, we also note that very significant investment commitments and resource allocation decisions are made on the basis of such policy statements. Put another way, a lack of clarity and consistency in

implementation has significant consequences and is therefore to be avoided. Regulators like Ofcom are afforded the discretion to make expert judgements in the expectation that they will provide clear and consistent guidance to those they are regulating."

22. On 3 February 2023, Ofcom issued a consultation (**E2 Consultation**) on its provisional view that Ofcom should not take any action to prevent Openreach from introducing pricing arrangements for its FTTP services notified on 14 December 2022 (**Equinox 2** or **E2**).

23. Ofcom's assessment of E2 must take account of its relevant statutory duties, set out in the Communications Act 2003 (as amended);

"s3(1)(b) It shall be the principal duty of OFCOM, in carrying out their functions […] to further the interests of consumers in relevant markets, where appropriate by promoting competition.

s3(2)(b) Ofcom are required to secure […] the availability throughout the United Kingdom of a wide range of electronic communications services

S3(3) OFCOM must have regard, in all cases, to—

(a) the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed; and

(b) any other principles appearing to OFCOM to represent the best regulatory practice.

S3(4) OFCOM must also have regard, in performing those duties, to such of the following as appear to them to be relevant in the circumstances—

(b) the desirability of promoting competition in relevant markets

(d) the desirability of encouraging investment and innovation in relevant markets

(e) the desirability of encouraging the availability and use of high speed data transfer services throughout the United Kingdom

S4(2) It shall be the duty of OFCOM, in carrying out any of those functions, to act in accordance with the [following requirements]:

S4(3) (a) …a requirement to promote competition […] in relation to the provision of electronic communications networks and electronic communications services

s4(3)(6) … a requirement to take account of the desirability of OFCOM's carrying out their functions in a manner which, so far as practicable, does not favour—

(a) one form of electronic communications network, electronic communications service or associated facility; or

(b) one means of providing or making available such a network, service or facility,

over another.

4(3)(10A) … a requirement to promote connectivity and access to very high capacity networks by members of the public and businesses in the United Kingdom."

24. Ofcom is required by section 2B(2) of the Communications Act 2003 to have regard to the UK Government's Statement of Strategic Responsibilities (**SSP**). Whilst the whole of SSP Section 1 (*World-class digital infrastructure*) is relevant, we set out below key extracts (emphasis added) that should inform Ofcom's assessment of the Equinox Offer, but which were not considered in Ofcom's consultation:

"Para 10: In July 2018, the Government published the FTIR, which set out the changes that need to be made to the UK telecoms market and policy environment to help secure these goals. The FTIR concluded that the most effective way to

deliver nationwide gigabit-capable connectivity at pace is to promote competition and commercial investment where possible, and to intervene where necessary.

From para 11:

Supporting market entry and expansion by alternative network operators through effective access to Openreach's ducts and poles, complemented by access to other utility infrastructure, for example, sewers;

Stable and long-term regulation that incentivises network investment and ensures fair and effective competition between new and existing network operators;

Para 18: The Government's aim is to promote investment and competition in world-class digital networks, to as many people and businesses as possible. Investment in new networks by BT and alternative providers is key to improving consumer outcomes, in terms of choice, service quality, and innovation. The Government's view is that promoting investment should be prioritised over interventions to further reduce retail prices in the near term.

Para 19: We regard competition where possible as a key driver of network roll-out. It is essential that competition is fair and effective between existing network operators and new entrants, and we expect Ofcom to adopt an engaged, proactive approach to monitoring any anti-competitive behaviour. Ofcom has powers at its disposal - including information gathering, audit enforcement and penalty powers - to perform this role. "

3 Overarching concerns

25. After lagging behind other European countries for some years, there are now around 100 different companies investing in building FTTP. Today, some 47% of households have access to FTTP or FTTH, of which 19% are served by altnets

and 31% by BT[11] Openreach and KCOM.[12] Collectively, altnets are expected to invest over £20bn in FTTH networks by 2025.[13][14]. This collective investment is almost double BT's projected investment of £12 billion.[15]

26. However, the altnet sector is at a critical nascent stage. Investors are increasingly concerned that actions by BT are causing the take-up of altnet networks to be below expectations. If altnets are unable to achieve take-up targets, there is a strong risk that investment in further network expansion will cease. This concern is seen across both retail and wholesale markets. It is critical that no further BT discount schemes raise existing and/or create new barriers to market entry and expansion for altnets are allowed. E2, if permitted, would increase existing and create new barriers to entry for altnets.

27. We have conducted a survey of altnets which provides an indication of the expected scale of altnet deployment by 2026, summarised in the table below:[16]

[11] In this document the terms BT and Openreach are used interchangeably except where the context makes it clear that we refer specifically to one or other of those entities.

[12] Thinkbroadband. https://labs.thinkbroadband.com/local/uk Downloaded 14th February 2023.

[13] £17.7bn altnet investment as identified in the INCA/Point Topic 2022 report, Metrics for the UK independent network sector: https://www.inca.coop/sites/default/files/inca_metrics_report_2022.pdf; since report publication further investments have been made, including CityFibre £4.9bn raise: https://cityfibre.com/news/cityfibre-completes-a-4-9bn-debt-raise-in-one-of-europes-largest-ever-full-fibre-financings

[14] This estimate does not include the projected £4.5bn investment by NexFibre, which would take the total estimate to around £25bn.

[15] Point Topic *'Metrics for the UK Independent Network Sector'* (2022)

[16] This altnet survey covers only 20 altnets and excludes deployment by CityFibre.

Table 2: Planned altnet rollout

	Altnet respondents planned FTTP premises passed by December 2026
Area 2	3.1 million
Area 3	6.0 million

It should be noted that the data shown above is not a complete representation of altnet coverage. It represents data from 20 respondents and not all respondents replied to all points in the survey. **Coverage for the largest altnet, CityFibre, and other large altnets is not included in the data presented. CityFibre will be submitting its own data**.

28. BT's CEO Philip Jansen made it clear in a recent Financial Times interview that BT will be doing everything in its power to stop altnets from competing with BT. He told the FT that BT is an "*unstoppable machine*" and that the market will "*end in tears*" for many of its fibre competitors and even questioned why more than one network was needed. This strong statement of strategic market intent by the most senior manager of a company (BT) that Ofcom has already found to have the market power to act independently of competitors and consumers, should act as a wake-up call. Unless Ofcom wants to see investment driven out of the FTTP market by BT's "*unstoppable machine"*, it should prohibit E2.

3.1 The natural commercial market development and maturity process

29. Some fibre networks are geographically limited and have pockets of infrastructure that are geographically dispersed across the UK. Others are already large and have the financial capacity to grow yet further. However, one dynamic that unites companies of all sizes is a change in focus from coverage to customer sign-up. Investors in networks now want to see a return on their investment through increased market penetration. If altnets cannot attract sufficient demand, then much of the pledged investment may not materialise and Ofcom's target of delivering infrastructure competition will have largely failed.

30. It is not yet known whether there is a Minimum Efficient Scale (**MES**) that fibre network operators need to achieve to be economically viable and how that MES may vary independently of the different characteristics of the areas they operate in. A network in an area with lower cost and higher demand conditions is likely to be able to operate at a smaller scale than one with high costs and low demand. Whilst most will have a planned penetration target in their area, it is not known if there is a size below which they cannot be efficient and will have higher costs per customer than larger operators. Only a process of entrepreneurial discovery will reveal the market equilibrium, and this can only happen if the market is allowed to develop in a regulatory context that prohibits behaviour by BT that could distort the market and harm investment and competition.

31. It should be noted that the physical access network is not characterised by significant economies of scale driven by the size of the network but rather by the level of utilisation of the network assets.

32. If the market is allowed to develop without distortion (e.g., resulting from anticompetitive behaviour by BT, or regulation that favours larger altnets) then such an equilibrium will be discovered. This may lead to the exiting of less efficient operators through acquisition or liquidation whilst stronger, more efficient firms grow. This is the normal process of the market.

33. As the regulator, Ofcom has an important part to play in this process by ensuring appropriate regulation is properly imposed and enforced to make sure that BT cannot distort market outcomes through exclusionary behaviour. Indeed, it is Ofcom's duty under the Communications Act 2003 to ensure "*the availability throughout the UK of a wide range of electronic communications services*" and to "*further the interests of consumer, where appropriate through competition*".[17]

[17] Communications Act 2003, Sections 3(2)(b) and 3(1)(b) respectively.

34. The Communications Act authorises the Secretary of State to set out an SSP relating to telecommunications and Ofcom must have regard to the SSP when carrying out its functions relating to telecommunications.[18]

35. The SSP is crystal clear about the government's priorities in relation to the rollout of fibre networks, competition and prices. It states:

    "The Government's aim is to promote investment and competition in world-class digital networks, to as many people and businesses as possible. Investment in new networks by BT ***and alternative providers*** *is key to improving consumer outcomes, in terms of choice, service quality, and innovation. The Government's view is that* ***promoting investment should be prioritised over interventions to further reduce retail prices*** *in the near term."*[19] (Emphasis added)

36. Unfortunately, by proposing to allow BT to introduce the E2 pricing package, Ofcom is ignoring the priorities set out by the government. Altnets have severe and well-founded concerns that Ofcom's proposed decision to allow E2 will not promote investment by alternative providers but will instead prioritise near term reduction in prices at wholesale level that anyway may not be passed on to consumers[20]. Ofcom is, therefore, ignoring its obligation to have regard to the SSP. Specifically, Ofcom's decision:

    a. Will not promote investment by altnets because it focuses on the interests of a few large ISPs and does not take account of how an alternative ecosystem based around smaller ISPs and fibre networks will develop; and

[18] Communications Act 2003, Section 2(A) and 2(B).

[19] DCMS '*Statement of Strategic Priorities for telecommunications, the management of radio spectrum, and postal services'* 2019, Para. 18.

[20] Research by GOS Consulting shows no evidence that ISPs are passing on E1 discounts.

b. It prioritises near term reductions in pricing over investment by allowing BT to lower prices to a level that will make it significantly harder for efficient altnets to compete.[21]

37. Ofcom should not attempt to design the market by developing regulation around a small sub-set of larger players, but that is what it appears to be doing. It is clear from the E 2 consultation document that Ofcom only takes into consideration the impact on the three largest non-integrated ISPs (Sky, TalkTalk and Vodafone) and the larger altnets, and ignores the rest of the market eco-system.

38. The E2 consultation appears to discriminate against smaller ISPs and altnets that could be disruptors in this market, bringing consumers value that larger, entrenched providers are unable or unwilling to deliver. We do not believe that this is the proper role of an economic regulator, and we cannot identify a clear legal basis for Ofcom's approach.

39. E2 (and E1) affects both large and small providers in the market. It is not wrong for Ofcom to consider the impact of E2 on large providers (altnets and ISPs) – indeed our analysis shows that even large ISPs and altnets would be strongly affected by E2. Even large ISPs are likely to find it very hard to meet the Order Mix target **(OMT)** and that this will have significant consequences for ISP incentives to use wholesale FTTP access from large and small altnets. Our analysis also shows that both large and small altnets will struggle to compete with the price levels resulting from E2.

40. We disagree strongly with Ofcom's analysis of how E2 will likely affect large ISPs and altnets and this is demonstrated throughout this paper.

41. However, Ofcom appears to not consider the impact of E2 on smaller altnets, nor whether smaller ISPs are able to meet the Order Mix target and operate the

[21] We have not seen evidence that ISPs have passed on the price savings resulting from Equinox 1 to their retail customers. While high inflation may offset price declines, Openreach's wholesale prices are indexed against CPI so we would expect retail and wholesale prices changes to be in broad alignment.

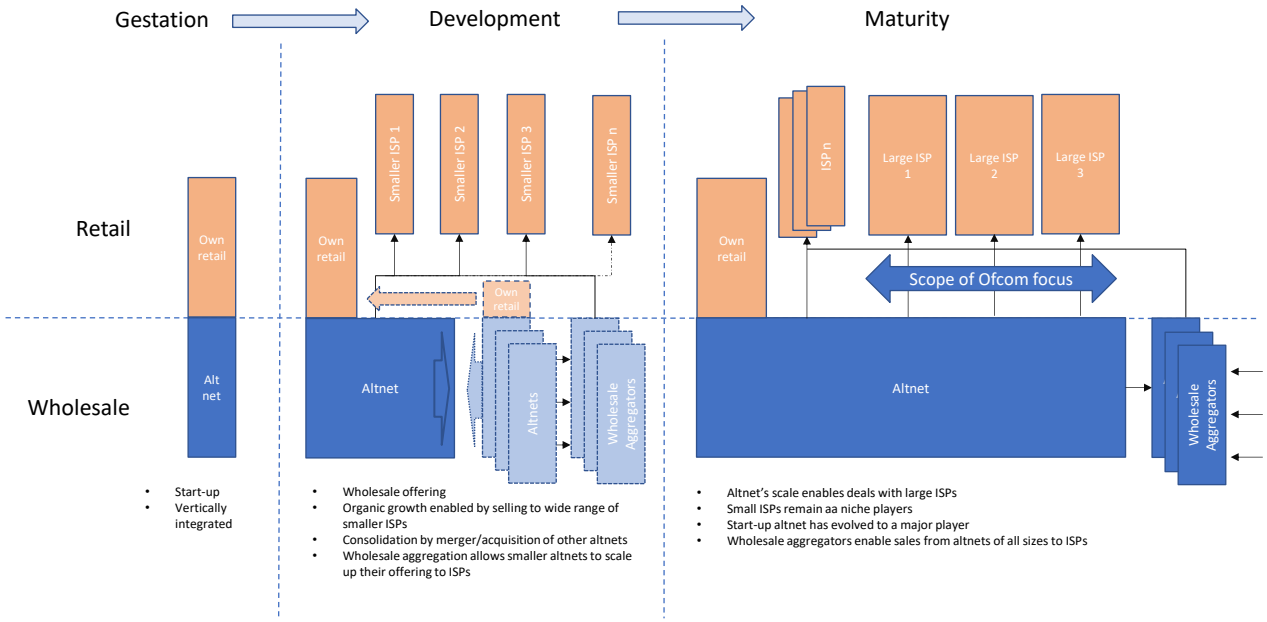
failsafe mechanism **(FM).** Ofcom's statement that ISPs can operate the FM because large ISPs are 'sophisticated businesses' certainly suggests that Ofcom is not concerned with the impact on smaller ISPs.

42. Instead, Ofcom should recognise that the market is likely to develop around ecosystems in which smaller FTTP providers enter the wholesale market by innovative routes – either providing access to small, localised ISPs, or through wholesale aggregation platforms. Through these processes they will be able to develop the scale they need to challenge larger networks and to support the larger ISPs.

43. Small- and medium-sized ISPs are important to many altnets when they initially start offering wholesale access. Indeed, small ISPs were important to CityFibre at its early stages of development and remain so. Smaller ISPs are also important to wholesale aggregation platforms, several of which are at various stages of development (most are involved in INCA's Switching and Wholesale Special Interest Group).

44. When interviewed, Marcel Horst, Director of the Common Wholesale Platform, providing service to a range of altnets, and ISPs said that "*altnet access to small ISPs is vital at this stage of market development."* Development of this wholesale sector is innovative and has the potential to disrupt the current market to the direct benefit of consumers. The ecosystem is illustrated below.

Figure 1: Altnet ecosystem



Source: GOS Consulting.

45. Altnets do not enter the market at the far right-hand side of the above illustration. They have to progress left to right as they build new infrastructure which does not currently exist so cannot be purchased. By ignoring this ecosystem, and by not testing the impact of E2 on both the smaller ISPs and the smaller altnets, Ofcom risks disrupting the ecosystem, putting billions of pounds of investment at risk and depriving millions of consumers of early FTTP connectivity and possible network competition.

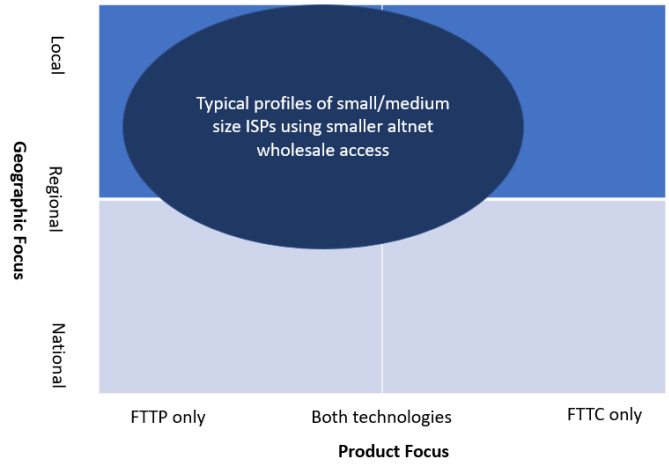
46. In the WFTMR, Ofcom states "*We are seeking to support new network build during the early phase of roll-out*"[22], but Ofcom's approach to the assessment of E2 is evidently not even attempting to assess the impact of E2 on smaller altnets. Likewise, Ofcom refers consistently in the relevant sections of the WFTMR to

[22] Heading above paragraph 7.44 of WFTMR V3.

'*nascent network competition*' but pays no regard to any of the smaller altnets and how they may be impacted by E2.

47. As described above, small altnets rely on small to medium-sized ISPs as they enter the wholesale market. Those small ISPs take a number of different forms, as illustrated below.

Figure 2: ISP profiles



Source: GOS Consulting.

48. The above illustration shows the typical range of product and geographic focus of ISPs using wholesale access from smaller altnets.

49. We are not aware of ISPs having set up only to offer services on a small altnet network. They are typically already active in the FTTC market and add FTTP from the altnet to their existing portfolios. E2 is therefore important to them, as they have to continue competing with other ISPs in the Openreach-based FTTC and FTTP markets alongside offering altnet-based FTTP services.

50. The smaller the geographic reach of an ISP, the harder it will be to spread the impact of altnet FTTP use across the parts of the Openreach FTTP footprint where they operate. That makes the Failsafe Mechanism (FM) critical for small ISPs that

use both altnet and Openreach FTTP access. [We have reached out to the ISP community to understand whether they are 1) aware of the FM, 2) understand the FM and 3) would want to use the FM. The majority of responses received showed either a lack of knowledge and understanding of the FM or unwillingness to use it.

3.1.1 Altnet data

51. In preparation for this response, GOS Consulting conducted a survey of altnets' current and planned build over the period from now until December 2026, and of current and planned wholesale offerings over the same period.

52. Twenty altnets responded to the survey. Of the respondents, nine were currently offering wholesale products and a further seven were planning to do so in future.

53. The main results of the survey are summarised in the table below. It should be noted CityFibre was not included in the sample.

Table 3: **Results of altnet coverage survey**

	Current premises passed* (million)	**Planned premises added by December 2026* (million)**	**Total premises passed by December 2026* (million)**
Area 2 wholesale	0.1	2.6	2.7
Area 2 total	0.3	2.8	3.1
Area 3 wholesale	0.7	4.3	4.9
Area 3 total	1.2	4.8	6.0
Area 2 and 3 total	1.5	7.6	9.1

It should be noted that the data shown above is not a complete representation of altnet coverage. It represents data from 20 respondents and not all respondents responded to all points in the survey.
***Coverage for the largest altnet, CityFibre, and other large altnets is not included in the data presented**.

54. Less than 2% of the wholesale premises passed are planned to be subsidised by government in Area 2, and less than 4% in Area 3.

55. This survey demonstrates the materiality of current and planned altnet deployment. In particular, altnet competition to Openreach in Area 3 is already material and, absent regulatory instability and the introduction of E2 and future offers, will grow to cover 2/3 of Area 3 premises by 2026.

56. We note that the results of our survey are consistent with the latest update on current broadband coverage from ThinkBroadband[23], which indicates that 44.94% of premises in Area 3 are currently covered by FTTP, of which altnets account for 12.19%; this amounts to around 1.1 million premises covered by altnets in Area 3.

57. Although Ofcom's assumption in the WFTMR may have been that no material and sustainable competition would develop in Area 3, that assumption has been proven wrong and Ofcom cannot reasonably and rationally hold on to and make new decisions based on a clearly erroneous assumption. Ignoring this very material Area 3 competition would be unreasonable and irrational and would be in direct contradiction to the SSP,

3.2 The BT copper to fibre migration process

58. Ofcom seems unduly concerned with assisting Openreach in the transition of customers from its copper legacy network to its emerging FTTP network. This is not consistent with Ofcom's legal duties and the government's clear strategic instructions in the SSP,

[23] https://www.thinkbroadband.com/news/9487-february-2023-update-on-broadband-coverage-in-ofcom-areas-2-3

59. Starting with statement in the WFTMR, Ofcom appears to believe it has a duty to assist BT/Openreach in achieving an efficient and timely copper to fibre migration process. Whilst the respondents do not object to BT undertaking such migration process in a competitively neutral way, Ofcom has no legal duty to assist BT with its migration. Further, Ofcom consideration of BT's commercial desire to undertake such migration is both an irrelevant consideration in Ofcom's assessment of E2 and cannot be used to justify behaviour by BT which has an anti-competitive effect.

60. Ofcom appears to consider that it needs to support, or at least facilitate, BT's copper to fibre migration. This is evidenced by Ofcom's characterisation of E1 as "*a commercial mechanism to bring forward the regulatory stop sell date. Essentially, Openreach is offering lower FTTP prices if ISPs agree to (largely) stop selling legacy products sooner than would otherwise happen under regulated stop sell. Openreach's commercial rationale for this, is to increase the speed of take-up of FTTP, ultimately supporting its investment in FTTP*"[24].This seems to reflect a perception by Ofcom that measures to support the migration process should be supported.

61. We note that Ofcom stated in the WFTMR that Openreach already has "*powerful levers*" to achieve migration from copper to fibre and that to allow revised pricing, Ofcom would need to see that restrictive elements were necessary over and above these existing levers.[25]

62. In reality, Ofcom's statutory duty is to be agnostic as to the way that a service is provided:

> *s4(3)(6) … a requirement to take account of the desirability of OFCOM's carrying out their functions in a manner which, so far as practicable, does not favour—*

[24] E2 consultation paragraph 3.9.
[25] WFTMR Vol. III Para 7.160(a)

(a) one form of electronic communications network, electronic communications service or associated facility; or

(b) one means of providing or making available such a network, service or facility),

63. And the SSP sets out:

"Para 10: […] the most effective way to deliver nationwide gigabit-capable connectivity at pace is to promote competition and commercial investment where possible, and to intervene where necessary.

From para 11: Stable and long-term regulation that incentivises network investment and ensures fair and effective competition between new and existing network operators;

Para 18: The Government's aim is to promote investment and competition in world-class digital networks, to as many people and businesses as possible. Investment in new networks by BT and alternative providers is key to improving consumer outcomes, in terms of choice, service quality, and innovation. The Government's view is that promoting investment should be prioritised over interventions to further reduce retail prices in the near term.

Para 19: We regard competition where possible as a key driver of network roll-out. It is essential that competition is fair and effective between existing network operators and new entrants, and we expect Ofcom to adopt an engaged, proactive approach to monitoring any anti-competitive behaviour. Ofcom has powers at its disposal - including information gathering, audit enforcement and penalty powers - to perform this role."

64. In the respondents' view, the changes that *any* network operator wishes to make to its own network is the sole responsibility of that operator. Whilst it is appropriate that Ofcom ensures that its regulatory interventions do not prevent BT from making reasonable changes to its network, it is, however, NOT appropriate that the desire to assist or accelerate the copper to fibre migration be used as a

justification for the introduction of price levels or structures that could harm competitive network deployment. To do so would be to favour BT over other providers of electronic communications networks and services and a breach of Ofcom's legal duties to not discriminate as reproduced above.

3.3 Area 3-specific concerns

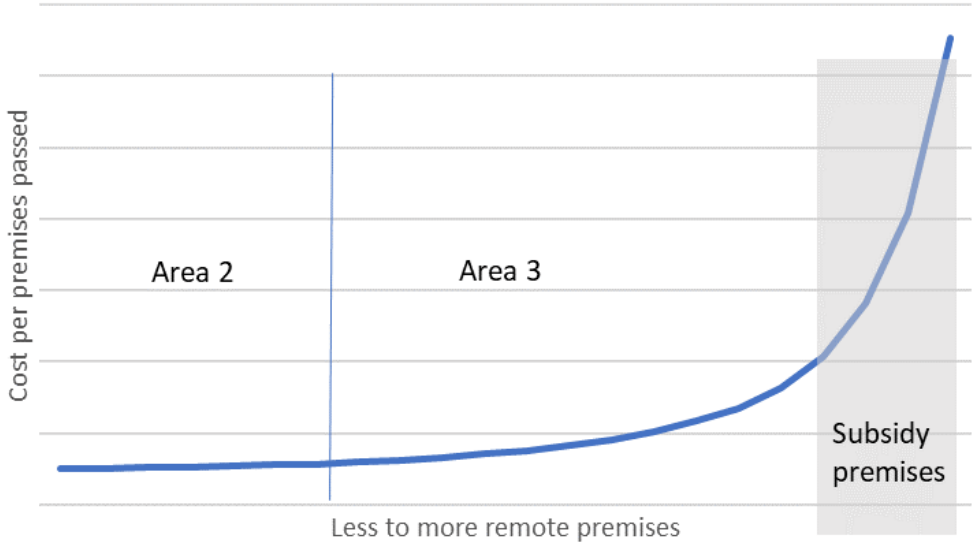
65. Ofcom has defined two geographic markets: Area 2 and Area 3 as below:

    a. **WLA Area 2** – postcode sectors in which (Ofcom believed at the time of the WFTMR) there is, or there is likely to be potential for, material and sustainable competition to BT in the commercial deployment of competing networks; and

    b. **WLA Area 3** – postcode sectors in which (Ofcom believed at the time of the WFTMR) there is not, and there is unlikely to be potential for, material and sustainable competition to BT in the commercial deployment of competing networks.

66. From a supply-side perspective, the two Areas are distinguished by the likely costs of network build. Area 2 will have a lower average cost per premises passed (CPP) than Area 3. However, the CPP within each market is unlikely to be homogeneous. We would expect that there will be a gently rising cost in Area 2 and more steeply, or exponentially, rising curve in Area 3, as illustrated in the stylised figure below.

Figure 3: Stylised chart of build costs per premises passed



Source: GOS Consulting.

67. Neither Area has 100% coverage by either Openreach or altnets yet. However, there has been **much more build by altnets in Area 3** than anticipated by Ofcom in both the WFTMR and at the time of the Equinox 1 consultation. Across both Areas, altnet deployment is distributed across the full range of CPP considered commercially viable. In many high CPP locations altnets are the first to deploy.

68. In addition to the difficulties for smaller ISPs to use the FM and their consequently elevated risk of not achieving the OMT if using altnets, we have specific concerns for altnets in Area 3:

69. In a scenario where:

    a. An altnet has built in a cluster of postcode sectors located in Area 3 where Openreach had not yet built FTTP, giving the altnet a first mover advantage and

    b. The economics and demographics of the area means that the altnet had to achieve over 50% fibre penetration meaning that (given the structure of the retail market),

the altnet would need to attract and sign up the larger independent ISPs to achieve this level of market penetration. This could be achieved through one of several wholesale aggregation platforms currently present or planning to enter the market.

70. However, outside the Area 3 geographic market, Openreach has built extensively and has agreements in place with the larger ISPs under the E1 offer. When an altnet approaches an ISP, the ISP will expect that Openreach will overbuild the altnet at some point in the near to medium term. Rather than sign up with a small altnet, with the inevitable costs of onboarding a new supplier, they decide to wait for Openreach. This incentive for the ISP is strengthened by the fact that waiting for Openreach to overbuild will not contribute towards a possible future dilution of FTTP orders from Openreach if/when Openreach overbuilds.

71. Given the CPP conditions of the area described, but for the loyalty of the large ISPs that act as anchor tenants for the Openreach overbuild, there would be no realistic commercial business case for Openreach to overbuild this type of location.

72. Until Openreach overbuilds, the large ISPs are still able to take advantage of BT's FTTC wholesale product to serve their local customer base. Any sales of FTTC would not be included in the denominator of the Fibre Only Measure in E2 as they are outside the Service Area which is defined as Openreach's FTTP coverage. The ISP therefore does not risk their order mix target by waiting.

73. Openreach knows that by encouraging their customers to wait for them to enter the local area market (which we recognise is not a relevant market for regulation purposes) it can ensure that the altnet is not able to achieve the penetration rate it needs to make a return on its investment, potentially forcing it to exit the market. At this stage BT would be well placed to acquire the network at a low price. BT is

thus depriving altnets of demand, which Ofcom states explicitly in the WFTMR that it wishes to prevent from happening.[26]

74. In effect what is happening here is that BT is using its dominance (outside the local area where the altnet has built) to foreclose the market to the independent alternative network.

75. To some degree this is a problem in both Areas 2 and 3 but is likely to be greater in Area 3 due to the cost conditions in local postcode sectors that may make the locality more likely to support only one FTTH network provider.

76. Ofcom should therefore examine the effect of E2 separately in Areas 2 and 3 and not just assume that build by altnets will not happen in Area 3 and so BT will not face material and sustainable competition here[27], particularly given the evidence that such build is occurring at scale. The *direct effects* within any Area 3 locality may be similar to the effects in Area 2. However, the *spillover effects* are likely to be different (and worse in Area 3) as they will allow BT to foreclose a market to an altnet potentially even before it has built its network by encouraging large ISPs to wait for Openreach to overbuild or acquire the altnet at a "*firesale*" rate.

4 Order mix target and failsafe mechanism

77. In Annex 8 of the E2 consultation document, Ofcom presents two tables (A8.1 & A8.2) showing how an ISP switching to an altnet where there is overbuild between that altnet and Openreach would affect the ISP's Order Mix.

78. Ofcom explores two scenarios, one where the ISP starts with a 92% Order Mix and one with an 95% Order Mix. Ofcom does not state that whether these starting points are representative of the three large ISPs, or of the ISP population overall.

[26] WFTMR V2 paragraph 7.32.

[27] As shown in Table 3 around 1.2m premises in Area 3 are already served by altnets and a total of approximately 6m is planned to be served by altnets by 2026.

79. We are, however concerned that the scenarios may not be representative of current ISP Order Mix achievements. We base this concern on the fact that Openreach has currently suspended the OMTs for connection discounts (a sliding scale between 80% and 90%). It would be surprising for Openreach to suspend those targets if ISPs have no difficulty meeting them. We therefore suggest that the actual Order Mix achieved by ISPs (of all sizes) vary considerably and that many will be substantially closer to the 80% rental discount threshold.

80. Using the 92% and 95% Order Mix levels, Ofcom's analysis shows that with a high achieved Order Mix an ISP could afford to place a large proportion of its FTTP with altnets before its Equinox 1 discount is threatened.

81. We are that told that the tables in A8 "take account" of the extent of the Order Mixes achieved by the three largest ISPs and not told what even the average Order Mix for ISPs. Thus, we have little hard evidence on which to judge Ofcom's calculations.

82. Even if the Order Mix levels used by Ofcom are representative of the three largest ISPs, it is not sufficient for Ofcom to base its entire analysis on data for just those three providers. It is reasonable to assume that other ISPs may have a wider range of percentage FTTP orders from Openreach and, as set out above, these smaller ISPs are critical to the growth of altnets.

83. We have calculated that if FTTP orders from Openreach is 82%, rather than the 92% or 95% assumed in the Ofcom tables, then at a 15% overlap the proportion of Openreach orders on Openreach FTTP would fall below the OMT of 80% and the ISP would lose the Equinox rental discount. We have reproduced Table A8.1 below showing the change in Order Mix with when the original Order Mix was 82%.

Table 4: Impact of change in order mix

Overlap of Openreach's FTTP footprint	15%	25%	60%	
Share of Openreach FTTP orders switched to altnet	All	All	Half	Three quarters
Openreach Order Mix if an altnets is used	79.5%	77.4%	76.1%	71.5%
Change in Order Mix	-2.5ppt	-4.6ppt	-5.9ppt	-10.5ppt

84. Ofcom states that for one large ISP "*where using an altnet potentially affects the discounts by [redacted]*" [28] and another large ISP "*might face difficulties in meeting the OMTs as a result of shifting large numbers of orders to VMO2 cable and altnet FTTP absent the Failsafe Mechanism*".[29]

85. This means that two out of the three largest ISPs in the country will possibly having difficulty meeting the OMT, absent the FM. We believe that it is reasonable to assume that other ISPs, in particular smaller ISPs, will face at least the same level of difficulty. The FM purports to address this problem by removing overbuild areas from the calculation of the Order Mix.

86. The fact that even the very largest ISPs in the country would have to rely on the FM in order to meet the OMTs when using altnet wholesale FTTP access makes the workability of the FM the critical basis on which to assess whether the E2 pricing structure would likely increase existing and create new barriers for ISPs using altnet wholesale FTTP access.

87. Further, if a large ISP acts as an intermediary between Openreach and smaller ISP (as well as operating as a retail ISP in its own right). It is not clear how the FM would function if the smaller ISP primarily buys copper access from the large

[28] Equinox 2 Consultation Para 3.64.
[29] Equinox 2 Consultation Para 3.65.

ISP and buys fibre access directly from an altnet.[30] Do the copper lines count against the larger ISP's OMT, bringing down the proportion of fibre lines, or are they excluded for the purposes of the FM? How they are treated could have a very material effect on OMT's for ISPs that act as intermediaries.

88. In our pre-consultation submission, we set out three questions that we thought Ofcom should address when considering the FM. These were:

    a. What is the **competitive harm** that the FM seeks to address?

    b. Is the FM **in principle capable of addressing the competitive harm** identified?

    c. Does the FM as proposed **in practice address the competitive harm** identified?

89. The competitive harm the FM was seeking to address was BT leveraging its ubiquitous network and the size of its installed base to distort competition in the market for FTTP by incentivising ISPs to place orders with BT in preference to the smaller altnets.

90. Although a differently designed FM could, in principle, address this competitive harm, it has both design and implementation flaws that means it fails to address that harm.

91. There are (at least) six design and implementation flaws that mean the FM as currently specified is not fit for purpose. We do not repeat all of these here but have included our original submission as an Appendix to this response. In summary, though, these problems are:

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[30] Oliver Help explained that: "*In my experience as CEO for FullFibre, a wholesale-only altnet, smaller ISPs that contract to use our wholesale fibre access services also use Openreach services, but some of them do not contract directly with Openreach, using instead intermediaries such as TalkTalk and BT Wholesale*".

a. Openreach's ability to disapply the FM if ISPs take more that 50% additional copper lines in overbuild areas.

b. The process is onerous and resource intensive. It is therefore costly to operate for ISPs who will have to provide detailed information to the Independent Verifier (**IV**) on where they can and do use altnets.

c. The process is retrospective and will not place ISPs (even if successful) in the same position they would have been in if they had only ordered from BT. ISPs are likely to be negotiating access with altnets in advance of altnet actual build. The definition of an '*overbuild area*' being one where altnets have already built will mean that ISPs have an incentive to remain with BT, even when they know altnets will be building in a particular area.

d. the IV is appointed and funded by BT with no transparency over its terms of appointment and its identity is only made available to CPs on request. This raises concerns about the true independence of this function.

e. The IV will require significant data input from altnets to be able to establish whether a CP can buy connectivity from Openreach only or from one or more altnets as well.

f. The definition of an overbuild area is too vague to be considered fit for purpose.

92. In the E2 consultation, Ofcom did nothing to allay these concerns. Instead, Ofcom dismissed them and stated:

> *"Indeed, the Failsafe Mechanism contains similar requirements to those already contained in other Openreach discount contracts (e.g., GEA volume agreement) that are already in effect. Consequently, we do not consider that*

ISPs will consider that applying the Failsafe Mechanism is unworkable in practice."[31]

93. However, Ofcom fails to explain why it considers that the volume commitment reduction provisions in the GEA volume agreement (**GEA Volume Relief**) is similar to the E2 Failsafe Mechanism nor why the GEA Volume Relief justifies that the proposed E2 Failsafe Mechanism is practically workable. We submit that Ofcom has erred in the consideration of both questions and that in fact:

i. the GEA Volume Relief is fundamentally different from the Failsafe Mechanism; and

ii. the GEA Volume Relief cannot be used to support the position that the Failsafe Mechanism practically workable.

94. We have examined both the proposed E2 Failsafe Mechanism and the GEA Volume Relief to determine their key differences, these are set out in the table below.

Table 5: Comparison of E2 Failsafe Mechanism with GEA Volume Relief

Issue	**Failsafe Mechanism**	**GEA Volume Relief**
Economic effect	Allows ISPs to remove overbuild areas from fibre only performance measures	Allows ISPs to count altnet orders towards volume commitment
What information must be established by ISP?	(a) Full and accurate details of all of those Premises where the Communications Provider could at the	(a) the name of the Alternative Network Provider a connection has

[31] E2 Consultation, para 3.71

	start of that Contract Quarter sell Eligible Services including for each Premises the UPRN ("the Relevant Premises"); (b) Reasonable evidence that the Communications Provider is able to order Eligible Services at each of the Relevant Premises; (c) Reasonable evidence that the Communications Provider has IT systems and sufficient infrastructure (including proof of interconnection and handover points with the Alternative Network Provider) in place to order and consume Eligible Services at the Relevant Premises	been acquired with; (b) the date on which each connection with an Alternative Network Provider was acquired; (c) evidence that each connection is active; (d) the circuit identifier and billing reference for each connection; (e) any other evidence the Independent Verifier might reasonably require to determine whether a connection with an Alternative Network Provider is an Eligible Connection.

	and in the Contract Quarter; and (d) Such other information as the Independent Verifier may reasonably require from time to time to ensure the accuracy and veracity of the data.	
Disapplication of protection	If an ISP takes more the 50% more copper per premises in overbuild areas	None

95. The table clearly shows that the GEA Volume Relief does not contain similar requirements to the FSM, as Ofcom claims, and is considerably easier to implement as it imposes a much lower evidential and operational burden on ISPs:

    a. The information required by the GEO Volume Relief mechanism can be easily extracted from ISP customer databases and/or ISP billing data bases.

    b. In contrast, the information required by the failsafe mechanism is not easily extracted from existing systems or databases and may not be available without significant additional incremental analysis and work.

96. There are significant differences between FM and the GEA Volume Relief that mean that Ofcom's claim that they have "similar requirements" simply does not stand up to scrutiny.

97. A small survey of ISPs suggested that some ISPs to not understand how the FM is intended to work and what data is required by the ISP in order to use it.

98. Considering the types of data required for the FM, it would seem that at least some elements would have to be provided by the altnets to each ISP using their networks and the ISP would have to establish a function to manage the FM process – creating additional costs and erecting an additional barrier to using altnet wholesale FTTP access.

99. In summary, Ofcom's own analysis shows that the OMT's may not be achievable by two of the largest ISPs in the country and these operators have national footprints over which to offset altnet use in specific locations. Additionally, using Ofcom's own analysis framework, we have shown that ISPs with a lower proportion of FTTP orders would find it difficult to achieve the 80% OMT to benefit from the Equinox rental discounts, absent the FM. We have further shown that operating the FM is a complex and resource-hungry activity that even large ISPs are likely to find complex and smaller ISPs may simply not even wish to attempt.

100. In addition to the OMT and the FM, there are other elements of E2 that all act in concert to raise existing and create new barriers to ISPs using altnet wholesale FTTP access. One other example is the new penalty for over- or under-forecasting. If an ISP that has access to altnet wholesale FTTP access is at risk of over-forecasting (and consequent loss of discounts) and is using both Openreach and an altnet, then the ISP will divert connections from the altnet to Openreach in order to avoid the loss of discounts.

101. We therefore conclude that the OMT and FM structure of the E2 offer increases barriers for ISPs to use altnet wholesale services and thus satisfies Question 1 of Ofcom's analytical framework.

5 Price levels and fibre costing model

102. In the E2 consultation, Ofcom has concluded that the prices resulting from the E2 discounts do not give rise to prima facie competition concerns that would cause Ofcom to investigate.

103. Ofcom based that conclusion on the following:

1) Assessing individual product prices against the 40/10 anchor price is 'not the relevant test'.[32]

2) A more appropriate test would be 'against Openreach's average FTTP price under the E2 price'.[33]

3) Ofcom's estimated average price under E2 for the three largest ISPs is above the top end of Ofcom's WFTMR 2021 estimate of an FTTP entrant (£9.53 - £13.67 (2020/21 pieces)) when indexed (£11.109 - £15.93).[34]

4) Ofcom is using the WFTMR fibre costing model (FCM) as published with the WFTMR Statement, deciding to not implement any of the changes suggested by stakeholders.[35]

104. Ofcom compares wholesale prices from CityFibre, VMO2[36] and a third unknown provider to the E2 pricing, but presents no conclusion other than to state that there may be scope to for altnets to reduce prices further in response to the E2 offer [37] and that "*ISPs may see value in having ongoing increased competition to Openreach, and may be prepared to invest in this*"[38]

[32] E2 consultation paragraph 3.103.
[33] E2 consultation paragraph 3.103 – 105.
[34] E2 consultation paragraph 3.108 - 109.
[35] E2 consultation paragraph 3.110.
[36] As VM02 does not presently offer wholesale access to its broadband infrastructure, we are not sure which prices Ofcom used for this comparison.
[37] E2 consultation paragraph 3.120.
[38] E2 consultation paragraph 3.121.

105. The respondents submitted significant analysis to Ofcom in advance of the E2 consultation, providing Ofcom early insight into the material concerns they have in relation to the absolute price levels resulting from the E2 offer.

106. Ofcom did not consider it worthwhile responding to those material concerns, but instead summarily dismissed the arguments and analyses presented. The remainder of this section sets out both the respondents' assessment of the content of the E2 consultation and our remaining substantive concerns relating to the absolute price levels resulting from E2 and Ofcom's FCM.

107. Annexes 2 and 4 contain our pre-consultation submissions on these matters.

5.1 Equinox 1 price levels

108. E2 offers incremental discounts over those already in place under E1. The conditions under which the discounts are available are addressed separately in this response, and this section looks specifically at the actual price levels resulting from E2 discounts. Below is a summary of the prices. The table does not take into account the impact of the ARPU share discount, as that discount would vary depending on the FTTP product mix achieved by each individual ISP. In our view, the ARPU revenue share discount could reasonably be expected to further reduce the average rental prices under E2 by between 0 and 6 %.

Table 6: Rental price comparison of Equinox 2 with Equinox 1 and standard list

Product	Monthly rental at 1 April 2023 (£)			Equinox 2 vs list	Equinox 2 vs Equinox 1
	List price	Equinox 1	Equinox 2		
40/10 Mbps	16.09	16.09	16.09	0%	0%
55/10 Mbps	19.62	16.91	15.50	-21%	-8%
80/20 Mbps	20.19	16.91	15.50	-23%	-8%
115/20 Mbps	20.19	17.66	15.80	-22%	-11%
160/30 Mbps	24.71	18.32	16.20	-34%	-12%
220/30 Mbps	24.86	20.36	17.30	-30%	-15%
330/50 Mbps	28.37	21.49	18.30	-35%	-15%
550/75 Mbps	31.87	22.62	19.30	-39%	-15%
1000/115 Mbps	36.55	24.88	21.30	-42%	-14%
1200/120 Mbps	34.90	N/A	22.30	-36%	N/A
1800/120 Mbps	39.90	N/A	29.30	-27%	N/A

5.1.1 Inconsistent approach to price level assessment

109. In its E1 Statement, Ofcom concluded that E1 price levels did not cause it to have competition concerns because no prices were below the 40/10 anchor price.

110. In the E2 consultation, however, Ofcom now states that that is the wrong test. Ofcom offers no explanation for why the test it considered appropriate for E1 is no longer so for E2.

111. Ofcom has a duty to discharge its powers in a manner that is consistent and transparent and Ofcom states explicitly in the WFTMR that it has opted for the application of an ex-ante remedy (in favour of reliance on ex-post powers) partially

because the proposed ex-ante measure "*ensures transparency, promotes regulatory certainty and provides alternative networks investors with confidence to invest*"[39].

112. The importance of regulatory consistency and clarity was also emphasised by the court in the E1 CAT Judgment:

> *"Para 146. That said, we also note that very significant investment commitments and resource allocation decisions are made on the basis of such policy statements. Put another way, a lack of clarity and consistency in implementation has significant consequences and is therefore to be avoided. Regulators like Ofcom are afforded the discretion to make expert judgements in the expectation that they will provide clear and consistent guidance to those they are regulating."*

113. Yet, Ofcom's manner of applying the supposedly clear and transparent remedy is anything but transparent. By changing its approach between different discount offer reviews, Ofcom is introducing a significant amount of uncertainty which can only be to the detriment of altnets seeking investment to build competing FTTP networks across the country and is not consistent with its legal duties.

114. The respondents are concerned that, should Openreach notify Ofcom of 'Equinox 3' in the future, then Ofcom's lack of a consistent approach across its E1 and E2 price level assessments would introduce a third variation of how further discounts could be justified. Such uncertainty makes funding of competitive fibre networks harder and raises the cost of both equity capital and debt.

115. Whilst disagreeing with the FTTP entrant unit costs resulting from Ofcom's FCM as the comparison price, altnets and their investors took some comfort from

[39] WFTMR V3 paragraph 7.57.

Ofcom's E1 decision that at least individual prices would not be allowed to go below the indexed FCM output range.

116. For Ofcom to change its measure for what is an acceptable price level in this manner creates regulatory uncertainty for altnets and their investors, which is likely to reduce overall investment

117. When combined with Ofcom's overall approach in the E2 review and consultation, the respondents are concerned that Ofcom appears to have changed the relevant test for price levels as it is the only way it can justify not blocking the proposed E2 discounts.

5.1.2 Appropriateness of using Openreach's average wholesale FTTP price

118. Ofcom now argues that, although three of Openreach's FTTP products would be priced below the indexed 2021 WFTMR 40/10 anchor price, this does not in itself give risk to competition concerns if Openreach's average FTTP price is above that level.

119. Had Ofcom, instead, applied the same test as in its E1 assessment, three products would be priced below the relevant threshold which, according to Ofcom's previous position, would have given rise to competition concerns.

120. To arrive at an average FTTP price for Openreach under E2, Ofcom has reviewed the FTTP product mix the three largest ISPs purchase[40] from Openreach and concluded that the resulting average price is above the (indexed) top level of Ofcom's estimated unit costs of an FTTP entrant. Ofcom offers no insight into those assumptions.

121. Aside from the use of Ofcom's FCM unit costs, which we address later in this section, Ofcom appears to assume that the Openreach average product mix is representative of that of an altnet as, if not, the average price paid by an ISP to an altnet would differ from the average price paid to Openreach. For An altnet to

[40] E2 consultation paragraphs 33.48 and 3.106.

have the same average price paid by an ISP as would Openreach the altnet would need to closely mirror Openreach's product set and price curve. Ofcom offers no evidence that it has considered whether this is the case and, if not, what the impact on competition could be.

122. If altnet product offering, price curve and take-up mix from ISPs do not closely mirror those factors for Openreach, then it would not seem appropriate for Ofcom to assume that altnets could replicate the same average price from wholesaling to ISPs as Openreach does.

123. Further, the deeper discounts on lower speed products offered in E2 could significantly change the FTTP product mix taken by ISPs and consequently reduce the average Openreach FTTP price. As a minimum, Ofcom should undertake sensitivity analysis on this point.

124. Information collected from altnets in preparation for this response document suggests that the altnet product sets do not mirror Openreach's offerings, tending to have a smaller selection of speeds. In our survey of altnets, none were offering more than five speeds (this compares with nine different speeds in the E2 offer excluding the trial speeds above 1Gbps). We understand that this is largely in response to ISP demand, not altnets themselves wishing to limit the product selection offered.

125. Ofcom's objective of supporting "*new network build during the early phase of roll out*"[41] cannot be achieved by assuming that altnets are at that stage of maturity can mirror the Openreach product mix either in offering or in profile of take-up.

126. Ofcom's analysis focuses unduly on the three largest ISPs and the three largest altnets with no apparent effort to consider the impact on smaller entities in

[41] WFTMR V3 heading above paragraph 7.44.

both categories. This is illustrated above where we explain the altnet growth pattern and the role ISPs of different sizes play in that growth pattern.

127. If it were genuinely Ofcom's intention to support network build during the early phase, then Ofcom should err on the side of caution and not allow Openreach to price below the (appropriately adjusted) FCM estimated unit costs for an FTTP entrant.

5.1.3 Lack of transparency

128. Only the indexed outputs of Ofcom's FCM is shared in the document. As Ofcom's assumed product mix under E2 for the three large ISPs cannot be based on actual ISP data (as E2 is not yet in the market and stakeholders cannot know whether Ofcom relies on existing ISP product mix information under E1 or changes to that data), we see no reason why Ofcom cannot share its analysis and help stakeholders understand its assumptions.

129. Ofcom's unwillingness to open its analysis to stakeholder scrutiny (without compromising confidentiality of legitimately commercially sensitive data) makes it impossible for the respondents to assess whether Ofcom's ISP product mix is 1) reasonable, 2) comparable to that experienced by altnets and how it may change due to the significant price reductions in the lower speed products.

5.1.4 Altnet pricing comparison

130. Ofcom states it has looked at altnet pricing to assess whether E2 prices are likely to render altnets unable to compete with Openreach. From the heavily redacted section of the document, we understand that Ofcom has considered pricing from CityFibre, VMO2 and one further altnet. We understand that these are the three largest altnets, although we would not often describe VMO2 as an altnet and, further, we are not aware of VMO2 providing any wholesale access services and therefore do not understand how VMO2 has been able to contribute wholesale prices for Ofcom's comparison.

131. We infer from the consultation document, that Ofcom has found that altnet wholesale prices are presently competitive with E1 prices and Ofcom suggests that "*there may be scope for them to reduce further, in response to the E2 offer.*" That statement would seem to us to be pure speculation and, in any event not representative of altnets in the market. It would seem indicative of an Ofcom predisposition to find reasons for why E2 should not be blocked.

132. Ofcom's suggestion that "*On the other hand, ISPs may see value in having ongoing increased competition to Openreach and may be prepared to invest to achieve this*" [42] is not born out in reality, where instead altnets are typically expected to price below the relevant Openreach benchmark price in order to compensate for the IT and other on-boarding costs the ISP incurs when starting to use an altnet. This statement appears to be a further indication of Ofcom's apparent predisposition to find reasons for why E2 should not be blocked.

133. As Ofcom has only checked wholesale pricing from three 'altnets' (of which one is very well established as a vertically integrated provider and presently offers no wholesale access), we do not consider this to be in any way representative of altnet wholesale pricing. Ofcom's focus only on the very largest competitors to Openreach is symptomatic of its lack of due consideration of the realities and market conditions for smaller altnets at earlier stages in their growth cycles.

134. For example, the combined networks of four providers within the Fern Trading Group portfolio[43] plan to launch up to approximately 500k FTTP premises onto the wholesale market during 2023.

135. . Other small altnets are already offering wholesale access and data collected by GOS Consulting suggests that their current and planned pricing would not be competitive with E1 pricing, never mind the proposed E2 prices.

[42] E2 Consultation paragraph 3.121.
[43] Swish Fibre, Jurassic Fibre, AllPoints Fibre and Giganet.

136. The fact that altnet wholesale prices are likely to be above the E1 and E2 levels does not mean that Ofcom should discount those new smaller wholesalers as inefficient and unviable. As presented above, altnets go through a maturity process before they gain scale, and some are in locations where the E1 and E2 price levels are simply not attainable unless you average costs and pricing nationally.

137. The SSP very specifically directs Ofcom to prioritise the development of infrastructure competition in preference to achieving short term price reductions to consumers. Allowing the introduction by the dominant provider of prices that are significantly below commercial wholesale offerings from new FTTP providers, and potentially below the costs of those providers, appears to be in stark contrast to Ofcom's duties under the SSP.

138. Even if some altnet wholesale prices do match or undercut E1 (and even E2) prices, that does not suggest that the altnet costs are at or below those price levels. At present it is imperative for altnets to increase utilisation of their networks and it is very likely that 'customer acquisition pricing' is being deployed to achieve that.

139. The fact that some altnets may price aggressively at this critical time does not mean that being forced to do so does not cause harm to their businesses and their ability to secure funding for network expansion.

140. It is Ofcom's duty to "*promote investment and competition in world-class digital networks, to as many people and businesses as possible. Investment by BT and alternative providers is key to improving consumer outcomes*".[44]

141. Despite this duty, Ofcom has decided to not consider the impact of E2 on the wider community of altnets that either offer wholesale access today or plan to do so in the relatively near future. This approach is, in our view, in direct conflict

[44] SSP Paragraph 11,

with the SSP and Ofcom's own stated policy of encouraging investment and infrastructure competition.

5.2 Ofcom's fibre costing model

5.2.1 Model review process

142. As part of the WFTMR Statement on 18th March 2021, a version of the FCM was released by Ofcom for download from its website. This was described as a "non-confidential" version, with some of the inputs randomised to protect commercially sensitive information.

143. During our initial review of this model in December 2022, we identified an error in the "Deployment profiles" tab of the Volumes module which caused errors when Area 3 scenarios were selected. We notified Ofcom of this, who acknowledged the error on 7th December 2022 and advised us on how to make a correction. Ofcom did not release a new version at this stage.

144. On 22 February 2023, Ofcom issued a statement on its website advising of two errors in the FCM. One of these was the error we identified in December, while the other was a different error affecting the Infrastructure module, resulting in fibre and duct costs being overstated. Ofcom provided a new version of the model but omitted to include the revised Infrastructure module in this new download. After being informed of this omission, Ofcom finally provided a full revised version of the FCM on 23 February 2023. We note that the original download provided in 2021 contained five modules which were linked to one another, such that the model operated "out of the box". However, the revised Infrastructure module, when eventually provided, was attempting to link to model files located on an Ofcom computer, and therefore generated false results until links were manually updated.

145. Ofcom claims that the errors in the FCM arose as part of the conversion process from the confidential model to the non-confidential public version. It also

claims that the errors have no impact on the confidential model used to determine the cost ranges in the WFTMR statement, nor on the cost ranges discussed in the E2 consultation document.

146. We understand the need to keep sensitive data secure by randomising certain inputs in the FCM, but this process should not involve adjustments to any formulae in the model, thus changing the methods used by the model to calculate costs. The infrastructure module does not contain any randomised inputs, so there was no need for any changes at all to be made to this module, let alone changes in key formulae.

147. Ofcom glosses over the fact that the non-confidential model is of vital importance to stakeholders in assessing the methodology used by Ofcom to arrive at its cost ranges, and to assess the impact of changes in the input assumptions. Ofcom should keep a precise audit trail of changes which are made to convert to the non-confidential model and ensure that the resulting modules interconnect properly and operate correctly to give outputs which behave consistently with the confidential version.

148. We note that the errors in the model were extremely material, and their correction results in a reduction in unit costs of 26-34% in the entrant scenarios as well very different proportional responses to changes in certain inputs. The provision of a revised model at such a late stage in the consultation is highly obstructive to stakeholders in providing meaningful responses.

149. Regardless of the correction of these model errors, there remain significant issues with the model. In Annex 2[45] we set out our concerns relating to the FCM.[46] We detail why we believe those concerns are relevant and why Ofcom needs to make adjustments to the FCM in order to be able to rely on it for the purpose of

[45] This Annex has been updated from version supplied to Ofcom in advance of the Ofcom E2 consultation and now takes account of the changes due to the error notified by Ofcom.
[46] All relevant references are included in the annex and not repeated here.

assessing whether the unit costs derived from the FCM reflect those of an FTTP entrant.

150. The areas we have identified as needing change are:

- Scorched node versus scorched earth
- Deployment assumptions
- Time to reach maximum penetration
- WACC, and
- Corporation tax

We also explained why Ofcom needs to update the model to reflect current macro- and micro-economic conditions and, finally, we explained why the FCM output generated by Ofcom's model (using only Area 2 inputs) is not appropriate for assessing the impact of E2 in Area 3.

151. Ofcom has rejected all suggestions for changes to the FCM, arguing that:

- The current FCM was the result of detailed assessment and evidence gathering,
- Changing only a sub-set of modelling assumptions could result in biased outcomes and risks introducing inconsistencies to the model, and
- Amending the model would require additional work Ofcom is not willing to undertake at this time.

152. We note that, contrary to the above policy of not making changes to the FCM, Ofcom has adjusted the assumed connection fee from £27 to £28 in calculating the revised entrant unit cost range. It seems strange that Ofcom is prepared to make such a change to input assumptions, with a minor impact on outputs, while ignoring far more material changes.

153. With regards to the proposed changes, Ofcom simply refers back to the relevant parts of the WFTMR Statement. Only on two subjects does Ofcom

attempt to respond to our concerns and suggestions: 1) WACC and asset lives (including corporation tax) and 2) Take-up assumptions. Below we outline why we believe our proposed changes are necessary and respond to the limited points made by Ofcom in the consultation document.

5.2.2 Scorched node versus scorched earth

154. The FCM currently incorporates the cost savings to an altnet from using PIA (instead of new build) but ignores the network inefficiencies resulting from designing the new FTTP network around Openreach's existing network topology. This is inconsistent and understates altnet costs.

155. This is either an error in the FCM, or an attempt at understating FTTP entrant costs. For Ofcom to not correct this suggests that it may not have been an error in the first place.

5.2.3 Deployment assumptions

156. Ofcom states that it assumes the entrant deploys to 5m premises. What Ofcom actually assumes is that the entrant deploys to the 5m premises in Area 2 that have the lowest deployment costs. This regardless of whether those premises are in any meaningful clusters that make business sense for deployment.

157. As per above, if this was an error then it needs to be corrected. If it was not an error, then it is a means of intentionally understating entrant costs.

5.2.4 Time to reach maximum penetration

158. In the WFTMR, Ofcom states that most entrant business plans they have reviewed assume 10 years to achieve maximum penetration, but, for the FCM, Ofcom has assumed three years.

159. Our evidence using Openreach published figures that shows even Openreach cannot achieve that level of penetration in three years in situations where they are the only FTTP provider. Yet this has not caused Ofcom to even consider that its three-year assumption is wrong.

160. There appears to have been a bias in Ofcom's modelling assumptions towards understating entrant costs.

5.2.5 WACC

161. The WACC used in the FCM is a key input assumption which has a significant impact on the calculated unit costs. For its entrant scenarios, Ofcom has applied the same WACC as it used for the Openreach FTTP cost calculation for the 2021 WFTMR.

162. Given that the purpose of the entrant cost calculations is to determine a range of costs which represent those that would be incurred by an efficient entrant, with an aim of incentivising investments in competitive networks, there are a number of flaws in Ofcom's approach to the WACC in assessing the E2 offer.

163. First, it is clear that there have been significant changes in the economic environment since 2021; nominal interest rates and inflation forecasts have increased materially and market returns, debt rates and corporation taxes have also changed; all of these parameters would have a high impact on the WACC. Ofcom should update the WACC to reflect the current situation.

164. Second, Ofcom has assumed that the WACC for Openreach's FTTP network should equal the WACC of BT Group (the Other UK Telecoms category, OUKT). No evidence is presented to support this assumption; in the WFTMR Ofcom recognised that the range of activities in this category is quite broad, and that the WACC for FTTP could be higher than for OUKT as a whole, but simply stated that they had decided not to disaggregate further.

165. Third, Ofcom has assumed that an efficient new entrant building an FTTP network would have a WACC equal to that of BT Group. This is incorrect; an incumbent such as Openreach is able to achieve higher levels of take-up and incur lower risks to cashflows for an equivalent number of premises passed.

166. Fourth, there are a number of non-systematic risks which are faced by new entrants to a greater degree than by Openreach. These include the costs of debt finance, lack of a legacy customer base and relationships with ISPs which are at an early stage of development.

167. For these reasons, Ofcom should reconsider its WACC calculations, and make appropriate changes so that the WACC is relevant to new entrant FTTP network operators in the market environment of today.

168. While we have not conducted any detailed analysis, at least the following areas should be addressed.

- The WACC parameters should be updated to reflect current economic conditions, including inflation, interest rates, debt rates and market returns.
- Despite there being a government decision to increase corporation tax in the UK to 25%, starting April 2023, Ofcom has used an assumption of 19%. Ofcom justifies this by suggesting that super deduction tax reliefs will reduce the effective tax paid. The increase in tax rate to 25% is expected to be a permanent change, and the super deduction relief will no longer be available after March 2023; it is therefore clear that the current WACC calculation should use 25% as the corporation tax input.
- Ofcom has identified that FTTP could have a higher WACC than legacy products; it should therefore calculate an appropriate premium to reflect this difference.

169. The WACC used for the new entrant scenarios in the FCM should be recalculated to reflect differences in systematic risk between an efficient new entrant and an incumbent.

Non-systematic risks faced by new entrants should be accounted for in the FCM, either by adjustments to the WACC or by some other means.

5.2.6 *Ofcom's justification for making no model adjustments*

170. For ease of reference, we repeat Ofcom's three stated reasons for making no adjustments to the FCM:

1) The current FCM was the result of detailed assessment and evidence gathering,
2) Changing only a sub-set of modelling assumptions could result in biased outcomes and risks introducing inconsistencies to the model, and
3) Amending the model would require additional work Ofcom is not willing to undertake at this time.

We address them in turn below:

5.2.6.1 *The current FCM was the result of detailed assessment and evidence gathering*

171. It is understood that Ofcom put a considerable amount of work into the FCM. However, given the obvious flaws in that model as outlined above and set out in more details in the relevant annexes, the fact that the FCM is now being used in a manner not anticipated when it was first developed, combined with the significant changes in both macro- and micro-economic circumstances and the very sensitive point in altnet development and maturity means that, the fact that such work was undertaken, cannot be a justification for not making obvious and necessary corrections and changes.

172. To discharge its duties, Ofcom must act in a manner that is transparent and evidence-based. To do so, it needs to ensure that its analysis is free from obvious flaws. Ofcom offers no evidence at all for its modelling assumptions and the fact that the erroneous assumptions were made as part of a detailed process cannot in any way be a justification for not correcting the obvious errors and shortcomings identified.

173. Several of the points raised now were raised during the WFTMR process but summarily dismissed by Ofcom.

5.2.6.2 *Changing only a subset of assumptions could risk bias and inconsistencies*

174. As clearly demonstrated above and in the attached annexes, the problems with the current assumptions all appear to favour of BT.

175. Further, when building the new entrant FCM, Ofcom started with a model of Openreach's costs and made a number of assumption changes. The changes made were erroneous and need to be corrected.

176. In our experience of building and operating complex costing models for many years, we do not recognise Ofcom's concern. Experienced modellers will know the interdependencies between different elements of the model, and it would be disappointing if Ofcom's own modelling experts (whether in-house or contracted in) do not have the skills to correct obvious inconsistencies. The error recently discovered that was allegedly associated with the production of the non-confidential version of the FCM, raises significant concerns at both Ofcom's competence and its attention to due process.

177. Several of the assumptions we have suggested should be changed, are variables that the FCM allows the user to change for sensitivity testing and which Ofcom have flexed to create its range of output values. This undermines Ofcom's argument those values/assumptions can be changed without other changes to the model.

5.2.6.3 *Amending the model would cause additional work for Ofcom*

178. The respondents acknowledge that root and branch amendment of the model would cause Ofcom significant additional work, but the adjustments suggested can be readily implemented in the model. In any event, it is Ofcom's responsibility to discharge its duties in a transparent and fact-based manner and to produce evidence-based decisions. We do not see how Ofcom can do that without engaging with factual errors in its own model.

179. Given the very real and material concerns presented to Ofcom from altnets and their investors that E2 (and E1) has the potential to cause material harm to

investment incentives in the competitive FTTP network sector, Ofcom should expend the minimal effort required to address the obvious and easily corrected flaws in its model.

180. It is possible that by making only the simpler of the adjustments needed to correct and update the FCM, avoiding the time and resources needed for a complete revision, Ofcom would find that the average unit cost increased to a level above the average price under Equinox 2.

5.2.7 The existence of prima facia evidence that prices are below entrant costs

181. Ofcom cannot reasonably rely on the FCM outputs (as it stands) to create a meaningful benchmark against which Ofcom can assess whether a prima facia case exists that competition concerns arise from the absolute levels of prices resulting from E2.

5.2.8 Specific price level concerns in Area 3

182. Our critique of the FCM above has been largely generic across Area 2 and 3. There are, however, a real risk that the harm from E2 would be significantly greater in Area 3 than in Area 2.

183. In short, this is because, as Ofcom itself acknowledges, costs in Area 3 are higher than costs in Area 2.

184. Ofcom has explicitly applied the relevant remedies in Area 3 and has expressly stated that, despite it not expecting material and sustainable infrastructure competition in Area 3, it nevertheless does not want to risk that offers introduced by Openreach causes harm to the competition that does transpire.

185. Despite these statements, Ofcom refuses to assess the impact of E2 in Area 3, simply stating that this is consistent with its approach in its assessment of E1 and that as it does not anticipate material and sustainable competition in Area 3 there is no need to make such assessment.

186. These positions are directly contradictory and, we submit, irrational.

187. Our specific concerns for Area 3 relating to the FCM are clear and not complex.

- Ofcom has not created a version of the FCM that attempts to assess the entrant unit costs in Area 3,
- Even if Ofcom were to exclude the very high-cost premises, that are unlikely to attract commercial investment, the average Area 3 costs would undoubtedly be higher than those calculated in the current FCM, using only Area 2 data.
- By applying the Area 2 FCM entrant unit costs in Area 3, Ofcom is explicitly disadvantaging FTTP entrants in Area 3 with higher costs than those used to set the unit cost.
- It is inappropriate and irrational for Ofcom to apply the cost level of one market to assess potential harm in another market, for which the relevant conditions are patently materially different. Doing so is directly prejudicial to players in that market, it is contrary to Ofcom duties of applying evidence-based regulation and its duties of transparency and predictability.

188. By focusing only on those altnets that have already been able to engage with the largest ISPs, Ofcom risks foreclosing the wholesale market for smaller altnets.

- The absolute wholesale FTTP prices resulting from E2 are substantially below the altnet wholesale prices collected in preparation for this response. This is the case in Area 2 and even more so in Area 3, where unit costs are higher. The SSP requires Ofcom to support the development of infrastructure across the duties under SSP.

189. All of the above highlights Ofcom's lack of ambition for competition and the fact that it is acting in contradiction to its primary duty. In essence, Ofcom's approach in Area 3 gives up on any potential for competition, assuming that postcodes in Area 3 will never move into Area 2 despite clear evidence of

investment. Ofcom is therefore ensuring through its regulatory decisions that competition is stifled in Area 3 despite evidence that altnets are building there to a greater extent than Ofcom expected in the WFTMR and its E1 consultation and decision.

5.2.9 Conclusion

190. Ofcom's inconsistency of approach and lack of regard to its general and SSP-based duties act as direct and strong deterrents for altnets to enter and expand in the FTTP infrastructure market.

191. Ofcom's focus only on the very large altnets and ISPs does not recognise the essential ecosystem of altnets and ISPs of different sizes that enables altnets to initially enter the wholesale market and grow until they can attract the largest ISPs (either individually or through wholesale aggregation platforms). By contrast, allowing price levels that are only viable if either the entrant operates only in very low-cost locations[47] or if the entrant has national coverage over which to average the unit costs, would appear inconsistent with those duties.

192. We have raised reasonable and objective concerns relating to Ofcom's FCM, all of which have been dismissed by Ofcom without engaging with the substance of even a single one of those concerns. Ofcom's refusal to even adjust the corporation tax level to reflect the UK tax regime as of April 2023 signals Ofcom's complete and unreasonable refusal to engage with stakeholders on these critical points and Ofcom's blatant disregard of its formal duties.

193. Due to Ofcom's refusal to amend the FCM to create a more appropriate reflection of market entrant costs, it is not possible for Ofcom to draw any conclusions regarding whether the E2 pricing (at average or individual product level) exceeds the costs of a market entrant. Until such time this has been done, E2 should be blocked to prevent potentially very significant harm to infrastructure

[47] We note that we are not certain that the E2 prices are replicable in any parts of the UK.

competition and damage to the UK's credibility in attracting investment in future infrastructure initiatives.

6 Ofcom's Analytical Framework

194. In the E2 consultation document, Ofcom uses the same analytical framework as used in the Equinox 1 consultation. Whist this is substantially the same as that used in the WFTMR[48] we note the statement made by the Competition Appeal Tribunal (CAT) judgement in CityFibre vs. Office of Communications[49] that the framework set out in WFTMR was "easier to follow" than the reformulation used in the Equinox 1 Review. Despite this, Ofcom again uses the formulation of its framework analysis from Equinox 1 in its consultation on E2.

195. In this Section we discuss problems with Question 1 first followed by the formulation of Questions 2 & 3.

196. Question 1 asks whether the Equinox offer "*potentially creates a barrier to using altnets*". Although not stated in either the original formulation in the WFTMR or in the formulation in the Equinox consultation, we assume that this means a barrier to ISPs using altnets. We ask Ofcom to make this clear in any subsequent statement and use of this formulation.

197. However, there is also a more substantive point to be made about question 1. The question asks if E2 creates a barrier to using altnets. In our view, in answering this question Ofcom should also examine the externalities affecting altnets if E2 does indeed create a barrier to using altnets.

[48] WFTMR Vol. III, Para. 7.154
[49] Case No: 1426/3/3/21 July 2022, Para. 143

198. Using the game theory principle of backwards induction[50], an altnet considering entry or expansion would ask itself whether an ISP faces a barrier to switching as a result of E2. If the altnet did think that such barrier exists, then it might come to the conclusion that it would not be economically viable for it to enter or expand in the market as it would be too expensive for ISPs to switch. In the language of game theory, the altnet would receive a negative payoff. The altnet could then either exit the market, not enter/expand or delay entry/expansion.

199. Whilst the first order effect of E2 may be a barrier to ISPs using altnets, the second order effect could be less or delayed entry by altnets. This, of course, would mean that altnets face a barrier to entry.

200. In the WFTMR, BT is already found to have SMP in WLA Areas 2 & 3, in part on the basis of being protected by Barriers to Entry.[51] Therefore, question 1 is wrongly formulated in both the WFTMR and in the Equinox consultations. The question is not whether E2 "*potentially creates*" a barrier to using altnets but whether in doing so it maintains or *raises* a barrier to entry for altnets that already exists.

201. Ofocm should take due consideration of what the CAT has stated in discussion in Ground 2 of the CityFibre case and reformulate and clarify all the points above.

202. We now examine what would have happened had Ofcom considered the matter as discussed above. As set out already, the FM is not fit for purpose as it is only of benefit to large ISPs and takes no account of the ecosystem based on disruptive altnets operating in targeted geographic areas. We have previously discussed how the overly burdensome requirements placed on ISPs to apply the FM and their legitimate concerns about the true independence of the IV mean that

[50] See https://en.wikipedia.org/wiki/Backward_induction for an introduction to the principle of backwards induction.
[51] WFTMR Statement Vol II Paras 8.132 and 8.117 respectively

ISPs are still likely to stick with Openreach so as not to jeopardise their order mix targets, even in "overbuild areas".

203. Based on that analysis and contrary to Ofcom's opinion, E2 in fact raises the barrier to using altnets and therefore raises barriers to entry and expansion by altnets. By doing so, it does nothing to support competition in the WLA market and nothing to help Ofcom comply with the SSP.

204. Therefore, if Ofcom were to consider the first *and* second order effects of E2 it would find that the Equinox Offer does create a barrier to using altnets and thereby maintains or strengthens the barriers to entry and expansion that protect BT's SMP. Ofcom would therefore need to address Questions 2 and 3.

205. The chilling effect of E2 was explained by an INCA Member, Rob Skinner of Octopus Investments who said:

> *"Equinox 2 will have the effect of reducing wholesale pricing levels expected in business plans over the next ten years, below the levels anticipated by investors following Ofcom's WFTMR. In a macroeconomic situation where cost of capital is increasing, and costs are increasing due to inflation, such a drop in revenue will materially reduce the volume of capital (debt and equity) being committed to building fibre broadband infrastructure in the UK over the next few years. In November 2022, even Openreach admitted that it is slowing down its own pace of roll out due to higher costs. By lowering the effective market price for wholesale, which Openreach is able to drive due to its dominant market position, infrastructure competition will be materially set back and the ambitions for 85% of the UK to have access to gigabit capable broadband by 2025 will be even more at risk, with the more remote locations likely to suffer the most. Short-term, ISPs and hence consumers may benefit from lower pricing on their broadband bills, but this will come at a material economic cost to the UK - with less infrastructure competition and most likely higher long-term pricing in the future."*

206. With regard to Questions 2 & 3, there is an important and substantive difference between the formulation in the WFTMR and in the E2 consultation that appears to make it easier for BT to comply with the framework as set out in the Consultation compared with the WFTMR formulation.

207. In WFTMR, Ofcom defines its analytical framework as:

208. In the consultation we set out a proposed analytical framework for considering other commercial terms. Our starting point was that the creation of any barrier to using alternative network operators would only be justified where:

a) the impact on nascent network competitors is unlikely to be material; ***and***

b) the arrangements will generate clear and demonstrable benefits, such as: i) the arrangements are essential to Openreach's business case for fibre roll-out; or ii) the arrangements are necessary to offer more efficient prices that would deliver benefits for consumers. [52] (Emphasis added)

209. There are two points to be made about this wording: first the use of "and" between parts (a) and (b), and secondly the clarifications to part (b) given in (i) and (ii). These are discussed below.

210. First, parts (a) and (b) are linked by "and". In other words, both conditions must be present for BT to introduce commercial terms that could create a barrier to using an alternative operator.

211. This is not the case in the E1 or the E2 consultation documents, where Ofcom's analytical framework consists of three questions, of which questions 2 & 3 are the equivalent of (a) and (b) above, appear to be independent of each other.

"Question 2: Is the Equinox Offer likely or unlikely to have a material impact on nascent network competitors?

[52] WFTMR Vol. III, Para. 7.154

212. Question 3: Is the Equinox Offer likely to generate clear and demonstrable benefits?"[53]

213. In this formulation the missing "and" means that it is not explicit that both conditions need to be fulfilled and so it is possible that BT need only fulfil one condition for a new set of commercial terms such as E2. This would of course be a weaker test than set out in the WFTMR. This may be a simple drafting error by Ofcom, but it would make the meaning clearer if the missing "and" was reinserted.

214. For clarity, it is our opinion that Equinox is likely to have a negative material impact on network competitors and is not likely to generate demonstrable benefits for anyone except BT and the generation of benefits for BT is anyway not part of Ofcom's duties as discussed in the paragraph below.

215. Secondly, the formulation in the WFTMR clarifies what is meant by "clear and demonstrable benefits" as:

- i) the arrangements are essential to Openreach's business case for fibre roll-out; or
- ii) the arrangements are necessary to offer more efficient prices that would deliver benefits for consumers.

216. The first of these clarifications shows a bias towards Openreach as it only tests whether there are benefits for BT rather than other stakeholders in the market. Ofcom's duty is to promote the interests of citizens and consumers[54] and not those of BT. Therefore, by considering whether Equinox is of benefit to Openreach, Ofcom appears to be acting against its duty not to discriminate and stepping outside its duties as prescribed in the Communications Act.

[53] Equinox 2 Consultation Para. 3.35
[54] Communications Act 2003, Section 3(1)

217. The second clarification is contrary to the government's SSP which explicitly state that "that promoting investment should be prioritised over interventions to further reduce retail prices in the near term".[55]

218. In para 3.41 of the consultation document, Ofcom claims the changes introduced by Ofcom are "not substantive". We disagree. Having to fulfil only one of the conditions in Questions 2 & 3 is a substantive change.

219. It may be that this substantive difference between the formulation in the WFTMR and in the E2 consultation is unintentional. If this is the case, we would like Ofcom to make it clear that the formulation in the WFTMR where both questions 2 & 3 need to be fulfilled it what was meant. The CAT brought attention to the need for clarity in Ofcom's formulations stating:

"That said, we also note that very significant investment commitments and resource allocation decisions are made on the basis of such policy statements. Put another way, a lack of clarity and consistency in implementation has significant consequences and is therefore to be avoided. Regulators like Ofcom are afforded the discretion to make expert judgements in the expectation that they will provide clear and consistent guidance to those they are regulating."[56]

220. We therefore urge Ofcom to provide the "clear and consistent guidance" the CAT expects from them and make a strong statement that *both* questions 2 & 3 need to be assessed before it can agree to any new commercial terms from BT.

221. In the case of Question 2, again we have demonstrated throughout this response that the E2 offer will have a material and negative effect on nascent network competitors.

[55] Statement of Strategic Priorities, Para. 18
[56] Case No: 1426/3/3/21 July 2022, Para. 146

222. For Question 3, the benefits E2 will generate are for Openreach only, which, as we discuss above, is not a duty of Ofcom to promote and which appears to be in conflict with Ofcom's duty to not discriminate.

7 Openreach practice of repeatedly amending FTTP prices

223. In addition to the specific problems raised by E2, Openreach is also engaging in a near-continuous negotiation process with its largest ISP customers for new discount schemes. This raises the cost of switching for ISPs who fear they may lose out on future discounts.

224. BT's practice of continually negotiating new prices terms, from a position of significant market power, is a concern that has already been presented to Ofcom by several altnets. The respondents share those concerns.

225. This practice by the dominant provider of ongoing negotiations and engagement with the large ISPs creates an environment of instability and uncertainty, where the potential risk of not qualifying for future Equinox-style discounts causes a significant disincentive for ISPs to enter into commercial wholesale access arrangements with altnets.

226. As frequently acknowledged by Ofcom, there are significant costs and resource requirements for an ISP to onboard a new wholesale access supplier. The developmental phase can take 12 months or more and the arrangements are therefore not entered into lightly.

227. The uncertainty created by Openreach's behaviour makes any decision by an ISP to commit the resources required to start and complete the detailed engagement process with an altnet significantly more difficult for the ISP. BT's constant drip-feed of potentially new prices into the market is causing separate and incremental harm to that directly associated with individual discount offers.

228. We welcome Ofcom's statement that it will collect information to assess whether to launch a formal investigation into Openreach's 'drip feed' behaviour and its impact on the market.

229. Ofcom has already commenced gathering relevant information and says that "*contemporaneous documents from ISPs and altnets could provide evidence of whether Openreach's pricing conduct [..] is creating uncertainty for ISPs*"[1], but we are concerned that Ofcom is not also considering gathering evidence from Openreach itself as to its overall pricing strategy and objectives.

230. The respondents would welcome the opportunity to contribute to Ofcom's information and to participate in any subsequent analysis process.

8 Conclusions

8.1 Introduction

231. In this document we have

- Systematically assessed the nature and contents of the proposed E2 discount scheme and how that scheme is likely to affect the incentives for ISPs to use altnet wholesale FTTP services.
- Reviewed Ofcom's assessment of E2 in the context of its legal duties, the SSP, the comments by the Competition Appeal Tribunal in its judgement on CityFibre's case against Ofcom and BT plc in relation to E1, and Ofcom's own policy statements in the WFTMR, including Ofcom's three question test designed to identify pricing and discount schemes that could increase barriers to ISPs using altnet wholesale services and consequently starving altnets of demand.

232. We have found that Ofcom's assessment of E2 has not been comprehensive and transparent and is inconsistent with Ofcom's legal duties; We have found that Ofcom's analysis is inconsistent with how Ofcom assessed E1; And we have found consistent bias in Ofcom's approach that appears to reflect a desire by Ofcom to find a rationale to support a decision not to block E2.

233. Our analysis shows that E2 will strengthen existing and create new barriers to ISPs using altnet wholesale access and therefore strengthen BT's SMP.

8.2 Ofcom's legal duties

234. Ofcom should take decisions by reference to relevant legal duties, including:

- the requirement for consistency and transparency;
- the duty not to discriminate between providers of electronic communications network and services; and
- its duty to have clear regard to the Government's Statement of Strategic Priorities. This requires Ofcom to prioritise the promotion of infrastructure investment and competition above delivering short-term price benefits to consumers.

235. Whilst the Competition Appeals Tribunal's judgment relating to E1 did not find that Ofcom had acted so unreasonably or irrationally as to require the court to set aside Ofcom's decision, the Court's judgment was not without criticism of Ofcom's conduct in its review of E1. Ofcom should be mindful of the Court's comments in its judgment.

8.3 Our assessment of E2

236. Ofcom's assessment found that one of the three largest ISPs in the UK would be likely to struggle to meet the OMT if using altnet wholesale FTTP access and a second of those three would also struggle if VMO2 and NexFibre were to enter the wholesale market. Our further analysis demonstrates that smaller ISPs would likely find it even harder to meet the OMT due to them not having a national footprint across which to offset altnet FTTP use.

237. Ofcom concludes that, although some ISPs will struggle to meet the OMT if using altnet wholesale FTTP access, that problem is overcome by the FM. Ofcom does not engage in any of the analysis of how the FM will work, but concludes that it will work because 'the large ISPs are sophisticated businesses' and 'it is similar to the GEA Volumes Relief mechanism, which is already in the market'. Our analysis, however, highlights that the FM is significantly more complex than the GEA Volumes relief and that ISPs would require significant resources to

operate the FM. We have also highlighted that, as altnets rely on small- and medium-sized ISPs when first entering the wholesale market, it is important that the FM can be operated by those smaller organisations as well.

238. It is our firm view that, rather than preventing the OMT becoming a barrier for ISPs to use altnet wholesale FTTP access, the operation of the FM itself would be a substantial barrier for ISPs using altnet wholesale FTTP access.

8.4 Ofcom's approach and analysis

239. We have found that Ofcom's analysis and approach in assessing E2 and its potential impact on competition to be incompatible with Ofcom's legal duties of consistency, transparency and non-discrimination, nor does it take due account of the SSP or the comments by the CAT in the E1 Judgement.

240. Ofcom has refused to engage in valid concerns around the impact of E2 in Area 3, the many flaws and shortcomings of Ofcom's FCM and the workability of the FM. We have found that the errors in the FCM consistently result in a lower altnet unit cost output and that Ofcom's rationale for not engaging with those flaws are insubstantial and based on Ofcom's own convenience.

8.5 Overall conclusion

241. E2 will very likely increase existing and create new barriers to ISPs using altnet wholesale FTT access which in turn creates barriers to entry for FTTP based altnets.

242. Ofcom's analysis is deficient, incomplete and appears to be biased.

243. If introduced, E2 can cause significant harm to infrastructure competition, which is in direct conflict with government policy, Ofcom's duties and Ofcom's own published policies.

Annex 1 – OMT and FM submission

Failsafe Mechanism and the Independent Verifier

Introduction

1. This document is submitted on behalf of INCA and Zzoomm in advance of Ofcom publishing its consultation on the potential competition effects of Openreach's proposed Equinox 2 (**E2**) discount scheme.
2. It is our hope that Ofcom will take into consideration our concerns as set out below when developing its proposed conclusion of whether E2 is likely to cause harm to competition and ultimately consumers.

Background

3. On 1 July 2021 BT notified Ofcom of a FTTP pricing offer, Equinox 1 (**E1**). On 30 September 2021, Ofcom published a statement setting out its assessment of E1 and Ofcom's conclusion that it should take no action in respect of E1 (**E1 Statement**).
4. Whilst industry members (including INCA) argued that E1 would distort ISPs behaviour by encouraging ISPs to buy from BT in preference to altnets, thereby acting as a barrier and/or deterrence to competitive market entry and expansion by altnets, Ofcom rejected those arguments.
5. E1 did not contain any behavioural commitments to protect against the market distortions alleged by industry and did not contain any mechanism analogous to the failsafe mechanism (**FM**) proposed by BT and described further below.
6. On 14 December 2022 BT notified Ofcom and industry of a further FTTP pricing offer, E2. E2 is yet to be assessed by Ofcom.
7. A new element of E2 (not found in E1) is the FM, described in:
   7.1. pdf slides published by BT on 14 December "Equinox failsafe Mechanism – Overview" (**FM Slides**); and

7.2. contractually defined in Section 9, Appendix 1 and Appendix 4 of the "Equinox FTTP Offer Contract – Supplemental Agreement" (**FM Contract**).

Overview of FM

8. The FM mechanism is not simple. Whilst the FM Slides and FM Contract need to be referred to for detail, key details of the FM include:

8.1. the process is **not automatic:** each quarter an ISP must assess whether it has met thresholds, then (subject to various things) the ISP may apply for a recalculation of its performance for such quarter using the FM (FM Contract Appendix 1, 9.1);

8.2. the process is **administratively onerous and resource intensive:**

8.2.1. separate notices must be provided to BT each quarter (FM Contract Appendix 1, 9.1 and 9.7);

8.2.2. in addition a '*Relief Application Notice'* is to be submitted to the Independent Verifier each quarter **(IV)** (FM Contract Appendix 4, 1);

8.2.3. further the ISP must submit, in a format and at a level of detail to be determined, each quarter (FM Contract Appendix 4, 2):

(a) full and accurate details of all of those Premises where the Communications Provider could at the start of that Contract Quarter sell Eligible Services including for each Premises the UPRN ("the Relevant Premises");

(b) reasonable evidence that the Communications Provider is able to order Eligible Services at each of the Relevant Premises;

(c) reasonable evidence that the Communications Provider has IT systems and sufficient infrastructure (including proof of interconnection and handover points with the Alternative Network Provider) in place to order and consume Eligible Services at the Relevant Premises and in the Contract Quarter; and

(d) such other information as the Independent Verifier may reasonably require from time to time to ensure the accuracy and veracity of the data.

8.3. in addition to the information listed in 6.2 above being administratively burdensome, the **information provided is highly commercially sensitive** and will provide BT with **detailed market information about the roll-out of each of its competitors** with no controls over the use of such information by BT;

8.4. the process starts from the assumption that the failsafe mechanism does not apply unless the ISP proves that it should, thereby placing a **heavy evidential burden on the ISP** to prove that the FM should be applied (FM Contract, Appendix 4: 2, 3 and 8)

8.5. the process is **retrospective:** it happens after each quarter and no change to the ISPs eligibility for discounts (and obligation to pay bills) arises until the end of the process. Unlike interconnection agreement adjustments, no interest is payable and this creates a negative impact on ISPs' working capital and real value received even if they are successful (FM Contract Appendix 1, 9.3-9.7);

8.6. the **independent verifier** is **appointed by and paid for by BT with no transparency over its terms of appointment or reference** (FM Contract Appendix 1, 9.2, 9.8), although the costs (over which the ISP has no control) may be charged to the ISP in some (vaguely defined) circumstances (FM Contract Appendix 1, 9.2, 9.8).

8.7. irrespective of network availability and/or the impact on altnet orders, **if a threshold for legacy service orders is reached, the FM does not apply** (FM Contract Appendix 1, 9.10). This means that the failsafe mechanism is disapplied in precisely the circumstances when it is most needed. Consider the situation in which an altnet provides a service preferred by an ISP in an area and so, (absent E2) would secure orders for all the premises capable of receiving FTTP in such area. This scenario would almost certainly **triggering the 'all bets are off' contractual get out for BT;**

Questions to be asked about FM

9. In considering FM as part of E2, we suggest that Ofcom needs to consider (at least) three questions:

   9.1. First, what is the **competitive harm** that the FM seeks to address?

   9.2. Second, is the FM **in principle capable of addressing the competitive harm** identified?

   9.3. Third, does the FM as proposed **in practice address the competitive harm** identified?

   We set out INCA's views on each of these three questions below.

What competitive harm does the FM seek to address?

10. It appears that the FM has been designed by BT to remove overbuild areas from the Fibre Only (FO) performance measure. Despite denials from BT, many altnets considered that the FO performance measure in E1 could distort ISPs' behaviour. The FO performance measure in E1 would make it unattractive for ISPs to ever buy from one of the alternative providers of FTTP for fear of losing the available discounts. Thus, E1 was considered by many altnets to create a barrier to entry for altnets as it would be very difficult for ISPs to justify buying from altnets.

11. BT continues to reject the concerns expressed in responses to the E1 consultation concerning the FO performance. The fact that Ofcom allowed the FO measure through suggests that they did not believe it would distort CPs purchasing behaviour. It is interesting, therefore, that the FM has now been introduced and appears to be tacit acceptance by Openreach that the FO performance measure did create the market distortions altnets warned about.

12. As set out in our inputs to Ofcom's evaluation of E1, INCA continues to believe that the Equinox pricing offers (both E1 and E2) are BT leveraging its ubiquitous network and size of installed base to distort competition in the market for FTTP by incentivising

ISPs to place orders with BT in preference to the smaller altnets. It appears that this is the competitive harm that FM seeks to address.

Can the FM in principle address the identified competitive harm?

13. A properly designed and implemented mechanism to remove overbuild areas from E2 could, in theory address some of our concerns with E2. However, for the reasons set out below, the FM (as proposed) has both design and implementation flaws that means that if fails to address the harm it purports to mitigate.

Does the proposed FM in practice address the identified competitive harm?

14. Whilst a properly designed and implemented mechanism to remove overbuild areas from the scope of E2 would bewelcome in principle as a way to address the market distortion caused by E1 discount structure, INCA's view is that the FM as proposed by BT has design flaws, is lacking in detail, places a severe administrative burden on ISPs (as noted in paragraph 8.2.3 above), and cannot be regarded as fit for purpose. To be made fit for purpose, considerable additional information will be needed about how it will operate and we cannot believe the FM can be made operational by April 1st. Without the FM, E2 is only a means by which BT can offer lower prices in the market about which we have concerns explained elsewhere.

15. We believe that the FM cannot be operational by 1st April for the following reasons.

16. First, from a design perspective the FM proposed by BT has (at least) the following fundamental flaws:

    16.1. Openreach's ability to intervene and disapply the FM if ISPs take more copper lines in overbuild areas (which can be expected to happen as a direct result of buying from altnets) removes its impact in circumstances in which it may be most required;

    16.2. there may be circumstances where the FM doesn't help, in particular where customers are proportionately more likely to take copper in non-overbuild areas. This could happen if altnets target areas where customers are proportionately more likely to take-up FTTP; and

16.3. it requires the sharing of commercially sensitive near real-time roll-out plans of new market entrants with the only market participant with significant market power (i.e., dominance). Ofcom should have competition concerns over the sharing of this type of market sensitive information between *any* market participants, but for it to be required by a dominant operator as part of a proposal purported proposed to address competition concerns is deeply troubling.

17. Second, the process is onerous and resource intensive and therefore costly to operate for ISPs who will have to provide detailed information to the IV on where they can and do use altnets. We do not think that ISPs will invest in hiring people and putting in place systems to effectively use the FM when they can just buy from BT to secure discounts without additional cost instead.

18. Third, the process is retrospective and will not place ISPs (even if successful) in the same position they would have been if they had only ordered from BT.

19. Fourth, the Independent Verifier (IV) is a key component of the FM. The IV is defined in the E2 Contract as an "*independent third party entity appointed by Openreach to conduct the Verification Process"* details of which are only provided to ISPs on request.[57] Aside from circumstances in which the ISP does not comply with the process, BT will fund the IV.

20. The fact that the IV is appointed and funded by BT with no transparency over its terms of appointment or reference and its identity is only made available to CPs on request raises concerns about the true independence of this function. At worst, the IV could be a route for BT to acquire highly detailed information about the extent of competing networks that is not available to altnets. This would provide BT with advance notice of the medium term threat to Openreach. BT would only get this information due its position of Significant Market Power (SMP) and its discount structure. Indeed, an argument could be made that the FM is specifically designed to obtain such

[57] Openreach "Equinox FTTP Offer Contract – Supplemental Agreement" Page 5 and Para 9.2

competitive intelligence and thus, far from addressing the market distorting effects of the FO performance measure, actually increases them.

21. Thus, it is our view that before E2 can be allowed to be launched by BT, the independence of the IV and the confidentiality of information, must be addressed to the satisfaction of all stakeholders, including altnets.

22. Fifth, The IV will require significant data input from altnets to be able to establish whether a CP can buy connectivity from Openreach only or from one or more altnets as well. The number of households that can connect to FTTP is growing rapidly. According to Ofcom, 4.3 million more homes had access to FTTP by the end of 2022 than one year earlier[58]. That equates to 11,780 households per day. Whilst Openreach will account for a large share of this number, even if for only 50% of new connections, that would still be around 6,000 new connections per day.

23. For the IV to be able to determine whether any property is in an Overbuild Area, the IV will need to have substantial database capability and will need a process in place to verify the data it is provided with. Most importantly, the IV will need to get the support of all altnets to agree to provide data for which they are likely to need to be satisfied that the IV will treat the data confidentially.

24. This is clearly not the job for an individual but will need a significant organisation.

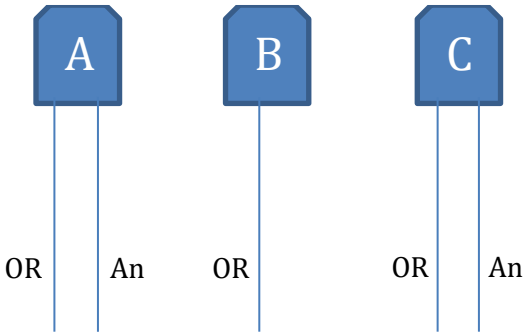
25. We question whether the requisite organisation can be developed in the three months available to Openreach before it launches Equinox 2. Without a proper IV organisation in place, it is our view that Equinox 2 should not be launched.

26. Sixth, Openreach defines an “Overbuild Area” as one where an ISP can place an order for FTTH with an alternative supplier, and the extent of this Overbuild Area is determined by the IV[59]. We consider that this definition is far too vague to be

[58] Ofcom (2022) *‘Connected Nations 2022’* December 2022, page 8.
[59] Op cit footnote Page 6

considered fit for purpose and that Ofcom should require BT to provide a more detailed definition that is acceptable to all parties.

27. Taking BT's definition at the most micro level, an Overbuild Area could be defined on an individual premises basis. Suppose there are three adjacent properties in the same street and that two of these properties have connections via both Openreach and an altnet, but one only has a connection via Openreach, as per the illustration below.



28. Property B could be defined as outside the Overbuild Area because it does not comply with the definition in the E2 contract as a CP cannot place an order with an altnet at this property.

29. On a more macro basis, an Overbuild Area could be a whole town or city in which some premises are connected to fibre from Openreach and others and some are not. If the three properties in the illustration were districts in the same city, then under the macro definition, district B could be included in the Overbuild Area, even though a CP can only use BT in this part of the city.

30. Absolute clarity and transparency of the definition of a the overbuild area must be built into the E2 contract before it can be considered fit for purpose.

31. Seventh, we note on Slide 2 on the FM presentation that "Openreach reserves their right to review and amend the Failsafe Mechanism if its use results in CPs placing a disproportionate level of orders on Openreach copper in the Overbuild Area". A similar statement is made on Slide 4.

32. The definition of “disproportionate” is important to the implementation of the FM. Paragraph 9.10 of the Openreach Contract appears to define it as “50% greater than the Benchmark Legacy Number”. Whilst this provides some clarity, the calculation of the benchmark appears to be at the discretion of the IV, which is appointed by Openreach. The more cautious the CP about the future behaviour of BT, the more they are likely to order fibre from Openreach to protect themselves against future amendments to the FM that could harm their interests.

33. The definition of an Overbuild Area is important for determining whether the level of orders on Openreach copper is “disproportionate”. The more macro the definition, the more it resembles the Offer Area as defined in the E1 contract. This would mean that in Overbuild Areas CPs would still be incentivised to purchase FTTP lines from Openreach to avoid BT deciding that the proportion of copper lines the CP bought was disproportionate.

Conclusion

34. We do not believe that the FM and the IV process can be redesigned to be fit for purpose, then implemented to the satisfaction of all parties, including investors in alternative networks, before the planned implementation date of Equinox 2 in April 2023. We believe, therefore, that Ofcom should not allow Equinox 2 to be launched until these critical processes are agreed by the industry as fit for purpose.

Annex 2 – Fibre costing model review

This annex reproduces a review of the FCM which was sent to Ofcom on 10th January 2023. Ofcom has since released a revised version of the FCM, on 23rd February 2023. Where appropriate footnotes have been added to indicate the changes in results due to this revised model.

Introduction

As part of the Wholesale Fixed Telecoms Market Review (WFTMR) process, Ofcom developed a costing model known as the fibre costing model (FCM). The model was intended to calculate the costs for Openreach to deploy fibre in Area 3, in case a formal Regulated Asset base (RAB) costing approach was required for the regulation of Openreach's Area 3 wholesale pricing, and as a point of reference for Ofcom's proposed pricing approach for Area 2, where a strict cost-oriented pricing was not proposed.

As Ofcom's stated objective was to encourage fibre infrastructure competition in Area 2, Ofcom created a version of the FCM for Area 2, in which it made a number of modifications to modelling assumptions, most notably a number of cases were constructed where the level of penetration was set at between 30% and 40% as Ofcom assumed that there would be two or three competing fibre networks in all or most of Area 2 (the "Reasonably Efficient Operator (REO)" model).

In its Statement, "Openreach Proposed Fibre to the Premise (FTTP) Offer starting 1 October 2021", Ofcom referenced the outcome of the of the FCM as "our estimate of the price that an entrant would need to charge in order to cover its efficiently incurred costs"[60] and stated that

"*Under the Equinox Offer, the price for the FTTP 40/10 anchor product is set at the regulated price ceiling, i.e. it is not discounted. Further, all other FTTP rental prices under the Equinox Offer are set at a level above this, including when ARPU-related discounts are taken into*

[60] See paragraphs 3.43 and 3.44.

account." And "*we consider that the Equinox Offer prices are set at a level above our estimate of the price that an altnet would need to charge in order to recover its efficiently incurred costs in Area 2*."[61]

In light of those statements and of the fact that the proposed E2 proposals set prices below the (indexed) 40/10 anchor product price, altnets[62] have undertaken a review of the REO model assumptions and the extent to which they could be reasonably be considered to result in what Ofcom refers to as "efficiently incurred costs of an entrant".

The analysis is summarised below and we would welcome the opportunity to discuss it in detail with Ofcom. We would also be pleased to provide any additional analysis Ofcom may consider necessary for it to consider the points raised in the analysis below.

The points below are described assuming that the reader is familiar with the REO model and with other regulatory instruments applied by Ofcom including the Duct and Pole Access (DPA) obligation and others. Further details can be provided if required.

Scorched earth/node

Ofcom's REO model assumes that the operator's network is designed according to the scorched earth principle. That is, independently of the existing network architecture. The REO model, however, also assumes that the operator uses Passive Infrastructure Access (PIA) for between 40 and 50% of its network.

These two assumptions would appear to be incompatible as the use of PIA, by definition, means that the operator's network follows the cable and duct routes of the Openreach network.

When switching from scorched earth to scorched node in the Area 2 REO scenarios, the network costs increase by 52%[63]. As far as we can tell, this is a result of longer routes due

[61] Stet.
[62] The work was commissioned by INCA and Zzoomm Ltd.
[63] The equivalent increase in Ofcom's revised model is 15%

to Openreach's existing network configuration; we note that the quantities of duct, poles and fibre used in segment 2 are higher in the scorched node case compared to scorched earth.

Whilst a REO may be able to design its network to be more efficient by combining self-build and PIA usage, it would seem highly unlikely that the REO could achieve 100% scorched earth cost levels. Given that Ofcom estimates that REOs use between 40 and 50% PIA, we would estimate that at least 40% of the REO's network costs would be at the scorched node level. Using that assumption, **the REO network costs should be increased by approximately 4/10 of the 52% = 20.8%**[64].

It is possible that the above assessment is not sufficiently accurate, and Ofcom may wish to carry out a more detailed assessment. But we consider it essential that Ofcom reflects the impact of both PIA usage (which reduce construction costs) and the need to follow Openreach cable routes (which increase costs). It is inequitable to apply only the cost reductions from PIA usage without also applying the corresponding cost increases.

8.6 Deployment assumptions

The REO model assumes that the FTTP network is rolled out according to exchange areas, in order of rising cost[65], using infrastructure length as a proxy for deployment cost. This is an improvement on Ofcom's original assumption that roll-out would happen in individual post code sectors, again in order of rising cost. Even so, such a simplistic approach is unlikely to reflect the actual build programmes of altnets and it is likely that unit costs resulting from the model are understated as a result.

Altnets tend to build networks in discrete towns or cities, each of which may encompass several exchange areas (or parts thereof). In order to achieve economies of scale, it is rational to cover the entire settlement rather than just the parts of the access network with

[64] The equivalent increase from Ofcom's revised model would be 4/10 of 15% = 6%
[65] Lowest cost exchange areas being covered first.

the shortest infrastructure length[66]. This means that the average access costs would be higher than indicated in the REO model (due to higher average infrastructure length).

Altnets make decisions on where to deploy based on a wide range of parameters and Ofcom's use of infrastructure length only is not just wrong but misleading and unnecessary. It would be more appropriate for the model to assume a straight average infrastructure length of locations in Area 2. As Area 2 should not include areas that are uneconomic to serve commercially, and Ofcom is assuming that all of Area 2 has the potential of sustaining up to three competing fibre networks, it is reasonable that **the model should reflect costs of the entirety of locations in Area 2**.

Time to reach maximum penetration

The REO model has three scenarios, where the REO reaches 30%, 33% or 40% market share and the model assumes that this level of market share is achieved in a 3-year period[67].

It is our view that **this assumption is both unreasonable and realistic**. We set out below our analysis of this parameter and explain why we believe that Ofcom must adjust this assumption.

Openreach FTTP take-up

We have looked at the FTTP take-up levels achieved on the Openreach network since 2019.

[66] Covering entire communities is also necessary for the altnet to be able to undertake meaningful sales and marketing activities. A Swiss cheese approach to coverage makes it very hard to market the FTTP broadband services effectively.

[67] We note that the WFTMR (A15.83) states that Ofcom assumes a 5-year period for REOs to achieve the maximum penetration, but the model uses 3 years. This was confirmed by Ofcom by email on December 12 2022.

	FTTP (million)	FTTP % take up	FTTP (m) take up
Sep-22	8.8	27%	2.4
Mar-22	7.2	25%	1.8
Sep-21	6.0		
Mar-21	4.6	20%	0.9
Sep-20			
Mar-20	2.6		
Sep-19			
Mar-19	1.3		

Source: https://newsroom.bt.com/?h=1&t=Corporate

Using this data, we have created a simple model to estimate the level of take-up Openreach is achieving. However, there are some important observations to make before we look at the outputs from that model:

1. In the vast majority of locations where Openreach is building there are no other FTTP networks present or being built. That means that the accessible market is 100%, rather than Ofcom's assumption of between 30% and 40%. Given that there is typically a not insignificant group of consumers who will take new services as soon as they are available, it can be assumed that all of those 'early adopters' have moved on to FTTP as soon as it was available, therefore boosting the Openreach take-up in a manner that could not be expected in a market where two or more FTTP providers are present.
2. The Openreach FTTP network is being marketed by all the largest telecoms provider brands in the country, representing around 70-75% of the total broadband market in the UK today, regardless of network technology.
3. Openreach has introduced significant discount schemes that require its wholesale customers to commit to a minimum percentage new of connections being FTTP, thus ensuring that the retail ISPs focus all their marketing efforts on FTTP sales.
4. Openreach is offering in-contract conversion to FTTP without early termination penalties to the customer for exiting contracts before they expire.

When comparing those conditions with the conditions faced by altnets (the REO) it is clear that only point 1 applies to the REO case, and even that is to a more limited extent than for Openreach, as Openreach is increasingly targeting altnet deployment areas to spoil the first-mover advantage for altnets.

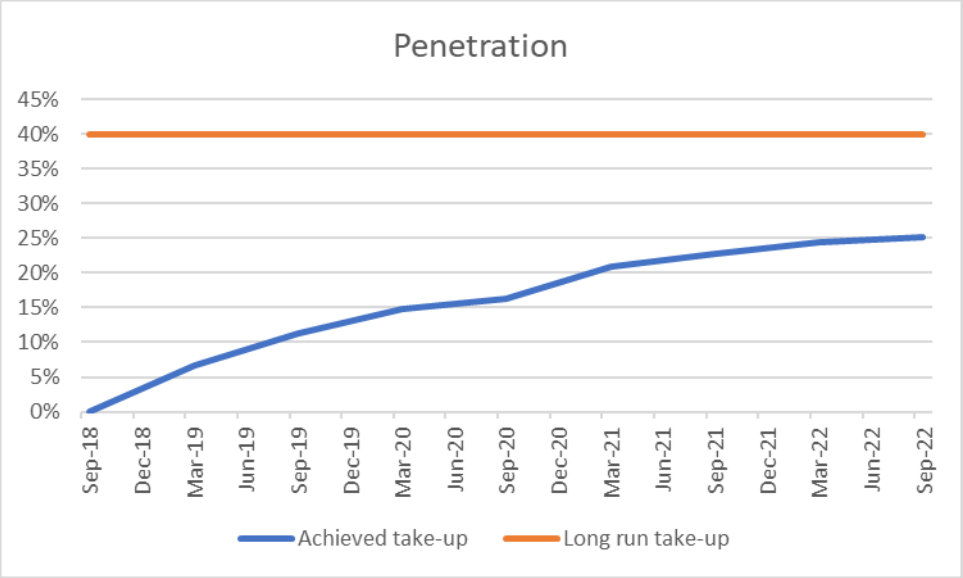
In fact, contrary to Openreach, altnets who offer retail services have little-known brands and often cannot replicate the multi-service offerings offered by the large retail ISPs using the Openreach network (including TV, exclusive content and mobile, for example).

Altnets who offer wholesale struggle to attract retail ISPs as wholesale customers. This is due to a mixture of parameters including the loyalty-inducing elements of the Openreach discount schemes. The fact that the thresholds in Equinox 1 are difficult to meet is confirmed by Openreach having waived the application of those thresholds for connection discounts until June 2023. This is contrary to Ofcom's expectations and assumptions in its rationale for allowing Equinox 1 to be implemented[68].

Also contrary to ISPs that use the Openreach network, altnets cannot offer end consumers the possibility to migrate to the FTTP service without contractual repercussions (early termination charges). This creates a significant lag-effect for altnets in achieving take-up.

Below is our representation of the Openreach take-up:

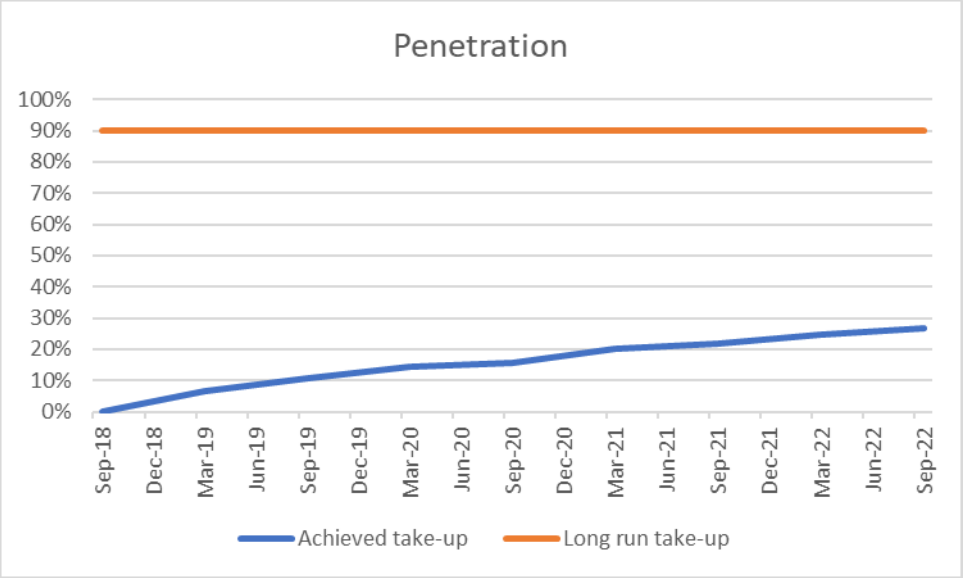
[68] In its decision to not take action in relation to the introduction of Equinox 1, Ofcom stated that some ISPs might struggle initially, but that some would likely exceed the thresholds without difficulty. The fact that Openreach has had to waive the thresholds entirely for connection discounts suggests that the majority of ISPs are struggling.



This analysis is made by applying a take-up curve to Openreach's reported FTTP deployments (see table above), with the curve applied from the year in which each deployment started. Openreach has achieved an actual take-up of 27% in aggregate across its FTTP footprint; in this example, a profile with a long run take-up of 40% has been assumed, and in order to match the actual achieved aggregate take-up of 27%, the time to reach 40% in each deployment would be just under three years.[69]

However, we note that Openreach's deployments to date are typically with zero FTTP competition in the relevant locations and with customers able to move to FTTP without contractual penalties. If, therefore, the long run take-up were to be set at 90% (which is a reasonable assumption given that Openreach is the only FTTP provider in the area), Openreach's performance to date suggests that it would take seven years to achieve that level of take-up in each deployment. This is illustrated in the chart below.

[69] Note that the graph shows the overall level of take-up across a number of different deployments, so the three years cannot be read directly from the graph.



So, it would seem that Ofcom's assumption that an REO can achieve the maximum penetration level available (given the number of players in the market) in three years is not even achievable by Openreach despite the significant advantages of Openreach over altnets as set out above.

REO FTTP take-up

Returning then to whether it is reasonable to assume that an REO can achieve its maximum penetration level in three years, the evidence suggests that this is extremely unlikely. If Openreach cannot achieve the maximum available penetration level in three years, given its significant market advantages as described above, it is clear that an REO would not be able to do so either.

It is our view that a 7-year period is more appropriate for Openreach to achieve its maximum penetration level[70]. This change would address the disparity between the current model assumption and Openreach's actual achieved time to achieve maximum take-up, but there will also be a need to consider the factors that would lead to a REO taking longer to acquire customers than Openreach; for example, Openreach's large established

[70] This is based on it taking Openreach 7 years to reach the 90% take-up in areas where it is the only FTTP provider.

customer base which can be migrated quickly to FTTP. As a result, **the time period for a REO to achieve maximum take-up is likely to be longer than seven years**.

We further note that in its WFTMR decision, Ofcom considered it appropriate to assume that the long-run take-up of FTTP is reached within ten years for a given deployment, based on an examination of business plans.[71] It is unclear why, in the light of this, Ofcom chose to use a period of three years in its REO modelling, but we suggest that the evidence points to a period of ten years as being more appropriate.

We have looked at the impact of **adjusting the time to maximum penetration in the model from three years to ten years and this results in a 13% increase in the unit price from £19.40 to £21.92 for the REO high scenario** [72] [73].

Weighted Average Cost of Capital (WACC)

The model is based on the micro- and macro-economic conditions in 2020/21 and assumes that the REO FTTP WACC is the same as the Openreach FTTP WACC. We consider that those assumptions are flawed or unsuitable for today's circumstances, we explain below why that is the case.

Openreach FTTP versus OUKT WACC

The Openreach legacy network elements that form part of the OUKT (Other UK Telecoms) asset group have been subject to very limited competition. The vast majority of competition in the UK telecoms market has, until recent years, been at the service level - with only Virgin Media challenging Openreach at the network infrastructure level.

For FTTP, however, Openreach is facing significant infrastructure competition from a large number of altnets and VM02, resulting in a risk profile that likely differs significantly from that of the 'safe' legacy network investment. The increased risk to Openreach's viability by the

[71] WFTMR Annex 15 paragraph A15.34
[72] Note that the actual numbers should not be used due to the randomisation of inputs in Ofcom's model.
[73] The equivalent change in Ofcom's revised model would be an 11% increase in the unit price from £12.83 to £14.30

altnets is demonstrated by the very fact that Openreach introduced Equinox 1 and has recently notified E2.

We note that, in the FTMR decision, Ofcom accepts that the possibility the systematic risk for FTTP is higher than for other services covered by the OUKT WACC, and that this would lead to a higher asset beta for FTTP services. But Ofcom then states that it would be difficult to separate out this increased risk for FTTP, and therefore decides to not do so.[74]

We suggest that it is not merely possible but highly probable that FTTP services have higher risk than the other OUKT services. We therefore propose that Ofcom should analyse this aspect further and make appropriate adjustments to the asset beta to reflect this increased risk. If a detailed analytical approach is too difficult, then we suggest it would be better to include an estimate of the impact rather than completely failing to address the issue. We consider that failing to address the issue results in a WACC decision that is unsound for both Openreach and altnets.

Corporation tax

We also note that Ofcom has assumed a 19% corporation tax rate for BT and does not allow for the increased tax rates that will apply from 2023 onwards. Given that the capital allowance super-deduction of 130% is due to finish in March 2023, at the same time as the tax rate increase, we consider it highly inappropriate to use a model with the 19% corporation tax assumption.

REO WACC

Ofcom has not demonstrated why it considers that the cost of capital for an altnet could or should be the same as that for Openreach (whether for the Openreach FTTP or legacy network).

Annex 15 of the WFTMR states that Ofcom considers that it has compensated for the non-systematic risk differences between Openreach and the REO by shortening asset lives,

[74] WFTMR Annex 21 paragraphs A21.9, A21.107, A21.108

resulting in a 50bn uplift on the REO WACC relative to the Openreach WACC. As already submitted as part of the WFTMR responses from a number of parties, we do not consider that the adjustment of asset lives is an appropriate manner to compensate for what is clearly a different risk profile between incumbent and new market entrant. Ofcom's approach appears to be an unnecessary 'fudge' when Ofcom could instead have applied a much more systematic and transparent approach to the setting of an appropriate REO WACC.

Ofcom's decision to shorten asset lives appears to be appropriate in its own right, but not as part of a WACC adjustment. With the advent of new technologies such as XGS-PON, we understand the rationale for reduced asset lives, but this is a separate issue from the systematic market risks faced by altnets. It is clear that a new entrant investing in FTTP networks, without a legacy customer base, will face higher risks than Openreach with its established base of ISPs as anchor tenants to underwrite the FTTP deployment; this view is supported by the WFTMR decision, which shows increased asset beta ranges for alternative operators compared to incumbents[75].

We therefore believe that **Ofcom should provide a separate WACC estimate for the REO scenarios in its analysis**, with the asset beta adjusted to reflect increased risk. We also suggest that **the cost of debt is likely to be higher for an altnet than for BT, and this parameter should also be specifically addressed**. In the current global economic climate. The cost of debt is rising and this also needs to be considered.

Micro- and macro-economic changes since the WFTMR was issued

In addition to the analyses set out above relating to the calculation of the Openreach FTTP and REO cost of capital, it is important to understand the changes in national and global economic circumstances in the last two years.

In 2020/21 inflation and interest rates were extremely low, in some countries negative interest was applied to bank balances. Today, however, we face soaring inflation and increasing cost of capital.

[75] WFTMR Annex 21, Table A21.6

Cost of labour has also changed considerably since the 2020/21 model was completed.

We do not consider that the inputs used by Ofcom for the 2021 WFTMR Fibre Costing Model, such as for example the risk-free rate, the CPI inflation forecast and the cost of labour, are suitable for today's economic conditions. We therefore **request that Ofcom reassess the WACC calculation overall** as well as review the specific concerns outlined above.

Area 3 costing

In the WFTMR, Ofcom stated that it had not designed the regulatory framework to actively encourage infrastructure competition in Area 3. It did, however, apply the geographic discounting prohibition and the restriction on other commercial terms (OCTs) in both Areas 2 and 3.

Ofcom specifically stated:

"*While in Area 3 there is unlikely to be potential for material and sustainable competition to BT in the commercial deployment of competing networks, we expect some new alternative network build in Area 3. Consequently, our concerns also apply here in that Openreach could use commercial terms which applied in Area 3 alone to deter such build, potentially depriving consumers of greater choice and competition*. "[76]

And

"*In Area 3 there is unlikely to be potential for material and sustainable competition to Openreach in the commercial deployment of competing networks, but there is likely to be some rollout. Discounting prices in local areas where alternative networks are starting or planning to deploy could be a very effective way for Openreach to undermine this rollout, particularly given that some VULA services e.g. FTTC are already available at most premises. We believe that Openreach would still have an incentive to do this to deter any*

[76] WFTMR V3 para 7.31.

alternative network roll out, even if it is not expected to result in material and sustainable competition." [77]

These references to Area 3 in the context of the harm that Openreach could cause to competition through geographic discounts or OCTs clearly recognise that, despite Ofcom not expecting material and sustainable competition in Area 3, there are real consumer benefits to such competition and Openreach should not be allowed to engage in pricing (and other) behaviour that would harm competition and reduce consumer benefits.

Since the publication of the WFTMR, Ofcom has on several occasions stated that the level of competitive fibre deployment in Area 3 is significantly higher than Ofcom had expected. The corollary of that is that the potential harm to competition and reduction in consumer benefits in Area 3 is also higher than Ofcom had originally anticipated.

The REO model only calculates costs for Area 2 and it would seem that Ofcom is using this as a proxy for nationally averaged costs across Areas 2 and 3. Given the higher-than-expected level of infrastructure competition in Area 3, we believe that that assumption is no longer defensible.

It is now a reality that Openreach will not be able to achieve the 90% penetration in Area 3, as assumed in the RAB model. The level of competitive deployment in Area 3 is simply too extensive for that to be the case and Openreach will be the 2nd FTTP entrant in many locations where altnets are already building today or have nearly completed building (such as the Isle of Wight).

The difference between Openreach's Area 2 and Area 3 unit costs are therefore going to be much higher than was assumed in the Area 3 RAB model with the 90% penetration assumption. This consequently gives rise to a serious question of whether Ofcom can legitimately use the Area 2 REO model unit cost as a valid "price floor" for Openreach prices

[77] WFTMR V3 para 7.94.

and discounts in Area 3[78]. Given the substantial level of Area 3 competitive FTTP deployment, Ofcom should now seriously consider whether a separate REO unit cost for Area 3 is the most appropriate manner to protect consumer interests in Area 3.

The single most important adjustment that needs to be made to the Area 3 costing model to estimate REO unit costs (and Openreach's costs), would be to change the assumption of the FTTP take-up level on the relevant FTTP network (whether REO or Openreach). Considering what would be an appropriate market share to assume for Openreach in Area 3 is, however, not straight-forward. This is because competition in Area 3 is likely to be less homogenous than in Area 2 and, therefore, it would be inappropriate to simply apply the average Openreach FTTP penetration for Area 3. For example, if Openreach faces competition by one network in 50% of Area 3 and we assume it achieves a 50% market share in those locations, the average Openreach penetration across Area 3 would be 75%. But that would not be a true picture anywhere. If the model is to produce an outcome that could be used by Ofcom to set an effective 'floor' for Openreach prices in Area 3, which would not actively deter competition, then the unit cost needs to be based on conditions where Openreach faces competition.

In the parts of Area 3 in which Openreach faces competition it is reasonable to assume that, absent factors to distort competition, the parties offering FTTP connectivity will take equal shares of the market. This is the assumption Ofcom has applied for areas 2. In Area 3, however, there are unlikely to be more than two infrastructure provides in all but perhaps a few exceptions, so a market share assumption for Openreach where it faces competition of 50% would seem equitable.

Remembering that we do not have a model that applies other REO parameters to Area 3, we can only adjust the market share. **Having adjusted Openreach's FTTP penetration in Area 3 from 90% to 50% we find that Openreach's unit cost in Area 3 increases by**

[78] We understand that Ofcom has not set a formal price floor but note that Ofcom's Equinox 1 decision refers to Ofcom being comfortable with the discounted price levels due to them all being above the REO unit costs from Ofcom's fibre costing model.

55% - from £17.71 to £27.51[79] (remembering that the absolute level is not meaningful due to randomisation in the model).

The very significant unit cost increase from adjusting the FTTP take-up assumption alone (without introducing additional changes that would be appropriate for a REO model) shows very clearly that **Ofcom cannot safely rely on the Area 2 REO unit costing as a national average 'floor' above which Ofcom can state it would not consider it likely that the absolute levels of Openreach's prices and discounts could have an anticompetitive effect.**

[79] The equivalent change in Ofcom's revised model is a rise of 42% - from £8.82 to £12.52

Annex 3 – Area 3 considerations

The Effect of Equinox 2 on Incentives in Different Geographic Markets

Introduction

1. Openreach has notified Ofcom and industry of its intention to introduce new and additional discounts for its ISP wholesale customers (Equinox 2 (E2)), as an overlay on the existing Equinox discount scheme (now known as Equinox 1 (E1)) introduced in October 2021.
2. This paper is submitted to Ofcom on behalf of INCA and Zzoomm in advance of Ofcom's public consultation process to assess whether E2, if introduced, would be in breach of restrictions introduced on Openreach's pricing freedom as part of Ofcom's 2021 WFTMR Statement.
3. In its assessment of E1 in late summer 2021, Ofcom concluded that it did not have to include any specific analysis of potential impacts of E1 in the Area 3 geographic market as defined by Ofcom in the WFTMR.
4. In Ofcom's 30 September 2021 Statement on E1 (**E1 Statement**), Ofcom said:

    44. *"3.47 We recognise that prohibiting the Equinox Offer discounts in Area 3 (and effectively forcing geographically de-averaged pricing) would lead to higher FTTP prices in Area 3 which could encourage some altnet build. However, in the WFTMR Statement, we did not pursue an approach of setting higher wholesale FTTP prices in Area 3 given our conclusion that material and sustainable competition to Openreach in Area 3 was unlikely. While we were aware of plans for rival network build in some locations in Area 3, the relatively higher build cost per premises and the significant variation in these costs across Area 3 means this is unlikely to occur on a widespread basis. Therefore, the benefits of such a policy are likely to be small, relative to the costs imposed on all consumers in Area 3 who would face higher FTTP prices.[Footnote 55]*

Footnote 55: We note the possibility that some alternative networks could decide to de-scope higher cost locations from their build plans in response to the pricing pressures arising from the Equinox Offer. If these locations are not covered by Openreach FTTP, then it is possible these locations may be unable to access FTTP. Given that Openreach's current FTTP rollout plans cover the majority of Area 3 (around 6 million out of a total of around 9 million premises), and since alternative networks are targeting areas where Openreach does not build, we consider the number of premises affected is likely to be relatively small. Further there are programmes in place which provide funding for coverage in high cost areas that are not commercially viable. *see https://www.ispreview.co.uk/index.php/2021/05/openreach-boost-rural-fttp-broadband-build- to-6m-uk-premises.html [accessed 28 September 2021]"*

5. We submit that Ofcom was wrong in not conducting a separate E1 impact assessment for Area 3 and that Ofcom now must do so for E2.

6. In the period since the E1 Statement there has been more network build in Area 3 than Ofcom expected. E2 can, therefore, be expected to have an effect on Area 3. As these areas have been defined as separate relevant markets, on the basis of different competitive conditions, it is important that Ofcom examines the likely impact of E2 in each market it has defined.

Background

7. On 18 March 2021 Ofcom published its statement on its review of the wholesale fixed telecoms market (**WFTMR**). In the WFTMR, Ofcom identified 3 distinct geographic markets for wholesale local access with different competitive conditions:

    1. **Area 1:** has established broadband infrastructure competition
    2. **Area 2:** has the potential for established material broadband infrastructure competition
    3. **Area 3:** (in Ofcom's view at the time of WFTMR), has no potential for material and sustainable broadband infrastructure competition.

8. On 1 July 2021 BT notified Ofcom of a FTTP pricing offer, Equinox 1 (**E1**).

9. Whilst industry members (including INCA) argued that E1 would distort ISPs behaviour by encouraging ISPs to buy from BT in preference to altnets, thereby acting as a barrier and/or deterrence to competitive market entry and expansion by altnets, Ofcom rejected those arguments.

10. On 30 September 2021, Ofcom published a statement setting out its assessment of E1 and Ofcom's conclusion that it should take no action in respect of E1 Statement.

11. In the E1 Statement, Ofcom (inter alia):

    1. recognised that build costs would be higher in area 3 than Area 2 (para 3.45, E1 Statement);

    2. recognised that prohibiting E1 in Area 3 could encourage altnet build (para 3.47, E1 Statement);

    3. declined to prohibit E1 in Area 3 on the basis that (para 3.47, E1 Statement)

        - it would introduce geographically de-averaged pricing, increasing wholesale FTTP prices in Area 3;

        - Ofcom did not believe there was a prospect of widespread build in Area 3, so the benefits of limited altnet market entry in Area 3 would not outweigh the benefits of lower prices in Area 3 delivered by geographically averaged prices;

    4. declined to analyse Area 2 and 3 separately in assessing order mix targets as Ofcom did not consider that relevant for assessing whether E1 would potentially create a barrier to using altnets (para 3.65, E1 Statement).

12. On 14 December 2022 BT notified Ofcom and industry of a further FTTP pricing offer, Equinox 2 (**E2**). E2 is yet to be assessed by Ofcom.

13. E2, in contrast to E1, contains a failsafe mechanism (**FM)**. In theory, the FM allows ISPs to exclude areas, in which they can place orders with altnets, from fibre only performance measures in E2. However, as discussed at length in our separate paper, there are significant problems with the design and operation of the FM in practice.

Impact of E2 across geographic markets

14. It is important that Ofcom does not simply transpose its conclusion in the E1 Statement, to not conduct a separate E1 impact assessment for Area 3[80], to its E2 assessment. Ofcom's rationale for not presenting an E1 impact assessment for Area 3 (as stated above) were, in our view, insufficient to justify the departure from the standard and internationally recognised process to apply remedies in each defined relevant market based on the specific competition characteristics identified in that market and (consistently) assess compliance with those remedies for each separate market.

15. Ofcom's decision to apply the relevant remedies from the WFTMR in Area 3 was both rational and evidence-based. It would, therefore, be inconsistent for Ofcom to now argue that the possible benefits of wholesale discounts being passed through to end users would outweigh the potential harm from non-compliance with those remedies in Area 3, without any analysis to substantiate that position.

Area 3 market definition and market developments since the WFTMR

16. In the WFTMR Ofcom identified Area 3 as a separate relevant geographic market and published a list of postcode sectors it considered would fall into Area 3. INCA and several altnets submitted to Ofcom that it considered that Ofcom had included in Area 3 many locations for which the Ofcom characterisation of the market does not apply: In order words:

    1. many locations within Area 3 are attractive for commercial deployment, and
    2. it cannot be presumed that Openreach will be the network builder in areas where only one network is viable or will need public subsidy.

[80] Which we consider to not be justifiable given that Ofcom had clearly defined separate geographic markets and subsequently applied the relevant SMP remedies in each of those markets.

17. The consequence of Ofcom miscategorising locations into Area 3 means that material competitive deployment was always going to happen in parts of Area 3 and evidence is now proving that to be the case.

18. Ofcom has on several occasions stated publicly that Area 3 competitive deployment has exceeded its expectations and Ofcom's records understate FTTP deployment. This was reiterated in recent correspondence with INCA[81].

19. In conclusion, Ofcom underestimated the degree of altnet build in Area 3 that has taken place since the WFTMR. There has been substantially more build in Area 3 than expected. We submit that E2 is likely to harm competition in Area 3 as well as Area 2.

    If Ofcom refuses to consider the effects of E2 in Area 3 then it will understate the level of harm to investment and ultimately to consumer outcomes. To properly address the level of harm Ofcom needs to extend its analysis into Area 3. It cannot simply turn the handle and repeat an impact assessment for Area 2 only in the mistaken belief that E2 will have no effect in Area 3.

[81] Email to INCA dated 16th December 2022.

Annex 4 – The importance of absolute price levels

The importance of absolute price levels to Ofcom's Equinox 2 assessment

Introduction

1. This paper is submitted to Ofcom on behalf of Zzoomm and INCA in advance of Ofcom's expected consultation setting out its analysis and preliminary conclusion about the possible competition impact of Openreach's proposed new discount offer Equinox 2 (E2).

2. We hope that this and the other submissions made in recent days will assist Ofcom in its analysis and deliberation and would be please dot meet with Ofcom to discuss any elements of those papers or any other aspects of E2 where Ofcom considers we can be of assistance.

3. In accordance with its WFTMR Statement, Ofcom plans to consult on Openreach's new proposed discount scheme - E2.

4. We submit that Ofcom should review the terms of E2 in their entirety and not just selected elements. Failure to undertake a comprehensive review of the possible competitive impacts of the offer risks significant harm to infrastructure competition and long-term choice and benefits to consumers.

5. In particular, Ofcom should include a detailed analysis of the impact of the absolute price levels resulting from the E2 offer. If the pricing offered by Openreach under E2 deters efficient network deployment by Openreach's competitors (for reasons including, but not limited to, competitors being at an earlier stage in their life-cycles, not currently having retail and wholesale relationships similar to Openreach's status, or other legitimate differences between new entrant challengers and the incumbent provider), then we submit that absolute price level in E2 is of equal concern to any potentially loyalty-inducing pricing structures.

6. We suggest that Ofcom should address absolute price levels in its consultation on E2. However, if Ofcom concludes that the obligations it imposed in the WFTMR to prohibit offers and discounts that could deter competitive network build do not specifically address absolute price levels, then Ofcom should use its Competition Act powers to conduct a parallel investigation as to whether the E2 pricing constitutes abusive behaviour by BT pricing constitutes abusive behaviour by BT. If Openreach reduce prices below a level allowing competitive market entry by altnets this will exclude potential rivals from the WLA market.

7. Specifically, we believe that Ofcom should address the following two points:

a. Does the reduction in prices for 80/55 Mbps and for 115 Mbps to a price below the regulated price of the 40 Mbps Anchor Product result in a price below the cost of provision estimated by Ofcom in the fibre cost model in each of Areas 2 & 3?

b. Price reductions for higher speed products (160 Mbps upwards) are greater than the rate of inflation as measured by the Consumer Prices Index (CPI) in October 2022. Does the resulting real terms price cut for these products means they are priced below the cost of provision by a reasonably efficient operator in each of Areas 2 & 3?

Background

8. On March 18th 2021, Ofcom issued its WFTMR decision within which were provisions that restricted Openreach's pricing freedom, including prohibition of geographic discounts and restrictions on what Ofcom termed 'Other Commercial Terms' (OCTs).

9. Ofcom explains that the purpose of the OCT pricing/discounting restrictions are to prevent Openreach from designing "*commercial terms which undermine alternative network operator rollout*".[82] Whilst Ofcom proceeds to quote examples such as loyalty discounts and volume discounts, the level of prices resulting from the discount is also a part of the commercial terms offered. For example, Ofcom should consider the monetary impact on an ISP (and the consequential impact on an ISP's incentives to buy from new entrants) of missing the thresholds for achieving the loyalty or volume discounts.

10. Ofcom further states: "*If Openreach uses commercial terms that undermine new network build, our starting point is that they are likely contrary to the interests of consumers in the long term*."[83] And whilst pricing structures such as loyalty and volume discounts would be of particular concern, pricing designed to exclude new entrants from the market is of equal concern (whether predatory pricing, or pricing short of predation but nevertheless deterring market entry). Whether the issue is loyalty inducing discounts, or pricing below the cost of a reasonably efficient operator, the adverse exclusionary impact on actual and potential new market entrants should be Ofcom's concern in assessing E2.

11. Ofcom also states that: "*we expect some new alternative network build in Area 3. Consequently, our concerns also apply here in that Openreach could use commercial terms which applied in Area 3 alone to deter such build, potentially depriving consumers of greater choice and competition*."[84] This statement shows clearly that, at the time of designing the OCT provisions within the WFTMR, Ofcom had concerns about the impact of any offers, discounts or prices that could deter competitive build in Area 3. This concern clearly applies to OCTs applied across Areas 2 and 3 or to Area 3 only.

[82] WFTMR V3 paragraph 7.18.
[83] WFTMR V3 paragraph 7.29.
[84] WFTMR V3 paragraph 7.31.

12. The concept "commercial terms", as used by Ofcom in the WFTMR, covers all aspects of the proposed discount scheme, including the specific absolute price level offered.
244.

Ofcom's application of the OCT rules to Equinox 1

13. In its Equinox Statement[85] (E1 Statement) Ofcom stated that "*the 90 days' notification requirement is for commercial terms where the price or other contractual conditions are conditional on the volume and/or range of services purchased. It is not intended to address **general** concerns about low wholesale prices*."[86] [emphasis added]

14. We would agree that the 90-day's notification requirement is not intended to address **general** concerns about low wholesale prices, but we contend that it IS intended to address concerns of low wholesale prices that are **specific** to the offer under investigation.

15. This is supported by Ofcom proceeding to state why it considers that the specific levels of prices resulting from Equinox 1 (E1) are not a cause for concern, quoting the following reasons:

16. "*Under the Equinox Offer, the price for the 40/10 anchor product is set at the regulated price ceiling, i.e., it is not discounted. Further, all the other FTTP rental prices under the Equinox Offer are set at a level above this, including when ARPU-related discounts are taken into account. Therefore, we consider that the Equinox Offer prices are set at a level above our estimate of the price that an altnet would need to charge in order to recover its efficiently incurred costs in Area 2. [redacted]. We consider that the level of the Equinox Offer discounts do not undermine our objective to promote investment in gigabit-capable networks by Openreach and other operators in Area 2*."[87]

17. Ofcom further stated:

18. "*We decided to set a price ceiling for the FTTP 40/10 'anchor' product but not to regulate the prices of Openreach's higher speed products or set a minimum FTTP price. When setting the price ceiling for the FTTP 40/10 anchor product, we compared it with our estimate of the price that an entrant operator would need to charge in order to recover its efficiently incurred costs. Our focus was on FTTP build costs in Area 2, given that this is where we expected the majority of new altnet build to occur*." [88][emphasis added]
245.

19. The above statements from the E1 Statement are clear evidence that Ofcom considers it important to understand any impact of the specific price levels resulting from any offer or discount by Openreach to its wholesale customers. Further, there is no suggestion that such impact should be limited to whether ISPs have reduced incentives to use altnet wholesale services as it could equally

[85] https://www.ofcom.org.uk/__data/assets/pdf_file/0021/226092/statement-openreach-proposed-fttp-offer.pdf
[86] E1 Statement paragraph 3.40.
[87] E1 Statement paragraph 3.44.
[88] E1 Statement paragraph 3.43.

impact the overall viability of competitive network deployment of vertically integrated and wholesale providers alike and both would be to the detriment of consumers.
246.

20. Further, and in the alternative, if Ofcom declines to address the absolute level of pricing in its consultation on E2, the prima facie setting of certain product prices below the fibre cost model (see in particular 80/20 to 155/20 E2 price being set below the 40/10 anchor price) should cause Ofcom to initiate a separate Competition Act investigation into the absolute level of prices proposed in E2.

Ofcom's E2 assessment

21. Ofcom's position in the E1 Statement on absolute price levels resulting from Openreach discounts appears to confirm that, whilst not a vehicle for general wholesale price level concerns, the 90-days' review process is intended to address specific concerns relating to the specific price levels resulting from an offer under review. In the E1 Statement, Ofcom sets out a rationale for why the specific E1 price levels are not of concern. In doing so it created some useful criteria, thresholds and benchmarks which we believe Ofcom should continue to apply in its E2 analysis and for any future offers.

22. Whilst Ofcom found that it had no concerns about the absolute price levels resulting from E1[89], E2 clearly does not meet the criteria Ofcom stated in the E1 Statement for why it considered that actual price levels were not of concern.

23. This is because the proposed E2 discounts result in several products being priced below the 40/10 anchor price ceiling. The nominal price reductions of higher speed products are greater than the CPI rate of inflation in October 2022, meaning that there is a real terms reduction in prices for higher speed products. Further, as we set out in a separate submission to Ofcom, the model deployed by Ofcom to estimate the price that an entrant operator would need to charge in order to recover its reasonably efficiently incurred costs[90] is flawed and unsuitable for that purpose.

E2 discounted price levels

24. Below is a table that compares Openreach's standard FTTP prices with prices resulting from the E1 and E2 discounts[91].

[89] Which, for clarity we do not agree with.
[90] Ofcom's Fibre Costing Model (FCM).
[91] Note that these prices do not include the impact of the ARPU-share discount. The potential impact of the ARPU-share discount was significant under E1, but appears to be less so under E2, although the ARPU-share discount impact depends significantly on the blend of products sold by the individual ISP with increasing impact the more high-speed the ISP sells.

Rental product (£/month)	Standard price 1-4-2023	Equinox 1 1-4-2023	Equinox 2 1-4-2023	Reduction E1 - E2
40Mbit/s / 10Mbit/s	16.09	16.09	16.09	0%
55Mbit/s / 10Mbit/s	19.62	16.90	15.50	8%
80Mbit/s / 20Mbit/s	20.19	16.90	15.50	8%
115Mbit/s / 20Mbit/s	20.19	17.65	15.80	10%
160Mbit/s / 30Mbit/s	24.71	18.31	16.20	12%
220Mbit/s / 30Mbit/s	24.86	20.35	17.30	15%
330Mbit/s / 50Mbit/s	28.37	21.48	18.30	15%
550Mbit/s / 75Mbit/s	31.87	22.61	19.20	15%
1000Mbit/s / 115Mbit/s	36.55	24.87	21.30	14%
1200Mbit/s / 120Mbit/s	N/A	N/A	22.30	N/A
1800Mbit/s / 120Mbit/s	N/A	N/A	29.30	N/A

Connection products (£/connection), 40M - 1G speeds	Standard price 1-4-2023	Equinox 1 1-4-2023	Equinox 2 1-4-2023
New-to-network Area 2	114.78	28.94	28.94
Migrations (80/20 and above) - Area 2	114.78	114.78	28
Migrations (80/20 and above) - Area 3	114.78	114.78	78
All other connections - Area 2	114.78	57.88	57.88
All other connections - Area 3	114.78	114.78	114.78

25. As shown in the table above, the discounted prices for products between 80/20 and 155/20 are below the regulated 40/10 price ceiling and the discount rate on products including and above 160 are greater than the rate of inflation. Whilst it is understood that the regulated 40/10 price is a ceiling, not a floor, it is clear from Ofcom's E1 Statement that it would likely consider prices below that level to potentially undermine Ofcom's objective to promote investment in gigabit-capable networks by Openreach and other operators in Area 2.

26. As set out in our separate submission about why Ofcom must perform impact assessment for both Areas 2 and 3, Ofcom should have the same concerns, as those expressed above for Area 2, for Area 3.

Conclusion

27. Having reviewed Ofcom's rationale and design of the OCT provisions in the WFTMR Statement together with Ofcom's implementation of those provision in its E1 Statement, our view is that the specific price levels resulting from an Openreach offer or discount are directly relevant to the impact of such offers or discounts and any assessment of the offer or discount that does not exclude actual price level impact assessment would be incomplete and flawed.

28. In any event, Ofcom should not allow the introduction of any new offer or discount scheme by Openreach until it has satisfied itself that the prices offered are not designed to deter competitive market entry by reasonably efficient network builders and operators.

Annex 5 – Profile of respondents

Community Fibre

Community Fibre is London's largest 100% full fibre broadband network. We are future-proofing London communities by delivering 100% full fibre broadband. Our extensive network is now available to properties in every London borough. 800,000 London homes can already order from Community Fibre and this will rise to 2.2 million by the end of 2024.

Community Fibre provides London's fastest broadband speeds with up to 3,000 Mbps for consumers and up to 10 Gbps for businesses. We provide some of the most competitive prices in the market and are one of the UK's top-rated Internet Service Provider on Trustpilot with a score of 4.9 out of 5.

We believe in a more inclusive future where everyone has access to better broadband. Community Fibre is helping to achieve this by providing a fairly priced, faster broadband service that people can rely on. Community Fibre also trains Digital Ambassadors to help those at risk of the digital divide and we have connected 500 of London's community spaces with free 1,000 Mbps broadband.

Fibrus

Fibrus is building Full Fibre networks in rural and regional parts of Northern Ireland and Northern England. Founded in 2018 by Dominic Kearns and Conal Henry. The company has been awarded over £300m is subsidies winning Project Stratum, Full Fibre NI and BDUK's Cumbria Type B. As well as state subsidies Fibrus has secured equity backing from Infracapital and a £200m+ debt facility from a consortium of British and international banks.

Today Fibrus' network passes over 250,000 homes in NI and Cumbria and expects that number to exceed 1m within three years. Fibrus employs 350 people and it's wholly owned network build partner Viberoptix employs a further 400 people. Fibrus has won awards for its success in network build, safety and in encouraging diversity.

Freedom Fibre

Founded in 2021 by an experienced Management Team lead by industry veteran Neil McArthur, Freedom Fibre Limited is a wholesale FTTP network provider offering services to residential and business customers. Backed by Equitix Infrastructure investment and TalkTalk, Freedom Fibre is building a contiguous full-fibre network to exchange boundaries across the North of England and Wales.

Whether a residential customer, small company in a single office or a larger business with employees and offices across multiple locations, Freedom Fibre's full-fibre network will help customers operate faster, smarter and more cost-effectively; giving them access to symmetrical, gigabit-capable upload and download speeds, increasing efficiency and productivity. Freedom Fibre partners with ISPs and resellers to deliver these benefits to their customers while improving their margins.

FullFibre

Full Fibre build and operate wholesale-only fibre networks, encouraging healthy competition amongst our partners, to the benefit of consumers. Building across 14 counties in the UK we are on track for our network to be able to connect at least 500,000 premises by 2025.

Backed by Basalt Infrastructure Partners, we focus our build on market towns and rural communities, utilising BT's PIA product where possible.

Full Fibre has established and continues to grow an ecosystem of both nationally and locally focused communication providers selling over our footprint, supporting the acquisition of end users onto their customer base.

INCA

The Independent Networks Cooperative Association (INCA) is the leading UK trade association representing organisations deploying digital infrastructure, independent of BT. Founded in 2010, INCA aims to foster a new approach to digital infrastructure, focusing on full fibre (FTTP) and high-quality wireless broadband whilst campaigning for the policy and

regulatory support needed to maintain a healthy, competitive market. INCA has over 200 members and represents most of the full fibre infrastructure builders commonly referred to as the altnets.

Members include network owners, operators and managers as well as access networks, middle mile networks, network hubs and exchanges, suppliers to the sector and organisations (including public sector) that are developing or promoting independent networks.

The list of members is at https://www.inca.coop/membership/current-members.

ITS

ITS Technology Group: Is a leading provider of fibre connectivity in the business market. It offers services through over 500 service providers, spanning wholesale and reseller, offering them a combination of ultrafast gigabit broadband and leased line equivalent services.

The business has expanded quickly since 2019 and with major investment from the Aviva Group building over 35 Fibre networks in dense business areas principally in London, the South and Northwest and the Midlands. These networks will directly serve over 25% of UK business premises in 2023, a total that will grow in subsequent years. The ITS business also provides a number of connectivity services to support the expansion ambitions of other service providers such a carriers and residential ‘altnets’, as well as operating successfully in providing directly to the Public Sector. Notable is two recently announced joint ventures with the Liverpool Combined Regional Authority ‘LCR Connect’ and with the Royal Borough of Greenwuch ‘Digital Greenwich Connect’.

Nexfibre

“Nexfibre is a new investor in ultrafast broadband with £4.5bn of investment from Infravia Capital Partners, Liberty Global and Telefónica as well as senior debt lenders, including the UK Infrastructure Bank. Our objective is to build an FTTH network covering up to seven million premises in the UK outside the existing Virgin Media O2 footprint, with Virgin Media O2 as a day-one anchor tenant and in due course other ISP wholesale customers. Together with Virgin Media O2’s existing network, this will provide Gigabit networks to up to 23 million premises, making it the only nationwide competitor to BT Openreach.”

Spring Fibre

Spring Fibre is a wholesale provider of 'fibre to the home' (FTTP) broadband.

We're building a new full fibre broadband network, connecting homes and businesses up and down the country.

We believe that everyone should benefit from the opportunities that come with ultrafast broadband – better free time, better education, better business. That's why we're focusing on the parts of the country that have been left behind, when it comes to internet connectivity and speed. We're closing the gap and investing in those areas that need it most.

With decades of industry experience under our belts, we know how to seamlessly get ultrafast broadband into people's homes and businesses and do it well. And we're proud to be playing a leading role in growing the UK's full fibre broadband capabilities, guaranteeing that everyone reaps the rewards, no matter where they are.

Zzoomm

Zzoomm is an established and rapidly growing full fibre network operator, providing FTTP (fibre to the premises) to over 110,000 homes and businesses in fifteen market towns where there is no or limited existing access to a full fibre network and is building networks in another fourteen where service will be available shortly. Zzoomm has around 10,000 homes and businesses under contract and is adding over 1000 new customers per month.

Zzoomm's standout challenger brand is synonymous with excellent customer focus, transparency, quality of service and product reliability as well as connection speeds innovation. In 2020, Zzoomm was the first UK operator to deliver a commercial, residential 2Gbps service over their 10Gbps (10,000 Mbps) network. Zzoomm, which is backed by Oaktree Capital Management, is headquartered in Oxford and has four regional offices to drive infrastructure planning and build at a local level in its target market towns.

Annex 6 – Confidential statements

These statements will be submitted in strict confidence and under separate cover.