An Coimisiún um
Rialáil Cumarsáide
Commission for
Communications Regulation

Pricing of Eircom's Civil Engineering Infrastructure ('CEI')

CEI access in the context of the National Broadband Plan ('NBP')

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Additional Information

In light of the current remote working arrangements, ComReg requests that any responses to this consultation be submitted to ComReg by email only, to arrive on or before 5.30pm, on **4 November 2020**. All responses to this consultation should be clearly marked "*Response to ComReg Document No 20/81*" and submitted to **wholesaleconsult@comreg.ie**
Any interested parties who wish to submit a response to consultation other than via email are requested to contact ComReg in advance of such submission.

Please also see Section 12 on Submitting Comments.

Redacted information

Please note that this is a non-confidential version of the Consultation. Certain information within this document has been redacted for reasons of confidentiality and commercial sensitivity, with such redactions indicated by the symbol ✂ and the symbol [is used to indicate the start of confidential information and the symbol] indicates where that confidential information ends.

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1 Introduction

1 ComReg is the national regulatory authority ('**NRA**') for the electronic communications sector in Ireland. As the NRA, ComReg is tasked under the European regulatory framework for electronic communications with reviewing electronic communications markets and where ComReg finds that relevant markets are not competitive, with imposing obligations on operators found to have significant market power (hereafter '**SMP**'). Obligations which ComReg may impose include price controls including obligations to charge cost-oriented prices. ComReg's objectives in line with Section 12 of the Communications Regulations Act 2002 as amended 2011[1] (hereafter, the '**Acts**') and Regulation 16 of the Framework Regulations[2], are to promote competition, to encourage efficient investment and innovation, contribute to the development of the internal market and to promote the interests of users by encouraging access to the internet at a reasonable cost to end-users.

2 This consultation and draft decision (hereafter, the '**Consultation**') relates to Eircom's existing pricing obligation for Civil Engineering Access (hereafter, '**CEI**') (i.e., access to Eircom's poles and ducts) as set out in ComReg Decision D10/18[3] (hereafter, the '**2018 WLA / WCA Market Review Decision**') which designated Eircom Limited ('**Eircom**') with SMP in the market for wholesale local access at a fixed location (hereafter '**WLA Market'**).

3 The 2018 WLA / WCA Market Review Decision maintained the costing methodology (and the associated maximum prices) for Eircom's CEI access services which ComReg had imposed in ComReg Decision D03/16[4] (hereafter, the '**2016 Access Pricing Decision**').

4 In this Consultation ComReg is assessing whether the existing costing / pricing approach for CEI access is appropriate particularly in the context of CEI access by National Broadband Ireland ('**NBI**') for the purposes of the Irish Government's National Broadband Plan ('**NBP**'), or whether alternative costing / pricing methodologies should be considered and adopted. In this regard ComReg is proposing to further specify the existing CEI price control obligation from the 2018

[1] Communications Regulation Act 2002 (No. 20 of 2002), as amended by the Communications Regulation (Amendment) Act 2007 (No. 22 of 2007), Communications Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010 (No. 2 of 2010) and Communications Regulation (Postal Services) Act 2011 (No. 21 of 2011) (the 'Act').
[2] European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No. 333 of 2011) (the 'Framework Regulations').
[3] ComReg Document No 18/94, Decision D10/18, Market Review: Wholesale Local Access (WLA) provided at a Fixed Location, Wholesale Central Access (WCA) provided at a Fixed Location for Mass Market Products. Response to Consultation and Decision; dated 19 November 2018.
[4] ComReg Document No. 16/39, ComReg Decision D03/16, Pricing of Eir's Wholesale Fixed Access Services: Response to Consultation Document 15/67 and Final Decision, dated 18 May 2016.

WLA / WCA Market Review Decision for the purposes of CEI access for the NBP.

5 ComReg has also set out draft maximum pole and duct access rental prices in Section 9, derived from the draft Pole Access Model (hereafter, the '**Draft PAM**') and the draft Duct Access Model (hereafter, the '**Draft DAM**'). Access to the non-confidential versions of the Draft PAM and Draft DAM, as well as the associated documentation, is available to interested parties likely to be affected by the decision that ComReg may take as a result of this Consultation, upon request to ComReg. Further details are contained in Section 5.8.

6 ComReg has considered the views of its expert consultants Dot Econ (hereafter '**Dot Econ**') with regards to the proposed costing / pricing methodology for CEI access and the views of Europe Economics consultants (hereafter, '**Europe Economics**') with regards to the proposed weighted average cost of capital ('**WACC**') for CEI access in the context of the NBP, in arriving at the draft Decisions set out in this paper.[5] Cartesian consultants (hereafter, '**Cartesian**') have assisted ComReg in modelling the costs associated with CEI access.

7 This document is structured as follows:

- *Section 2*: provides a summary of the main preliminary conclusions.
- *Section 3*: provides a background on CEI and the objectives of the review.
- Section 4: sets out proposals for possible differentiation of the price control remedy for CEI.
- *Section 5*: sets out the proposed costing methodology for CEI access services.
- *Section 6*: sets out the proposed cost sharing / pricing methodologies for CEI access services.
- *Section 7*: sets out the proposed WACC that should apply to CEI access services in the context of the NBP.
- *Section 8*: sets out ComReg's assessment of other related / possible one-off CEI access costs.
- *Section 9*: sets out draft maximum CEI rental prices based on the preliminary conclusions at Sections 5 - 8 of this Consultation document;
- *Section 10*: sets out proposals on an annual review as well as some considerations regarding the cost accounting and accounting separation

[5] For information purposes only, the draft Dot Econ report is published at Annex 2 and the draft Europe Economics report is published at Annex 3. The views expressed by Dot Econ and Europe Economics are not necessarily the views of ComReg.

obligations in the context of CEI.

- *Section 11*: sets out the draft regulatory impact assessment (hereafter the '**RIA**').

2 Executive Summary

Background and objectives:

8 This Consultation is concerned with Eircom's price control obligation for CEI (i.e., access to Eircom's poles and ducts) as set out in ComReg's 2018 WLA / WCA Market Review Decision (ComReg Decision D10/18) which designated Eircom with SMP in the market for wholesale local access at a fixed location (the WLA Market).

9 The 2018 WLA / WCA Market Review Decision maintained an obligation of cost orientation for CEI access as well as the costing methodology (and the associated maximum prices) which ComReg had imposed in its 2016 Access Pricing Decision (ComReg Decision D03/16).[6]

10 In this Consultation ComReg is assessing whether the existing costing methodology for setting CEI access prices remains appropriate, having regard, in particular, to CEI access by the NBP provider, NBI. Taking into account the preliminary views on the costing methodology for CEI, this Consultation also considers the proposed cost modelling approach used to derive the updated draft CEI access prices based on the Draft PAM and Draft DAM. Access to the non-confidential versions of the Draft PAM and Draft DAM, as well as the associated documentation, is available to interested parties likely to be affected by the decision that ComReg may take as a result of this Consultation, upon request to ComReg.[7]

11 ComReg proposes to draw a distinction between, on the one hand, generic access for CEI, and on the other hand, CEI access by NBI for the purposes of the NBP. This distinction is proposed having regard to the significant differences between these two types of access. In particular, generic access requests for Eircom's CEI typically takes the form of small scale requests by operators, for example, in order to meet the demands of a business customer for a point-to-point link (leased line connection) or small scale or in-fill purposes to address gaps on specific routes in their own network (hereafter, '**Generic Access**'). Generally, this type of CEI access is sought by operators that are deploying networks to compete directly with Eircom in downstream markets in order to expand their existing networks and target customers from other network providers including Eircom in the more densely populated areas.

12 By contrast, access to CEI sought by NBI for the purpose of the NBP has a unique set of circumstances unlikely to be replicated; it is expected to be of an unprecedented scale and duration and to facilitate NBI's access to CEI, Eircom would need to make a significant investment in its infrastructure. The NBP seeks to ensure the delivery of high speed fibre broadband services to the non-commercial

[6] Please see Section 12.6 of the WLA Decision Instrument at Appendix 20 of the 2018 WLA / WCA Market Review Decision.
[7] Please refer to subsection 5.8.1.

areas of the country where no commercial operators plan to invest (without state funding). These non-commercial areas are referred to as the NBP Intervention Area (hereafter, the '**NBP IA**), representing circa 537,000 premises (delivery points). NBI's contract[8] with the Irish State for the deployment and operation of the network in the NBP IA with the benefit of a State subsidy is for an initial 25-year period. ComReg refers to NBI's broadband network rollout using Eircom's CEI for the purposes of the NBP as "**NBI's MIP**" throughout this Consultation.

13 As noted above, for the purposes of its network rollout, NBI is expected to seek access to a significant volume of Eircom's CEI, a large part of which will be in the NBP IA.[9] In addition, NBI is likely to seek access to Eircom's CEI in order to "transit" between the NBP IA and NBI's interconnection points outside the NBP IA (hereafter, the '**Commercial Areas**' as described at section 3.4.2), so as to serve customers in the NBP IA. An important restriction in the contract between the State and NBI is that the subsidies provided to NBI may only be used to provide wholesale services in the NBP IA, in accordance with the contract, and that NBI may not use subsidies to provide electronic communications services and networks outside the NBP IA. As a result, NBI will not be able to use its subsidised network (which benefits from subsidised access to Eircom's CEI) outside the NBP IA for any purposes other than "transiting" between its interconnection points located in the Commercial Areas and those in the NBP IA in order to provide services in the NBP IA. This means that NBI may not rely on its network that transits the Commercial Areas (built using subsidised CEI access) to provide services in direct competition with Eircom or other operators in the Commercial Areas.

14 The differences between Generic Access to CEI and CEI access for the purpose of NBI's MIP mean that different approaches are warranted in order to achieve ComReg's statutory objectives under Section 12 of the Communications Regulation Act of promoting competition and encouraging efficient investment. This includes, further to Regulation 16 of the Framework Regulations, promoting where appropriate infrastructure-based competition, while promoting regulatory predictability and taking due account of the variety of conditions relating to competition and consumers that exist in the various geographic areas within the State.

15 Consistent with the European Commission's 2013 Recommendation on non-discrimination and costing methodologies[10] (hereafter, the '**2013 EC Recommendation**'), ComReg recognises that the reuse of existing CEI is an

[8] The contract concluded between the Minister for Communications, Climate Action and the Environment and NBI dated 19 November 2019. A non-confidential version of the NBP contract can be found at https://www.gov.ie/en/publication/16717-national-broadband-plan-contract/

[9] Please see Section 3 for further details.

[10] European Commission's Recommendation of 11 September 2013 on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment (2013/466/EU).

essential aspect of encouraging efficient investment. This means that CEI access services should be priced in such a way so as to encourage efficient entry while maintaining the investment incentives of the CEI's owner by allowing it to recover its efficiently incurred costs plus a reasonable rate of return on its capital employed.

Proposed approach for Generic Access to CEI:

16 Generic Access to Eircom's CEI should continue to be priced at a level that encourages entry in those parts of the network where sufficient economies of scale and scope exist, thereby allowing a number of network operators to enter and compete with Eircom, in turn fostering competition in downstream markets. As Generic Access to CEI is generally sought by operators deploying networks to compete directly with Eircom in downstream markets, ComReg proposes that all relevant CEI costs (fixed, variable, shared and common costs) should continue to be recovered by Eircom. In order to promote efficient investment while preventing excessive prices, ComReg proposes that a mix of the bottom-up long run average incremental cost plus a contribution towards common corporate costs ('**BU-LRAIC+**') approach and the top down historic cost accounting ('**TD HCA**') approach should be used.

17 Therefore, ComReg proposes that the BU-LRAIC+ methodology should continue to apply to those ducts and poles that cannot be reused and which need to be replaced, in line with the 2013 EC Recommendation.[11] The BU-LRAIC+ methodology values the operator's assets at the current market value and allows for changes in asset prices. The access price as a result is, in principle, similar to what the access seeker might pay to build its own network and thus this promotes efficient infrastructure investment by other operators.

18 The TD HCA methodology would apply to those duct and poles that can be reused for the provision of next generation access ('**NGA**') services, in line with the 2013 EC Recommendation.[12] It is based on the SMP operator's (Eircom's) accounting data, adjusted for efficiencies; it can also include a forecast for future expenditure over the price control period similarly adjusted for efficiencies.[13] The accounting net book value of each asset is taken as the basis for capital costs and this value is depreciated over the remaining lifetime of each asset. Operating expenditure is also estimated from historic accounting information and common corporate overhead costs are allocated to different services using allocation keys.

19 This combined approach (of BU-LRAIC+ and TD HCA) for Generic Access requests to Eircom's CEI promotes efficient utilisation of those reusable CEI assets while

[11] Please see Section 5 of this document.
[12] Reusable civil engineering assets are those legacy CEI assets that are currently being used for copper networks and can be reused to accommodate NGA networks (services). Falling in this category are duct, poles, trenches and chambers which can be reused for NGA provision. Please see Section 5 of this document for further details.
[13] Please see Section 5 of this document.

ensuring that Eircom can recoup any investment that it makes in relation to those non-reusable CEI assets. This approach ensures adequate cost recovery taking into account the fact these generic access users will use the poles and ducts to compete with Eircom.[14]

20 In relation to Generic Access, ComReg proposes to continue to apportion, or share, those costs between access seekers using the same methodology as currently used. For poles, this means that costs are shared among Generic Access users based on the number of Generic Access users on the pole (i.e., that have cables on the pole), including Eircom itself. The pole access rental price may accordingly vary depending on the number of Generic Access users on the pole. For example, if Eircom and one other operator have cables on a pole then all of the pole costs are split 50:50 between Eircom and the other operator.

21 For ducts, ComReg proposes that the costs should continue to be shared among Generic Access users based on the average capacity derived as a price per metre of sub duct i.e., the (per metre) cost of the duct network divided by the total number of cables (copper and fibre) using the network.

Proposed approach for CEI costs in the context of the NBP:

22 Insofar as access to Eircom's CEI by NBI for the purposes of the NBP is concerned, it is necessary to distinguish between (i) CEI access in the NBP IA and (ii) CEI access outside of the NBP IA for the purposes of serving the NBP IA.

23 In the **NBP IA**, ComReg expects that customers will ultimately migrate from Eircom's copper network onto NBI's fibre network and that all the premises in this area will ultimately be served by NBI's fibre network service. As a result, it is likely that Eircom will decommission its copper network and the only wholesale revenue available to recover Eircom's investments in its CEI network in the NBP IA will be through the CEI access prices levied on NBI. NBI accordingly may emerge as the only user of a significant proportion of Eircom's poles and ducts in the NBP IA.

24 In the light of this, the objectives pursued by the price control are to ensure both that Eircom may recover its efficiently incurred investment (plus a reasonable rate of return) when upgrading its CEI assets for the purposes of sharing of those assets with NBI, while also discouraging duplication of CEI by NBI, and to ensure that Eircom faces the right incentives in terms of customer migration from its copper network to NBI's fibre network.

25 To achieve these objectives, ComReg proposes that the costing methodology for NBI's access in the NBP IA should include a contribution towards the shared network costs of CEI as well as the incremental costs (or BU-LRAIC) associated with the investment in those non-reusable assets while also taking into account the

[14] Please see Section 5 of this document.

TD HCA costs for reusable assets.[15] ComReg believes there should be no contribution to Eircom's common corporate overhead costs by NBI in the NBP IA since these costs are already recovered from services sold by Eircom in the Commercial Areas, as determined previously by ComReg in ComReg Decision D11/18[16].

26 As regards cost allocation, ComReg proposes that NBI would always pay the incremental costs associated with its access from the time access is initially granted. In addition, ComReg proposes that shared network costs would be allocated between Eircom and NBI on a "per customer approach" whereby these costs are allocated depending on the relative number of customers actively connected in the NBP IA served by NBI's MIP and by Eircom, respectively.[17] This is discussed further in Section 6, subsection 6.6.1 below.

27 However, ComReg recognises that there may be material implementation and administration issues with the per customer approach arising from potential difficulties in obtaining reliable information on the evolution of customer numbers on both Eircom's network and on NBI's network in the NBP IA. If this were the case, it may be preferable to continue with the current approach to shared cost allocation, namely a 'per operator' approach for pole access and the a 'per metre of sub duct' approach for duct access. Alternatively, an approach based on the concept of 'Primary' and 'Secondary' users (described in Section 6 below) may also be an option.

28 CEI access by NBI's MIP **outside the NBP IA** (**in the Commercial Areas) for the purpose of the NBP** gives rise to different considerations and issues. Outside the NBP IA, NBI is expected to seek access to Eircom's CEI solely to support NBI's fibre broadband services in the NBP IA and not, by contrast to other CEI access seekers in the Commercial Areas, to compete with Eircom in downstream markets. This means that providing NBI with CEI access in the Commercial Areas will not entail any loss of wholesale or retail revenues or market share for Eircom which instead, unless the price control is amended, will benefit them with significant additional revenues which were not contemplated when setting the current price control. There is a risk that these additional revenues may be used by Eircom to undermine build/buy signals and distort competition. ComReg proposes to address this issue by allowing Eircom to only recover the long run incremental cost (hereafter, '**LRIC**') that is caused by NBI's MIP in the Commercial Areas. The LRIC methodology ensures that Eircom recovers its efficiently incurred costs caused by NBI's shared access to its CEI while at the same time promoting efficient use of existing reusable CEI assets, although it does not include any shared network costs

[15] Please see Section 5 of this document.
[16] ComReg Document No.18/95: Response to Consultation Document 17/26 and Final Decision, "Pricing of wholesale broadband services, Wholesale Local Access (WLA) market and the Wholesale Central Access (WCA) markets", dated 19 November 2018.
[17] Please see Section 6 of this document.

or common corporate costs.

29 Where there are shared network costs to be allocated to NBI's MIP in the Commercial Areas (which will depend on the costing methodology chosen – LRIC or LRAIC or LRAIC+), ComReg considers that the per customer approach may be a reasonable alternative to the existing per operator approach. This approach could be implemented in a number of ways, including on the basis of the proportion of customers in the NBP IA connected to NBI; on the basis of customer numbers solely associated with transit access in the Commercial Areas; or as a proportion of combined customer numbers for both transit in Commercial Areas and those in the NBP IA.

30 However, if a LRIC approach is adopted as the preferred option (subject to consultation responses and further consideration of the options by ComReg) for NBI's transit access in the Commercial Areas, then the need to allocate shared network costs and common corporate costs does not arise as the LRIC methodology does not include shared network costs or common corporate costs.

31 The various costing methodology options and cost sharing options available for determining the CEI access prices in the context of the **NBP** are summarised in Table 1 below.

Table 1: Summary of costing options for CEI access for the NBP

	NBI's access to CEI		
Costing methodology options	LRIC i.e., incremental costs only.	LR(A)IC i.e., incremental costs with some shared network costs.	LRAIC+ i.e., incremental costs with some shared network costs and common corporate costs.
	↓	↓	↓
Cost sharing options	A cost sharing method is not relevant as there are no shared network costs to allocate between users.	• Per operator (poles) / per metre of sub duct (ducts) • Per customer • Primary / secondary user	• Per operator (poles) • Per metre of sub duct (ducts)

32 Table 2 below summarises ComReg's preliminary views on the costing / pricing approach(es) that ComReg considers on balance are the most appropriate for

setting the wholesale CEI access prices in the context of both Generic Access to CEI as well as access by NBI in the various geographic footprints throughout Ireland.

Table 2: ComReg's proposed costing / pricing approach for CEI

CEI	Access Seeker	Generic Access to CEI		NBI's access to CEI	
	GEOGRAPHIC FOOTPRINTS	**National (All geo-footprints)**		**Commercial Areas***	**NBP Intervention Area**
Proposed costing methodologies for CEI prices	LRIC			✓	
	LR(A)IC (with TD HCA)				✓
	LRAIC+ (with TD HCA)	✓			
Proposed cost sharing approach for poles	Per operator	✓		n/a	
	Per customer			n/a	✓
Proposed cost sharing approach for ducts	Per metre of sub duct	✓		n/a	
	Per customer			n/a	✓

**If the proposed LRIC methodology is adopted for NBI's MIP in the Commercial Areas then consideration of a cost sharing methodology is moot as there are no shared network costs or common corporate costs to allocate between CEI users. However, if there were shared network costs to be allocated then ComReg considers that the per customer approach may be a reasonable alternative to the existing per operator approach for poles and the existing per metre of sub-duct for ducts.*

Weighted average cost of capital (WACC) for CEI:

33 Insofar as the appropriate rate of return to be allowed as part of the price control, ComReg considers that for NBI's access to CEI, some of the WACC parameters i.e., cost of debt, asset beta and gearing, should be amended from those parameters used to set the generic fixed line telecoms WACC so as to reflect the specific conditions and effect of NBI's access under the NBP contract with the Irish State. ComReg proposes accordingly that Eircom should recover a WACC of no

more than 4.03% for CEI access by NBI in the NBP IA and for NBI's transit access in the Commercial Areas. Generic Access users of CEI would incur the fixed line telecoms WACC rate of 5.61%, which has been notified by ComReg to the European Commission in June 2020 (hereafter, the '**Notified 2020 WACC Decision**').[18] The draft prices set out in Section 9 of this Consultation reflect these proposed WACC rates. Please see Section 7 of this Consultation document for further details on the proposed principles for the WACC specific to CEI.

Proposed annual rental prices for Generic Access users of CEI:

34 In the paragraphs below ComReg has summarised the proposed draft maximum annual rental prices for Eircom's CEI that ComReg proposes should apply both in the case of Generic Access to CEI and for access by NBI in the context of the NBP, based on ComReg's preferred costing / pricing approaches and proposed WACC rates, referred to above.

35 For **Generic Access users of poles**, the proposed maximum national annual rental prices per pole are set out in Table 3 below. If the pole is shared with another general access user then the cost should be shared based on the number of Generic Access users on the pole (i.e., that have cables on the pole), including Eircom itself (i.e. applying the per operator approach).

36 For further details please refer to Sections 5 and 6 of this Consultation document.

Table 3: Draft maximum annual rental prices for Generic Access users of poles

Generic access	1 July 2020 – 30 June 2021 €	1 July 2021 – 30 June 2022 €	1 July 2022 – 30 June 2023 €	1 July 2023 – 30 June 2024 €	1 July 2024 – 30 June 2025 €	5 year average €
National pole price*	18.63	19.47	20.34	21.04	21.27	20.15

**This is the total price of a pole and so the annual rental price will vary depending on the number of Generic Access users seeking access to the pole*

37 For **Generic Access users of duct**, the proposed maximum national annual rental price is set out in Table 4 below based on a per metre of sub duct. The duct access prices include the cost of clearing duct blockages.

38 For further details please refer to Sections 5 and 6 of this Consultation document.

[18] European Commission notifications, Case IE/2020/2250 at: https://circabc.europa.eu/ui/group/2328c58f-1fed-4402-a6cc-0f0237699dc3/library/0691f2ea-b435-4a33-805a-0cfcb8eda462

Table 4: Draft maximum annual rental prices for Generic Access users of ducts

Generic Access (per metre of sub duct)	1 July 2020 – 30 June 2021 €	1 July 2021 – 30 June 2022 €	1 July 2022 – 30 June 2023 €	1 July 2023 – 30 June 2024 €	1 July 2024 – 30 June 2025 €	5 year average €
National duct price for Verge	0.43	0.43	0.42	0.42	0.48	0.43
National duct price for Footway	0.70	0.66	0.63	0.62	0.68	0.65
National duct price for Carriageway	0.74	0.71	0.69	0.68	0.80	0.72

Proposed annual rental prices for CEI access in the context of the NBP:

39 For pole access by NBI in the NBP IA and for transit access in the Commercial Areas, the proposed maximum annual rental price per pole is set out in Table 5 below. **The price to be charged to NBI for access to Eircom's pole is shown for the proposed per customer cost sharing approach and for the alternative existing per operator cost sharing approach, as discussed in Section 6.**

Table 5: Draft maximum annual rental prices for pole access for NBI

NBI Pole Access		1 July 2020 – 30 June 2021 €	1 July 2021 – 30 June 2022 €	1 July 2022 – 30 June 2023 €	1 July 2023 – 30 June 2024 €	1 July 2024 – 30 June 2025 €	Avg. 25 Yrs
NBP IA	Per operator	6.24	6.91	7.18	7.41	7.64	13.11
	Per customer	3.18	4.46	5.18	5.90	6.53	12.57
Commercial Areas	Per operator	7.16	7.51	7.88	8.17	8.26	8.97
	Per customer	0.07	0.07	0.07	0.07	0.07	0.07

40 The proposed prices presented above in Table 5 for each of the cost sharing

approaches are based on the draft total annual costs of a pole as calculated in the Draft PAM taking into account the forecasted mix of pole volumes consumed by NBI's MIP, as a shared pole user and as a single pole user in the relevant period. Table 15 in subsection 9.2 provides details of the draft total annual costs of poles used by NBI.

41 For duct access by NBI in the NBP IA and for transit access in the Commercial Areas, the proposed maximum annual rental prices is set out in Table 6 below. **The price to be charged to NBI for access to Eircom's duct is shown for the proposed per customer cost sharing approach and the alternative existing per metre of subduct cost sharing approach, as discussed in Section 6.**

Table 6: Draft maximum annual rental prices for duct access for NBI

NBI Duct Access		1 July 2020 – 30 June 2021 €	1 July 2021 – 30 June 2022 €	1 July 2022 – 30 June 2023 €	1 July 2023 – 30 June 2024 €	1 July 2024 – 30 June 2025 €	Avg. 25 Yrs
NBP IA	Per metre of cable	0.50	0.49	0.49	0.48	0.45	0.43
	Per customer	0.49	0.49	0.50	0.50	0.50	0.45
Commercial Areas	Per metre of cable	0.55	0.52	0.49	0.49	0.53	0.53
	Per customer	0.16	0.16	0.16	0.16	0.16	0.16

**Draft prices are based on average price by surface type (verge, footway and carriageway).*

42 The prices presented above in Table 6 for each of the cost sharing approaches, based on the draft total annual costs of a metre of duct (trench), is calculated in the Draft DAM cost model taking into account the forecasted mix of metres of duct (trench) consumed by NBI's MIP, as a shared duct user and as a single duct user in the relevant period. Table 17 in subsection 9.2 provides details of the draft total annual costs of a metre of duct (trench) used by NBI.

43 Please see Section 9 of this Consultation document for further details on the draft prices.

44 Finally, ComReg invites views on whether instead of, or in addition to, an annual rental charge, ComReg should allow recovery by Eircom of its incremental

investment for CEI by way of an upfront fee levied by Eircom on NBI, rather than through recurring charges, including a proposal that any such pricing arrangements should be pre-notified to ComReg. Please see Section 9 of this Consultation document for further details on this point.

Implementation:

45 ComReg proposes that in the absence of any anticipated significant changes to CEI costs for Generic Access, Generic Access prices calculated on the basis of the PAM and DAM at the date of ComReg's final decision are fixed per year for a period of five years, subject to Eircom's obligation of cost orientation continuing for that period. Were there any significant changes to CEI costs and/or to the WACC during that time, ComReg would rely on Regulation 13(4) of the Access Regulations to assess adjustments required and issue directions to Eircom as and if required. On the expiry of the five year period, again subject to Eircom's obligation of cost orientation continuing, Eircom would be required to derive cost oriented prices on the basis of the PAM and DAM.

46 Insofar as CEI access for NBI's MIP is concerned, ComReg does not believe that in light of the significant investments required and associated uncertainties, it would be appropriate to direct actual prices for any period of time. The draft NBI MIP prices are dependent on a number of key assumptions including the level of pole replacement or duct renewal undertaken by Eircom and the associated cost, the customer take-up of NBI's fibre service in the NBP IA, including the timing of the eventual withdrawal of Eircom's copper network. As part of Eircom's annual review process, the key assumptions used to derive the indicative MIP prices in the Draft PAM and Draft DAM should be compared to the actual outcomes, by Eircom.[19] Hence, ComReg proposes that Eircom derive prices for CEI access again on the basis of forecasted information in the [Draft] PAM and the [Draft] DAM as discussed in subsequent sections of this document, which would be reconciled on an annual basis in accordance with an annual review process. ComReg proposes accordingly that published prices for CEI access for NBI's MIP are reviewed annually and where adjustments are required in light of actual investments as compared to forecasted, or to number of premises actively connected, that adjusted prices are published to apply from the following 1 July. It should be noted however that, given the time lag in obtaining actual accounting information on which adjustments can be made, insofar as the first two years of the price control, any adjustments would not be reflected until the first day of financial year 3 (1 July).

Next steps:

47 ComReg welcomes the views of the interested parties regarding the proposals set out in this Consultation document. Responses to this consultation must arrive at

[19] It is also worth noting that if an alternative cost sharing method (to the proposed customer approach) is used then different assumptions may apply.

ComReg by 5.30pm, 4 November 2020.

48 ComReg, in making its final decision and as appropriate, will consider all the views of respondents to this consultation. ComReg will also take utmost account of any comments from the European Commission in deciding on the appropriate costing / pricing approach for CEI access services in the WLA Market.

3 Background

3.1 Overview

49 In order to assist readers of this Consultation, this section provides an overview of CEI services, competition concerns in the WLA Market, regulatory obligations to date on CEI services, the objectives of this CEI pricing review (in particular in relation to the NBP) and other regulatory considerations under the following headings:

- What CEI services are;
- The WLA Market and the associated competition concerns;
- NBP and the importance of CEI access;
- ComReg's regulatory objectives;
- Other regulatory considerations;
- Relevant European Commission Recommendations and European Directives.

50 Each is discussed in turn below.

3.2 What CEI services are

51 CEI means the physical access path facilities deployed by Eircom to host cables such as copper wires, optical fibre and co-axial cables. It includes, but is not limited to, subterranean or above-ground assets such as sub-ducts, ducts, chambers and poles. Ducts are Eircom's underground pipes or conduits that carry or are capable of carrying cables that are in turn used to deliver electronic communication services to end-users. Poles are Eircom poles which can be used to support copper or fibre cables in order to provide electronic communications services. CEI is also known as passive infrastructure access.[20] This Consultation is concerned more particularly with the pricing of access to Eircom's ducts and poles.

52 To date, there has been limited demand for access to Eircom's CEI services from other operators. However, this is expected to change with the rollout of NGA services, in particular FTTH for the purposes of the NBP, as discussed in more

[20] Please note that CEI in this Consultation does not include dark fibre which is optical fibre that is currently installed in the local access network but is not in use. In ComReg Decision D10/18 ComReg specified that Eircom provides Dark Fibre where access to Civil Engineering Infrastructure is not available, but where access to Dark Fibre is reasonably available.

detail below.

3.3 The WLA Market and associated competition concerns

53 The European Commission in its 2014 Markets Recommendation (hereafter, the '**2014 European Commission Markets Recommendation**') recommended a number of markets as being susceptible to *ex ante* regulation.[21] One of the recommended markets is the market for wholesale local access at a fixed location (hereafter, the '**WLA Market**').

54 In the 2018 WLA / WCA Market Review Decision ComReg designated Eircom with SMP in the WLA Market, nationally and imposed a number of regulatory obligations on Eircom across the national WLA Market to address various competition problems. These obligations include the obligation to provide access to CEI and a price control obligation of cost orientation for CEI access services.

55 Paragraph 6.110 of the 2018 WLA / WCA Market Review Decision summarised the competition problems in the WLA Market as follows:

"…*absent regulation in the Relevant WLA Market, ComReg considers that Eircom would have the ability and incentive to influence competition through effects on prices, innovation, output and the variety or quality of goods and services provided. A number of competition problems may arise whereby Eircom could:*

(a) Exploit customers or End Users by virtue of its SMP position;
(b) Leverage its market power into adjacent vertically or horizontally-related markets with a view to foreclosing or excluding competitors in downstream and/or upstream markets; and
(c) Delay or deter investment and market entry into the Relevant WLA Market and, ultimately, downstream markets."

56 More particularly, ComReg found Eircom had the ability and incentive to engage in anti-competitive behaviours and problems which ComReg had outlined in Section 7 of Consultation Document 16/96 preceding ComReg Decision D10/18.[22] These problems arose, insofar as CEI is concerned, from the fact that CEI was a bottleneck asset without access to which access seekers are unlikely to build network infrastructure. As a vertically integrated undertaking with SMP in the WLA Market, Eircom has the ability and incentive to refuse to provide access to these CEI inputs, in circumstances where access to Eircom's CEI is necessary to ensure the development of sustainable and effective downstream competition and to minimise foreclosure concerns that could arise, absent regulation. CEI access is

[21] Commission Recommendation of 9 October 2014 on relevant product and service markets (2014/710/EU) ('**2014 Markets Recommendation**').
[22] ComReg Document No 16/96 'Market Reviews, Wholesale Local Access (WLA) provided at a Fixed Location, Wholesale Central Access (WCA) provided at a Fixed Location for Mass Market Products', dated 11 November 2016.

key to promoting sustainable competition through network rollout by removing unnecessary network build costs. No other access obligation has the ability to reduce access network build costs, thereby creating the conditions necessary to promote sustainable competition.[23]

57 ComReg further found that a cost orientation price control would ensure that Eircom is prevented from charging excessive prices for wholesale inputs and, at the same time, should promote efficient infrastructure investment and encourage service providers to climb the ladder of investment. A cost orientation price control also ensures that Eircom can recover the efficiently incurred costs which are relevant to the provision of WLA products, services and facilities. This should, in turn lead to efficient price and investment signals being provided to all market participants. ComReg found that the price control it had imposed in the 2016 Access Pricing Decision for, among others, CEI remained appropriate.[24]

58 In the 2016 Access Pricing Decision ComReg determined that the costs associated with duct and pole access should be based on a combination of a BU-LRAIC+ costing methodology for those assets that needed to be replaced (and could not be reused) for the provision of NGA and a TD HCA costing methodology for those assets that could be reused for the provision of NGA, as determined by the revised copper access model (hereafter, the '**Revised CAM**'). This is discussed in more detail in Section 5.

59 The prices were differentiated by reference to the geographic footprint on the basis of justified cost differences between different areas. The maximum pole access rental prices were differentiated between Modified Larger Exchange Area (hereafter, the '**Modified LEA**') and outside the Modified LEA on a price per pole basis, split equally amongst operators using the pole. The maximum duct access rental prices were differentiated by reference to surface type (footway, carriageway and verge) and by Dublin and Provincial areas, based on a price per metre of sub-duct.

60 As part of ComReg's notification to the European Commission of the draft measures contained in the 2018 WLA / WCA Market Review Decision, the European Commission in its comments letter[25] to ComReg, called on ComReg to revisit the access prices (which includes the prices for CEI) and at least to update the results of the Revised CAM with more recent data. Furthermore, the European Commission requested ComReg to notify the resulting prices without undue delay.

61 In this Consultation ComReg considers how to best address the competition problems identified in the 2018 WLA / WCA Market Review Decision summarised at paragraphs 55-57 most effectively in respect of CEI access, having regard to

[23] Paragraphs 8.188 to 8.192 of ComReg Consultation Document 16/96.
[24] Paragraphs 8.614 of ComReg Consultation Document 16/96.
[25] Please see Appendix 2 of the 2018 WLA/WCA Market Review Decision.

changed expectations in respect of demand for CEI access following the awarding of the NBP contract. In particular, ComReg proposes to amend the specification of the obligation of cost-orientation imposed on Eircom so that the price control can address the risks that Eircom exploits CEI access seekers or end-users by virtue of its SMP position in the WLA Market and delay or deter investment and market entry into the Relevant WLA Market through CEI access taking into account developments arising from the signing of the NBP contract.

62 This review also takes into account the principle adopted by ComReg in ComReg Decision D11/18[26] (hereafter, the '**2018 Access Pricing Decision**'), that all common corporate costs of Eircom's access network should be recovered from services sold in Commercial Areas, and the development of an Access Network Model (hereafter, '**ANM**'), to replace the existing Revised CAM. Please see further discussion at Section 4 and Section 5 below.

3.4 NBP and importance of CEI access

3.4.1 What is the NBP

63 The NBP is the Irish Government's plan to deliver high speed broadband services to all businesses, farms and households in Ireland, including in those geographic areas not served by commercial operators or where there are no concrete plans from operators to deliver NGA services. The NBP aims to ensure that all citizens across Ireland have access to high speed fibre broadband infrastructure capable of supporting download speeds of at least 30 Mbps by 2026. The NBP is the responsibility of the Department of Communications, Climate Action and Environment ('**DCCAE**').[27]

64 The NBP is funded by a "gap-funding" ownership model. As ComReg understands it, this model involves the State providing a subsidy to fund the capital requirement of the project (NBP) in order to make the project commercially viable and deliver the Government's broadband policy objectives. In this approach, the assets and the business are 100% owned and controlled by the private sector while the NBP provider builds, finances, operates and maintains the NBP assets. There are clawback and profit sharing mechanisms in place to ensure that the State's subsidy is only used to cover the upfront funding requirement of the project and that any future savings or profits made above those forecast will be shared with the State (this includes the clawback of any savings achieved by NBI with its subcontractors).

[26] ComReg Document No.18/95: Response to Consultation Document 17/26 and Final Decision, Pricing of wholesale broadband services, Wholesale Local Access (WLA) market and the Wholesale Central Access (WCA) markets, dated 19 November 2018.
[27] On 16 September 2016, ComReg published an Information Notice in ComReg Document No. 16/80 acknowledging "…*that interested parties may wish to gain insight into the possible interaction between the NBP and regulation…*" and setting a process whereby they could submit questions in writing to ComReg.

The NBP funding details are set out in a KPMG report, commissioned by the DCCAE, and published on the DCCAE's website.[28]

65 In November 2019, the European Commission, under EU state aid rules and having regard to its guidelines on the application of the State aid rules to broadband networks (hereafter, the '**State Aid Guidelines**')[29], approved support for the Irish NBP.[30]

66 ComReg has no decision-making role in the design of the NBP or the award of any contracts under the NBP. These matters are solely the responsibility of the DCCAE and the Minister. ComReg does have an advisory role in the context of the State Aid Guidelines.

3.4.2 Interactive broadband map

67 The State Aid Guidelines require, amongst other things, that Member States carry out a detailed mapping exercise and public consultation process in particular to identify as far as reasonably possible those areas where intervention is required.

68 In this regard, the DCCAE developed an Interactive Map (hereafter, the '**High Speed Broadband Map**') [31] which identifies the locations and premises as being either served by operators in the commercial sector or requiring State intervention under the NBP. The mapping exercise included requests to operators on their NGA broadband plans in order for the DCCAE to understand where broadband services were available and those that would become available into the future so as to ascertain what areas were likely to require intervention by the State. In July 2019, the DCCAE published a final consultation to allow it to conclude its NBP mapping exercise and to confirm the scope of the intervention area for the purposes of the deployment of NBP State intervention.[32]

69 The High Speed Broadband Map identifies the locations and premises as being either Amber, Blue or Light Blue.[33]

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[28] https://www.dccae.gov.ie/documents/NBI%20Final%20Funding%20post%20consultation%2021122015%20(redacted).pdf

[29] EU Guidelines for the application of State aid rules in relation to the rapid deployment of broadband networks, 2013/C/25/01- https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013XC0126(01)&from=EN

[30] https://ec.europa.eu/commission/presscorner/detail/en/ip_19_6291

[31] https://www.dccae.gov.ie/en-ie/communications/topics/Broadband/national-broadband-plan/high-speed-broadband-map/Pages/Interactive-Map.aspx

[32] https://www.dccae.gov.ie/en-ie/communications/consultations/Documents/88/consultations/2019_NBP_Mapping_Consultation.pdf

[33] https://www.dccae.gov.ie/en-ie/communications/topics/Broadband/national-broadband-plan/high-speed-broadband-map/Pages/The%20Mapping%20Exercise.aspx

70 The Amber area is defined by the DCCAE as the target areas for State intervention under the NBP.[34] It is also referred to by the DCCAE as the non-commercial 'Intervention Area', where there is no existing or planned commercial high speed broadband services available. This area includes circa 537,000 premises (delivery points).[35] As previously noted, this area is referred to throughout this document as the **NBP IA**.

71 The Light Blue area identified is where Eircom has committed to rollout high speed broadband to 300,000 premises, based on a commitment agreement entered into in April 2017 between the DCCAE and Eircom.[36] This area is referred to throughout this document as the '**Rural Commercial Area**'.

72 The Blue area identified by the DCCAE on the High Speed Broadband Map is the area where commercial operators are delivering or have indicated plans to deliver high speed broadband services. This area is referred to throughout this document as the '**Urban Commercial Area**'.

73 The Rural Commercial Area and the Urban Commercial Area are collectively referred to throughout this Consultation as the '**Commercial Areas**'.

74 The areas identified above at paragraphs 70 -72 are discussed in more details in Section 4 of this document.

3.4.3 The NBP provider

75 On 19 November 2019, the Minister signed a contract with NBI for the deployment and operation of the network in the NBP IA. A summary of the terms and conditions of the NBP contract are contained on the DCCAE website.[37] In August 2020, a non-confidential version of the NBP contract was published by the State.[38]

76 In essence, the contract between the DCCAE and NBI means that NBI has been contracted to build, operate and maintain the broadband network in order to rollout high speed broadband services within the NBP IA, over a 25 year period (with a possibility to extend this by 10 years). NBI is expected to provide its own network

[34] In the EC State Aid Decision (referenced below), the area requiring intervention is called the "white" NGA areas.
[35] https://www.dccae.gov.ie/en-ie/communications/topics/Broadband/national-broadband-plan/state-intervention/Pages/Connecting-Communities.aspx
[36] Agreement between the Minister for Communications, Climate Action and Environment and Eircom Limited in relation to National broadband plan – commercial deployment commitment; https://www.dccae.gov.ie/documents/Commitment%20Agreement.pdf

[37] https://dccae.gov.ie/en-ie/news-and-media/press-releases/Pages/Government-sign-the-National-Broadband-Plan-Contract.aspx
[38] https://www.gov.ie/en/publication/16717-national-broadband-plan-contract/

infrastructure[39] but it will seek access to Eircom's CEI[40] in both the NBP IA and to transit through Commercial Areas in order to reach its own interconnection points. It is intended that NBI would complete its rollout of the fibre network in the NBP IA over the next seven years.[41] As stated above, the European Commission approved its support for the Irish NBP in its Decision of 15 November 2019 (hereafter, the '**EC State Aid Decision**').[42]

77 NBI will be a wholesale operator in the NBP IA. As set out in Recital 28 of the EC State Aid Decision:

"*NBI will act mainly as a wholesale provider. NBI is allowed to provide retail services in the intervention area only under certain strict conditions as a retailer of last resort (RoLR) which is also subject to strict regulatory requirements. A RoLR may only arise where a consumer cannot get a retail service from the market. The Irish Authorities note that they consider it highly unlikely that NBI will engage in providing RoLR services in the intervention area during the lifetime of the contract*."[43]

78 Hence, NBI is expected to be the main provider of wholesale fibre broadband services in the NBP IA, after it completes the full deployment of its network. Customers on Eircom's existing legacy copper network are likely to transition to NBI's fibre network as it becomes available but in the interim, Eircom is likely to continue to supply copper-based services to customers in areas where NBI has yet to deploy and offer its fibre broadband services.

79 The prices that NBI charges for its wholesale services in the NBP IA are set by reference to the prices of comparable wholesale regulated broadband services.[44] As set out in Recital 64 of the EC State Aid Decision:

"*The NBP uses benchmarking as an important tool for ensuring that the aid granted will serve to replicate market conditions prevailing in competitive broadband markets. If a comparable regulated wholesale product exists, the wholesale access pricing will be comparable to the price of that regulated product*."

[39] This is mainly the fibre cables and the active equipment such as Optical Line Terminals (OLT).
[40] Although there is the potential for some use of infrastructure currently owned by the electricity network, ESB Networks.
[41] In an article the then Minister for Communications Richard Bruton told the Dáil he had asked the company if the seven-year contract could be provided in five years: https://www.irishtimes.com/news/politics/oireachtas/broadband-plan-worth-3bn-might-be-delivered-in-five-years-instead-of-seven-d%C3%A1il-told-1.4264629
[42] State Aid SA.54472 (2019/N) https://ec.europa.eu/commission/presscorner/detail/en/ip_19_6291
[43] See also Clause 37.3 'Restrictions regarding the Retail Market in the Intervention Area and Excluded Area' and Clause 37.4 'No Circumvention of the Agreement' in the NBP contract.
[44] As NBI's wholesale prices in the NBP IA are set by reference to comparable wholesale regulated broadband services any changes to the CEI access prices as a result of this review should only impact on the state subsidy (and hence amount to be recovered from tax payers) but not from end-users of the broadband service.

80 In order for NBI to provide its high speed fibre broadband services and to serve customers in the NBP IA it needs access to CEI in both the NBP IA and also access for the purposes of transit through the areas outside the NBP IA.

81 ComReg understands that an important restriction in the contract between the State and NBI is that the subsidies provided to NBI must only be used to provide wholesale services in the NBP IA, in accordance with the contract, and that NBI may not use the subsidies to provide electronic communications services and networks outside the NBP IA. As a result, NBI will not be able to use its subsidised network (which benefits from subsidised access to Eircom's CEI) outside the NBP IA for any purposes other than "transiting" between its interconnection points located in the Commercial Areas and those in the NBP IA in order to provide services in the NBP IA. This means that NBI may not rely on its network that transits the Commercial Areas (built using subsidised CEI access) to provide services in direct competition with Eircom or other operators in the Commercial Areas.

82 Recital 19 of the EC State Aid Decision states that:

"The new network will consist of passive and active elements (including ducts, poles, dark fibre, exchanges, active equipment)…the proposed State aid scheme aims to support the roll-out of NGA networks. The scheme targets NGA white areas. The Irish authorities explain that while they encourage the reuse of existing infrastructure... limited backhaul deployment may be necessary to achieve the objectives of the scheme in certain situations. The Irish authorities clarify that such backhaul is exclusively ancillary to the deployment of the NGA network and therefore will be built and used only insofar as needed for the coverage of the target white NGA areas and not to support services provided outside the intervention area."

83 Footnote 18 (in Recital 19) of the EC State Aid Decision also specifies that:

"*Aid may thus be used to build limited backhaul in order to reach the intervention area where it is appropriate e.g. to traverse the eir 300,000 area (see recital (43)) and to get from small remote local exchanges back to the access network*."

84 Hence, it is clear from the text at paragraphs 80-83 above that NBI will seek access to CEI outside the NBP IA in order to serve those customers in the NBP IA. Furthermore, it is clear that NBI cannot use its subsidised network (i.e., its subsidy payments) to offer services outside the NBP IA (i.e., in the Urban Commercial Area or Rural Commercial Area), to serve and compete for customers in the Commercial Areas.[45]

[45] See in particular Clause 37.2 'Use of the Subsidy Payments' of the NBP contract. Under Clause 37.2.1 (using the defined terms therein), NBI acknowledges and agrees that the Subsidy Payments are provided for the purpose of subsidising only the Network for the provision of the Minimum Required

85 Recital 34 of the EC State Aid Decision also emphasises this point stating that:

"*Aid cannot be used to support services provided outside the intervention area (i.e. the aid can only be used to support the connection of the NGA white areas)*."

86 Another condition of the NBP contractual agreement is the fact that the State (in this case the DCCAE) can "step-in" in the event that NBI fails to comply with the agreed terms and conditions of the contract.[46] Recital 27 of the EC State Aid Decision states that:

"*Should the beneficiary fail to comply with the requirements set out in this agreement, the Irish Authorities reserve the right to step in and take back the funded assets and where necessary the foreseen wholesale business of the beneficiary*."

87 Hence, this provision should reduce the risks involved for operators such as Eircom who is likely to become a significant provider of CEI in the NBP IA. This is considered further in Section 7, as part of the discussion on the appropriate WACC for CEI in the context of the NBP.

3.4.4 Access by NBI to Eircom's CEI

88 ComReg notes that the reuse of existing infrastructure is strongly encouraged in the EC State Aid Decision and in the State Aid Guidelines[47] as sharing of existing CEI infrastructure reduces costs (and hence the State subsidy required)[48].

89 In November 2019, the DCCAE, in a press release published after the NBP contract had been signed with NBI, stated that:

"…*as much as possible of the network infrastructure will comprise the re-use of*

Wholesale Products and Additional Required Wholesale Products (but not the Other Permitted Wholesale Products) to Premises in the Intervention Area in accordance with the Agreement and nothing else; under Clause 37.2.2, NBI acknowledges and agrees that the provision of electronic communications services and networks to the Excluded Areas is not within the permitted application of the Subsidy Payments; and under Clause 37.2.3, NBI agrees that it shall not use or apply the Subsidy Payments except in accordance with the provisions of this Agreement for the purposes of subsidising the Network for the provision of the Minimum Required Wholesale Products and Additional Required Wholesale Products to Premises in the Intervention Area by NBI subject to, and in accordance with, the Agreement.

[46] As set out in Clause 73 'Step In Rights' of the NBP contract.

[47] EU Guidelines for the application of State aid rules in relation to the rapid deployment of broadband networks (2013/C 25/01), paragraph 78(f).

[48] While the level of the CEI access price(s) paid in NBI's MIP has no direct impact on the prices that NBI charges for its wholesale services (as these prices are set by way of comparable regulated broadband services), the level of the CEI access prices directly affects the amount of subsidy that NBI requires. In short, the price charged by Eircom to NBI for access to its CEI is used in the financial model to calculate the amount of State-aid subsidy and so changes to the CEI price will impact on the level of State subsidy required. It should be noted, however, that the level of State subsidy is not relevant to ComReg's role (it is the responsibility of the DCCAE) and it is not taken into account in ComReg's review of the costing methodologies for determining CEI prices.

existing poles and ducts, which NBI will lease from existing infrastructure owners."[49]

90 In this context and as already set out at section 3.4.3, NBI in providing its wholesale services in the NBP IA will seek access to Eircom's CEI for two main purposes:

1) To provide high speed fibre broadband services within the NBP IA; and

2) To "transit" between the NBP IA and NBI's interconnection points outside the NBP IA (i.e., in the Commercial Areas). This means that NBI will likely require access to Eircom's CEI outside the NBP IA for transit purposes and to serve customers in the NBP IA.

91 There are a number of reasons why access to Eircom's CEI by NBI in the NBP IA (and for transit purposes outside of the NBP IA) differs significantly to the more general CEI access sought by other operators (excluding NBI), which has been very limited to date.

92 The access usually sought to ducts and poles by other operators excluding NBI i.e., Generic Access, typically includes small scale access to meet the demands of a business customer for a point-to-point link (leased line connection), or operators that only require pole / duct access for small scale or in-fill purposes to address gaps on specific routes in their own network, where there is no guarantee that the CEI access service will be required in the long run.

93 In contrast, access to Eircom's CEI by NBI is likely to differ to Generic Access as follows:

- NBI will seek long term access to Eircom's CEI, as the contract between NBI and the DCCAE is set for 25 years; and

- NBI will seek widespread and large-scale access to Eircom's CEI in order to serve circa 537,000 premises[50] and it will also require access to Eircom's CEI outside the NBP IA for its transit purposes.

94 According to the DCCAE the NBI network will require access to over 1.5 million poles and over 15,000 kilometres of underground duct.[51] NBI may only self-supply

[49] https://dccae.gov.ie/en-ie/news-and-media/press-releases/Pages/Government-sign-the-National-Broadband-Plan-Contract.aspx

[50] The DCCAE refer to circa **537,000** premises, which are in fact **delivery points**. In determining the CEI costs associated with the NBP IA, ComReg in its cost modelling exercise has used unique Eircodes (rather than delivery points), as our key objective is to establish the cost of serving each building with a fibre or copper cable i.e., premises passed. There are circa **452,000** unique **Eircodes** in the NBP IA, which equates to the circa 537,000 delivery points referred to by the DCCAE. This difference arises for example when a farm or a B&B associated with a residential premises will have the same Eircode but are counted twice (as having two delivery points) by the DCCAE.

[51] https://dccae.gov.ie/en-ie/news-and-media/press-releases/Pages/Government-sign-the-National-Broadband-Plan-Contract.aspx

a CEI network in those limited situations where Eircom does not have a network.[52] Therefore, Eircom is likely to become a significant CEI provider in the NBP IA and for NBI's transit purposes outside the NBP IA (i.e., in the Commercial Areas), where CEI (or duct and poles), in particular, will be the key wholesale inputs for NBI.

95 ComReg refers to NBI's specific and extensive access requirements for Eircom's CEI as NBI's major infrastructure programme (**NBI's MIP**) throughout this document.

96 The points raised at paragraphs 88-94 above are important points for consideration in determining whether a differentiated pricing remedy is justified and proportionate for CEI in the context of the NBP, and these points are discussed in more detail in Sections 4 - 7 of this Consultation document.

3.5 ComReg's regulatory objectives

97 In choosing the appropriate costing / pricing methodology for determining the prices associated with the provision of CEI access, ComReg must ensure that its approach is in line with its regulatory (or statutory) objectives. In this regard, ComReg has taken account of Section 12 of the Acts, Regulation 16 of the Framework Regulations, Regulation 6(1) of the Access Regulations[53], Regulation 8(6) of the Access Regulations and Regulation 13 of the Access Regulations.

98 ComReg's regulatory objectives in line with Section 12 of the Acts include to promote competition, to encourage efficient investment and innovation, to contribute to the development of the internal market and to promote the interests of users by encouraging access to the internet at a reasonable cost to end-users.

99 Separately, Regulation 16 of the Framework Regulations looks at the promotion of competition, the desirability of technological neutrality, development of the internal market and the application of objective, transparent, non-discriminatory and proportionate regulatory principles, including regulatory predictability, efficient investment, and taking due account of the variety of conditions relating to competition and consumers that exist in various geographic areas.

100 Regulation 6(1) of the Access Regulations provides that the Regulator shall acting in pursuit of its objectives set out in Section 12 of the Acts and Regulation 16 of the Framework Regulations, encourage and, where appropriate, ensure adequate access, interconnection and the interoperability of services in such a way as to promote efficiency, promote sustainable competition, promote efficient investment

[52] NBI may in some cases request access to the ESB's network infrastructure. This would be under a separate commercial agreement between NBI and the ESB.
[53] European Communities (Electronic Communications Networks and Services) (Access) Regulations 2011 (S.I. No 334 of 2011) (the "Access Regulations").

and innovation and give the maximum benefit to end-users.

101 ComReg is also required by Regulation 8(6) of the Access Regulations to ensure that the obligations it imposes are based on the nature of the problem identified, proportionate and justified and only be imposed following a consultation process.

102 ComReg must also take into consideration the requirements of Regulation 13 of the Access Regulations, which following a finding of SMP in a relevant market, sets out the considerations which ComReg must have regard to in imposing a price control obligation. In the context of this review of the CEI costing methodology, the requirements of Regulation 13(2) are particularly relevant as they specify that ComReg must take into account the investment made by the operator and allow the operator a reasonable rate of return on adequate capital employed. In this regard it is important that when setting the appropriate CEI access prices that Eircom does not over-or-under recover its efficiently incurred costs associated in particular with its reusable CEI assets, as discussed in further details in Section 5 below.

103 Section 11 (on the RIA) discusses how ComReg's statutory obligations specified at paragraphs 97-102 have been taken into account.

104 For the reasons set out below, ComReg is of the preliminary view that it is appropriate and relevant when setting the regulated price for CEI access to have regard to the varying conditions for competition across the WLA market which underpin CEI access, and the different purposes for which CEI access is sought. ComReg is of the preliminary view in particular that the varying conditions for competition across the WLA market, which can now be identified following the conclusion of the Minister's and NBI's contract, and the different purposes for which CEI access is sought, mean its objective of promoting competition and efficient investment can only be served by a differentiated price control. ComReg notes in this respect that at the time of publication of the 2018 WLA / WCA Market Review Decision, ComReg found that there remained too much uncertainty with respect to the Irish Government's NBP to draw any firm conclusions at that stage on the potential impact of the NBP on the Relevant WLA Market but noted its intention to keep this under review within the lifetime of this market review.

105 Following the conclusion of the contract between the Minister and NBI, there is now sufficient clarity that its impact on CEI access at least may be assessed and reflected as and if appropriate in order to ensure that the costing / pricing methodology determined for CEI access remains adequate for the purpose of ComReg's statutory objectives.

106 A number of considerations are particularly relevant in this regard, including that it is highly unlikely that there will be competing wholesale NGA networks in the NBP IA (as defined) for the foreseeable future and within the current market review period. Eircom's own deployment of its rural Fibre to the Home (hereafter, '**FTTH**')

300k network[54], which is now complete, is likely to have removed any areas from the NBP IA that could be served commercially. Eircom chose a number of areas where it proposed to deploy its fibre network commercially, which now defines the boundary of the NBP IA. Given this, it is unlikely to be attractive for an additional commercial operator (absent a state subsidy) to enter and compete with NBI in the NBP IA, given that Eircom itself did not find this opportunity commercially attractive, even where it would have been the sole operator in the NBP IA.

107 In the NBP IA, given that the prospects of entry by another commercial operator are extremely limited — largely due to the less favourable cost and scale characteristics of the NBP IA, and hence the need for State intervention — ComReg's statutory objectives of promoting competition and encouraging efficient investment do not mean setting a price control in order to create sustainable and long term competition with Eircom, and facilitate new commercial entry, by either CEI providers or alternative wholesale broadband providers. Rather promoting competition and encouraging efficient investment mean, in ComReg's preliminary view, allowing for a cost effective deployment of NBI's network and avoiding inefficient duplication of CEI assets.

108 ComReg is of the view in this regard that promoting competition and encouraging efficient investment in the NBP IA means ensuring that the CEI access service being provided by Eircom to NBI's MIP and its fibre network will, when roll-out is completed, be available to all operators to seek wholesale access service to supply retail customers in the area. Hence, Eircom ought to be allowed to recover its efficiently incurred investment (plus a reasonable rate of return) when upgrading its CEI assets to allow for the sharing of those assets with NBI. It also means, taking into account that NBI is likely to eventually replace Eircom's copper-based services, as well as Eircom's plan as regards copper switch-off, avoiding inefficient investment through duplication of fixed costs and failure to achieve economies of scale and having duplicate (Eircom's and NBI's) networks running in parallel after the new fibre network is rolled out.

109 At some point in the future it is likely that Eircom will switch-off its copper access network (or in the case of poles withdraw its copper cables), in the NBP IA. In fact, it is likely that Eircom's copper network in the NBP IA will ultimately be replaced by NBI's fibre network, where NBI will become the main user of CEI in the NBP IA. However, the timing of Eircom's copper switch-off (and withdrawal of its copper cables from poles) remains uncertain.

110 In fact, ComReg understands that [✂ [redacted]

[54] Eircom's rollout may in fact be closer to 340,000 premises, rather than the initial plan of 300,000.

[redacted]]

ComReg plans to keep these developments under review.

111 Encouraging efficient investment means in the context of CEI access in the NBP IA means, in ComReg's view, setting the right incentives for the transition from copper to fibre services in the NBP IA. In particular, setting CEI access prices too low might provide an inefficient incentive for Eircom to decommission the copper services too early, whereas setting the CEI access prices at a level that is too high, might cause the prices of copper services to be lower than they otherwise might have been and thereby delay the transition to fibre.

112 The issue of copper to fibre transition in the context of the NBP IA and the extent that different CEI cost sharing options (of per customer, primary/secondary user and per operator) discussed in Section 6 of this Consultation might provide Eircom with suitable incentives to decommission its copper network. As noted by Dot Econ, in its report at Annex 2 of this Consultation:

"…*the greater share of CEI costs allocated to the copper network, and so the lower the CEI access charges paid by NBI, the stronger will be Eircom's incentives to decommission its copper network.*"[55]

113 As further considered in Section 6 of this Consultation, Dot Econ assesses in its report whether a per customer approach could provide Eircom with *reasonable incentives* to decommission copper so that Eircom would take into account the cost benefits of eliminating network duplication and shut down the copper network in the same manner as would an integrated provider facing all the costs and benefits.

114 Please see Section 6 of this document for further details.

115 Different considerations apply in the **Commercial Areas**, and it is also necessary to distinguish between Generic Access and access to CEI by NBI for transit purposes. The considerations which led to the adoption of the existing price control for CEI continue to apply insofar as Generic Access is concerned. In particular the price for Generic Access should provide the correct investment incentives to promote competition by existing competing operators and facilitate commercial entry by alternative infrastructure providers, taking into account that by contrast to the NBP IA, Eircom is likely to continue to invest in CEI in these areas in order to continue to provide fixed line services to other operators, self- supply to its own retail arm and to end-users. Promoting competition and encouraging efficient investment mean sending the correct 'build-or-buy' signals to Eircom and other operators.

116 By contrast, NBI's CEI access in the Commercial Areas may not be used for the purpose of competing with other operators in the Commercial Areas, as part of the

[55] Section 5.6 of the Dot Econ Report.

conditions to the subsidy from the State. NBI's CEI access in the Commercial Areas is limited to those situations where it requires access for the purposes of transit in order to provide its services in the NBP IA, using its subsidised network. A factor for consideration in terms of NBI's access to CEI in the Commercial Areas is the fact that Eircom has already replaced poles and cleared duct blockages in the Rural Commercial Area to facilitate the deployment of its own 300k FTTH Rural Network. Existing CEI assets in this context could be considered reusable for the provision of fibre broadband services by NBI in the Commercial Areas. ComReg considers the particular circumstances of NBI's transit access in the Commercial Areas as part of its assessment of an appropriate costing / pricing methodology in Sections 5 and 6 of this Consultation document.

117 The points raised above are considered further below in Sections 5 and 6 (in determining the costing / pricing methodology for CEI access) and also in Section 7 (in determining the appropriate WACC for CEI access in the NBP IA and for transit access outside the NBP IA).

3.6 Other regulatory considerations

3.6.1 Universal service obligations ('USO')

118 Eircom is designated as the Universal Service Provider (hereafter the '**USP**'), to provide access at a fixed location to a public communications network, for the period 29 July 2016 – 30 June 2021, for the entire State, in line with ComReg Decision D05/16[56] (hereafter the '**2016 USO Decision**'). Pursuant to the 2016 USO Decision Eircom is obliged to:

- satisfy any reasonable request to provide at a fixed location connection to a public communications network;
- satisfy any reasonable request for the provision of a publicly available telephone service over the public communications network which allows for originating and receiving national and international calls; and
- ensure that the connection is capable of supporting voice, facsimile and data communications at data rates that are sufficient to permit functional internet access (hereafter '**FIA**'), bearing in mind the technology used by the majority of subscribers and technological feasibility.

119 In paragraph 11 of the 2016 USO Decision ComReg stated that:

"…*our objective is to ensure that reasonable requests for access at a fixed location are met, but without requiring unnecessary investment in the USP's legacy copper*

[56] ComReg Document 16/65: Response to Consultation and Decision on "Universal Service Requirements – Provision of Access at a Fixed Location", dated 29 July 2016.

network and without inhibiting the retirement of that network, once an alternative is available."

120 In the 2016 USO Decision, ComReg also referred to the likely significant change to the electronic communications services (hereafter, '**ECS**') as a result of the NBP. At paragraph 26 of the 2016 USO Decision ComReg stated that:

"*The ECS market is likely to change significantly as a result of the NBP. We do not anticipate that this will be fully implemented before the end of the AFL USO 5 year designation period, and we anticipate that the full effect will not be realised for a minimum 5 years. We will however, carefully monitor and review these developments in order to evaluate what impact it may have on the provision of basic electronic communications services in the State. The most immediately foreseeable event is the NBP contract award. Accordingly, we will begin a review 3 months after the Department has concluded the NBP contract award process. On foot of this review, we will decide if we need to commence a new consultation process in relation to AFL USO in the State and we will publish an information notice regarding this*."

121 In line with the 2016 USO Decision, ComReg plans to review the impact the NBP may have on the provision of basic ECS in Ireland, as referenced above.

122 The proposals set out in this Consultation regarding the appropriate costing / pricing approach for Eircom's CEI access does not take account of any actual or potential impacts arising from Eircom's USO obligations.

3.7 Relevant European Commission Recommendations and Directives

3.7.1 2010 and 2013 EC Recommendations

123 The European Commission has published two recommendations in relation to Next Generation Access networks; a recommendation on access to NGA in 2010[57] (hereafter, the '**2010 EC Recommendation**') and the 2013 EC Recommendation on non-discrimination and costing methodologies.

124 The aim of the 2010 EC Recommendation is to develop the single market by promoting investment, competition and innovation in the market for broadband services. The 2010 EC Recommendation looks at amongst other things, common principles for the pricing of NGA services i.e., Fibre to the Cabinet ('**FTTC**') and FTTH, pricing of access to CEI, criteria for setting a risk premium (considering the investment risk associated with NGA services) while also assessing equivalence of

[57] European Commission's Recommendation of 20 September 2010 on regulated access to Next Generation Access Networks (NGA) (2010/572/EU).

access to CEI of the SMP operator for the purposes of rolling out NGA networks.

125 The 2013 EC Recommendation provides further guidance on the regulatory principles established in the 2010 EC Recommendation. The 2013 EC Recommendation, amongst other things, looks at the way copper and NGA wholesale access prices should be set and where cost orientation is appropriate. In particular where cost orientation is the preferred approach (in order to address the competition problem(s) at hand), the 2013 EC Recommendation considers that the costing methodology for the calculation of wholesale NGA access products should be based on a BU LRIC+ approach. The 2013 EC Recommendation also advises that NRAs should value reusable legacy CEI assets e.g., ducts and poles and their corresponding regulatory asset base (hereafter, '**RAB'**) on the basis of the SMP operator's accounts.[58] Specifically, NRAs should set the RAB for this type of assets at a regulatory accounting value net of the accumulated depreciation at the time of calculation, indexed by an appropriate price index such as a retail price index. NRAs should not include reusable legacy CEI assets that are fully depreciated but still in use. For non-reusable assets, the 2013 EC Recommendations provides that the RAB value should reflect the current cost or replacement cost of the assets concerned.

126 The 2013 EC Recommendation, at Paragraph 25 also highlighted the need for stable and predictable wholesale copper access prices over time stating that:

"…*Such a costing methodology should … avoid significant fluctuations and shocks, in order to provide a clear framework for investment and be capable of generating cost oriented wholesale copper access prices serving as an anchor for NGA services, and deal appropriately and consistently with the impact of declining volumes caused by the transition from copper to NGA networks, i.e. avoiding an artificial increase in wholesale copper access prices which would otherwise be observed as a result of customers migrating to the NGA network of the SMP operator*."

127 These points are considered further in Section 5 and Section 6 of this document.

3.7.2 European Electronic Communications Code

128 Directive EU 2018/1972 entered into force on 20 December 2018 which established the European Electronic Communications Code (hereafter, the '**EECC'**). The EECC amends and replaces the current EU regulatory framework for electronic communications[59]. Ireland must implement the EECC by 21 December 2020. In

[58] See paragraph 33-36 of the 2013 EC Recommendation.

[59] Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities, 7 March 2002 (as amended) (**Access Directive**); Directive 2002/20/EC on the authorisation of electronic communications networks and services, 7 March 2002 (as amended) (**Authorisation Directive**); Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services, 7 March

view of the timing of this Consultation, ComReg has considered whether its proposals, as contained in this Consultation, are consistent with the provisions of the EECC.

129 ComReg's general objectives under the EECC, as contained in Article 3, are broadly consistent with those under the current EU regulatory framework (such as the promotion of competition and citizens' interests)[60]. The EECC includes the additional objective for ComReg to promote connectivity and access to, and take up of, very high capacity networks[61] (including fixed, mobile, wireless networks) by all end-users.

130 The objective to promote competition under Article 3 also includes an explicit reference to:

"…promoting efficient infrastructure-based competition.."[62]

131 Another change from the current EU regulatory framework is that Article 3 specifies that the promotion of citizens' interests includes:

"…ensuring connectivity and the widespread availability and take-up of very high capacity networks…"[63]

132 In addition, Article 81 of the EECC explicitly sets out the role of the NRA in facilitating migration from legacy copper networks to NGA networks by establishing conditions for an appropriate migration process which is in the interests of end-users.

133 These objectives are considered further as part of the proposals in Sections 5, 6 and 7 of this Consultation document.

Q. 1	Do you have any comments or views on the matters considered in this Section 3, including in particular the regulatory objectives pursued by ComReg? Please provide reasons for your response.

2002 (as amended) (**Framework Directive**); Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services, 7 March 2002 (as amended) (**Universal Service Directive**).

[60] Article 8 of the Framework Directive.

[61] As defined in Article 2(2) and referred to in Recital 13 of the EECC.

[62] Article 3(2)(b) of the EECC

[63] Article 3(2)(d) of the EECC. See also Recital 24.

4 Differentiation of CEI price control

4.1 Overview

134 In this section ComReg discusses the possibility of differentiating the CEI price control obligation i.e., the costing / pricing methodology for CEI access services, for the two different types of CEI access seekers in the different geographic footprints.

135 The rest of this section is discussed under the following headings:

- Existing CEI price control and what has changed;
- Possible differentiation of CEI pricing remedies.

4.2 Existing CEI price control and what has changed:

136 In the 2018 WLA / WCA Market Review Decision, ComReg imposed an obligation of cost orientation on CEI access services in the WLA Market nationally and re-imposed the costing / pricing methodology (and associated maximum rental prices for pole and duct access) for CEI from the 2016 Access Pricing Decision (discussed at subsection 3.3 above), in order to address the competition problems associated with the WLA Market, including the risk of excessive pricing by Eircom as well as the potential for Eircom to distort competition given its presence in both the wholesale and retail broadband markets.

137 The existing CEI access annual rental prices set in the 2016 Access Pricing Decision (and re-imposed in the 2018 WLA / WCA Market Review Decision) are based on a combination of actual TD HCA costs for reusable assets and the BU-LRAIC+ (or replacement / current costs) for non-reusable assets, as described at paragraph 58 above.

138 The existing CEI prices are also differentiated by geographic footprint. For poles, the maximum annual rental prices are differentiated between the Modified LEA and outside the Modified LEA. This differentiation between Modified LEA and outside the Modified LEA reflected the cost differences that were observed with regard to the average historic costs for poles taken from Eircom's fixed asset register (hereafter, '**FAR**') as part of Eircom's historical cost accounts (hereafter, '**HCAs**') at that time, which in turn, would have been a consequence of the historical timing of pole investment by Eircom in different exchange areas.

139 For ducts, the existing maximum annual rental prices are differentiated by surface type (carriageway, footway and verge) and by Dublin and Provincial. Sub-contractor rates (charged to Eircom) differed on the basis of the surface type in which the duct was deployed, and so, for consistency, the cost-oriented prices set for duct access

differed depending on surface type. In addition, Eircom also faced higher subcontractor rates to deploy duct in those exchanges that are in and around the Dublin area compared to areas outside of Dublin (i.e., Provincial areas). Consequently, in the 2016 Access Pricing Decision ComReg set the prices for duct differentiated by surface type and for 'Dublin' and 'Provincial' areas, to reflect the differences in costs.

140 Since 2016 however, the majority of recent pole investment by Eircom has focused on those rural areas where Eircom has passed premises with its FTTH network. As a result, the average actual historic costs for poles in the Rural Commercial Area is now higher than in other areas of the country given the actual investments in poles (and ducts) recorded on Eircom's FAR in this area, based on Eircom's commitment (to the DCCAE) to rollout FTTH services in this area i.e., Eircom's 300k FTTH network in the Rural Commercial Area.

141 The rollout of NGA more generally requires some upgrading of Eircom's CEI, which will lead to additional costs. As set out in paragraph 140, this has already happened in the Rural Commercial Area and the resulting CEI can be shared with various potential access users. In contrast in the NBP IA, this has yet to happen and in fact the investment in CEI in this area will be triggered by new requirements of NBI's MIP. As a result, there are likely to be differences in unit costs for CEI between the Rural Commercial Area and the NBP IA.

142 In the future the level of pole replacement in the Rural Commercial Area should be much lower compared to the NBP IA and the Urban Commercial Areas, which is where the likely focus of pole replacement by Eircom will take place in the coming years. Consequently, the historic cost differential between the Modified LEA and outside the Modified LEA for pole access is less relevant. This is because any prospective cost differences are likely to be between the costs in the NBP IA and in the Commercial Areas. The same considerations apply to duct access costs, where any future investment (or replacement) by Eircom is likely to be focussed on the NBP IA and the Urban Commercial Area (rather than the existing Dublin and Provincial differentiation). This is considered further in Section 5 below.

143 In subsection 4.3 below, ComReg considers, whether the existing costing / pricing methodology for Generic Access to CEI i.e., the base case, is appropriate for NBI's MIP access to CEI or whether the costing / pricing methodology for CEI should be differentiated going forward according to the two different access types in the various geographic footprints.

4.3 Possible differentiation of CEI pricing remedies

144 Regulation 16 of the Framework Regulations provides that ComReg should take:

"…*due account of the variety of conditions relating to competition and consumers*

that exist in the various geographic areas within the State."

145 ComReg Information Notice 17/94[64] identified a number of specific circumstances susceptible to justify a different treatment of CEI access requests (among others) for the purpose of the NBP including:

1. *"The products transit the 300k area only with no service provided in the 300k area permitted*
2. *The transit products have specific network design features and are specific to the rural fibre network*
3. *25 year indefeasible right of use (IRU) access and pricing terms are proposed*
4. *There is a requirement to ensure no state aid distortion into the non-intervention area."*[65]

146 ComReg further noted in Information Notice 17/94 that:

"*While ComReg cannot fetter its discretion with regard to either regulation or competition law, ComReg is of the view that the specific circumstances identified imply that Eir would not be required to automatically offer similar terms in other circumstances. While ComReg cannot pre judge the outcome of any future access request or, as noted above, fetter its discretion, it would have regard to these specific circumstances arising from the NBP in which access to these products was granted if it were called upon to adjudicate on such a request*".[66]

147 In a subsequent information notice, Information Notice 18/51,[67] ComReg responded to questions raised by interested third parties regarding the NBP process, in particular with regard to CEI access. ComReg stated that:

"*It is ComReg's view that there are objectively justified different circumstances at play in relation to the use of NBP Specific Product Process Enhancements for the purposes of the NBP such that these would not be equivalent to CEI access provided in other circumstances. There are substantial differences between these access requests for the NBPCo and those ordinarily sought by other authorised operators ("OAO")."*

148 Therefore, ComReg has already recognised that there are "objectively justified" differences at play between CEI access provided in the context of the NBP and CEI

[64] https://www.comreg.ie/publication/comregs-response-questions-nbp-process-regulatory-matters/
[65] Information Notice 17/94, page 7.
[66] Ibid.
[67] Information Notice 18/51 on ComReg's response to Interested Parties Questions – relating to the NBP Process, dated 19 June 2018.

access ordinarily sought by other operators (referred to as Generic Access in this Consultation document).

149 It appears to ComReg that the following factors are relevant to its assessment on whether a differentiated price control obligation for CEI is deemed justified and proportionate:

- Possible impact on competition and investment incentives;
- Scale and duration of access by the CEI access seeker;
- Whether the costs of making CEI NGA-ready benefits multiple CEI users or instead is specific to one CEI user; and
- Whether Eircom's ability to recover its efficiently incurred cost is eroded by providing access to its CEI, particularly where the CEI user is competing with Eircom for the same users.

150 The remainder of this section discusses the possibility of differentiating the price control obligation for CEI i.e., the costing / pricing methodology for CEI, in light of the two different CEI access types in the Commercial Areas and in the NBP IA.

4.3.1 CEI access seekers in the Commercial Areas:

151 As explained in Section 3, there are likely to be two types of requests for Eircom's CEI in the Commercial Areas; Generic Access to CEI and access by NBI's MIP.

152 Generic Access to CEI, as described in Section 3 paragraph 92, is small scale access to CEI which is generally sought by operators that are deploying networks to compete directly with Eircom in downstream markets in the Commercial Areas. These operators tend to avail of Generic Access services to expand their existing networks in order to target customers from other network providers including Eircom in the more densely populated areas. Therefore, Generic Access to CEI can facilitate entry by other operators in those parts of the network where sufficient economies of scale and scope exist to allow a number of network operators to enter and compete with Eircom, which fosters competition in downstream markets.

153 Generic Access to CEI by other operators means that these operators are gaining access to Eircom's CEI to deploy their own cables to offer their network services downstream. Generic Access to CEI in the Commercial Areas by a competing operator entails possible loss by Eircom of its market share in the downstream markets and associated revenues and margins.[68]

[68] ComReg considers that Eircom's investment in CEI in the Commercial Areas in order to make its network 'NGA ready' benefits a number of competing operators and so the costs could be shared across all competitors.

154 Up until now, access to Eircom's CEI has been limited to Generic Access requests. The existing costing methodology (of a combination of BU-LRAIC+ cost and TD HCA costs) for Generic Access to CEI ensures that the full set of costs (fixed, variable, shared network costs and common corporate overhead costs) are recovered by Eircom in the context of providing a competing operator with access to its CEI thereby ensuring that any loss of market share by Eircom as a result of providing access does not result in inadequate cost recovery by Eircom. ComReg considers that the existing CEI costing / pricing methodology for Generic Access is the base case against which any alternative pricing approach for CEI access should be assessed. This is the approach ComReg has taken when assessing the various costing / pricing options for CEI in Section 5 and Section 6 of this Consultation document.

155 The second form of CEI access to emerge in the Commercial Areas is an access request for Eircom's CEI by NBI's MIP for the purposes of enabling NBI to transit these areas in order to serve those customers in the NBP IA.

156 Unlike Generic Access to CEI which has been discussed above, NBI's MIP is expected to require access to a significant amount of Eircom's CEI in the Commercial Areas (in particular the Rural Commercial Area) in order to transit between the NBP IA and NBI's interconnection points outside the NBP IA (i.e., in Commercial Areas), so as to serve customers in the NBP IA (circa 537,000 delivery points), over a long-term duration i.e., at least 25 years.

157 Furthermore, access requests by NBI's MIP in the Commercial Areas will be used solely to support NBI's fibre services in the NBP IA, rather than competing with Eircom to provide downstream service in the Commercial Areas. This is because NBI cannot use its subsidised network outside the NBP IA to provide services / compete for customers in the Commercial Areas. Please see Section 3 above for further details.

158 One consequence of this restriction is that NBI's use of Eircom's CEI in the Commercial Areas, and by contrast with the position with Generic Access, should not impact on Eircom's business plans in downstream markets.

159 In light of this, the question arises as to whether the existing costing / pricing methodology for Generic Access to CEI (which allows for the recovery of the full set of costs as described at paragraph 154) which recognises the potential impact on margins and cost recovery ability for Eircom due to Eircom's possible loss of market share in the downstream markets is appropriate for NBI's access. In particular, the question arises as to whether pricing CEI access price for NBI's transit access in the Commercial Areas on the same basis as for Generic Access to CEI would lead to excess cost recovery / excess revenues on the part of Eircom leading to competitive distortions in the Commercial Areas.

160 Another factor for consideration in terms of NBI's MIP access to CEI in the Commercial Areas is the fact that Eircom has already replaced poles and cleared duct blockages in the Rural Commercial Area to facilitate the deployment of its own 300k FTTH Rural Network. As such, the existing CEI assets in this context are reusable for the provision of fibre broadband services by NBI's MIP in the Commercial Areas. This should be reflected in the CEI access prices.

161 The costing / pricing methodology for CEI access in the Commercial Areas proposed in Sections 5 and 6 reflect the factors set above at paragraphs 151-160. Please see Sections 5 and 6 of this Consultation document for further details.

4.3.2 CEI access seekers in the NBP IA:

162 As set out in Section 3, subsection 3.5, ComReg's regulatory objectives for the NBP IA is to ensure that Eircom should be allowed to recover its efficiently incurred investment (plus a reasonable rate of return) when upgrading its CEI assets to allow for the sharing of those assets with NBI, and avoid inefficient network duplication.

163 In the NBP IA, NBI's MIP is likely to require substantial and widespread access to Eircom's CEI to serve circa 537,000 premises (delivery points) for at least 25 years. ComReg understands that the large majority of these poles and ducts will be provided by Eircom. It is expected that premises will ultimately be served by NBI's fibre service with many currently served only from Eircom's copper network and ultimately migrating to receive fixed line services from NBI's fibre network.

164 As a result, Eircom's investments in CEI in order to make the network 'NGA ready' will be solely due to NBI's access requirements. As a result, any investment by Eircom in CEI in the NBP IA is likely to be solely for the benefit of NBI's MIP (unlike the situation in the Commercial Areas where such investment benefits a number of competing operators). In fact, Eircom is likely to become a key supplier of CEI access services to NBI, rather than the main provider of fixed line telecommunication services in the NBP IA. In the NBP IA, ComReg expects that the migration of copper customers from Eircom's copper network onto NBI's fibre network will result ultimately in the decommissioning of Eircom's copper network and NBI may emerge as the only user of a significant proportion of Eircom's poles and ducts in the NBP IA. Hence, the costs recovered by Eircom for CEI access through NBI's MIP may be the only revenues that Eircom receives for the use of CEI in the NBP IA.

165 This also means that in a manner similar to the situation when a rival operator uses Generic Access to Eircom's CEI in the Commercial Areas (in order to compete directly with Eircom), Eircom's ability to fund / recover the cost of maintaining its CEI in the NBP IA from the revenues it receives from the customers on its copper network may be eroded over time, with the prospect that all CEI costs in the NBP IA may eventually have to be recovered from NBI's MIP.

166 A key consideration in the context of the NBP IA is setting the right incentives for the transition from copper to fibre services in the NBP IA and the eventual withdrawal of Eircom's copper network. Section 6 of this Consultation considers the cost sharing options available which might provide Eircom with suitable incentives to decommission its copper network.

167 In establishing the appropriate costing / pricing methodology for CEI access in the NBP IA, in Sections 5 and 6 ComReg has taken into account the factors set out above at paragraphs 162-166. Please see Sections 5 and 6 of this Consultation document for further details.

5 Costing methodology for CEI access

5.1 Overview

168 In this section ComReg considers the appropriate CEI costing methodology in relation to the following:

- Generic Access to CEI (as described in subsection 3.4.4 above);
- NBI's MIP in the NBP IA (as described in subsections 3.4.3 and 3.4.4 above); and
- NBI's MIP for transit purposes outside the NBP IA (as described in subsections 3.4.3 and 3.4.4 above).

169 In reaching ComReg's preliminary views below, ComReg has taken into account the proposed recommendations from ComReg's economic advisors, Dot Econ. The Dot Econ report is included at Annex 2 of this Consultation document.[69]

170 The rest of this section is discussed under the following headings:

1. Background to existing costing methodology for CEI access;
2. General costing methodologies;
3. Applying general costing methodologies to CEI access;
4. Costing principles for Reusable and Non-Reusable CEI Assets;
5. Depreciation methodology for CEI access;
6. Asset lives for CEI assets;
7. Determination of CEI unit costs.

5.2 Background to existing costing methodology for CEI access

171 As previously discussed in Section 3, in the 2018 WLA / WCA Market Review Decision ComReg imposed the obligation of cost orientation on Eircom's CEI access services in the WLA Market, nationally, and re-imposed the costing / pricing methodology (and associated maximum annual rental prices for pole and duct

[69] Dot Econ Report on pricing and costing principles for access to civil engineering infrastructure and the NBP, dated 8 September 2020.

access) from the 2016 Access Pricing Decision.[70]

172 In summary, the existing CEI access prices (for duct and pole access) in the 2016 Access Pricing Decision and re-imposed in the 2018 WLA / WCA Market Review Decision were primarily based on facilitating Generic Access to CEI who required pole or duct access for small scale or in-fill purposes to address gaps on specific routes in their own network and to compete directly with Eircom in a downstream market. The existing CEI access prices are set as follows:

a) Duct access prices are determined based on a 95% reuse of Eircom's ducts (absent NGA rollout) using projected Top Down costs or Eircom's regulatory asset base (hereafter, '**RAB**')[71] from its HCAs and an assumed 5% replacement of Eircom's ducts (due to NGA rollout) using a BU-LRAIC+ methodology (RAB based on current / replacement costs).

b) Pole access prices are determined based on a 92% reuse of Eircom's poles (absent NGA rollout) using projected Top Down costs (or Eircom's RAB from its HCAs); and an assumed 8% replacement of Eircom's poles (due to NGA rollout) based on the BU-LRAIC+ methodology (RAB based on current / replacement costs).

173 Furthermore, the existing maximum pole and duct access rental prices were determined in the Revised CAM and are differentiated by geographic footprint to take account of variances in costs in the different geographic areas. For instance, the maximum pole access rental prices are differentiated between the Modified LEA and outside the Modified LEA and based on a price per pole, split equally amongst operators using the pole i.e., the per operator approach. The maximum duct access rental prices are differentiated by surface type and by Dublin and Provincial footprints, based on a price per metre of sub-duct. For further details please see Chapter 4 and Chapter 8 of the 2016 Access Pricing Decision.

174 ComReg's approach in the 2016 Access Pricing Decision for determining the prices for CEI access ensured that the asset valuation took into account whether the assets could be reused. Assets that could be reused were valued by reference to Eircom's top down historic actual costs (or Eircom's RAB), allowing Eircom to recover its actual efficient investment in these assets and discouraging duplication of CEI. In contrast , ComReg determined that a BU-LRAIC+ approach should apply to those assets that cannot be reused and need replacement, to ensure the appropriate incentives were in place to encourage efficient investment by Eircom

[70] Please see Section 12.6 of the WLA Decision Instrument at Appendix 20 of the 2018 WLA Market Review Decision.

[71] The RAB as defined in the 2013 EC Recommendation means the total capital value of the assets used to calculate the costs of the regulated services. In the 2016 Access Pricing Decision Eircom's RAB was based on the net book value of the assets from Eircom's accounts and depreciated over the remaining lifetime of the asset by applying a tilted annuity formula which uses as a parameter the asset price index.

and give other access operators the right build or buy signals of either building their own CEI to provide NGA services or to rent Eircom's CEI.

175 ComReg considered that this approach sent the correct signals to Eircom with regard to the replacement of CEI in Eircom's existing network. Where CEI can be reused, use of actual costs from the SMP operator's accounts ensures that there is no over or under recovery of costs. Where CEI must be replaced (ducts, trenches or poles), use of BU-LRAIC+ costs for the assets to be replaced ensures that the SMP operator (Eircom) is incentivised to continue to invest and upgrade its network in an efficient manner. ComReg also considered that this valuation approach balanced the need to allow for cost recovery of investments made, while at the same time promoting continued investment by Eircom in its existing access network, where appropriate. This approach reflects the requirement in Regulation 13(3) of the Access Regulations in that the cost recovery mechanism or pricing methodology imposed serves to promote efficiency and sustainable competition and to maximise consumer benefits.

176 The approach adopted for costing Eircom's existing CEI access services is also consistent with Paragraph (35) of the 2013 EC Recommendation, which recognises that CEI are assets that are unlikely to be replicated and, consequently, the valuation of these assets should follow an approach that:

"…*sends efficient market entry signals for build or buy decisions and avoids the risk of a cost over-recovery for reusable legacy civil infrastructure*". [72]

177 In the following sections ComReg reviews the existing costing methodology for determining the costs / prices for Eircom's CEI access in the 2016 Access Pricing Decision, both in the context of setting CEI access prices for Generic Access to CEI and for NBI's MIP (in both the NBP IA and for NBI's transit access in the Commercial Areas), to assess if it remains appropriate.

178 In ComReg's assessment below, ComReg has taken into account the competition problems identified in the WLA Market based on the 2018 WLA / WCA Market Review Decision (as summarised in Section 3 subsection 3.3) as well as ComReg's regulatory objectives (set out in Section 3 subsection 3.5).

5.3 General costing methodologies

179 The costing methodology determines which costs are included in the relevant cost model and how this is transformed into a unit price. The following questions are relevant in determining the appropriate costing methodology to adopt:

- What cost items should be included?

[72] Paragraph (35) of the 2013 EC Recommendation.

- How should costs be assessed?
- What model should be used to arrive at unit cost?

180 In the context of determining the appropriate costing methodology for Eircom's CEI access, including in the context of NBI's MIP, ComReg has set out below its preliminary views.

181 The remainder of this section is discussed under the following headings:

- Appropriate cost standard;
- Historic costs or Current costs; and
- Appropriate cost model.

5.3.1 Appropriate cost standard

182 The use of cost standards is the means by which costs are allocated to services with the purpose of allowing the operator (in this case Eircom) to recover all the efficiently incurred costs associated with its network.

183 Certain assets and resources are dedicated to unique services and therefore these associated costs are considered as a direct cost and can be recovered solely from those services. However, in the case of assets and resources that can be used by many different services rules are needed to inform the allocation of the related costs to the particular services that the assets / resources support:

- Joint costs: these are costs incurred by some but not all services (e.g., a voice platform that is used by call transit, call origination, call termination, but not by broadband services or leased lines services);
- Shared (or common) network costs: these are costs used by all services e.g., common network costs of ducts and trenching are consumed by all fixed line services and which are referred to as '**shared network costs**' in this document; and
- Common corporate (overhead) costs: these are costs that cannot be allocated to services using a specific allocation method e.g., the costs of the Chief Executive's office which cannot be associated with one single service or a single set of services would be allocated to all services, and which are referred to as '**common corporate costs**' in this document. [73]

[73] Common corporate costs generally relate to general overheads which typically include general IT system costs, office accommodation and transport management as well as corporate costs such as finance, legal, HR and senior management.

184 The regulatory options to consider in the context of determining the appropriate cost standard for CEI assets typically involve either:

1. Long run incremental cost (hereafter '**LRIC**'); or
2. Long run average incremental costs (hereafter '**LRAIC**'); or
3. LRAIC plus a mark-up for common corporate costs (hereafter '**LRAIC+**'); or
4. Fully allocated costs (hereafter '**FAC**').

185 Paragraph 6(k) of the 2013 EC Recommendation defines LRIC as:

"…*the incremental costs corresponding to a time horizon where all factors of production, including capital equipment, are variable in response to changes in demand due to changes in the volume or in the structure of production. Therefore all investments are considered as variable costs*."

186 LRIC includes the direct fixed and variable costs relevant to the increment of providing the service over the long-run (or often referred to as '**Pure LRIC**'). As a result, this 'Pure LRIC' approach does not include recovery of shared network costs or common corporate costs, from other divisions of the operator's business.

187 'Pure LRIC' has been used by NRAs in recent years to set the prices for wholesale voice call termination services on the basis that there is sufficient scope for the network operator to recover all of its shared network costs and its common corporate costs across the remaining services it provides.

188 LRAIC typically includes all of the average efficiently incurred variable and fixed costs that are directly attributable to the activity concerned over the long-run. The main difference between LRAIC and LRIC, is that the increment that is considered under LRAIC tends to cover a wider range of services compared to the LRIC approach, e.g. LRAIC could consider all voice services while LRIC would focus on a sub-set of voice services such as wholesale call termination.

189 The difference between LRAIC and LRAIC+ is that LRAIC+ includes a mark-up to allow for the recovery of common corporate costs, typically using an equi-proportionate mark-up (hereafter '**EPMU**'). Hence, LRAIC+ includes all of the average efficiently incurred variable and fixed costs that are directly attributable to the activity concerned over the long-run, plus a mark-up for common corporate costs. LRAIC+ is used where, given the significant proportion of fixed and joint costs in telecoms a contribution to common corporate costs is necessary to ensure the network operators can continue in the long-run. In general, LRAIC+ is the appropriate cost standard to encourage efficient investment decisions while ensuring that an operator is capable of recovering (but not over-recovering) all of

its efficient costs. This approach should send the appropriate investment signals to alternative operators who may want to replicate the asset(s) in question.

190 An alternative to the various forms of LRIC is the FAC approach, which means that all of the costs efficiently incurred by the regulated operator, including sunk costs, are typically allocated to products following allocation rules determined by the direct or indirect causality of costs with products. This approach includes all fixed, shared and common corporate costs. The FAC approach results in a price signal which has the advantage of being relatively consistent with the recorded investments incurred by the SMP operator. The efficiency / entry signals of the FAC approach depend on the cost appraisal and the choice between top down and bottom up models, which is discussed below. However, where a FAC approach is adopted, care should be taken to ensure that inefficiently incurred costs are excluded.

191 The FAC approach is similar to LRAIC+ to the extent that it attributes common costs between the various services offered by the operator. This means that for large increments, such as the whole local loop, the LRAIC+ would be similar to the FAC approach. However, the LRAIC+ and FAC outcomes can differ due to the different efficiency levels that are inherent to both approaches. The concept of LRAIC+ cost is generally applied in the context of an efficient operator building a modern network, whereas the FAC concept is usually applied to an existing operator and so runs the risk of including legacy inefficiencies.

192 ComReg continues to consider that in general some form of LRIC (Pure LRIC / LRAIC / LRAIC+) is the appropriate cost standard particularly for non-reusable assets in the case where the main objective is to encourage efficient investment decisions in the access network.

5.3.2 Historic costs or Current costs

193 The next consideration is how costs should be assessed. There are two options in terms of considering the appropriate cost base to adopt:

1. Current cost; or
2. Historical cost.

194 The current cost (hereafter, '**Current cost**') approach values assets at the current market value and allows one to reflect the changes in asset prices. In addition, the Current cost approach can be implemented either based on the SMP operator's accounting system in which case it is called Current Cost Accounting or (hereafter, '**CCA**') or on a bottom-up (hereafter, '**BU**') model basis. It should be noted that Eircom does not produce accounts on a CCA basis. The second approach (BU model approach) allows us to reflect the costs that a hypothetical entrant would incur when investing at any particular point in a modern equivalent asset (hereafter,

'**MEA**'). In this case, where technology is changing rapidly, the price set for the use of a particular asset may not reflect the actual costs incurred in relation to that asset (in the past). Hence, there is less of a direct relationship between the prices charged and the actual investment made.

195 The economic rationale for the Current cost approach applied by means of a BU model is that by linking the value of the assets to a newly deployed network it promotes efficient investment incentives. The Current cost approach also ensures that the SMP operator recovers its future costs thereby encouraging it to make efficient infrastructure investment decisions.

196 The Current cost approach is particularly relevant in the more competitive areas of the country if the BU-LRAIC+ approach is used to promote efficient infrastructure investment in the marketplace and encourage innovation in new and enhanced infrastructures by Eircom and other operators.

197 The historic cost (hereafter, '**Historic cost**') approach, also referred to as the HCA approach, on the other hand uses the SMP operator's costs, which reduces the chance of over or under recovery of costs as the value is linked to the actual investment made in existing assets as opposed to the MEA approach, which assumes the investment is in new infrastructure. Some of the SMP operator's assets may be fully depreciated but still in use. The HCA approach should ensure that Eircom is not over recovering the costs of these assets.

198 The European Commission in the 2013 EC Recommendation at paragraph 31 provides that:

> *"NRAs should adopt a BU LRIC+ costing methodology that estimates the current cost that a hypothetical efficient operator would incur to build a modern efficient network*…"

199 Furthermore, Paragraph 32 of the 2013 EC Recommendation provides that:

> *"When modelling an NGA network… NRAs should include any existing civil engineering assets that are generally also capable of hosting an NGA network as well as civil engineering assets that will have to be newly constructed to host an NGA network. Therefore, when building the BU LRIC+ model, NRAs should not assume the construction of an entirely new civil infrastructure network for deploying an NGA network."*

200 Paragraph 33 of the 2013 EC Recommendation provides that:

> *"NRAs should value all assets constituting the RAB of the modelled network on the basis of replacement costs, except for reusable legacy civil engineering assets."*

201 Therefore, the 2013 EC Recommendation recognises that a key criterion in the valuation of the RAB[74] for civil infrastructure network is the extent that existing CEI assets can be reused in an NGA network and that the RAB for non-reusable assets should be based on current / replacement costs.

202 The concept of asset replicability means the extent to which assets can be replicated in an economic efficient manner, as described at paragraph 224 below. As noted above, CEI is generally not replicable given the high fixed costs involved. Hence, where capacity limits are not exhausted, it makes sense to share the use of CEI rather than building parallel CEI. In some cases there may be costs associated with upgrading or modifying CEI to allow for sharing but where this is cheaper than building parallel CEI then it would not be considered efficient to replicate the CEI asset(s).

203 Separately, it is important that the right build-or-buy incentives are in place to encourage competing downstream networks, such as broadband networks, to be replicated. If there is actual investment taking place the SMP operator should be allowed to recover the cost of the asset, but if there is no investment and assets are "sweated" to get the maximum value from them then the SMP operator should not be compensated over and above the initial Gross Book Value of those assets ('**GBV**'). Therefore, this ensures that efficient market entry is not inhibited by over-charging for reusable assets.

204 On the other hand, the valuation of CEI assets which require further investment in terms of replacement or remediation to facilitate the rollout of NGA services i.e., non-reusable assets, should be set by reference to replacement or Current costs in order to send the appropriate signals for NGA investment.

205 Subsection 5.5 below looks at how reusable and non-reusable CEI assets should be valued in determining the appropriate costs associated with CEI access.

5.3.3 Appropriate cost model

206 Another consideration in determining the appropriate costing methodology for regulated services is the type of model to use in order to derive the costs.

207 ComReg has considered the following two options in terms of the appropriate cost model to adopt:

1. A top down ("**TD**") model; or
2. A bottom up ("**BU**") model.

[74] Paragraph 6(q) of the 2013 EC Recommendation defines the RAB as "*the total capital value of the assets used to calculate the costs of the regulated services*".

208 A **TD cost model** relies on the SMP operator's accounting information to separate out the relevant costs and to calculate the per unit cost for a service.

209 The TD approach is better suited to achieve exact cost-recovery as it is linked to the actual investments made by the SMP operator and recognises the extent to which the relevant asset base has already been depreciated. The main disadvantages of this option are that the accounting information may include inefficient costs incurred by the SMP operator and it does not provide the appropriate build-or-buy signal i.e. no incentive for operators to replicate assets such as cables needed to deploy broadband networks.

210 TD models can be constructed on a HCA or CCA basis. For a TD model based on HCA, the net book values (hereafter, '**NBV**') of relevant assets are derived from the SMP operator's FAR and depreciated over their remaining useful life[75].

211 A **BU model** reflects the choices of a hypothetical, forward-looking efficient operator from both a technical and an operational point of view. A BU model is generally a data intensive process of dimensioning the network assets as if the network was being built (either as it stands, or with improvements to the topology). This approach is associated with models that are aimed at promoting efficient entry, since the cost model can consider how a network would be built today, rather than modelling the actual network built. As the valuation process is based on current asset prices, a BU model effectively determines the cost today of building a hypothetical efficient network capable of delivering the assumed level of demand.

212 The main economic reason to use a BU model is the need to send a build-or-buy signal to alternative operators who may want to replicate the asset and to send the right signal to Eircom when existing network infrastructure needs to be renewed. It is also more efficient to make forward-looking estimations based on expected levels of demand rather than relying on historical data.

213 As a BU model calculates the level of network costs on the basis of the quantity of equipment and infrastructure that an operator using efficient engineering rules would deploy to support an assumed level of demand. BU models tend to lend themselves to some form of the LRIC approach. The combination of LRIC(+) with a BU model is one of the most commonly encountered practices in cost models.

214 A TD LRIC model does not fully encompass the engineering model and network redesign aspects of a BU LRIC model. A TD cost model uses the accounting information of the operator as a starting point and as a consequence the model is based on an existing network, which may not represent the most efficient network deployment. Consequently, adjustments for potential inefficiencies in the top-down

[75] The regulatory asset lives of assets are intended to reflect the economic asset life and may differ from the statutory asset lives of assets.

costs have to be considered.

215 In addition, because TD models are constrained by the level of costing and operational data contained in the operator's information systems, they often lack the level of granularity required to adequately identify incremental costs or to identify inefficient expenditure. Even when operational and costing information is available at a regional and local level there can still be practical issues in attempting to incorporate and maintain the required level of detail in a TD model. For this reason the FAC approach is most frequently applied to TD models.

ComReg's Preliminary View:

216 In general a BU model (in combination with some variant of the LR(A)IC(+) costing methodology) should be applied where the asset(s) concerned are non-reusable and where the objective is to encourage the deployment of alternative infrastructure as this is the appropriate means to send a build-or-buy signal to alternative operators who may want to replicate the downstream assets (i.e., broadband, leased lines).

217 On the other hand, the TD model (in combination with actual costs recorded in the HCAs but adjusted for efficiencies) should be applied where the asset(s) concerned are reusable and where the objective is to ensure that there is no over-or-under recovery of costs.

Q. 2 Do you agree with ComReg's preliminary views on the general costing methodology principles? Please provide reasons for your response.

5.4 Applying general costing methodologies to CEI access

218 In the subsection above ComReg discussed the costing methodologies that generally apply in the context of determining the costs / prices for regulated telecoms services which are subject to a cost orientation obligation. In this subsection ComReg assesses whether the existing CEI costing / pricing methodology for Generic Access i.e., the base case, should remain in place, both for Generic Access to CEI and for CEI access in the context of the NBP or whether there are objectively justified reasons to differentiate the CEI costing methodology based on the nature of the access sought in the different geographic footprints, having regard to ComReg's regulatory objectives.

219 As recognised in the 2013 EC Recommendation (at Paragraph (34), as discussed at paragraph 224 below), the costs of CEI are such that CEI is unlikely to be replicated by other operators, nationally. Hence, the "build" option for CEI is not considered to be economically feasible. Instead the CEI access service should be priced in such a way so as to encourage efficient entry by providing other operators with access to existing CEI while maintaining the investment incentives of the owner

of that CEI by allowing it to recover its efficiently incurred costs plus a reasonable rate of return on its capital employed. Therefore, the overall costing / pricing methodology should consider both the costs that arise as a result of another operator gaining access to existing CEI but also the costs the CEI provider (Eircom) has incurred to deploy and maintain that CEI. This point is considered in further detail below.

5.4.1 CEI access in the Commercial Areas:

Generic Access to CEI in the Commercial Areas:

220 As already discussed in Section 4.2, the existing CEI prices are differentiated for poles on the basis of a price for the Modified LEA and for outside the Modified LEA, to reflect the costs associated with poles access in those particular geographic footprints. Similarly, the prices for ducts, are differentiated based on a price for duct in the Dublin area and a price for duct in Provincial areas, to reflect contractor rates associated with the provision of duct access in those specific geographic areas.

221 Since 2016, the historic cost differential between the Modified LEA and outside the Modified LEA for pole access is less relevant. This is because any prospective cost differences in terms of investments in poles by Eircom are likely to be between the costs in the NBP IA (for the purposes of NBI's MIP) and in the Commercial Areas (for Generic Access to CEI and to support NBI's transit access).

222 In terms of Generic Access to CEI, demand for such access is more likely in the Commercial Areas over the next few years. CEI access in the NBP IA is likely to be solely from NBI (addressed separately below), with little demand expected from Generic Access users. Hence, ComReg proposes to determine a national price for Generic Access to poles and for Generic Access to ducts, based on the costs associated with access in the Commercial Areas. As a result, ComReg proposes that the existing pricing structure i.e., a price for pole access in the Modified LEA and a price outside the Modified LEA as well as a price for duct in Dublin and a separate price for duct in Provincial areas, should no longer apply.

223 In the Commercial Areas one of ComReg's objectives is to encourage competition through the promotion of network expansion by alternative infrastructure providers. In this area, Generic Access users of Eircom's CEI are expected to continue to offer NGA services that compete with Eircom and so the CEI costing methodology should ensure that Eircom can continue to recover all of its efficiently incurred costs (plus a reasonable rate of return).

224 Paragraph 34 of the 2013 EC Recommendation states that:

"*Unlike assets such as the technical equipment and the transmission medium (for example fibre), civil engineering assets (for example ducts, trenches and poles) are assets that are unlikely to be replicated. Technological change and the level of*

competition and retail demand are not expected to allow alternative operators to deploy a parallel civil engineering infrastructure, at least where the legacy civil engineering infrastructure assets can be reused for deploying an NGA network".

225 In the Commercial Areas the costing methodology for CEI access should support access to existing CEI and promote efficient utilisation of those reusable CEI assets. Hence, ComReg is of the preliminary view that a combination of the TD HCA (for reusable CEI assets) and a BU-LRAIC+ approach (for non-reusable CEI assets), should apply for determining the costs appropriate to Generic Access to Eircom's CEI. The costing principles relating to reusable and non-reusable CEI assets are considered in subsection 5.5 below.

226 The BU-LRAIC+ methodology for Generic Access to CEI includes a contribution of shared network costs and common corporate costs. This approach recognises that Eircom should recover all of its efficiently incurred costs, taking into account the likely loss of Eircom's margins due to its loss of market share in the downstream markets as a result of a competing operator seeking Generic Access to Eircom's CEI. Therefore, Generic Access to CEI can facilitate entry by other operators in those parts of the network where sufficient economies of scale and scope exist to allow a number of network operators to enter and compete with Eircom, which fosters competition in downstream markets.

227 As noted by Dot Econ in section 8.5.2 of its report, included at Annex 2 of this Consultation:

"*Where a service is efficiently priced and includes a contribution to common costs, in typical cases it will be efficient for the price of an underlying access service that allows other providers to offer a competing service to include a similar common cost contribution. This approach ensures that the access provider will be efficiently bypassed by another provider whenever it can undertake the activities downstream of the access service more efficiently. If this were not the case, then as customers were lost from the access provider, the contribution to its common costs would be lost as well*."

228 For Generic Access to CEI in Commercial Areas, ComReg is of the preliminary view that users should continue to pay a contribution to shared network costs in addition to common corporate costs, which recognises that Eircom should recover all of its efficiently incurred costs when providing access to its CEI to other competing operators. Hence, the costs to be recovered through facilitating Generic Access in the Commercial Areas should continue to include all costs i.e., incremental, shared network costs and common corporate costs.

229 Subject to capacity constraints, a significant amount of existing CEI can support multiple operators. For example, a pole of 8.5 metres is likely to support at least 6 cables, so if 4 cables are already deployed on the pole, another operator could

deploy up to 2 more cables without a material increase in the cost of the pole. In this instance a LRAIC+ approach would consider the cost of purchasing and installing a pole as a shared network cost that could be recovered from both of these operators. Similarly, the costs of ducts, trenches and chambers would be considered as costs which are shared by all operators using a section of underground CEI. ComReg considers that the costs of sub-duct should be considered as incremental to the access seeker that uses that sub-duct, which is discussed further below at subsection 5.8.

230 Furthermore, CEI comprises assets that can continue to provide a benefit to operators and services many years after the asset was first installed. Therefore, a cost is not necessarily incremental just because it is incurred at the time an access request is made. Activities such as duct clearance and pole replacement can continue to be of benefit to network operators who need to access those ducts and poles to deploy new cables in the future. Therefore, ComReg considers that it is reasonable to treat the CEI investments needed to make the network 'NGA ready' as a shared network cost to be recovered from all operators that can potentially benefit from that investment in the long run. This ensures that the cost sharing benefits of CEI access are spread out indiscriminately across all competitors. Incremental costs and shared network costs are discussed further below in subsection 5.8.

231 Further, the mark-up for common corporate costs in the costing methodology for Generic Access to CEI is set to be consistent with the decision taken by ComReg in the 2018 Access Pricing Decision. In that Decision ComReg determined the principle that all common corporate costs of Eircom's access network should be recovered from services sold in commercial areas, with the result that services sold outside the commercial areas should not be expected to make any contribution. The FTTC VUA prices (which include a portion of CEI costs) set in the 2018 Access Pricing Decision reflect this principle. To date, no changes have been made to the standalone prices of CEI to reflect this principle as there has been no material demand for CEI access. Hence, in this Consultation ComReg proposes to reflect this principle so that there is consistency in the approach to common corporate costs recovery between the various wholesale access prices.

232 ComReg is of the preliminary view that the costing methodology (based on a mix of TD HCA and BU-LRAIC+) is proportionate and justified in the context of Generic Access to CEI in the Commercial Areas, for the reasons already discussed at paragraphs 220-231 above. This approach is also consistent with the costing methodology that has been applied to the existing CEI prices, set in the 2016 Access Pricing Decision.

NBI's MIP access to CEI in the Commercial Areas:

233 In the Commercial Areas one of the key differences between Generic Access to

Eircom's CEI and NBI's expected use of Eircom's CEI is the fact that NBI cannot use its subsidised network outside the NBP IA to serve customers and compete directly with Eircom in downstream wholesale markets[76] in these areas. As set out in Section 3 (subsection 3.4), NBI's MIP access to Eircom's CEI in the Commercial Areas is solely required so that NBI can transit the Commercial Areas in order to serve those customers in the NBP IA.

234 Unlike Generic Access to CEI which has been discussed above, NBI's MIP is expected to require access to a significant amount of Eircom's CEI in the Commercial Areas (in particular in the Rural Commercial Area) in order to deploy its network to reach the premises (circa 537,000 delivery points) that are dispersed across the NBP IA.

235 The fact these premises are dispersed around towns and villages in a large proportion of Eircom's exchange areas means that NBI's MIP is likely to be deploying fibre cables on the same poles and ducts that Eircom has already deployed fibre cables to serve the premises in Eircom's 300k FTTH network in the Rural Commercial Area. NBI is also likely to require access to sections of Eircom's ducts in the towns and villages where Eircom currently offer NGA services using FTTC and eVDSL and where Eircom is planning to deploy FTTH in the near future.

236 Furthermore, as access to Eircom's CEI for NBI's MIP in the Commercial Areas is expected to be used solely to support NBI's fibre services in the NBP IA, rather than competing with Eircom to provide downstream services in the Commercial Areas, NBI's use of Eircom's CEI in the Commercial Areas should not impact on Eircom's downstream revenues from wholesale services sold to premises in the Commercial Areas. In this regard, Eircom should not face any erosion of its market share as a result of facilitating the use of its CEI for NBI's MIP to transit the Commercial Areas. This is in contrast to the situation when a competing operator uses Generic Access to Eircom's CEI service in order to compete directly with Eircom.

237 Dot Econ at section 8.5.2 of its report states that:

"*We do not see any particular reason that central overhead costs need be recovered in CEI access charges for NBI in the commercial area. This is because NBI is not offering competing services within the commercial area and so does not affect Eircom's ability to recover its central overhead costs. Indeed, to do would create the problem discuss at length above that Eircom would earn margins on CEI access sold to NBI that would reduce prices for other services sharing that CEI, with possible knock-on effects on incentives for full infrastructure-based competition*."

238 Furthermore, the majority of NBI's MIP demand (particularly for poles) in the

[76] By downstream wholesale markets we mean where an access seeker uses a WLA input from Eircom in the WLA Market in order to provide (and compete) with Eircom in a variety of downstream wholesale (or retail) services in other markets e.g., Regional WCA Market.

Commercial Area is expected to be in the Rural Commercial Area, which comprise those parts of Eircom's 300k FTTH network in the Rural Commercial Area where it has already deployed an FTTH network to pass over 300k premises that were originally considered part of the NBP IA. As such, the existing CEI assets in this context should be reusable for the purpose of NBI's MIP as Eircom has already replaced poles and cleared duct blockages to facilitate the deployment of its own 300k FTTH Rural Network. Eircom therefore ought to fund / recover this investment from the revenues it receives from all of the services (copper and fibre) it continues to sell to the customers on its network. ComReg considers that the fact that NBI is likely to deploy fibre cables on Eircom's poles or ducts alongside Eircom's own cables should not alter Eircom's ability to recover this investment as NBI cannot use its subsidised network outside the NBP IA to compete with Eircom or target those customers.

239 If the CEI access costs for NBI's transit access in the Commercial Areas were set to reflect the same basis as the costs relevant for Generic Access to CEI service at paragraphs 225-232, Eircom is likely to receive excess revenues from NBI's MIP which could lead to distortions of competition. For example, if NBI requires access to circa 300k poles in the Commercial Area and for illustration a CEI access price of €10 is charged this could generate revenues for Eircom of circa €3m annually from year 7 of the contract, which would amount to circa €54m over the remaining 18 years of the NBP contract (assuming no inflation).

240 As set out by Dot Econ in its report (in section 5.3.2), at Annex 2 of this Consultation,

"…*there are two potential impacts affecting competitors to Eircom:*

- *lowering the cost of wholesale services provided by Eircom such as VDSL VUA, particularly if prices are cost oriented; and*
- *making the use of CEI access more attractive for other providers relative to building their own infrastructure.*

Both impacts tend to suppress incentives for competitive infrastructure-based competition within the commercial area.."

241 In light of this there is a case to be made that for CEI access in the Commercial Areas for the purpose of NBI's MIP, it is appropriate that NBI only pay for the long run incremental cost that it causes, and no more.

242 ComReg also sets out below consideration of both the long run incremental costing methodology as well as the existing methodology of LRAIC+, for setting the CEI access price for facilitating NBI's MIP transit access in the Commercial Areas. ComReg welcomes the views of interested parties on our considerations and observations.

243 Firstly, if Eircom recovers the CEI access costs for facilitating NBI's transit access in the Commercial Areas based on the existing methodology for Generic Access to CEI (i.e., LRAIC+) this would allow Eircom to receive a contribution to the recovery of its shared network costs and common corporate costs. This would be in addition to the contribution Eircom already receives from the revenues of all its other wholesale services it continues to sell to service providers (including Eircom Retail) in the Commercial Areas. As a result, there is the potential for Eircom to over recover CEI costs (or earn additional gross margins) associated with NBI's transit access in the Commercial Areas over and above the efficient costs incurred by Eircom in the supply of that CEI service.

244 The use of the LRAIC+ option for NBI's transit access in the Commercial Areas would mean that Eircom should have a lesser amount of costs to recover from other wholesale regulated services that use CEI i.e., SB-WLR. This "waterbed" (or "see-saw" as referred to by Dot Econ below) effect would have to be addressed in order to avoid possible over recovery of costs by Eircom so that it can comply with its cost orientation obligations. However, given that not all services are cost oriented (e.g, FTTH rental services are based on the obligation not to cause a margin squeeze), addressing the issue of over recovery and how it impacts on other services could be difficult.

245 Furthermore, the option of LRAIC+ leads to a risk that any revenues that exceed incremental costs could distort competition for services in related competitive markets. If Eircom recovered in excess of its incremental cost (under the option of LRAIC+) this may lead to additional margins being earned by Eircom from those CEI assets sold to NBI (and who are not in a position to compete in the Commercial Areas) which may, in turn, result in Eircom obtaining an unfair competitive advantage and result in cross subsidisation of other services to the disadvantage of other alternative operators.

246 As set out by Dot Econ in Section 5.3.2 of its report:

> "…*to the extent that Eircom earns additional margins from supplying NBI with CEI access within the commercial area, this has the potential to affect infrastructure-based competition between Eircom and third parties within that area. This is both because prices of Eircom's wholesale services might fall and also because general CEI access prices might fall, affecting build-vs-buy incentives (what might be called "see-saw" effects caused by requiring cost-reflective CEI assets). Any such distortion would be an indirect consequence of the NBP intervention, as Eircom's CEI, used by Eircom and parties other than NBI, would be cross-subsidised by NBI's payments for CEI access*."

247 Dot Econ also make the point that given the substantial volume of access by NBI to Eircom's CEI in the Commercial Areas the indirect effect of Eircom benefitting from additional margins from providing such CEI access to NBI could be material, stating

in section 5.3.2 of its report that:

"*NBI is likely to require a substantial volume of CEI access services in the commercial area due to the intervention area being highly fragmented therefore this indirect effect may not be insignificant. In order to interconnect the various isolated patches of intervention area, NBI is likely to need to criss-cross the commercial area even though it is not supplying services there. Therefore, there is a case for ensuring that Eircom does not earn additional gross margins from supplying CEI access services to NBI within the intervention area to avoid this problem; this amounts to NBI paying for CEI access for transit purposes in the commercial area to cover the additional costs caused by NBI's use, but no more*."

248 Please also see Section 5, in particular section 5.3.2, of the Dot Econ report for further details, at Annex 2 of this Consultation document.

249 When there is a request for Generic Access to Eircom's CEI service in order to compete with Eircom in a downstream market this situation does not arise as the consequent likely erosion of Eircom's market share in that downstream market should also erode Eircom's gross margins, as discussed earlier at paragraph 226.

250 Therefore, in the Commercial Areas, in the case where Eircom is expected to lose customers as a result of providing an operator with access to its CEI then ComReg believes that it is reasonable that this be recognised in the costing methodology. Therefore, a LRAIC+ approach (which includes a contribution to shared network costs and common corporate costs) seems appropriate as it ensures that Eircom can recover all relevant costs. However, when providing CEI access does not have any consequences for competition in downstream markets, a LRAIC+ approach may not be appropriate, as Eircom's ability to recover its costs from the revenues it receives from the customers it serves on its network is not affected.[77]

251 In determining the appropriate costing methodology for NBI's MIP access in the Commercial Areas, ComReg must ensure that the costing approach chosen achieves the correct balance between ensuring recovery of costs by Eircom while ensuring that the approach is consistent with its regulatory objectives, including promotion of competition and encouraging efficient investment. ComReg considers it important that the costing approach does not create any distortionary effects, particularly in the context of the investment incentives of other alternative infrastructure providers in the Commercial Areas.

252 Coming back to the costing option for determining the costs for CEI access by NBI's MIP for transit access in the Commercial Areas, is the long run incremental costs (or LRIC) incurred by Eircom to enable NBI's sharing of Eircom's CEI.

[77] It is important to note that in the future if NBI started to compete for customers in the Commercial Areas then a LRAIC+ approach would likely be considered as the relevant costing methodology.

253 The option of long run incremental costs (or LRIC) for NBI's transit access in the Commercial Areas are the costs avoided in the long run by just one sharer (NBI in this case) ceasing use, but the CEI assets are still needed to meet the needs of other sharers including Eircom. This is referred to in Section 5.3.2 of the Dot Econ report at Annex 2 of this Consultation document as the "*sharer incremental costs*". ComReg considers that this approach seems consistent with the LRIC regulatory cost standard described at paragraph 186, as it does not include any contribution towards shared network costs or common corporate costs.

254 As noted by Dot Econ at section 5.8 of its report:

"…*Within the commercial area*, *a key concern is to avoid that Eircom's CEI is supported by contributions to the common costs made by NBI for transit demand, as this could chill incentives for infrastructure provision by other parties."*

255 Please also see paragraph 237, for Dot Econ's views on the recovery of common corporate costs (or referred to by Dot Econ as 'central overhead costs') in the Commercial Areas.

256 From a practical perspective, for example, the fact that Eircom has recently cleared and repaired ducts in the Rural Commercial Area means that the costs associated with NBI access should be limited with providing the additional sub-duct capacity necessary to accommodate NBI's access requests. In other words, the fact that Eircom will continue to deploy its own cables in the Commercial Areas means that the cost of duct clearance there is not incremental to NBI's MIP access service.

257 By the same logic, Eircom's pole replacement in the Commercial Areas is unlikely to be incremental to NBI's MIP access as, even without NBI's MIP, Eircom would still need to replace poles in the Commercial Areas to support its own cable network as it continues to be a network operator in these areas and is likely to continue to be the main user of these assets.

258 As noted above at paragraph 253, this approach to incremental costs is consistent with the "sharer incremental cost" and as recommended by Dot Econ in Section 5.3.2 of its report at Annex 2, as:

"…*the costs avoided by just <u>one</u> sharer ceasing use, but the asset still being needed to meet the needs of other sharers*".

259 ComReg considers that the LRIC methodology for determining the costs of NBI's transit in the Commercial Area still ensures that Eircom recovers its efficiently incurred costs caused by NBI's shared access while promoting efficient use of existing reusable CEI assets. This option (of LRIC) also recognises that Eircom should suffer no loss of wholesale or retail revenues in this area as NBI cannot use its subsidised network outside the NBP IA to serve customer and compete in this area.

260 On balance ComReg considers that the LRIC option for NBI's CEI access for transit access in the Commercial Areas achieves the correct balance between ensuring recovery of costs by Eircom while being consistent with ComReg's regulatory objectives, including promotion of competition and encouraging efficient investment. ComReg welcomes the views of interested parties on whether the LRIC approach should apply or if a LRAIC+ approach were adopted how the potential over-recovery of costs by Eircom in that case could be addressed, in a practical way (see the issues arising described at paragraphs 243-245).

261 As noted later in Section 5.8, paragraphs 424-426, based on the information to hand, ComReg has not identified any capital costs for poles that would be considered incremental to NBI's transit access in the Commercial Areas. ComReg invites the views of interested parties on this point. All capital costs associated duct access are considered to be shared network costs except for sub-duct which ComReg proposes should be treated as incremental to the access seeker. In terms of operating costs, ComReg has estimated possible incremental operating costs associated with ongoing wholesale costs such as product management, billing or account management. ComReg has included a proposed estimation of these costs in the Draft PAM and Draft DAM. Please see Section 5.8, paragraph 427 of this Consultation.

5.4.2 CEI access in the NBP Intervention Area

Generic Access to CEI in the NBP IA:

262 As set out in Section 3, Generic Access requests for Eircom's CEI in the NBP IA are not likely to be material. ComReg proposes to determine a national price for Generic Access to poles and for Generic Access to ducts, based on the costs associated with access in the Commercial Areas, rather than the existing pricing structure of a price for pole access in the Modified LEA and a price outside the Modified LEA as well as a price for duct in Dublin and a separate price for duct in Provincial areas. Please see further details at paragraphs 220-222.

263 ComReg proposes to adopt a combination of a BU-LRAIC+ methodology and a TD HCA methodology for Generic Access to CEI for the reasons already discussed at paragraphs 223-232.

264 Applying the BU-LRAIC+ methodology to all Generic Access users of CEI does mean that the prices charged to any Generic Access users of CEI in the NBP IA would include a mark-up to recover common corporate costs. This is inconsistent with the principle determined in the 2018 Access Pricing Decision that all common corporate costs should only be recovered from services offered/sold in the

Commercial Areas.[78]

265 However, as demand for the Generic Access service in the NBP IA is not expected to be material, this should have no material implications for cost recovery. ComReg will keep this under review should demand levels for Generic Access to Eircom's CEI in the NBP IA materialise.

266 ComReg is of the preliminary view that the proposed costing methodology set out at paragraphs 223-232 i.e., a mix of TD HCA and BU-LRAIC+ is appropriate for Generic Access to CEI prices, set by reference to the costs associated with Generic Access in the Commercial Areas.

NBI's MIP access to CEI in the NBP IA:

267 As set out in Section 3, the scale of NBI's access to Eircom's CEI in the NBP IA is expected to be very significant and for a long-term duration. According to the DCCAE the NBI network will require access to over 1.5m poles and over 15,000 kilometres of underground duct networks. Access will be over a minimum period of 25 years, between the NBP IA and Commercial Areas, although the most significant access will be in the NBP IA.

268 In the case of access to Eircom's CEI by NBI's MIP in the NBP IA, ComReg recognises that NBI's fibre network roll out in this particular area will enable the migration of customers off Eircom's existing copper network onto the fibre network being deployed by NBI for the purposes of the NBP. The expectation is that premises in the NBP IA will ultimately be served by NBI's fibre service and NBI may also provide other services, such as wholesale leased lines, to those premises.

269 Currently, many of these premises in the NBP IA only receive a fixed line service from Eircom's copper network and the expectation is that these premises will ultimately receive fixed line services from NBI's fibre network. The expected replacement of Eircom's copper network with NBI's fibre network means that NBI's use of Eircom's CEI in the NBP IA will ultimately impact on Eircom's downstream revenues from the copper based wholesale services sold to premises in the NBP IA.

270 Therefore, ComReg considers that Eircom's ability to fund / recover the cost of maintaining its CEI in the NBP IA from the revenues it receives from the wholesale customers on its copper network will be eroded over time, with the prospect that all CEI costs in the NBP IA may eventually have to be recovered from NBI's MIP.

[78] Footnote 161 of the 2018 Pricing Decision states that: "…*all services offered in the non-commercial area cannot be expected to make a contribution to Eircom's common costs as these costs are already fully recovered from the services offered in the commercial area. As a result, the prices that Eircom might charge an NBP operator for access to poles and ducts in the Intervention Area do not need to include a common cost mark-up and so should be lower than the prices set by ComReg for duct and pole access under the 2016 Access Pricing Decision (D03/16), which did include such a mark-up*."

Hence, ComReg considers that the proposed CEI costing approach for NBI's MIP in the NBP IA should ensure that a) allow for the recovery of shared network costs using a methodology which encourages efficient migration to fibre (which is a very important part of the considerations set out in Section 6 of this Consultation and b) Eircom recovers the long run incremental cost caused by NBI's demand for CEI. Please also see Section 5 and Section 7 of the Dot Econ report.

271 In that regard, ComReg considers that the costing methodology for determining the CEI prices for NBI's MIP in the NBP IA should reflect the incremental costs to Eircom of replacing those assets to meet NBI's MIP requirements. The costs considered to be incremental are discussed further at subsection 5.8.

272 ComReg expects that the migration of customers off Eircom's copper network onto NBI's fibre network will ultimately lead to the decommissioning of Eircom's copper network, in the NBP IA. As a result, NBI's MIP could emerge as the only user of a significant proportion of Eircom's CEI in the NBP IA, and NBI's MIP may be the only costs (and revenues) that Eircom receives for the use of its CEI in this area. This is in contrast to the Commercial Areas, where Eircom will continue to recover costs from its sale of other wholesale access services in downstream markets.

273 Further, in the Commercial Areas Eircom is likely to continue to invest in CEI as it maintains and expands its fibre network in order to offer its wholesale access services such as FTTH based VUA, including to Eircom Retail. However, in the NBP IA the likelihood that NBI's fibre network will gradually displace Eircom's copper network means that the majority of any future CEI investment by Eircom is likely to be solely to support the provision of CEI access to NBI's MIP in the NBP IA. Hence, Eircom's investment in its CEI network in the NBP IA is to make its duct and poles 'NGA ready' for the sole benefit of NBI's fibre rollout in this area, at a level similar to those undertaken by Eircom for the purpose of its 300k FTTH Rural Network.

274 Such a level of investment in the NBP IA would only be warranted if NBI requires access to Eircom's CEI. Absent rollout plans for an NGA network that leads to demand for CEI access from Eircom, it would be economically rational for Eircom to 'sweat' the existing assets until it can retire its copper network, i.e., Eircom's investment in CEI would be limited to replacing only those poles that have been damaged or that require immediate replacement to facilitate compliance with Service Level Agreements ('**SLAs**') metrics set as part of Eircom's USO targets. The business case for any investment by Eircom above this minimum level would be dependent on Eircom's requirement to meet the long-term demand for CEI access from NBI's MIP.

275 As NBI's MIP is likely to become the main user of Eircom's CEI in the NBP IA once Eircom migrates its customers off its copper access network, Eircom is likely to become a key supplier of CEI access services to NBI, rather than a key provider of fixed line telecommunication services to other service providers (including Eircom

Retail) in the NBP IA.[79] In this case, the costs that might be considered incremental to NBI's MIP access, i.e. the costs that Eircom can avoid in the long run if NBI's MIP access is not required, should be greater in the NBP IA than in the Commercial Areas.

276 For example, in the NBP IA it is unlikely that Eircom will have cleared collapsed or blocked ducts to anything like the extent that it has in the Rural Commercial Area as duct blockages are normally not an issue unless the cable it accommodates becomes faulty or there is a need to deploy new cables. Please also see paragraphs 229-230. Therefore, ComReg considers that any duct clearance that Eircom undertakes to facilitate NBI's cable deployments in the NBP IA is an incremental cost to NBI's MIP access service, as NBI will be the only operator to benefit from it.

277 Further, in the NBP IA, Eircom is expected to ultimately retire its copper network and possibly switch to being a reseller (of NBI's services to its customers). Nonetheless, Eircom may be expected to replace a significant number of its poles in advance of NBI's fibre deployment in the NBP IA. As much of this pole replacement only arises because NBI's MIP is seeking access to Eircom's poles in the NBP IA the associated investment can be considered to be incremental to NBI's MIP access in the NBP IA.

278 Even if the costing methodology to determine the prices for NBI's MIP service in the NBP IA should only allow Eircom to recover (at least) its incremental costs to support that CEI access, the resulting CEI costs (and prices) in the NBP IA are likely to be higher than the CEI costs (and prices) for NBI's access in the Commercial Areas. However, the fact Eircom's customers will migrate to NBI's fibre services in the NBP IA means that ComReg also has to consider the impact that NBI's deployment may have on the revenues Eircom can generate from its customer base in the NBP IA and the implications this could have for overall cost recovery for Eircom particularly during the transition period when customers are present on both Eircom's copper network and on NBI's fibre network.

279 Furthermore, as set out at paragraph 231 above, in the 2018 Access Pricing Decision (D11/18) ComReg specified that all common corporate costs should be recovered from services provided in the commercial areas, only. The FTTC VUA prices (which allows for the recovery of relevant CEI costs) set in the 2018 Access Pricing Decision reflects this principle.

280 In addition, ComReg set out in that Decision that a consequence of this principle means that : "…*the prices that Eircom might charge an NBP operator for access to poles and ducts in the Intervention Area do not need to include a common cost mark-up and so should be lower than the prices set by ComReg for duct and pole*

[79] After Eircom retires its copper network, Eircom Retail would still be expected to offer services to end users in the NBP IA but it is expected to do so by purchasing wholesale services from NBI rather than from Eircom Wholesale.

access under the 2016 Access Pricing Decision (D03/16), which did include such a mark-up."

281 This point has also been highlighted by Dot Econ in its report at section 2.3.4 where it states that*:*

"…*a consequence of this approach is that successor services provided in the non-commercial area cannot be expected to make a contribution to common cost and overhead recovery. In particular, the NBP operator does not need to include a common cost mark-up and should pay lower CEI access charges than prices set in the ComReg decision D03/16*."

282 In order to be consistent with the principle adopted in the 2018 Access Pricing Decision, ComReg is of the preliminary view that the costs to be recovered from the CEI prices for NBI's MIP access in the NBP IA should not include a mark-up to account for common corporate costs.[80]

283 Taking into account the various costing options and the considerations set out at paragraphs 267-282, ComReg on balance considers that the costing methodology that should apply in the case of access to Eircom's CEI by NBI's MIP in the NBP IA, should ensure that Eircom recovers a contribution towards the CEI shared network costs as well as the incremental cost caused by NBI's demand through the shared use of the CEI but with no contribution towards the common corporate costs. Hence, ComReg considers that the proposed costing methodology for NBI's MIP in the NBP IA should include TD HCA costs for reusable assets and a form of BU-LR(A)IC for non-reusable assets. Hence, ComReg considers that a different costing methodology, to the existing methodology used for Generic Access to CEI, seems to be proportionate and objectively justified for determining the appropriate costs for NBI's MIP access in the NBP IA for the reasons set out at paragraphs 268-282.

284 It is important to point out that the issue of copper to fibre transition and the subsequent withdrawal of Eircom's copper network in the NBP IA is a key consideration in this Consultation. In Section 6 below ComReg has assessed the different CEI cost sharing options (of per customer, primary/secondary user and per operator) that might provide Eircom with suitable incentives to decommission its copper network. Please see Section 6 for further details.

285 In Table 7 below ComReg has summarised its preliminary views on the possible costing methodologies in relation to Eircom's CEI prices for Generic Access users and for NBI's MIP in the various geographic footprints. ComReg invites views on the various options and considerations set out above. ComReg will consider the alternative options further depending on responses to the Consultation.

[80] Please see paragraph 6.226 of the 2018 Access Pricing Decision.

Table 7: ComReg's proposed costing methodology for CEI

CEI	Access Seeker	Generic Access to CEI			NBI's MIP Access to CEI	
	GEOGRAPHIC FOOTPRINTS	**Commercial Areas**	**NBP Intervention Area***		**Commercial Areas**	**NBP Intervention Area**
Proposed costing methodology for CEI prices	LRIC				✓	
	LR(A)IC (with TD HCA)					✓
	LRAIC+ (with TD HCA)	✓	✓			

**ComReg is proposing (as set out in paragraph 262-266) to determine the costs for Generic Access to CEI based on the costs relevant to the Commercial Area as that is the region where we expect all of the demand for such access to arise.*

286 Subsection 5.5 below sets out the proposed treatment of reusable and non-reusable CEI assets in determining the CEI costs, while subsection 5.8 sets out the details on how the TD HCA costs (for reusable CEI assets) and the BU-LR(A)IC(+) costs (for non-reusable CEI assets) have been determined in the Draft PAM and the Draft DAM cost models for CEI.

ComReg's Preliminary View:

287 For Generic Access to CEI, Eircom should recover all of its efficiently incurred costs including incremental costs, shared network costs and common corporate costs. This means the costing methodology is a combination of BU-LRAIC+ approach (for non-reusable CEI assets) and TD HCA (for reusable CEI assets). ComReg proposes to replace the existing pricing structure for poles and ducts by determining a national price, set by reference to the costs associated with the Commercial Areas.

288 For access to CEI by NBI's MIP in the Commercial Areas, ComReg tends to the view that Eircom should recover the long run incremental costs incurred by it as a result of NBI's shared use of Eircom's CEI i.e., the LRIC approach. This means the costing methodology is a BU-LRIC methodology, for non-reusable CEI assets. This approach would not include any contribution to the shared network costs or common corporate costs.

289 For access to CEI by NBI's MIP in the NBP IA, ComReg proposes that Eircom should recover a contribution to the CEI shared network costs as well as recovering the long run incremental cost incurred by NBI as a result of its shared use of

Eircom's CEI i.e., the LR(A)IC approach. This means the costing methodology is a combination of BU-LR(A)IC (for non-reusable CEI assets) and TD HCA (for reusable CEI assets). This approach should not include a contribution to the common corporate costs.

Q. 3 Do you agree with ComReg's preliminary views on the costing methodology that should apply in the case of Generic Access to CEI and for NBI's MIP access to CEI in the NBP IA and for NBI's transit access in the Commercial Areas? ComReg will consider the alternatives further depending on responses to this Consultation. Please provide reasons for your response.

5.5 Costing principles for Reusable and Non-Reusable CEI Assets

290 In this subsection ComReg considers in further detail how the reusable and non-reusable CEI assets should be valued in order to determine the appropriate costs for access to Eircom's CEI.

291 This subsection is discussed under the following headings:

1. Reusable CEI Assets; and
2. Non-reusable CEI Assets.

5.5.1 Reusable CEI Assets

292 In the 2013 EC Recommendation the EC defines reusable civil engineering assets as:

"…*those legacy civil engineering assets that are used for the copper network and can be reused to accommodate an NGA network*."

293 In ComReg's 2016 Access Pricing Decision (which was re-imposed in the 2018 WLA / WCA Market Review Decision), ComReg determined that reusable civil engineering assets included duct, trenches, poles and chambers (hereafter the '**Reusable CEI Assets**'), which can be reused for the rollout of NGA services. Those Reusable CEI Assets defined in the 2016 Access Pricing Decision continue to be relevant in the context of this Consultation.

294 CEI assets are both very costly to deploy and have long life-times which means that their duplication is generally avoided — as such parallel networks may not be appropriate from an economic efficiency perspective, although parallel networks are not precluded. Therefore, facilitating joint use of existing infrastructure is generally more economically efficient and ensures recovery of costs which then becomes the key objective.

295 Paragraph 34 of the 2013 EC Recommendation sets out that the Reusable CEI Assets should be valued on the basis of a RAB approach derived from the SMP operator's accounts as follows:

> *"NRAs should value reusable legacy civil engineering assets and their corresponding RAB on the basis of the indexation method. Specifically, NRAs should set the RAB for this type of assets at the regulatory accounting value net of the accumulated depreciation at the time of calculation, indexed by an appropriate price index, such as the retail price index. NRAs should examine the accounts of the SMP operator where available in order to determine whether they are sufficiently reliable as a basis to reconstruct the regulatory accounting value. They should otherwise conduct a valuation on the basis of a benchmark of best practices in comparable Member States. NRAs should not include reusable legacy civil engineering assets that are fully depreciated but still in use."*

296 In the 2016 Access Pricing Decision (which was re-imposed in the 2018 WLA / WCA Market Review Decision), ComReg based the valuation of Eircom's Reusable CEI Assets on Eircom's accounting NBV directly taken from its HCAs and projected the NBV forward by including an allowance for future investment in related network assets over the price control period. Furthermore, the Reusable CEI Assets in the 2016 Access Pricing Decision were valued based on the NBV from Eircom's HCAs and depreciated over the remaining lifetime of the asset by applying a tilted annuity formula which uses as a parameter the asset price index – this approach was referred to in the 2016 Access Pricing Decision as '**Eircom's Indexed Regulatory Asset Base (RAB)**'. ComReg used an asset specific price index (as part of the tilted annuity formula) instead of the retail price index[81] (as suggested in the 2013 EC Recommendation) which should ensure that regulated prices follow the evolution of network asset prices. Chapter 4 of the 2016 Access Pricing Decision sets out the details of how the RAB for Reusable Assets (poles, ducts, trenches) on the Eircom access network was calculated.

297 In this Consultation, ComReg has carried forward Eircom's Indexed RAB approach used in the 2016 Access Pricing Decision and described at paragraph 296 above, while making some refinements to the way Reusable CEI Assets have been valued. Please see subsection 5.8 below for further details.

298 By using the RAB approach described at paragraph 295, the more CEI assets (duct and poles) that Eircom replace the greater the increase in the actual costs recorded for CEI in Eircom's HCAs. Furthermore, it is also the case that the more Eircom replaces in terms of CEI (either by way of replacing older poles or clearing duct blockages), the greater is the proportion of its CEI network which becomes reusable

[81] ComReg considered that the example of a retail price index used by the European Commission in the 2013 EC Recommendation would inflate Eircom's accounting NBV and may result in an over recovery of costs by Eircom and possibly higher prices. Please see paragraph 4.119 of ComReg Consultation Document 15/67 for further details.

for NGA.

299 The RAB approach for Reusable CEI Assets (set by reference to Eircom's regulatory accounting values from its HCAs) ensures that Eircom is not recovering more than it has invested in reusable infrastructure assets while allowing other operators to access this CEI at an efficient price level. ComReg considers that this approach should facilitate strict cost recovery for those Reusable CEI Assets while taking utmost account of Paragraph 34 of the 2013 EC Recommendation.

300 The approach for Reusable CEI Assets is also consistent with Regulation 13(2) of the Access Regulations which states that the Regulator should:

"…take into account the investment made by the operator *which the Regulator considers relevant and allow the operator a reasonable rate of return on adequate capital employed, taking into account any risks involved specific to a particular new investment network project."*

301 ComReg is of the preliminary view that the Reusable CEI Assets should continue to be valued based on a RAB and set by reference to Eircom's HCAs.

302 Subsection 5.8 below discusses how the RAB approach has been implemented for Reusable CEI Assets as part of the Draft PAM and Draft DAM cost models.

5.5.2 Non-reusable CEI Assets

303 In the 2013 EC Recommendation at Paragraph 6(o) the EC defines non-reusable civil engineering assets as:

"….*those legacy civil engineering assets that are used for the copper network but cannot be reused to accommodate a NGA network*."

304 ComReg considers that non-reusable civil engineering assets include duct, trenches, poles and chambers which cannot be reused for NGA (hereafter the '**Non-reusable CEI Assets**') without further investment by Eircom. The nature and scale of this upfront investment will tend to be dependent on the condition of the existing assets. For poles the majority of such investment will relate to the replacement of existing poles that are considered unsafe or otherwise unfit for the deployment of new cables, while investment in underground ducts can be required to repair faulty infrastructure or clear congested sections and blockages so that sub ducts can be deployed to accommodate new fibre cables.

305 As set out at paragraphs 198-200 above, the 2013 EC Recommendation specifies (at Paragraph 33) that the calculation of wholesale access prices should be based on a RAB approach using replacement costs, except for Reusable CEI Assets. Furthermore, the 2013 EC Recommendation specifies (at Paragraph 31) that a BU-LRIC+ costing methodology should be used to determine the replacement / Current

costs.

306 The BU-LRIC+ methodology is defined at Paragraph (29) of the 2013 EC Recommendation as:

> *"...the incremental capital (including sunk) and operating costs borne by a hypothetically efficient operator in providing all access services and adds a mark-up for strict recovery of common costs. Therefore, the BU LRIC+ methodology allows for recovery of the total efficiently incurred costs."*

307 It is important to note that the BU-LRIC+ approach referred to in the 2013 EC Recommendation recovers the same level of costs as the BU-LRAIC+ approach that ComReg refers to for Generic Access to CEI throughout this Consultation. ComReg uses the term "BU-LRAIC+" throughout this Consultation document.

308 As already set out at paragraph 172, in the 2016 Access Pricing Decision (which was re-imposed in the 2018 WLA / WCA Market Review Decision), ComReg based the valuation of Eircom's RAB as follows:

- Duct access prices are determined based on a 95% reuse of Eircom's ducts (absent NGA rollout) using projected Top Down costs or Eircom's RAB from its HCAs[82] and an assumed 5% replacement of Eircom's ducts (due to NGA rollout) using a BU-LRAIC+ methodology (RAB based on replacement costs).

- Pole access prices are determined based on a 92% reuse of Eircom's poles (absent NGA rollout) using projected Top Down costs (or Eircom's RAB from its HCAs); and an assumed 8% replacement of Eircom's poles (due to NGA rollout) based on the BU-LRAIC+ methodology (RAB based on replacement costs).

309 However, since 2016 a number of developments have taken place in the market place which ComReg can now factor into the overall cost modelling for CEI and in particular for the RAB calculation, for a future price control period. Eircom has significant experience and data from the deployment of its 300k FTTH Rural Network in the Rural Commercial Area. Other key developments since 2016 include Eircom's plans to overlay FTTH to pass another 1.4m[83] premises over 5 years in the Urban Commercial Area and the fact that Eircom's CEI network is going to be used by NBI to serve circa 537,000 premises (delivery points) over the course of the next 7 years in the NBP IA.

310 For example, in the Rural Commercial Area Eircom has had to undertake a

[82] Eircom's RAB was based on the net book value from Eircom's accounts and depreciated over the remaining lifetime of the asset by applying a tilted annuity formula which uses as a parameter the asset price index.
[83] https://www.eir.ie/pressroom/eir-launches-0.5-billion-fixed-network-investment-programme/

significant programme of pole replacement and duct clearance in advance of deploying new fibre cables to support its Eircom's Rural 300k FTTH Rural Network. Consequently, all the CEI routes where Eircom has recently deployed FTTH can now be classified as 100% reusable for NGA. As a result, ComReg is of the preliminary view that the full costs of Eircom's RAB on these routes can be determined by the value of these assets as derived by a full (100%) TD valuation of these assets as recorded in Eircom HCAs for year ended 30 June 2019[84].

311 ComReg also expects the recorded investment in CEI in other parts of Eircom's network to increase as Eircom actively replaces / upgrades CEI either to facilitate its own overlay of FTTH in the Urban Commercial Area or for upgrades to its CEI network in the NBP IA so as to facilitate the deployment of NBI's FTTH network over the next 7 years.

312 Consequently, ComReg is better placed to project the level of investment in CEI that Eircom can be expected to undertake each year as FTTH networks are extended to pass every premises in Ireland, either based on Eircom's planned FTTH overlay in the Urban Commercial Area or based on NBI's fibre rollout in the NBP IA. Furthermore, the cost estimates for future investment in CEI can be informed by Eircom's experience in the Rural Commercial Area for its 300k FTTH Rural Network, updated to reflect the latest available information on equipment and contractor costs associated with CEI deployment in Ireland. The availability of this information should ensure that the value of assets that cannot be reused to support NGA i.e., Non-reusable CEI Assets, will be based on the Current cost of replacing / upgrading such assets each year to an extent that was not possible at the time of the 2016 Access Pricing Decision.

313 For instance, the cost modelling approach for the CEI access prices set in the existing 2016 Access Pricing Decision was constrained by the lack of information available at the time in relation to actual and planned NGA deployments in Ireland, however, much more extensive information on FTTH roll-out is now readily available to ComReg.

314 For Reusable CEI Assets, the TD HCA cost modelling approach can now capture Eircom's actual investment in CEI to support Eircom's 300k FTTH network in the Rural Commercial Areas since 2016. For Non-reusable CEI Assets, the BU-LRAIC+ cost modelling approach can also better align with the planned FTTH deployments recently announced by both Eircom and NBI. As a result, the estimated percentages used in the 2016 Access Pricing Decision for the assumed replacement rates for CEI assets i.e., 8% for poles and 5% for duct (as set out at paragraph 308) based on BU-LRAIC+ costs, can now be updated to reflect the estimated level of CEI

[84] The 2013 EC Recommendation defines the 'Regulatory accounting value' as "the value of an asset as recorded in the audited regulatory accounts of an undertaking which considers actual utilisation and lifetimes of the assets, which are typically longer than those recorded in statutory accounts and which are more in line with technical lifetimes".

investments that Eircom is expected to undertake each year to support its FTTH rollout as well as NBI's expected fibre deployment plans in the NBP IA. Hence, while ComReg is of the preliminary view that the existing costing methodology for Generic Access to CEI should be maintained as discussed at 220-232 above, the proposed cost modelling in the Draft PAM and Draft DAM should be updated to reflect the latest information, as discussed above.

315 Subsection 5.8 below discusses how the Reusable CEI Assets and the Non-reusable CEI Assets have been modelled in the Draft PAM and Draft DAM cost models.

ComReg's Preliminary View:

316 Reusable CEI Assets should be valued based on a RAB and set by reference to Eircom's HCAs.

317 Non-reusable CEI Assets should be valued on the basis of a RAB approach based on replacement costs.

Q. 4	Do you agree with ComReg's preliminary views on the costing principles that should apply in relation to Reusable CEI Assets and Non-reusable CEI Assets? Please provide reasons for your response.

5.6 Depreciation methodology for CEI assets

318 The telecommunications industry is a capital-intensive industry which can require significant investments. An operator investing in a given network asset bears an upfront cost and expects that this asset should generate revenues over its useful life. Therefore, throughout its useful life, the value of this asset should naturally decrease as it ages and its revenues potentially decline. This loss of asset value throughout its useful life is reflected in the operator's profit and loss account as depreciation charges.

319 In regulation, the cost of capital (or WACC) is also added to the depreciation charge to set regulated prices. Indeed, when making an investment, an operator will support financial costs related to the dividends requested by its shareholders or the interest paid to the banks that are lending money to the operator. This financial cost must be considered to make sure that the operator is fully recovering its costs. The sum of the two items (depreciation charge and cost of capital) is called the annuity.

5.6.1 Overview of depreciation methods:

320 The depreciation methods considered in setting regulatory prices include the following options:

- HCA;

- CCA - Operating Capital Maintenance ('**OCM**') or CCA-OCM;
- CCA - Financial Capital Maintenance ('**FCM**') or CCA-FCM;
- Standard annuity;
- Tilted annuity;
- Economic depreciation.

321 Each one is considered in turn below.

HCA depreciation approach:

322 The HCA depreciation method is widely used by companies in its statutory accounts and it is also used by Eircom in its regulated HCAs. This approach reflects the book values (i.e., NBV or GBV) of the relevant assets derived from the SMP operator's FAR and depreciated over their remaining useful life, usually with a constant (straight line) depreciation charge per year. The fact that the HCA approach uses the SMP operator's costs reduces the chance of under recovery of costs as the value is linked to the actual investment made. Some of the SMP operator's assets may be fully depreciated but still in use and the HCA approach should ensure that Eircom is not over recovering the costs of these assets. ComReg is of the preliminary view that the HCA approach may be a pragmatic and proportionate approach to adopt where there are limited prospects of investment by alternative infrastructure providers. This HCA depreciation approach also facilitates comparison with Eircom's HCAs and can be useful to reflect yearly changes in the level of investment incurred. Hence, the HCA approach is compatible with ensuring exact cost recovery.

CCA – OCM / FCM approaches:

323 The CCA method allows the net asset value to change, compared to HCA approach. There are two major subdivisions within the CCA accounting method:

- CCA – OCM;
- CCA – FCM.

324 The CCA-OCM approach seeks to maintain the operating or output capacity of the asset while the CCA FCM approach seeks to maintain the value of the originally invested capital.

325 The CCA-OCM approach does not ensure cost recovery i.e., the sum of discounted annuities is not equal to the initial investment. Therefore, this approach is generally not used in setting regulatory prices.

326 The CCA-FCM method requires the revaluation of assets and this can be done in several ways, including the use of indexation. While the CCA-FCM can be implemented using an index, the annuities calculated with this approach do not increase with the index.

327 ComReg considers that the CCA-FCM ensures strict cost recovery since they are calculated based on the NBV of the assets, derived from Eircom's accounts. This approach is also consistent with the 2013 Recommendation. However, in order to ensure regulatory consistency with the existing depreciation approach (of tilted annuity) used to set the CEI prices, ComReg is of the preliminary view that the CCA FCM should not be considered further.

Standard annuity approach:

328 The standard annuity is a flat annuity based on the depreciation charge and the cost of capital i.e., annuity = depreciation + cost of capital. As standard annuities give rise to constant costs each year it is a valid approach when asset prices and service demands are stable.

Tilted annuity approach:

329 A tilt is applied to an annuity to reflect the expected changes in the prices of assets and is intended to provide economic signals to market players, giving market players incentives to invest now if prices are expected to increase or delay investment if prices are expected to decline. The tilted annuity approach is the most widespread approach used in electronic communications regulation. It calculates annuities which evolve with asset price trends which means that regulated prices derived from this method are evolving smoothly. This is relatively easy to calculate even if it requires assessing price trends which can be a difficult exercise.

330 The existing CEI prices set by ComReg in the 2016 Access Pricing Decision (and which were re-imposed in the 2018 WLA /WCA Market Review Decision) are set based on the tilted annuity approach.

Economic depreciation approach:

331 The economic depreciation approach aims to recover all incurred costs (operating and capital costs) by ensuring that the total of the revenues generated by the cost oriented prices across the lifetime of the business are equal to the efficiently incurred costs, including cost of capital, in present value terms. This is achieved by applying a discount factor on future cash-flows, which is equal to the WACC.

332 Economic depreciation is the most robust method from a theoretical point of view but is also the most complex to implement because it requires several assumptions. When asset prices are changing fast and/or when the number of customers/level of demand is fluctuating and/or operating costs are changing fast, the economic

depreciation calculates regulated prices that remain stable over the economic lifetime of assets (tilted annuities only have this feature when asset prices are changing significantly but the level of demand is relatively stable).

5.6.2 Depreciation approach in the Commercial Areas:

Generic Access to CEI in the Commercial Areas:

333 As CEI (duct and poles) is deployed to support other assets (copper and fibre cables) that are required to deliver services in downstream markets, the CEI costs can be considered as a shared network cost that is common to a number of regulated access services. Consequently, when determining the appropriate depreciation approach for CEI costs, consideration should be given to the depreciation approach that is used to cost the services in the downstream markets that those CEI assets support. NRAs often have to balance two linked objectives when determining cost-oriented prices; ensuring efficient cost recovery and informing build-or-buy decisions.

334 In the 2016 Access Pricing Decision, ComReg set the CEI access prices on the basis that Eircom's CEI would primarily be used by rival operators seeking to extend their networks to compete directly with Eircom in downstream wholesale markets. Consequently, the CEI prices needed to inform investors build-or-buy decisions to be consistent with the objective of encouraging infrastructure-based competition. As a result the tilted annuity approach was adopted for the existing CEI access prices as it is considered to best meet this objective.

335 In the context of this Consultation Generic Access to CEI is expected to be used by operators seeking to extend their networks to compete directly with Eircom in downstream wholesale markets. In the Commercial Areas, the objectives of encouraging investment and promoting competition remains relevant and hence the depreciation approach chosen by ComReg in the context of CEI prices should help inform the build-or-buy decisions of Eircom and other infrastructure providers.

336 Furthermore, the main cost oriented access service sold by Eircom in the downstream wholesale markets in the Commercial Areas is Fibre to the Cabinet - Virtual Unbundled Access (hereafter, '**FTTC based VUA**') and a tilted annuity approach has been adopted to cost the LLU and SLU costs inputs that inform the cost oriented prices set for FTTC based VUA[85], as determined in the 2018 Pricing Decision.

[85] SB-WLR is also sold outside the NBP IA. Although the national price for SB-WLR is set with reference to Eircom's TD HCA costs for the provision of WLR nationally this is because ComReg Decision D03/16 specified that Eircom shall charge the higher of (i) the national TD HCA costs or (ii) the BU-LRAIC+ costs for Non-reusable Assets and active equipment in the Modified LEA. The prices were higher based on (i).

337 Hence, ComReg is of the preliminary view that the tilted annuity approach should continue to apply when determining the relevant costs for Generic Access to CEI services. This maintains regulatory consistency with the existing approach adopted in the 2016 Access Pricing Decision and also with the approach adopted for other cost-oriented services (FTTC based VUA) that use CEI.

338 In the case of legacy CEI assets that can be reused for the provision of NGA services, the tilted annuity approach is applied to the NBV of the asset in Eircom's HCAs thereby taking into account the asset's elapsed economic lifetime and avoiding the risk of over recovery of costs for legacy Reusable CEI Assets. For Non-reusable CEI Assets that cannot be reused for the provision of NGA services, the tilted annuity is applied to the replacement costs of those assets to ensure that Eircom is capable of recovering the efficient investments it is expected to make in order to make CEI assets ready for NGA deployment. ComReg is of the preliminary view that the proposed titled annuity approach is appropriate where the asset(s) concerned are non-reusable and where the objective is to encourage the deployment of alternative infrastructure.

339 While the Economic Depreciation approach would also inform build-or-buy decisions, there are some drawbacks. As noted in paragraph 332, implementing an Economic depreciation approach requires assumptions not just on asset price trends but also on service demand and in relation to the effect that any changes in service demand can have on unit costs for that service. It is also the case that ComReg does expect some changes in the demand for the different services that are supported by Eircom's CEI, either as a result of the transition from copper to fibre services on Eircom's network or due to increased CEI access to facilitate greater competition between Eircom and rival platforms.

340 However, ComReg considers that such changes in service demand are unlikely to affect the unit cost of CEI access services to an extent that would warrant introducing the added complexity that an Economic Depreciation approach would entail. For example, the unit cost of poles that informs the CEI charge for pole access can be derived by dividing the total pole related costs by the relevant number of poles, and Eircom is not expected to materially change the total number of poles in its network. Similarly, Eircom is only required to provide access to existing ducts so the size of its underground duct network should not change materially.

341 Therefore, the demand for CEI is not expected to give rise to an increase in either the number of Eircom's pole or the length of Eircom's duct network, with the result that changes in the underlying quantity of CEI assets is not anticipated. Hence, ComReg is of the preliminary view that the Economic Depreciation approach is not appropriate for determining the annualised costs associated with CEI prices, for the reasons set out above.

NBI's MIP access in the Commercial Areas:

342 In the Commercial Areas, the objectives of encouraging investment and promoting competition remains relevant and hence the depreciation approach chosen by ComReg in the context of CEI prices should help inform the efficient investment decisions of Eircom and other infrastructure providers.

343 ComReg considers that a tilted annuity approach should continue to apply in the Commercial Areas when determining the relevant CEI costs for NBI's MIP access for transit access. This approach ensures regulatory consistency with the existing tilted annuity approach that has applied to these assets to date and so it maintains the correct investment incentives regarding CEI assets in the Commercial Areas.

5.6.3 Depreciation approach in the NBP Intervention Area:

Generic Access to CEI in the NBP IA:

344 For Generic Access to Eircom's CEI in the NBP IA, ComReg does not anticipate significant demand by other operators in this area, as NBI is expected to emerge as the main user of ducts and poles.

345 ComReg is of the preliminary view that given the envisaged lack of demand for Generic Access to Eircom's CEI in the NBP IA, it seems proportionate to use the same depreciation approach (of a tilted annuity) to that proposed above for Generic Access requests in the Commercial Areas. In circumstances where there is no justified reason to change the approach, this also ensures consistency with the existing tilted annuity approach used to date. Please see paragraphs 333-337.

NBP's MIP access to CEI in the NBP IA:

346 In the NBP IA, setting incentives to promote competition and to encourage investment are not relevant for the reasons already set out in Section 3, subsection 3.5. Hence, ComReg considers that the existing titled annuity approach is not an appropriate depreciation approach for the CEI access prices relevant to NBI's MIP in the NBP IA. As competition from rival network providers is not expected to emerge in the NBP IA the need to correctly inform build-or-buy decisions is less relevant than it would be in an area that can support more than one network operator. Therefore, the primary objective for ComReg in respect of CEI services provided in the NBP IA is to ensure that the SMP operator (Eircom) can recover its efficiently incurred costs, which is most appropriately addressed by either a HCA (straight line) depreciation approach or a standard annuity approach as discussed at paragraphs 322 and 328, respectively.

347 Indeed, the main services currently provided by Eircom in the NBP IA are copper based services e.g., SB-WLR, the prices of which are set with reference to Eircom's

TD HCA costs. Consequently, using a straight line depreciation approach to inform CEI prices in the NBP IA would seem to be reasonable as it maintains consistency with the existing cost recovery principles used to recover these costs from wholesale access prices, and would also be easier to reconcile with Eircom's HCAs. Hence, for NBI's MIP access in the NBP IA, ComReg is of the preliminary view that the HCA approach (or straight line depreciation) based on Eircom's HCAs that allows Eircom to recover its efficiently incurred investments should be used to determine the annuity associated with the CEI assets.

348 In the case of legacy CEI assets that can be reused for the provision of NGA services, the annuity is applied to the NBV of the assets from Eircom's HCAs thereby taking into account the asset's elapsed economic lifetime and avoiding the risk of over recovery of costs for legacy Reusable CEI Assets. For Non-Reusable CEI Assets (that cannot be reused) for the provision of NGA services, the annuity is applied to the replacement costs of those assets to ensure that Eircom is capable of recovering the efficient investments it is expected to make in order to make CEI ready for NGA deployment.

ComReg's Preliminary View:

349 For Generic Access to CEI, the tilted annuity approach should be used to determine the annuity associated with the CEI asset costs.

350 For CEI access by NBI's MIP in the Commercial Areas, the tilted annuity approach should be used to determine the annuity associated with the CEI asset costs.

351 For CEI access by NBI's MIP in the NBP IA, the HCA (or straight line) depreciation approach should be used to determine the annuity associated with the CEI asset costs.

Q. 5 Do you agree with ComReg's preliminary views on the proposed depreciation approaches used to determine the annuity associated with (i) the CEI costs relevant to Generic Access to CEI (ii) the CEI costs for NBI's MIP access in the NBP IA and (iii) the CEI costs for NBI's transit access in the Commercial Areas? Please provide reasons for your response.

5.7 Asset lives of CEI assets

352 In this section ComReg considers whether any changes should be considered to the length of the regulatory assets lives associated with the CEI assets i.e., duct and poles.

353 In 2009 ComReg published its Decision on Eircom's regulatory asset lives in

ComReg Decision D03/09[86] (hereafter, the '**2009 Asset Lives Decision**') where it revised the asset life for poles and ducts.

354 In the 2009 Asset Lives Decision ComReg revised the regulatory asset life for poles from 15 years to 30 years to more closely align with the average economic life of poles. For ducts, ComReg revised the asset life from 20 years to 40 years to more closely align with the average economic life of ducts. The 2013 EC Recommendation states in Paragraph 6(p) that regulatory asset lives are:

"…*typically longer than those recorded in statutory accounts and which are more in line with technical lifetimes*."

355 The implementation of the changes in asset life for poles resulted in a significant reduction in the annual depreciation charge associated with poles in Eircom's HCAs as the residual NBV of the assets is now depreciated over an extended time frame. For example, with a 15 year life, an asset would incur an annual depreciation charge equivalent to 6.67% (100% ÷15) of the GBV with the result that an asset that is ten years old would have been depreciated by 66.7% in those 10 years. However, if after 10 years the asset life is extended from 15 to 30 years, the revised depreciation charge should be calculated based on the residual NBV divided by the 20 years (30-10) (33.3% of GBV). Consequently, the annual depreciation charge is reduced from 6.67% of GBV to 1.67% (33.3% ÷ 20 years).

356 The asset life of 30 years for poles in the 2009 Asset Lives Decision was set at a time when Eircom's network was based entirely on copper. However, now in the case of a fibre access network the asset life for poles in the future could potentially be greater given that fibre cables tend to have lower weight and cross-sectional area when compared with copper cables. This would reduce the load that the pole is expected to carry and could justify a longer asset life.[87]

357 Paragraph (41) of the 2013 EC Recommendation provides that:

"…*When setting the economic life time of the assets in a modelled FttC network NRAs should take into account the expected technological and network developments of the different network components"*.

358 ComReg has reviewed Eircom's data on pole replacements over a number of recent years from its internal pole database, although it has been acknowledged by Eircom that the data is not complete. Based on this data, ComReg has observed that the average age of a pole when it is replaced is slightly longer than 30 years. However, this could reflect the fact that to date the pole has mainly carried copper cables and hence it may be that on a forward-looking basis, as FTTH is rolled out, the updated

[86] ComReg Document No 09/65 - Response to Consultation Document No. 09/11: Review of the regulatory asset lives of Eircom Limited ('**Regulatory Asset Lives Decision**').
[87] Fibre cable is likely to be less prone to storm damage compared to copper cables.

data could effectively show an increase in the expected life of a pole as fibre cables tend to be smaller and lighter than copper cables.

359 Alternatively, the reason for the average age of replacement of poles in excess of 30 years could be a consequence of Eircom 'sweating' assets and tolerating sub-standard poles in the network longer than would be deemed appropriate from an efficiency perspective. Consequently, ComReg does not consider that sufficient evidence exists at this time to warrant a change to the existing asset lives for either poles or ducts.

360 Hence, ComReg is of the preliminary view that the existing asset life of 30 years for poles and 40 years for duct remains appropriate.

ComReg's Preliminary View:

361 The asset life for poles and ducts should remain at 30 years and 40 years, respectively.

Q. 6 Do you agree with ComReg's preliminary view that the existing regulatory asset lives for Eircom's poles and ducts should be maintained at 30 years and 40 years respectively? Please provide reasons for your response.

5.8 Determination of CEI unit costs

5.8.1 Overview

362 Further to the costing methodology principles discussed at paragraphs 179-361, in this subsection ComReg sets out how these costing principles have been implemented through the proposed cost modelling approach in order to determine the level of costs associated with access to Eircom's CEI (duct and pole) services.

363 The Draft PAM is used to determine the pole access costs while the Draft DAM is used to determine the duct access costs, over 40 years.

364 Access to a non-confidential version[88] of the Draft PAM and the Draft DAM, as well as the associated documentation, is available to interested parties likely to be affected by the outcome of the decision that ComReg may take as a result of this Consultation, upon email request to ComReg. For access to the non-confidential Draft PAM and Draft DAM and the associated documentation, please contact

[88] The non-confidential versions of the Draft PAM and Draft DAM excludes information considered to be confidential by Eircom and NBI and assessed in line with ComReg's confidentiality guidelines in ComReg Document 05/24. Any confidential values in the Draft PAM and Draft DAM have been randomised.

ComReg's regulatory pricing team.[89]

365 The rest of this section is discussed under the following headings:

- General CEI modelling approach;
- Inputs from the Access Network Model (hereafter, the '**ANM**');
- Determining the RAB;
- Determining the value of Reusable CEI Assets;
- Determining the value of Non-reusable CEI Assets;
- Determining capital annuities and depreciation method;
- Determining the operating costs; and
- Determining the unit costs.

5.8.2 General CEI modelling approach:

366 In general, the proposed CEI cost modelling approach taken by ComReg continues to take into account the 2013 EC Recommendation discussed earlier in subsection 5.5, in particular the objective of avoiding duplication of civil engineering networks in the context of new investment in NGA networks. Hence, ComReg proposes that the costs for poles access and duct access services in the Draft PAM and Draft DAM, respectively, continues to be calculated based on a combination of TD HCA, based on Eircom's HCAs for the costing of poles or ducts that can be reused for the provision of NGA and with a form of BU-LR(A)IC(+) for CEI that needs to be replaced for the purposes of providing NGA services.

367 However, while the level of reuse of existing assets in the Revised CAM (in the 2016 Access Pricing Decision) was based on the expected investment deemed necessary to support the deployment of NGA networks, this was nevertheless only informed by a partial NGA rollout at that time. Hence, based on the available information at the time, ComReg set the level of reuse (based on Eircom's Indexed RAB) at 92% of Eircom's existing poles and at 95% of Eircom's existing underground assets (ducts).

368 As set out at paragraphs 309-314, since 2016 Eircom has rolled out its FTTC network in the Urban Commercial Area and it has deployed its 300k FTTH Rural Network in the Rural Commercial Area. Given that, ComReg now has more information available to it to determine what level of reuse is appropriate when setting CEI prices, and so there is no need to use the estimated reuse (and replacement) percentages applied in the 2016 Access Pricing Decision. In addition to this, there is now the prospect of a well determined, significant and sustained demand for Eircom's CEI services, resulting from NBI's MIP, compared to the uncertainty of demand that was anticipated in the Revised CAM for point-to-point

[89] Email Pedro.fontes@comreg.ie and caroline.jordan@comreg.ie with the subject matter of the email stating "*Access to Draft PAM and Draft DAM*".

access or in-fill purposes i.e., Generic Access to CEI.

369 The Draft PAM and Draft DAM includes information gathered from Eircom, pursuant to ComReg's information gathering powers in line with Section 13D(1) of the Act. The information sought from Eircom includes the type, the scale and the cost of network replacement (or renewal) activities undertaken by Eircom to make its poles and ducts 'NGA-ready'.[90] The financial / costing information obtained from Eircom is largely based on its financial year ending 30 June 2019. Separately, ComReg has also obtained information from Eircom and NBI on their detailed rollout plans, as this is considered to be a key driver for future CEI investment by Eircom. This information has also been considered in the Draft PAM and Draft DAM cost models.

370 In addition, in the Draft PAM and the Draft DAM ComReg has modelled the relevant pole and duct access costs, from 2020 to 2060, in the three geographic footprints determined in Section 3 i.e., the Urban Commercial Area, the Rural Commercial Area and the NBP IA, and for both types of CEI access i.e., Generic Access to CEI and for NBI's MIP.

5.8.3 Inputs from the ANM:

371 In deriving the CEI costs in the Draft PAM and in the Draft DAM ComReg has taken into account relevant inputs from the draft ANM. The Draft PAM and Draft DAM are two of the modules that make up the draft ANM. The ANM (which was previously known as the Revised Copper Access Model), is intended to be used to determine the costs of providing copper and fibre services across Eircom's fixed access network. ComReg plans on consulting separately on the draft ANM more generally i.e., capital expenditure ('**Capex**') module, operating expenditure ('**Opex**') module, service demand module and geospatial module, shortly.

372 ComReg considers that the draft ANM inputs and the underpinning draft ANM modelling approaches should be sufficiently developed and stable at this point in time to allow ComReg to use them in the Draft PAM and the Draft DAM with a reasonable degree of comfort. While this document provides a high-level overview of the approaches used in deriving the draft ANM inputs for the Draft PAM and Draft DAM, these have yet to be finalised. While ComReg does not expect the impact of such changes to be material it is ComReg's intention that any changes in this regard will be highlighted as part of the upcoming ANM consultation process.

373 The input dependencies from the ANM are illustrated in Figure 1 below and cover broadly three main areas, as follows:

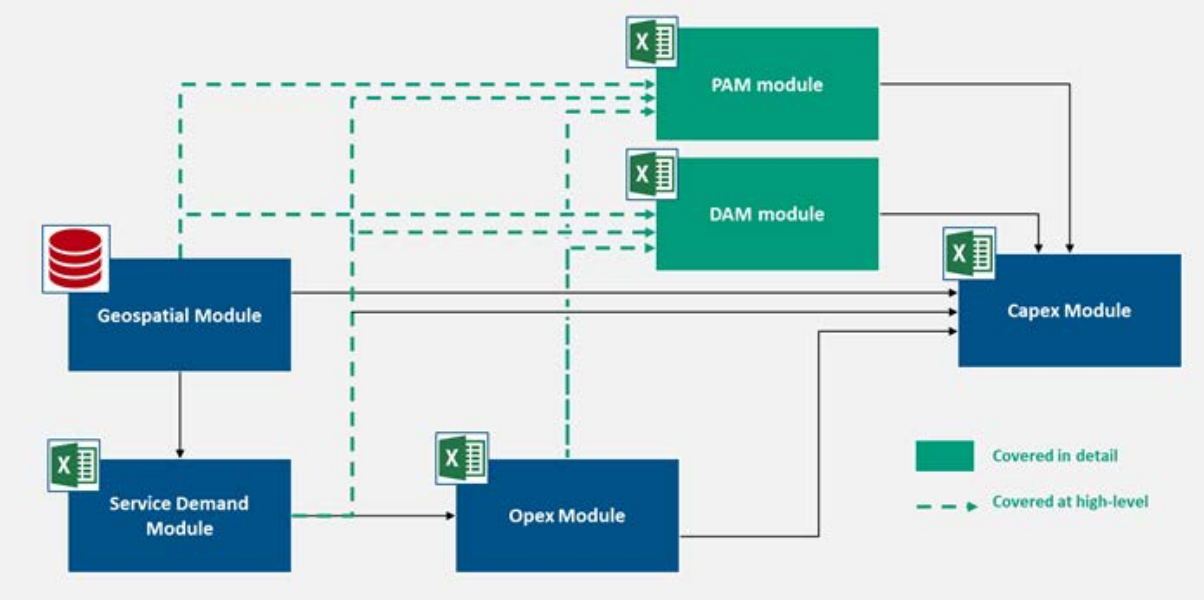
[90] In March 2019 ComReg issued an initial information request to Eircom, seeking information regarding Eircom's Civil Engineering Infrastructure both in terms of financial data and network specific data. Subsequently, in September 2019, ComReg collected additional and updated CEI data as part of the information request to Eircom in relation to the Access Network Model.

- Geospatial Module: This module in the draft ANM provides the number of poles by exchange and by footprint for the Draft PAM.[91] For the Draft DAM, this model in the draft ANM provides the total length (in kilometres) of trenches by size (and by exchange and by footprint), the number of chambers and the estimated trench occupancy in terms of copper and fibre cable.

- Service Demand Module: This module in the draft ANM provides the yearly rollout of FTTH by exchange and the yearly copper service switch-off by exchange and footprint as well as NBI's expected relative share of active lines in the NBP IA (Intervention Area) footprint, which are used in the Draft PAM and the Draft DAM.

- OPEX Module: This module in the draft ANM provides the direct repair and preventative maintenance costs associated with poles and ducts by year and the total common costs used to derive the common costs mark-up, which are used in the Draft PAM and the Draft DAM.

Figure 1: Overview of structure of various modules in the draft ANM



Source: Cartesian Consultants

5.8.4 Determining the RAB:

374 As already set out in subsection 5.5, ComReg is of the preliminary view that the RAB value of Reusable CEI Assets should be set by reference to Eircom's HCAs and the RAB value of Non-reusable CEI Assets should be based on current replacement costs. To allow for widespread use of Eircom's CEI network for NGA

[91] The total number of poles per footprint was provided by Eircom.

purposes, in addition to its existing copper-based services, ComReg has modelled the level of capital costs associated with CEI to reflect a full FTTH rollout in each of the three geographic footprints and the capital required to maintain this network thereafter so that it is 'NGA ready'.

375 Hence, in the Draft PAM and in the Draft DAM, as a first step, ComReg calculated the current value associated with Reusable CEI Assets with reference to the Eircom's HCAs (for the financial year ending in 30 June 2019) and, as a second step, the level of capital costs for each of the subsequent years based on replacing Non-reusable CEI Assets at current replacement costs to allow the continued provision of copper-based services and ultimately FTTH services. Each one of these steps is discussed below.

5.8.5 Determining the value of Reusable CEI Assets

376 Eircom's capital expenditure in CEI (poles and ducts) is recorded in specific asset classes in its FAR. The historic NBVs for the CEI assets are calculated based on a straight-line depreciation method over the relevant regulatory asset lives (already discussed at subsection 5.7). Similar to the approach taken in the 2016 Access Pricing Decision, and as previously described at paragraphs 296-297, ComReg has based the valuation of Eircom's Reusable CEI Assets on Eircom's accounting NBV directly taken from its HCAs and projected the NBV forward by including an allowance for future investment in related network assets over the price control period. Furthermore, for the purposes of deriving charges for Generic Access to CEI, the valued Reusable CEI Assets are depreciated over the remaining lifetime of the asset by applying a tilted annuity formula which uses as a parameter the asset price index. ComReg used an asset specific price index (as part of the tilted annuity formula) instead of the retail price index[92] (as suggested in the 2013 EC Recommendation) which should ensure that regulated prices follow the evolution of network asset prices. However, in the Draft PAM and Draft PAM the tilted annuity assumes a 0% price trend to reflect that costs underpinning these assets are likely to be stable, as a result of contractor rates (a significant element of costs) being set for more than one year. With regards to the NBI MIP charges in the NBP IA, the straight line depreciation method used in Eircom's HCAs is carried over as outlined in paragraphs 346-348.

377 In the Draft PAM and Draft DAM ComReg has used Eircom's FAR for the financial year ending in 30 June 2019 and has implemented the following adjustments to the NBVs of the FAR in order to determine the capital value of Reusable CEI Assets:

[92] ComReg considered that the example of a retail price index used by the European Commission in the 2013 EC Recommendation would inflate Eircom's accounting NBV and may result in an over recovery of costs by Eircom and possibly higher prices.

- For poles in the Draft PAM, ComReg has removed the material costs (non-labour costs) related to Eircom furniture to provide drops to its customers and other items, which provide no benefit to an access seeker.[93] ComReg has also adjusted the external labour costs of pole replacement by removing the incremental labour associated with replacing poles with furniture and modelled these costs separately as an incremental service (see Section 8). ComReg implemented these adjustments following an analysis of the capital expenditure associated with Eircom's 300k FTTH network programme in the Rural Commercial Area.

- For ducts in the Draft DAM, ComReg has used the details of the capital expenditure of Eircom's 300k FTTH network programme in the Rural Commercial Area to estimate and remove the costs incurred by Eircom in self-providing unstructured duct[94] to resolve conflicts on its aerial cable network.[95] ComReg also estimated and removed the costs associated with street cabinet assets, which it considered not to be relevant to a wholesale duct access service. In the absence of a detailed disaggregation of the duct asset class, ComReg used a similar approach as the one used in the Revised CAM, by using the bottom-up cost valuation of the inventory[96] (derived from the geospatial module in the draft ANM) mapped to the duct asset class. From this, ComReg then calculated the relative share of these non-relevant assets and applied this to the historic NBVs.

378 Eircom's FAR records capital expenditure only to exchange areas. Eircom provided ComReg with the capital expenditure related to Eircom's 300k FTTH network programme in the Rural Commercial Area, which ComReg allocated in full to the Rural Commercial Area. For the remaining FAR capital costs (including historic capital costs recorded in the FAR), where no information was available to allow a direct attribution to footprints, ComReg apportioned it to the three geographic footprints using the following assumptions:

- For poles in the Draft PAM, the allocated capital costs are based on the relative number of poles in each of the footprints, as provided by Eircom.

- For ducts in the Draft DAM, the capital costs are only allocated to the Commercial Areas, with the split to the Urban Commercial Area and the Rural Commercial Area based on the access trench lengths (derived from the geospatial module in the draft ANM), weighted by the average trench

[93] These costs are then included in the draft ANM Capex Module and recovered across all Eircom's other services e.g. SB-WLR. The draft ANM will be consulted on separately.
[94] Unstructured duct refers to underground transitions within overhead routes, which are not generally engineered to the same standard as those ducts within underground distribution routes.
[95] The costs of unstructured duct are included in the draft ANM Capex Module and recovered across all Eircom's other services e.g. SB-WLR. The draft ANM will be consulted on separately.
[96] Trenches, ducts, chambers, street cabinets, line terminations, etc.

capital cost per meter in each of these footprints (reflecting relative differences in trench size and surface types)[97].

379 ComReg is of the preliminary view that the proposed approach outlined above at paragraph 378 provides a reasonable basis for the allocation of the capital costs in the FAR to each of the geographic footprints in order to determine the RAB associated with Reusable CEI Assets. In the case of poles, certain areas might have seen a more recent refresh of the poles network compared to other areas. However, pole testing is in the main a planned activity so it would be reasonable to expect the age profile of the pole network not to vary significantly by geographic footprint.

380 Duct renewal, on the other hand, is not typically a recurring activity. Duct networks would have originally been installed when the legacy copper network was being deployed and any subsequent intervention is likely to have occurred as a one-off to make ducts ready for new cables, or to provide access to ducts or chambers for business users or as part of Eircom's network upgrades to support FTTC. Until the 2009 Asset Lives Decision all duct had a 20 year asset life on Eircom's FAR, so any duct deployed before 1989 would have been fully depreciated. ComReg assumes that there would have been very limited duct investment since 1990 in rural areas comprising the NBP IA as most rural access routes are overhead.

381 Therefore, in the absence of any evidence to the contrary, ComReg has made the preliminary assumption that in the Draft DAM the residual NBV observed in the FAR is related to duct build or renewal in Commercial Areas (and not in the NBP IA).

5.8.6 Determining the value of Non-reusable CEI Assets

382 As already outlined above at paragraphs 374-375, ComReg is of the preliminary view that the RAB for Non-reusable CEI Assets should be based on valuing the replacement of these CEI assets for NGA purposes at current replacement costs. In the following paragraphs ComReg has set out the proposed approach in the Draft PAM and in the Draft DAM in order to derive the level of non-reusable CEI (which requires replacement for the purposes of providing NGA services) and the estimated replacement costs in each of the three geographic footprints over the long run. Poles and ducts are assessed separately below.

Pole replacement costs:

383 Eircom is obliged to provide other operator's with access to existing poles, some of which may need replacing to facilitate the pole access request. ComReg considers that the replacement of Eircom's poles generally happens because poles have come to the end of their useful lives or because they require immediate replacement

[97] By surface type we mean carriageway, footway and verge. These are discussed further in Section 6, below.

as a result of unforeseen events such as severe storms or accidents. In the Draft PAM ComReg has calculated the costs of pole replacement based on the 'business as usual' (hereafter, the '**BAU**') level of replacement and on the level of replacement required due to a FTTH rollout programme.

384 The BAU pole replacement is generally carried out as a result of a regular pole testing cycle to allow the safe operation of the aerial network and to ensure the quality of service levels for existing services, including the performance targets imposed on Eircom under the USO.

385 In the Draft PAM ComReg has calculated the estimated level of BAU pole replacement while taking into consideration the following:

- The average level of pole replacement in the combined Urban Commercial Area and in the NBP IA areas (i.e., where FTTH networks have not yet been deployed), in the five years to 2019 is based on the historic breakdown of the number of poles replaced and the pole population in each of the footprints, which was provided by Eircom;

- In all three geographic footprints, ComReg has calibrated the planned pole test failure rate to a rate of 10% over a full testing cycle, on the basis that Eircom typically operates on a 12-year testing cycle, allowing, in addition, for a proportion of pole replacement outside the planned testing cycle due to weather storms or other damages. This results in an average rate of [✂] poles being replaced every year (in all three footprints) and is consistent with the level of pole replacement observed in the combined Urban Commercial Area and NBP IA footprints (above). This level of BAU replacement represents circa [✂] poles being replaced nationally per year and a level of capital investment of circa [✂] per year (of which circa [✂] would relate to the NBP IA footprint).

386 In addition to the BAU pole replacement, in the Draft PAM ComReg has also assumed an accelerated pole replacement, i.e., the difference between the BAU and the rate of replacement during a FTTH rollout.

387 For a certain set of poles while they may be operationally fit to support existing cables it may often be more efficient to replace those poles in advance of new cable deployment, with the result that their replacement is brought forward. These efficiencies can arise for several reasons. For example, scheduling pole replacement to happen in parallel with other route preparation activities such as tree trimming can generate efficiencies. Also, it may be more efficient to bring forward the replacement of deficient poles in advance of new cable deployment to avoid having to transfer those cables between poles at a future date and risk damaging the cables in the process.

388 In addition, in normal operations when testing has identified some poles as needing replacement in the near future, Eircom could schedule that replacement to take over a number of years. However, when new cables are to be deployed along the route it may be more efficient to expedite the replacement of such poles to ensure they are replaced before the new cables are deployed. Therefore, to allow a FTTH rollout to be completed within a limited number of years, this may typically require an acceleration both of pole testing and pole replacement resulting in a level of pole replacement significantly above the BAU level.

389 In calculating the level of accelerated pole replacement in the Draft PAM ComReg has taken into account the following:

- The average level of pole replacement in the Rural Commercial Area, i.e. where the rollout of FTTH was completed in 2019, is based on data provided by Eircom. Over the four years of this rollout (from 2016 – 2019), ComReg has calculated in the Draft PAM that a total of [✂] of poles in this footprint were replaced. This corresponds to circa [✂] poles being replaced in this period and a total capital investment of circa € [✂].

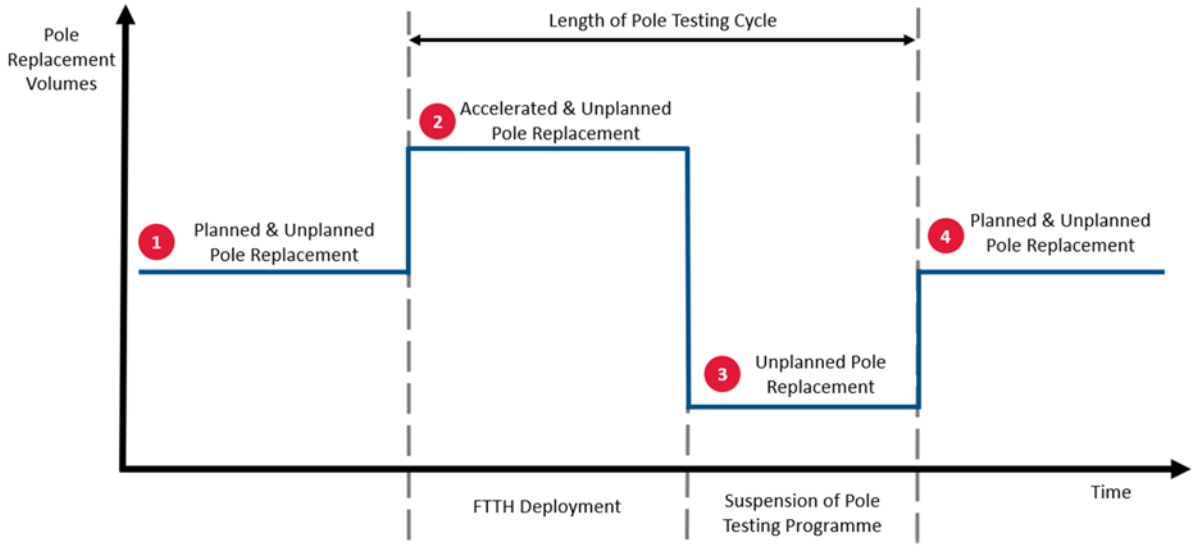
- In the NBP IA footprint, NBI is assumed to rollout fibre broadband over a seven year period starting in 2020, using a very significant share of Eircom's poles in this footprint. To make way for NBI's rollout, ComReg has assumed a total level of pole replacement of 20% (over the entire seven-year period) similar to that observed in the Rural Commercial Area over the NBI rollout period. ComReg is of the preliminary view that this is a reasonable assumption, on the basis that the Rural Commercial Area (being equally made up of largely rural areas) would be expected to face a physical obsolescence of its pole network not too dissimilar to that of the NBP IA and on the basis of having a similar pole age profile resulting from pole testing being regularly performed.

- For the Urban Commercial Area, ComReg has assumed in the Draft PAM a level of pole replacement of circa 25% based on Eircom's information, over a five-year FTTH rollout period (2020-2024). [✂] In addition, to this value of planned pole replacement, ComReg has also allowed for a proportion of unplanned pole replacement.

390 To estimate the level of pole replacement in each year of a FTTH rollout, ComReg has used the pole base derived from the draft ANM geospatial analysis, based on the exchanges which in any given year become FTTH enabled. This has been carried out for each of the geographic footprints in the Draft PAM.

391 ComReg also considers that in advance of a FTTH rollout, all poles in the footprint are assumed to be tested. Hence, upon completion of a FTTH rollout and for the remaining duration of a pole testing cycle, ComReg assumes no further planned testing activity. In the Draft PAM ComReg nevertheless allowed for a residual level of unplanned pole replacement, based on information provided by Eircom, as a result of unexpected pole failure caused by weather storms or other damages. This approach is illustrated in Figure 2 below.

Figure 2: Forecast pole replacement volumes



Source: Cartesian Consultants

392 In terms of calculating the capital costs of pole replacement in the Draft PAM, ComReg has taken account of the costs incurred by Eircom during its 300k FTTH Rural Network deployment as well as more recent cost information provided by Eircom under Section 13D(1) of the Act (see paragraph 369). The capital costs include materials (of which the pole timber is the main element),[98] Eircom labour and sub-contractor labour. Sub-contractor labour is a significant cost component and ComReg has used the most recent rates that Eircom has agreed with the sub-contractors to inform the cost modelling exercise. The sub-contractor rates do not differentiate between different areas and includes different rates for pole replacement depending on a targeted pole replacement programme and a non-

[98] Other materials include for instance pole stays or anchors, pole steps or pole labels.

targeted pole replacement programme. ComReg applied the rate for the targeted programme to those poles replaced during a FTTH rollout and the non-targeted rate to the poles replaced as BAU. For materials and Eircom labour ComReg calculated an average for these costs over the four-year period (2016-2019) of Eircom's 300k FTTH network deployment in the Rural Commercial Area.

393 ComReg has given consideration as to whether the capital costs associated with pole replacement should be indexed by a price trend to reflect changes in costs. In the absence of information from Eircom in this regard ComReg has assumed a price trend of 0% in the Draft PAM. ComReg is of the preliminary view this is a reasonable assumption on the basis that the sub-contractor rates, which are a significant cost component, are effectively fixed for a multi-year period corresponding to a FTTH rollout. Hence, it is assumed that these rates will not change in the coming years. In addition, ComReg considers that no further efficiency adjustments are required to the costs. ComReg considers that a more resilient CEI network resulting from the significant capital refresh and the transition to fibre will likely yield lower faults and lower preventive maintenance which will work to offset wage inflation.

394 ComReg has also included as part of the capital costs of pole replacement the costs associated with the Asset Retirement Obligation (hereafter, the '**ARO**'). The ARO applies to all the poles that Eircom has installed since 2004 and recognises the cost that Eircom must incur to ensure the appropriate disposal of those poles when they are eventually retired from the network. While the ARO does not apply to those poles that are replaced during the initial phase of FTTH deployment, as it can be assumed that those poles would have pre-dated 2004, it will be incurred when the new replacement pole is ultimately retired at the end of its useful life. Therefore, the cost modelling exercise has recognised the fair value of the expected future cost of the ARO in the capital employed calculations.

395 In the Draft PAM ComReg has modelled the average level of pole replacement across the entire population of poles in each of the three geographic footprints. Eircom's poles exist in various sizes but ComReg has used an average capital cost across the entire set of poles replaced. ComReg considers that a disaggregation of pole replacement costs by pole size is not justified.

396 Finally, the pole replacement capital costs by footprint are calculated in the Draft PAM by multiplying the volumes of poles replaced each year in each of the geographic footprints multiplied by the replacement capital costs per pole. For each year and in each of the three footprints, the Draft PAM has calculated the following pole related capital cost categories:

- The capital costs incurred as BAU pole replacement during a FTTH rollout;

- The capital costs incurred as accelerated pole replacement during a FTTH rollout;
- The capital costs incurred as BAU outside a FTTH rollout.

Duct replacement costs:

397 ComReg considers that duct renewal is not typically a recurring activity. Ducts have long asset lives and are expensive to deploy, so any intervention is likely to occur as a 'once-off' event when new cables are being deployed or there is a failure to the ducts that compromises the cables it contains. This 'once-off' event could therefore be the result of unexpected damages such as those resulting from soil subsiding or water ingress or to make ducts ready for new cables capable of supporting high-speed broadband or for leased lines.

398 In the context of this review of CEI, ComReg has reviewed the costs incurred by Eircom as part of its 300k FTTH Rural Network deployment and ComReg has observed that only a small share of the costs incurred in ducts is related to the deployment of new trench or new ducts, with the majority of the costs being incurred to clear blockages in existing ducts to allow sub-duct to be deployed. For these reasons, ComReg considers that calculating a BAU level of duct replacement or renewal is not appropriate and so ComReg has only calculated the duct replacement or renewal costs during a FTTH rollout programme.

399 In the Draft DAM ComReg has assumed that the driver for duct replacement or renewal is the length in kilometres of underground route being intervened in advance of deploying FTTH. In advance of fibre cable being laid in the duct, duct blockages must be cleared to allow sub-duct to be installed, and trenches or chambers may need to be remediated and consequently footpaths and road surfaces may also need reinstating. ComReg has reviewed the costs incurred by Eircom as part of its 300k FTTH Rural Network programme with a view to informing the level of network activity expected in a FTTH rollout. The costs incurred as part of Eircom's 300k FTTH network programme in the Rural Commercial Area can be summarised into the following duct remediation activities:

- Sub-duct installation (including duct blockage clearance)
- Chamber remediation or rebuilding
- Footpath and carriageway reinstatement
- New trench/duct
- Other remediation.

400 For both the Urban Commercial Area and NBP IA footprints, where FTTH is expected to be rolled out in future years, ComReg has assumed in the Draft DAM

that the entire underground route is provided with sub-duct.[99] This assumption is on the basis that all premises in these two footprints should be served by FTTH using the existing Eircom duct network.

401 In addition, a significant part of the sub-contractor labour costs incurred with duct blockage clearances are charged as 'differences from estimate' (hereafter, '**DFE**'),[100], based on the actual volumes of duct blockages encountered when laying sub-duct. To allow for this, ComReg has estimated an average of two duct clearances per kilometre of underground route in all three footprints, based on an analysis of information provided by Eircom. Hence, for clarity, the proposed costs (and draft prices) determined in this Consultation for duct access include the cost of clearing duct blockages.

402 For the remaining remediation activities at paragraph 399, ComReg has calculated an average occurrence per meter over the rural commercial underground route length, in the Draft DAM. This is based on calculating the number of occurrences (of the remaining activities e.g., chamber rebuild) from the costs incurred under each of these activities and the associated sub-contractor unit rates. Hence, in the Draft DAM ComReg has calculated the level of duct replacement or renewal during a FTTH rollout taking into consideration the following:

- The level of occurrence for each underground route remediation activity in the Rural Commercial Area, i.e. Eircom's 300k FTTH network programme in the Rural Commercial Area, is based on data provided by Eircom. This data shows that most of the duct cost being incurred is to clear blockages in existing ducts to allow sub-duct to be deployed and only limited cost is related to the deployment of new trench.

- In the absence of detailed network remediation plans by Eircom, ComReg has assumed that for both the NBP IA (where NBI is assumed to rollout FTTH over the next seven-year period starting in 2020) and for the Urban Commercial Area (where Eircom is expected to rollout FTTH over a five-year period starting also in 2020), in general the same per meter levels of route remediation activities as those calculated for the Rural Commercial Area are adopted.

- To estimate the level of duct replacement or renewal in each year of a FTTH rollout in each footprint, ComReg has used the trench length from the draft ANM geospatial module in the exchanges which become FTTH enabled by either Eircom or NBI in any given year. As a result, in the Draft DAM this means that over the course of the FTTH deployment, the

[99] The cost of sub-duct includes all of the costs associated with installing sub duct i.e., clearing duct blockages, the cost of rod, rope and test and process related costs.
[100] This is because the cost of sub-duct installation is based on an estimate of the occurrence of duct blockages.

total route length in each footprint is renewed. Beyond a FTTH rollout, ComReg assumes no further duct remediation activity.

403 In terms of determining the capital costs in the Draft DAM, ComReg has taken account of the costs incurred by Eircom during its 300k FTTH Rural Network deployment in the Rural Commercial Area as well as more recent cost information provided by Eircom under Section 13D(1) of the Act (see paragraph 369), in order to establish the capital costs associated with replacing or renewing a segment of underground duct route.

404 In the Draft DAM ComReg has calculated an average capital cost per meter for each of the duct remediation activities identified above at paragraph 399, for Eircom's 300k FTTH network deployment in the Rural Commercial Area. The capital costs for duct in the Draft DAM include materials, Eircom labour and sub-contractor labour.

405 With the exception of sub-duct, ComReg has had to retain the estimates of the costs of materials for each of the duct remediation activities at paragraph 399 based on the Revised CAM, as Eircom did not provide any updated information in this regard. ComReg considers that this is a reasonable approach considering that sub-contractor labour costs represent most of the costs incurred under each of the remaining duct remediation activities and these have been updated based on data from Eircom. In addition, Eircom has also provided estimates on payments to local authorities or the National Road Authority relating to the presence (or disturbance) of Eircom's network on public spaces, and ComReg has reflected these in the capital costs in the Draft DAM.

406 Similar to the approach used when calculating the pole replacement costs above, in the Draft DAM ComReg has used the latest available contractor rates from Eircom to estimate an average contract labour cost during a FTTH rollout programme. These rates do not differentiate between work carried out in Dublin or in Provincial areas. As already noted above, ComReg assumes no BAU duct remediation activity.

407 Furthermore, and consistent with the approach taken on the costs of pole replacement, ComReg has modelled a price trend of 0% associated with duct remediation activities, in the absence of data provided by Eircom in this regard. ComReg considers that this is a reasonable assumption as the sub-contractor rates are set for a multi-year period corresponding to a FTTH rollout. Hence, it is assumed that the agreed rates will not change in the coming years.

408 Finally, the duct replacement or renewal capital costs by footprint are calculated in the Draft DAM by multiplying the total underground route lengths renewed in each year of the FTTH rollout by the relevant per meter cost. This was done for each of the duct remediation activities outlined above at paragraph 399. For each year and

in each of the three geographic footprints the Draft DAM has calculated the following duct related capital cost categories:

- The capital costs incurred to deploy sub-duct.
- The capital costs incurred in clearing duct blockages.
- The capital costs incurred in the remaining duct remediation.

5.8.7 Capital annuities and depreciation method:

409 The various depreciation options and annuities have been discussed at Subsection 5.6.

410 In the Draft PAM and the Draft DAM the capital annuities are calculated based on the total capital costs for poles and ducts, in each year and in each of the three footprints (including the allocation of historic costs to footprints) while also taking into account the regulatory asset lives of poles and ducts, and Eircom's regulated WACC.

411 As discussed in subsection 5.6, ComReg proposes that in the NBP IA, a straight line depreciation method should be used to determine the annuity associated with the CEI asset costs while a tilted annuity[101] should be used in the Commercial Areas.[102]

412 Hence, in the Draft PAM and in the Draft DAM the capital annuities have been calculated in the following way:

- In the Urban Commercial Area and in the Rural Commercial Area, the Draft PAM and the Draft DAM have modelled the capital annuities for Reusable CEI Assets based on a straight-line depreciation method (from Eircom's HCAs) taking into account a return on capital based on the Eircom regulated WACC. The capital annuities for Non-reusable CEI Assets are based on a tilted annuity method, also applying the regulated WACC.
- In the NBP IA footprint, the Draft PAM and the Draft DAM have modelled the capital annuities for Reusable CEI Assets based on a straight-line depreciation method (from Eircom's HCAs) while taking into account a

[101] It is worth pointing out that both the Draft PAM and Draft DAM are currently set with a 0% price trend and so a tilted annuity with 0% price trend could be considered as the mathematical equivalent of a standard (fixed) annuity.
[102] The only exception is that for Generic Access to CEI ComReg has proposed in subsection 5.6 that the tilted annuity approach should apply across all footprints (i.e., nationally). Generic Access to CEI in more likely to happen in the Commercial Area while Generic Access in the NBP IA is envisaged to be minimal. Hence, given the insignificance of Generic Access to CEI in the NBP IA is seems reasonable to apply the same approach consistently across all footprints.

return on capital based on the Eircom regulated WACC. The capital annuities for Non-reusable CEI Assets are also based on a straight line depreciation method, also applying the regulated WACC.

5.8.8 Operating costs

413 The operating costs associated with the CEI network are considered under three main cost categories:

- Direct operating costs of repair and preventive maintenance associated with Eircom's aerial and underground networks.
- Process costs relating to the costs associated with the processing of CEI access requests, including a contribution to wholesaling costs such as product development / product management, billing or account management).
- Common costs relating to general and corporate overheads.

414 Any operating cost information taken from Eircom's HCAs are based on an average of the two financial years ending 2018 and 2019 as a typical year.

415 For determining the direct operating costs of repair and preventative maintenance, ComReg has used the Eircom's HCAs (see paragraph 414), and Eircom's activity-based cost model, to identify the relevant costs associated with these two cost categories. Eircom's HCAs only identify repair and preventive maintenance costs for the aerial or the underground network in its entirety, which mainly includes poles, ducts and the aerial and underground cable. In the Draft PAM and Draft DAM ComReg has made the following assumptions:

- For repair costs, a share of the total direct costs[103] derived from Eircom's HCAs (see paragraph 414) was attributed to the physical repair of poles and ducts, based on analysis of faults provided by Eircom from its fault handling system. Eircom has noted that where a fault damages both cable and the underlying civils infrastructure, Eircom's fault handling system records the fault against cable. However, for poles, ComReg considers that where a customer's service is reported as being faulty (for instance as result of a weather storm event), this is more often related to the aerial cable than to failure of the pole and only in limited situations (for example, where the straightening of the pole is sufficient to restore service) the associated cost is expensed. Similarly, for ducts ComReg would expect that only a limited number of faults should be expensed.
- For preventive maintenance associated with poles, the Draft PAM

[103] The direct costs are the pay and non-pay costs of Eircom's service assurance field force.

reflects an estimate of [✂] of the total costs attributed to preventive maintenance of the aerial network in Eircom's HCAs, which relates mainly to the pole testing programme. This is based on a breakdown of preventive maintenance by programme provided by Eircom. ComReg also considered an estimate for costs of tree trimming associated with poles (for example, to facilitate the replacement of a faulty pole). However, the tree trimming programme is primarily an aerial cable activity, so this estimate was set at [✂] of tree trimming programme, as provided by Eircom.

- For preventive maintenance associated with ducts, the Draft DAM reflects an estimate of [✂] [104] of the total costs attributed to preventive maintenance of the underground network in Eircom's HCAs (see paragraph 414), relating mainly to the retrieval of redundant copper cables to free up duct space. This was based on a breakdown of preventive maintenance by programme provided by Eircom. ComReg considers that this should provide a reasonable forward-looking estimate given that this activity is expected to decline.

- For the attribution of operating costs to the three geographic footprints, ComReg assumes in the Draft PAM and Draft DAM that these should be based on relative volumes by year. For poles, this is done based on the relative number of poles in each of footprint, while for ducts, trench lengths by footprint are used.

416 Other costs that are relevant to CEI access include the costs of Eircom's staff that are engaged in planning, processing / ordering and managing the provision of CEI access i.e., process costs. These costs typically relate to the one-off labour costs of end-to-end processing of OAO access requests (including order administration, field surveying, generate billing records), including a contribution to wholesale costs (such as product management, billing or account management) required throughout the life of the service.

417 The 2016 Access Pricing Decision (and the 2018 WLA / WCA Market Review Decision) was primarily concerned with Generic Access to CEI and the annual rental prices for duct and pole access included an allowance for the recovery of those process related costs. ComReg considers that it may be reasonable in the case of Generic Access to CEI to continue to allow Eircom to recover the process related costs in the recurring CEI rental prices, provided that the relevant process costs are equivalent to those faced by Eircom when Eircom wholesale (Open Eir) use duct and poles to provide services in downstream markets. In the Draft PAM

[104] Eircom noted that majority of costs recorded against underground preventive maintenance in recent years is related to retrieval of large redundant copper cables to free up duct space and additionally to recondition copper cabinets (e.g. repairing and resealing doors) but have not provided a breakdown of costs.

and in the Draft DAM ComReg has taken the levels calculated for process costs in the Revised CAM in the 2016 Access Pricing Decision, absent updated information from Eircom. Hence, ComReg has included CEI process related costs in the draft CEI prices for Generic Access users of CEI set out in Section 9 of this Consultation document.

418 On the other hand, ComReg considers that it is likely that additional Eircom resources may be assigned to process and manage the delivery of the requirements for CEI access for NBI's MIP. This may be particularly relevant for NBI's MIP during the build phase of its network. Hence, ComReg considers that the costs of such resources should be separately identified by Eircom and considered as an incremental cost to NBI's MIP access to CEI rather than treated as a general cost that is recovered across all services using Eircom's pole and duct network. ComReg considers that these process related costs for NBI's MIP should be considered separately (outside the rental prices), by means of a one-off charge, which should be pre-notified to ComReg. Hence, ComReg has not included any CEI process related costs in the draft CEI prices for NBI's MIP set out in Section 9 of this Consultation document (other than a contribution to the ongoing wholesaling costs during NBI's access).

Q. 7 Do you agree with ComReg's preliminary view that CEI process related costs should be recovered as part of the recurring rental prices for Generic Access to CEI while the process related costs could be recovered as a one-off charge in the case of NBI's MIP access to CEI, which should be pre-notified to ComReg? Please provide reasons for your response.

419 As discussed earlier in Section 5 (paragraph 183), common corporate costs relate to general overheads which typically include general IT system costs, office accommodation and transport management as well as corporate costs such as finance, legal, HR and senior management. For the purposes of the Draft PAM and the Draft DAM these costs have been extracted from Eircom's HCAs (see paragraph 414), and Eircom's activity-based cost model. These costs are calculated as a mark-up of 18.9% on the capital annuities. The percentage mark-up is calculated in the draft ANM by dividing the total common costs by total ANM capex. However, as discussed at paragraph 279, common costs should only be recovered by Eircom through the services it provides in the Commercial Areas.[105] Hence, this mark-up was calculated based on the draft ANM capex in Commercial Areas and consequently, ComReg has only applied a common cost mark-up on the capital annuities of poles and ducts in the Commercial Areas and not in the NBP IA.

[105] Although this may not be the case given our proposal to apply a LRIC methodology for NBI's CEI access for transit purposes in the Commercial Areas. Please see further details at Section 5.4.

5.8.9 Incremental costs and shared network costs:

420 The unit cost of poles and ducts are calculated in the Draft PAM and Draft DAM based on the total capital annuities and operating costs (including common corporate costs), as described above, and the associated pole and duct volumes. This was done in each of the footprints by:

- Pooling costs into a 'shared' pool and an 'incremental' pool based on categorising the capital annuities for Reusable CEI Assets and Non-reusable CEI Assets and the annual operating costs (including common corporate costs) into costs (shared) which are recovered through all users of the CEI network, including Eircom self-supply and access seekers (Generic Access users and NBI's MIP) and into costs (incremental) which are entirely caused by and recovered through a specific access seeker (Generic Access users or NBI's MIP).

- Determining a cost sharing ratio to allocate the 'shared' costs between Eircom and other access seekers i.e., Generic Access users and NBI's MIP, which is discussed in Section 6.

421 As already set out at paragraph 253 above, the 'incremental' costs in the context of this Consultation are the costs avoided in the long run by just one sharer ceasing use, but the CEI assets are still needed to meet the needs of other sharers including Eircom. Please refer to subsection 5.4.1 above for further details.

422 In the paragraphs below ComReg has set out what it considers to be incremental costs in the context of CEI, and in particular in the context of NBI's MIP access to Eircom's CEI.

423 In the NBP IA, ComReg considers that only the specific capital costs associated with making Eircom's CEI 'NGA ready' in advance of NBI's fibre rollout, should be recovered solely through the CEI prices levied on NBI's MIP. ComReg has identified the additional capital cost i.e., subcontractor labour of pole replacement related to pole furniture (DP enclosures) as an incremental cost to the access seeker. While there may be a higher incidence of pole furniture in a FTTH aerial network, ComReg considers that such costs should not be calculated as part of an annual rental charge for a pole (which is what is being considered here in Section 5). Please see Section 8 for further details on how pole furniture costs may be recovered. Hence, in the NBP IA, ComReg proposes that the following capital costs (annuities) associated with Eircom's CEI assets should be considered as incremental costs:

- The capital costs relating to accelerated pole replacement during a FTTH rollout;

- The capital costs relating to the deployment of sub-duct[106], including to clear duct blockages as DFE[107] as well as remaining duct remediation during a FTTH rollout.

424 With regards to the Commercial Areas all pole capital costs (annuities), i.e., both BAU and accelerated pole replacement, and all duct capital costs (annuities) during a FTTH rollout are modelled as shared network costs, to be recovered through all the CEI users. Based on the information to hand, ComReg has not identified any capital costs for poles that would be considered incremental to NBI's transit access in the Commercial Areas and that should be recovered in the annual pole rental charge. ComReg invites the views of interested parties on this point.

425 In the case of duct access, all duct capital costs that are incurred to make a duct network NGA ready should be modelled as shared network costs, except for sub-duct which is modelled as an incremental cost to the access seeker. ComReg considers that it is uncertain whether Eircom may in all cases have sufficient capacity, so ComReg has assumed that any duct access request would require a new sub-duct to be installed in all requests. Furthermore, while there may be spare capacity available once any access seeker blows its fibre through (including NBI's MIP), ComReg considers that it is appropriate to model the full cost of sub-duct as an incremental cost. This approach recognises in the Commercial Areas the opportunity cost to Eircom of its ducts being occupied and in the NBP IA that no other opportunity to fill the sub-duct may be presented to Eircom.

426 In the Draft PAM and Draft DAM ComReg has categorised all operating costs (including the cost of duct and pole maintenance and common corporate costs) as a shared network cost and has not identified or explicitly modelled any incremental operating costs other than process costs (as noted in paragraphs 416-418) and ongoing wholesale costs such as product management, billing or account management (described below).

427 In the context of NBI's MIP in the NBP IA and for NBI's transit access in the Commercial Areas, ComReg has estimated possible incremental operating costs associated with ongoing wholesale costs such as product management, billing or account management. These costs are likely to continue over the entire duration of the CEI access, unlike the one-off process costs associated with NBI's MIP as described at paragraphs 416-418, and so it seems reasonable to include these costs as part of the ongoing rental. ComReg has included a proposed estimation of

[106] This includes the costs of rod, rope & test of sub-duct.
[107] A significant part of the sub-contractor labour costs incurred with duct blockage clearances are charged as 'differences from estimate' ("DFE"), based on the actual volumes of duct blockages encountered when laying sub-duct. To allow for this, ComReg has estimated an average of two duct blockages clearances per kilometre of underground route in all three footprints, based on information provided by Eircom.

these costs in the Draft PAM and Draft DAM.[108]

428 As a result of the above categorisations, in the Draft PAM and Draft DAM all costs in each footprint are pooled into either a shared network cost pool or an incremental cost pool.

5.8.10 Determining the unit costs for CEI:

429 In the Draft PAM and the Draft DAM ComReg has determined the unit costs for Generic Access to CEI and as well as access by NBI's MIP, in the three geographic footprints i.e., the Urban Commercial Area, the Rural Commercial Area and NBP IA.

430 Please refer to Section 6 below for the various cost sharing options considered by ComReg in order to allocate the shared network costs for CEI between Eircom and other access seekers, mainly with NBI's MIP, so as to determine the pole access and duct access rental prices.

Q. 8 Do you agree with ComReg's proposed cost modelling approach in the Draft PAM and in the Draft DAM in order to determine the per unit costs associated with pole and duct access, as described in subsection 5.8? Please provide reasons for your response.

[108] These incremental operating costs are only relevant on a 'per customer' approach and would not be appropriate in the case of a 'per operator' as those costs would already be included in the allocation of common corporate costs.

6 Cost sharing and pricing methodologies for CEI access

6.1 Overview

431 In Section 5 ComReg set out the options and its preliminary views on the appropriate costing methodologies (and costing principles) that should apply in the case of access to Eircom's CEI, both in the context of Generic Access users and for NBI's MIP in the Commercial Areas and in the NBP IA. Section 5 also sets out how the overall costs associated with poles and ducts have been derived from the Draft PAM and Draft DAM cost models.

432 The choice of costing methodology in Section 5 does indeed determine whether there are costs to be shared, i.e., shared network costs and common corporate costs, between the CEI users. How those shared costs should be allocated between users – which cost sharing methodology should be used – is the subject of this Section.

433 One key consideration in this section is the issue of copper to fibre transition in the context of the NBP IA and the extent that different CEI cost sharing options (of per customer, primary/secondary user and per operator) might provide Eircom with suitable incentives to decommission its copper network in that particular area.

434 In particular, ComReg assesses below the options available in order to allocate the shared network costs (including common corporate costs) for CEI among the CEI users so as to determine a pole access rental price and a duct access rental price for Generic Access users and for NBI's MIP in the Commercial Areas and in the NBP IA, including a per operator approach, per customer approach and a primary / secondary user approach. Each option has pros and cons. While ComReg has assessed each cost sharing option in turn and has put forward its preliminary views on a preferred cost sharing option both for poles and for ducts, ComReg will consider the alternative options further depending on responses to this Consultation.

435 In reaching ComReg's preliminary views below, ComReg has taken into account the proposed recommendations from ComReg's economic advisors, Dot Econ. The Dot Econ report is included at Annex 2 of this Consultation document.

436 ComReg has assessed the cost sharing options separately for poles and ducts, below. Different considerations govern the efficient retirement and withdrawal of copper cables in duct compared to that of poles. In addition, duct access lends itself much less to certain cost sharing options i.e., primary / secondary user approach, than for pole access. Hence, is seems appropriate to consider each separately.

437 Subsections 6.2 and 6.4 below give a general overview of the cost sharing options available. Subsections 6.3 and 6.5 below looks at how these cost sharing options could be applied in the particular context of pole and duct access by Generic Access users and NBI's MIP in both the Commercial Areas and in the NBP IA.

438 The rest of this subsection is discussed under the following headings:

1. Cost sharing options for pole access;
2. Applying the cost sharing options to pole access;
3. Cost sharing options for duct access rental prices;
4. Applying the cost sharing options to duct access; and
5. Implementation of the per customer approach for ducts and poles.

6.2 Cost sharing options for pole access

439 Subject to capacity constraints, ComReg considers that a significant amount of existing poles should be capable of supporting multiple operators. While some pole costs could be considered incremental to the access seeker that uses them, for the most part the costs of poles should be shared by the operators accessing the poles.[109]

440 ComReg has given consideration to three possible cost sharing approaches as a means to determining the pole access rental prices, as follows:

- Per operator approach;
- Primary / secondary user approach;
- Per customer approach.

441 ComReg's consideration of each of the three approaches is set out below.

6.2.1 Per operator approach:

442 The first cost sharing option considered by ComReg in the context of pole access is the per operator approach (or referred to by Dot Econ as the "Equal cost sharing" approach).

[109] A long run costing approach to determine the relevant CEI cost does not consider that a cost is necessarily incremental just because it is incurred at the time that the access request is made. For example, costs associated with the need to re-arrange existing cables on poles could be considered incremental if this work is only undertaken to accommodate the access request but the costs involved in removing old cables that are no longer in use would not be incremental as the CEI provider would be expected to undertake such activities as part of its normal network maintenance activities.

443 The per operator approach is the method that is currently used as a means of setting the existing pole access rental prices determined in the 2016 Access Pricing Decision (and re-imposed in the 2018 WLA / WCA Market Review Decision). Under the per operator approach, the total pole access costs is divided by the number of operators using the pole. As a result, the pole access rental price will vary depending on the number of operators on the pole (rather than cables), including Eircom itself. For example, if Eircom and one other operator have access to a pole (i.e., have cables on the pole) then all of the pole costs are split 50:50 between Eircom and the other operator.

444 In the consultation (Consultation Document 15/67[110]) leading up to the 2016 Access Pricing Decision, ComReg considered adopting a capacity-based approach to share the pole access costs, based on the number of cables on the pole. This approach would involve dividing the total pole access costs by the total number of poles and by the pole capacity in terms of the number of cables carried on the pole. As a result, the pole access prices for those operators sharing a pole would reflect each operator's share of the total number of cables carried on that pole. However, ComReg found that cable capacity was not deemed to be a significant constraint in the context of pole access and additional cables could be accommodated on an existing pole without significantly impacting on the overall costs of poles. The per operator approach was accordingly preferred.[111]

445 The per operator approach is akin to a LRAIC+ approach (where all costs are considered in line with our discussion in paragraphs 220-232) and makes no distinction between costs that are incremental to one specific access seeker and the costs that are shared by all operators using the pole. This is one of the differences between the per operator approach and the per customer and primary / secondary user approaches discussed in the subsections below.

446 In particular, under the per operator approach the total costs (incremental, shared network costs and common corporate costs) are all included and averaged between the operators; by contrast the primary / secondary user approach and the per customer approach distinguish between the costs that are incremental to the access seeker's specific use of a pole and the costs that should be shared between all the operators on the pole.

447 The main advantage of the per operator approach is the fact that it is relatively simple to implement i.e., the total pole access costs are averaged across the number of operators sharing the pole. In addition, as this is the approach already in place for pole access, operators already understand and are familiar with it so

[110] Eircom's Wholesale Access Services: Further specification and amendment of price control obligations in Market 4 and Market 5 and further specification of price control obligations in Market 2; dated 3 July 2015.
[111] Please also see Chapter 8, paragraphs 8.29-8.39 of the 2016 Access Pricing Decision for further details on the existing per operator approach.

implementation of it is not likely to be an issue. The main disadvantage of the per operator approach is that it requires Eircom to contribute a fixed amount to CEI costs that might become unsustainable over time as demand for copper services reduces. This is recognised by Dot Econ in Section 7.2 of its report, which is included at Annex 2 of this Consultation, where Dot Econ states that the 'equal sharing' (or per operator approach) "…*causes an excessive incentive to shut off its copper network once NBI's fibre roll-out is high and the number of residual copper customers is small*."

6.2.2 Primary / secondary user approach:

448 The second cost sharing option considered by ComReg is the 'primary' and 'secondary' approach (hereafter, the '**primary / secondary user approach**').

449 Under this approach, as CEI access is intended to facilitate efficient entry by allowing another operator to access it, the SMP operator would always be considered the primary user and the CEI access seekers, the secondary user(s). Under this approach, the primary user and secondary user both pay their incremental costs arising from their pole access demand requirements but the shared network costs for pole access are borne by the primary user while the copper network remains (wholly / partially) in service.

450 As set out in Section 7.3 of the Dot Econ report, the primary / secondary user approach sets strong (maybe excessive) incentives for the switch-off of Eircom's copper network. This approach is a somewhat extreme way of encouraging early shut down of the copper network. The primary / secondary user approach could be seen as a reasonable basis for cost sharing if giving strong incentives for early copper withdrawal from poles was considered desirable. This is discussed in further detail below in subsection 6.3 in the cost of poles.

451 Please also see further details on the primary / secondary user approach in the Dot Econ report at Section 7.3.

6.2.3 Per customer approach:

452 The third cost sharing option considered by ComReg as a basis for allocating the shared network costs (including common corporate costs) for pole access is a per customer approach (or referred to by Dot Econ as the "Usage-based sharing" approach). This involves allocating 'shared network costs' and common corporate costs in proportion to the relative number of copper and fibre customers served off the relevant pole.

453 This option is somewhat similar to the primary / secondary user approach in that the pole users pay the incremental costs arising from their pole access demand requirements, but it is also akin to a per operator approach as it can also result in

the attribution of shared network costs associated with poles between sharing operators.

454 ComReg notes the potential benefits of this approach but has some reservations regarding the possible practicality of implementing a per customer approach and these are discussed below at subsection 6.6.

455 Please also see further details on the per customer approach in the Dot Econ report at Section 7.4.

6.3 Applying the cost sharing options to pole access

456 In the subsection above ComReg has set out the three cost sharing options for allocating shared network costs and common corporate costs for pole access between the pole access users.

457 In the following paragraphs ComReg has further assessed the cost sharing options at subsection 6.2 in the context of determining pole access prices for Generic Access requests to Eircom's poles and for NBI's MIP access.

6.3.1 Pole access pricing in the Commercial Areas:

Generic Access to poles in the Commercial Areas:

458 As set out in Section 4 paragraphs 152-154, Generic Access to CEI by other operators means that these operators are gaining access to Eircom's ducts and poles to deploy their own cables to offer their network services in the downstream markets rather than purchasing equivalent wholesale services from Eircom, and so these operators should be in a position to compete with Eircom. Hence, in determining the appropriate costing methodology for Generic Access to CEI (particularly in the Commercial Areas) in Section 5, ComReg proposes that all of the pole access costs (incremental, shared network costs as well as common corporate costs) should be recovered by Eircom in the context of providing a competing operator with access to its poles network. Further, ComReg proposes in Section 5 that Generic Access prices should be set based on the costs associated with the Commercial Areas given the unlikely demand for Generic Access to CEI in the NBP IA. Please see further details out at paragraphs 220-232. This means that the existing pricing structure for poles (a price in the Modified LEA and outside the Modified LEA) would no longer apply and instead a national price would apply.

459 To date, Eircom has been able to fully recover the costs of its pole access network from its other wholesale access services i.e., SB-WLR, FTTC based VUA and FTTH based VUA. However, as Generic Access to CEI tends to be used by operators seeking to compete with Eircom in downstream retail and wholesale markets, this is expected to reduce Eircom's customer base in Commercial Areas. Hence,

ComReg considers that the **per operator** approach (based on the BU-LRAIC+ costs) is the most appropriate as it allows Eircom to recover all of its efficient costs including shared network costs and common corporate costs.

460 In contrast, adopting a **primary / secondary user** approach that would only allow Eircom to recover the incremental costs caused by a pole access seeker would result in giving rival operators a free ride to use Eircom's network to compete for Eircom's customers.

461 In addition, imposing an alternative cost sharing approach (to the existing per operator approach) for Generic Access to Eircom's poles which does not allow Eircom to recover a similar contribution of shared network costs and common corporate costs from each operator may create competitive distortions in the long run as an increasing proportion of these costs may need to be recovered from the residual customers Eircom retains. As a result, using the primary / secondary user approach for setting the price for Generic Access to poles could excessively erode Eircom's ability to recover its costs.

462 A **per customer** approach would also allow Eircom to receive a contribution to the recovery of shared network costs associated with pole access. However, a per customer approach for Generic Access to poles appears to be impractical due to the difficulties in determining the relative number of customers that each operator is serving using the shared poles. The per operator approach can be considered as a proxy for the per customer approach in circumstances where infrastructure is being shared by competing operators.

463 Taking into account the various considerations set out in paragraphs 442-447 as well as paragraphs 458-462, ComReg is of the preliminary view that the most appropriate cost sharing approach for Generic Access users of poles in the Commercial Areas is the existing per operator approach. This approach encourages market entry by allowing other operators to share the costs of existing infrastructure, it helps sustain viable competition by allowing competing operators contribute to the cost recovery of shared assets on equivalent terms while maintaining investment incentives by allowing Eircom to continue to recover its efficiently incurred costs over the long-run.

464 In addition, the fact that this approach has been in place since 2016 means there should be no difficulties implementing / administering it as it only requires knowledge of the number of generic access users seeking access to the pole(s).

NBI's MIP access to poles in the Commercial Areas:

465 To recap from earlier sections of this Consultation document, in the Commercial Areas, NBI is expected to require access to Eircom's poles for transit purposes only. NBI cannot use its subsidised network outside the NBP IA to serve customers and

compete with Eircom in the Commercial Areas. In Section 5, subsection 5.4.1, ComReg assessed a number of costing methodology options for the CEI access price for NBI's transit access services in the Commercial Areas. ComReg tends to the view that Eircom should only recover the long run incremental costs caused by NBI's access to poles in this area and ComReg welcomes the views of interested parties on this proposal. If a LRIC approach is adopted for NBI's transit access in the Commercial Areas then it is expected that there would be no shared network costs or common corporate costs to be allocated to NBI's MIP.

466 However, if an alternative costing methodology is adopted and there are shared network costs and common corporate costs to be allocated to NBI's MIP ComReg has set out some observations and considerations below on what might be an appropriate cost sharing approach for allocating any shared network costs and common corporate costs relevant to pole access by NBI for transit purposes in the Commercial Areas.

467 ComReg recognises the possibility of using the existing **per operator approach**, could lead to Eircom recovering a significant part of the shared network costs of poles from NBI even though NBI cannot compete to provide services in the Commercial Areas. As Eircom suffers no wholesale or retail revenue losses from providing such transit access to NBI, such a contribution (to Eircom's shared network costs for poles) from NBI's MIP could lead to competitive distortions. For example, Eircom may use this excess contribution as an opportunity to gain a competitive advantage, for example, to reduce the prices of wholesale access services where it is faced with competition from rival network operators. This in turn could have the adverse effect of reducing incentives for competition from alternative infrastructure providers in the Commercial Areas. Please also see Section 5, subsection 5.4 of this Consultation document for a further discussion on this point, as well as Section 6 of Dot Econ's report, at Annex 2 of this Consultation document.

468 The **per customer approach** for attributing any shared network costs and common corporate costs for poles in the context of NBI's transit access in the Commercial Areas could be seen as more consistent with the fact that NBI cannot use its subsidised network outside the NBP IA to serve and compete for customers in the Commercial Areas. Adopting a per customer approach for NBI's MIP in the Commercial Areas could also be seen as equivalent to the **primary / secondary user** approach as it would result in NBI's MIP being charged for pole access on the basis of the incremental costs, without any contribution to shared network costs or common corporate costs as NBI cannot compete for customers in this area, thereby avoiding the risk of over-recovery of costs by Eircom.

469 The economic principles that support the adoption of incremental costing in the context of NBI's transit access in the Commercial Areas could be seen as somewhat similar to the principles that ComReg considered in 2009 when determining the price for Line Share (shared access to the local loop) in ComReg Decision

D04/09[112]. Line share is a service that allows another operator to share a local loop with Eircom by renting only the high frequency capacity of the loop which it uses to provide broadband services, while Eircom continues to use the same loop to provide narrowband (voice) services. In ComReg Decision D04/09, ComReg determined that the pricing approach for Line Share should be such that Eircom should recover only the incremental costs associated with provision of the service.

470 In the context of ComReg Decision D04/09, ComReg considered that an incremental costing approach for Line Share was reasonable as Eircom had already recovered the costs of the local loop itself from its prices for its SB-WLR service and so the fact that another operator using the same local loop should not affect Eircom's revenue stream. Hence, the recovery of any costs above the incremental costs would lead to a possible over recovery of costs by Eircom and so an incremental costing approach was considered proportionate and justified.

471 The option of the per customer approach is consistent with the principles outlined at paragraphs 469-470 to the extent that it considers the impact that providing another operator with pole access has on Eircom's ability to continue to recover its efficiently incurred costs. When the operator accessing the pole is restricted from competing directly with Eircom, as is the case for NBI's transit access in the Commercial Areas, the per customer approach only needs to consider the incremental costs (LRIC) associated with the pole access transit service.

472 However, when the operator seeking access to Eircom's poles is in a position to compete with Eircom then the per customer approach would recognise the effect that such competition may have on Eircom's revenue streams from related wholesale access services and so all pole access costs (LRAIC+) should be considered. While a per customer approach could be used as an option to allocate the shared network costs, it may not be possible to ascertain the relative data that it requires. ComReg tends to the view accordingly that a per operator approach based on LRAIC+ costs (incremental costs, shared network costs and common corporate costs) may be the only viable consideration.

473 In summary, there are a number of cost sharing options for allocating any shared network costs and common corporate costs for pole access in the context of NBI's transit access in the Commercial Areas. The per customer approach may be seen as a reasonable alternative to the existing per operator approach, where there are shared network costs to be allocated among pole access users. However, if a LRIC approach is adopted as the preferred option (subject to consultation responses and further consideration of the options by ComReg) for setting pole access prices for NBI's transit access in the Commercial Areas, then the need to allocate shared network costs and common corporate costs is not relevant as LRIC does not include

[112] ComReg Document No 09/66: Response to Consultation and Decision, Rental Price for Shared Access to the Unbundled Local Loop, dated 18 August 2009.

shared network costs or common corporate costs. In that case a decision on the cost sharing methodology becomes somewhat moot. ComReg invite views from interested parties on these considerations.

6.3.2 Pole access pricing in the NBP Intervention Area:

Generic Access to poles in the NBP IA:

474 As set out in Section 5, paragraph 262, it is unlikely that there will be material demand for Generic Access to Eircom's CEI in the NBP IA. For that reason ComReg proposed in Section 5 that one national price would apply for Generic Access to poles (rather than the existing structure of a price in the Modified LEA and a price for outside the Modified LEA) and that the costs / prices for Generic Access to poles should reflect the BU-LRAIC+ and the TD HCA costs, set by reference to the costs in the Commercial Areas. Please see paragraphs 220-232.

475 ComReg considers that the per operator approach continues to be appropriate for sharing the shared network costs associated with Generic Access to poles for the reasons already set out at 458-464.

NBI's MIP access to poles in the NBP IA:

476 To recap from earlier sections of this Consultation document, in the NBP IA, NBI is expected to require access to a significant amount of Eircom's poles. In Section 5, subsection 5.4.1, ComReg assessed a number of costing methodology options for access to Eircom's CEI by NBI's MIP in the NBP IA. ComReg proposes that NBI's MIP should make a contribution towards the shared network costs and Eircom should also recover the long run incremental costs caused by NBI in this area.

477 Taking into account the various cost sharing options considered in subsection 6.2 above, ComReg has set out some further observations and considerations below on what might be an appropriate cost sharing approach for allocating any shared network costs (on top of the LRIC costs caused by NBI) relevant to pole access by NBI in the NBP IA, depending on the costing methodology chosen.

478 In the case of the **primary / secondary user approach**, as CEI access is intended to facilitate efficient entry by allowing another operator to access the SMP operator's (Eircom's) existing CEI, the SMP operator would always be considered the primary user and the CEI access seekers, the secondary user(s). However, given ComReg's expectation that Eircom will eventually retire its copper network in the NBP IA and NBI is likely to emerge as the only user of the majority of Eircom's poles in that area, NBI's MIP would eventually be the primary operator in the NBP IA and Eircom would become a secondary user.

479 In the context of this Consultation this approach would mean that in the NBP IA Eircom would remain the primary user until it withdraws its copper cable from the poles. As a result, Eircom would continue to absorb all of the shared network costs for poles until such time as it withdraws its copper cables, while NBI's MIP would be the secondary user and therefore would only pay for the incremental costs that Eircom would incur as a direct result of providing NBI with access to Eircom's poles. Once Eircom withdraws its copper cables from poles in the NBP IA, NBI's MIP would then be the sole (primary) user of the pole infrastructure and therefore it would then incur the entire cost of the poles (incremental and shared network costs).

480 Hence, after Eircom withdraws its cables from its poles in the NBP IA, the bill that NBI is likely to face for accessing Eircom's poles in the NBP IA is likely to be similar under the per operator approach and the primary / secondary user approach on the basis that NBI is the only user of Eircom's poles. In other words, it is only during the "transition period" that Eircom should be required to absorb a greater share of pole related costs under the primary / secondary approach when compared with the per operator approach.

481 As Eircom would remain the primary user of poles in the NBP IA until it switches off its copper services, this approach is likely to encourage Eircom to migrate its copper customers to fibre as the pole costs that are not incremental to NBI's pole access should continue to be borne by Eircom. The primary / secondary user approach would be appropriate if the objective is to provide a strong incentive to Eircom and force early copper withdrawal from poles.

482 However, while Eircom may have some control in respect of the rate of copper retirement across its network, there are other factors that are not within its control and that could prevent Eircom from achieving its intended targets. For example, copper withdrawal (on poles) is likely to depend on the progress of NBI's deployment of its fibre network and the willingness of end-users to migrate from Eircom's copper-based services to NBI's fibre-based service may also be a factor. Therefore, ComReg considers that applying a strict demarcation that requires all copper cables to be withdrawn in an area before NBI can be considered the primary user may be too onerous on Eircom.

483 Furthermore, as copper withdrawal (on poles) is likely to be a gradual process, as different parts of the NBP IA become fibre enabled before others, another factor for consideration under the primary / secondary user approach is how the "areas" should be defined for the purposes of implementing it. While the areas could be defined to align with the exchange areas that currently exist in Eircom's copper access network, this could be problematic for NBI as the deployment areas for its fibre network are likely to be quite distinct from the exchange areas operated by Eircom. Similarly, predicting the area definition based on NBI's deployment could prove challenging for Eircom. Yet the primary / secondary user approach is

dependent on both operators to be in a position to facilitate copper withdrawal.

484 A possible remedy to address these issues could be to relax the strict demarcation between 'Primary' and 'Secondary' users so that NBI's MIP could be designated as the primary user before the copper network has been fully decommissioned in an area. However, this could result in the copper and fibre networks co-existing for longer than is necessary and hence resulting in the inefficient duplication (and associated cost) of two networks running in parallel.

485 The primary / secondary user approach may also result in pole access costs being a fixed cost for Eircom to a greater extent than would be the case for the other approaches considered below. At present, it appears that Eircom fund / recovers the costs of poles in the NBP IA from the revenues generated by the copper based customers that it serves in that area but as the number of copper customers decline the average pole cost for the remaining customers could increase to such an extent as to make copper-based services unaffordable.

486 The primary / secondary user approach would amount to a radical departure from the existing per operator approach. Such a departure would only be appropriate if, having regard to the requirement under Regulation 16 of the Framework Regulations that ComReg promotes regulatory predictability, there were clear reasons for doing so. For the reasons set out above, ComReg does not believe that this is the case.

487 For access to Eircom's CEI by NBI's MIP in the NBP IA, the **per customer approach** is capable of providing an appropriate cost sharing mechanism (for the shared network costs and common corporate costs for poles) between Eircom and NBI's MIP.

488 ComReg considers that given the specific nature of pole access by NBI's MIP in the NBP IA (in particular, the fact that NBI does not have a pre-existing network and so is required to access existing CEI to deploy a new national network for the purposes of serving a specific sub-set of premises under the terms of the NBP contract) there are some merits in giving further consideration to the per customer approach.

489 Indeed, in a situation where customers are transitioning from one operator's network onto another operator's network, e.g. between a copper network and a fibre network, it is possible that the total bill for pole access could be similar under both the per customer approach and the per-operator approach if the rate of migration of customers is reasonably consistent across the transition period. However, in the case of NBI's network in the NBP IA, these approaches have different implications for Eircom's incentives to shut down the copper network. The evolving scale of the bill payments under the per customer approach is more phased and allows Eircom's contribution to shared CEI network costs to decline progressively as its ability to recover those costs from revenues from copper-based services declines.

490 Generally, when another operator acquires access to Eircom's pole network it is not possible to establish the number of customers that each operator is serving with the infrastructure they share or even the number of customers that can be served by that infrastructure. For example, an operator could deploy a cable on a pole route to serve the customers along that route but it could also be using that cable to aggregate traffic from customers in other parts of the operator's own network. In the absence of an objective basis for determining relative customer numbers for each operator sharing a pole, a possible 50:50 attribution is a reasonable proxy for the relative number of customers that are likely to be served where two operators are sharing poles along a route.

491 However, in the case of access to Eircom's poles by NBI's MIP in the NBP IA, the fact that NBI is contracted to deploy a fibre network to service circa 537,000 premises (delivery points) that are currently only able to avail of a fixed line service from Eircom, means that a per customer approach could be objectively informed by the relative number of the NBP IA premises actively connected either to Eircom's or NBI's networks.

492 ComReg considers that the per customer option should contribute to a smoother evolution of copper access rental prices compared to the per operator approach and the primary / secondary user approach, while still allowing Eircom to recover its efficiently incurred costs associated with poles.[113] The per customer approach is a dynamic allocation role as the proportion of costs borne by NBI increases gradually as the number of customers switching to fibre grows. Indeed, the per customer approach is consistent with 2013 EC Recommendation. Paragraph (39) provides that:

"*Active copper lines are decreasing due to customers migrating to cable, fibre and/or mobile networks. Modelling a single efficient NGA network for copper and NGA access products… allows for progressively transferring the traffic volume from copper to NGA with deployment of and switching to NGA*…" [emphasis added]

493 The issue of copper to fibre transition in the context of the NBP IA and the extent that different CEI cost sharing options might provide Eircom with suitable incentives to decommission its copper network is considered in the Dot Econ report. Dot Econ notes that:

"…*the greater share of CEI costs allocated to the copper network, and so the lower the CEI access charges paid by NBI, the stronger will be Eircom's incentives to*

[113] The per customer approach could be seen as similar to the customer-based mechanism that Eircom is expected to adopt as it completes its FTTH deployment to pass nearly 1.4m in the Urban Commercial Area. In essence, the revenues from copper-based services are likely to be giving way to fibre-based revenues as Eircom transitions its broadband customer base from a copper-based network to an FTTH solution.

decommission its copper network."[114]

494 In that context, it appears that the incentive for Eircom to decommission copper may be strongest, and could even be considered excessive, under the primary / secondary user approach. This is because NBI's MIP would make no contribution to the recovery of shared network costs until Eircom actually withdrew its copper cables. This incentive may be reduced under the per operator approach as NBI's MIP would always contribute 50% of the annual pole access costs (assuming that only Eircom and NBI have cables present on the pole) as long as an Eircom cable is deployed on the pole. Nonetheless, this incentive could still be too high under the per operator approach once NBI's fibre roll-out is established and the number of residual copper customers on Eircom's network is small.

495 However, the per customer approach may not provide Eircom with the same incentive to withdraw copper cables compared to either the primary / secondary user approach or even the per operator approach. Under the per operator approach Eircom will always have to recover 50% of the pole costs until it withdraws its cables from a pole after which NBI's MIP will incur 100% of the pole costs. In contrast, under the per customer approach the per-pole charge for NBI's MIP will exceed 50% once its share of the relevant customer base exceeds a certain level.

496 Dot Econ, in Section 5.6 of its report at Annex 2, considers that the 'optimal transition path' from copper to fibre services is likely to involve:

- *"Progressive shifting of common (shared) CEI costs from copper to fibre networks over time;*
- *Abrupt shutdown of the copper network at some point whilst there are still some residual customers*."

497 Dot Econ, in Section 5.6.1 of its report at Annex 2, also notes that, under some assumptions, a per customer approach can result in shared network costs being attributed between infrastructure users that is a reasonable approximation to that achieved with other regulatory approaches such as Ramsey Pricing or 'equi-proportionate mark-ups' ('**EPMU**'). Dot Econ also considers that a per customer approach is more compatible with an efficient recovery of shared costs during the period when demand is transitioning from copper to fibre services, stating in its report at Section 5.6.1 that:

"*If we start with very little demand for fibre services, copper services need to cover the common costs of CEI and the fibre network would pay only for the specific CEI costs they cause (i.e. the sharer incremental cost). Similarly, if we end with customers having switched to fibre and very little demand for copper services, then fibre services need to cover the common costs of CEI*".

[114] Section 5.6 of the Dot Econ Report, at Annex 2 of this Consultation document.

498 Therefore, Dot Econ concludes that a per customer approach could provide Eircom with reasonable *incentives* to decommission copper and it also argues that it is possible to improve the approach so that Eircom would take into account the cost benefits of eliminating network duplication and shut down the copper network in the same manner as an integrated provider facing all the costs and benefits of copper switch off and transition to fibre. This is referred to by Dot Econ, in Section 7.4 of its report at Annex 2, as an "*augmented line share rule"* and it has the following features:

- The fibre network makes no contribution if its share of subscriber lines is less than some specified threshold $t\%$;
- Once the fibre network's share of lines $x\%$ is a least $t\%$, it pays a share of $(x - t)/(1 - t)$ of the common (shared) CEI cost for shared assets.

499 In particular, Dot Econ, in Section 7.5 of its report at Annex 2, outlines how a usage-based approach, such as the per customer approach, provides incentives for reasonably efficient cost sharing between Eircom's copper and NBI's fibre networks, and for eventual turn-off of the copper network by Eircom.

500 Dot Econ also states, in Section 7.5 of its report at Annex 2, that:

"*The augmented line sharing rule …seeks to correct inefficiencies in the copper turn off decision caused by having separate copper and fibre providers who do not directly take network duplication costs into account. It tries to provide Eircom with similar incentives for copper turn off to those of an integrated provider of both fibre and copper services. This sharing rule requires only a single parameter to be set: a threshold for the fibre line share at which the fibre network starts making a contribution to common CEI costs. However, if this provides too much complexity, that threshold can simply be set at zero, giving a simple line sharing rule based on relative numbers of subscriber lines that requires no parametric assumptions*."

501 This (augmented) approach is discussed in more detail at subsection 6.6 below, in the context of implementation of a per customer approach.

502 While the per customer approach for NBI's MIP in the NBP IA, is capable of providing an appropriate cost sharing mechanism (for the shared network costs and common corporate costs for poles) between Eircom and NBI's MIP, ComReg also recognises that maintaining the status quo (of the per operator approach) may also be reasonable.

503 The **per operator approach** would mean that the total cost of pole access in the NBP IA would tend to be shared between the operators accessing the poles i.e., NBI's MIP and Eircom, based on the number of poles used by NBI's MIP and the extent that these are shared with Eircom. Eventually all of the pole access costs could be incurred by NBI's MIP should Eircom switch off its copper network and withdraw all of its cables, leaving NBI's MIP as the sole user of poles in the NBP IA.

504 With the per operator approach the charge for NBI's MIP should recover 50% (assuming that there are two operators sharing the pole) of the pole costs once it gains access to the pole and this charge would continue until Eircom removes its cables from the pole, at which time the charge for NBI's MIP, as the sole user, should recover all (100%) of the costs.

505 Under the per customer approach NBI's MIP would always pay the incremental costs from the time access is initially granted but the attribution of shared network costs should depend on the relative NBP IA customer numbers served by NBI's MIP and Eircom.

506 In both cases, the amount to be paid in respect to NBI's MIP for poles access would be expected to increase over the transition period to NBI's full rollout of its fibre network and Eircom's likely copper switch-off but the timing of the increase under each approach is likely to differ.

507 Under the per operator approach the level of amount to be paid in respect of CEI access for NBI's MIP is likely to be dictated initially by NBI's deployment plans followed by Eircom's ability to withdraw copper cables; while under the per customer approach it would be dictated by NBI's deployment plans followed by the rate at which customer's migrate off Eircom's network onto NBI's network.

508 As noted, the per customer option would require NBI to pay Eircom for the incremental costs caused by its access request for poles. In the NBP IA, these costs are likely to be significant given the extent of pole replacement that is expected over and above the business as usual (BAU) levels so as to ensure that NBI's MIP has access to a fit for purpose pole network. Under the per customer approach the cost of pole access to NBI's MIP is likely to only initially recover the incremental costs whereas under the per operator approach all the pole access related costs (incremental and shared network costs) are shared with NBI.

509 In addition, under the per operator approach the per pole charge for NBI's MIP for pole access should remain unchanged over the course of the transition from Eircom's copper services to NBI's fibre services until eventually Eircom withdraws its copper cables along the pole route. In contrast, the per pole charge for NBI's MIP under the per customer approach is likely to increase as NBI's relative share of the customer base in NBP IA increases and so it takes a larger share of the shared network costs for poles.

510 The per customer approach may not necessarily affect the overall level of costs that are recovered from each operator accessing the pole network in the NBP IA across the transition period but it should ensure that the recovery of costs is better aligned with the revenue streams of both operators (NBI's MIP and Eircom).

511 However, ComReg recognises that Eircom's incentive to withdraw its cables is

stronger under the per operator approach than the per customer approach as under the per operator approach Eircom would have to remove all cables before NBI's MIP would be required to absorb more than 50% of pole related costs under the per operator approach. Indeed, Dot Econ in Section 7.2 of its report at Annex 2, considers that the per operator approach "…*causes an excessive incentive to shut off its copper network once NBI's fibre roll-out is high and the number of residual copper customers is small*."

512 Please also see further details on a comparison of the various cost sharing approaches in the Dot Econ report, subsection 7.5, which is appended at Annex 2 of this Consultation document.

513 While the existing per operator approach may continue to be an appropriate cost sharing methodology, ComReg is of the preliminary view that the per customer approach provides a smoother transition from copper to fibre compared to the per operator approach, and the latter may also provide inefficient strong incentives for copper withdrawal (from poles) before NBI's fibre network has been fully deployed.

514 Table 8 below summarises ComReg's proposals on the cost sharing methodology that should be used as a means to determining the pole access rental prices for Generic Access users of Eircom's CEI as well as NBI's MIP access to CEI in the various geographic footprints. In the case of Generic Access, the cost sharing approaches are applied to the total costs in Commercial Areas, which are pooled and shared between access users (including Eircom), while for NBI's MIP the sharing approaches are only applied to the costs which have been identified as network shared costs and not the costs identified as incremental costs as outlined in subsection 5.8.9. ComReg invites views on our considerations and proposals outlined above.

Table 8: ComReg's proposed costing sharing methodology for poles

CEI		Access Seeker	Generic Access to Poles (Total Cost)			NBI's MIP Access to Poles (Shared cost only)	
		GEOGRAPHIC FOOTPRINTS	Commercial Areas	NBP Intervention Area*		Commercial Areas**	NBP Intervention Area***
Proposed cost sharing approach for poles		Per operator	✓	✓		n/a	×
		Primary / Secondary User	×	×		n/a	×
		Per customer	×	×		n/a	✓

**ComReg is proposing (as set out in paragraph 458) to determine the costs for Generic Access to CEI based on the costs relevant to the Commercial Area as that is the region where we expect all of the demand for such access to arise.*

***This is on the basis of the proposed LRIC methodology being adopted for NBI's MIP in the Commercial Area. In this case the consideration of a cost sharing methodology is moot as there are no shared network costs or common corporate costs to allocate between CEI users. However, if there were shared network costs to be allocated then ComReg considers that the per customer approach may be a reasonable alternative to the existing per operator approach.*

****In the case of the NBP IA, based on ComReg's analysis, it is expected that there will be significant incremental costs incurred by Eircom in the case of NBI's access to poles but this will not be the case in the Commercial Areas where almost all pole costs will* be *essentially shared.*

ComReg's Preliminary View:

515 In the case of Generic Access to poles, the per operator approach should continue to be used to allocate all of the relevant pole costs to generic pole users, as a means to determining the national annual pole access rental price.

516 In the case of NBI's MIP in the NBP IA, a per customer approach should be used to allocate the shared network costs between NBI's MIP and Eircom, as a means to determining the pole access rental price, but if implementation were to be overly burdensome, then the existing per operator approach is a reasonable alternative.

517 In the case of NBI's transit access in the Commercial Areas, while a per customer approach may be seen as a reasonable alternative to the existing per operator approach for determining the pole access rental price, if a LRIC approach is adopted as the preferred option (subject to consultation responses and further consideration of the options by ComReg) then the need to allocate shared network

costs and common corporate costs is not relevant as they are not part of the LRIC. A decision on the cost sharing methodology in this context becomes somewhat moot.

Q. 9 Do you agree with ComReg's preliminary views on the proposed cost sharing methodologies that should be applied as a means to determining the pole access rental price for Generic Access to poles and for NBI's MIP access to poles in the NBP IA and in the Commercial Areas? Please provide reasons for your response.

6.4 Cost sharing for duct access

518 Subject to capacity constraints, ComReg considers that a significant amount of existing duct should be capable of supporting multiple operators. While some duct costs could be considered incremental to the access seeker that uses them, for the most part the costs of duct should be shared by the operators accessing the ducts.[115]

519 ComReg has given consideration to three possible cost sharing options so as to allocate the shared network costs (including common corporate costs) for duct access among duct users, in order to determine the per unit duct access rental prices for both Generic Access and NBI's MIP. The cost sharing options are as follows:

- Per metre of sub duct approach;
- Primary / secondary user approach;
- Per customer approach.

6.4.1 Per metre of sub duct approach:

520 The first cost sharing option considered by ComReg for duct access is the per metre of sub duct approach. This is the approach that is currently used to set the existing duct access rental prices determined in the 2016 Access Pricing Decision (and re-imposed in the 2018 WLA / WCA Market Review Decision).

521 As set out in Section 5, the duct access annual costs include the cost of: trenches; ducts; and chambers.The per metre of sub duct approach means that the per metre price is derived by dividing the total cost relating to duct access infrastructure by the total length of underground copper and fibre cables (fibre cables are generally deployed in sub ducts) to derive a cost per metre. The cost of trenches is sensitive

[115] A long run costing approach to determine the relevant CEI cost does not consider that a cost is necessarily incremental just because it is incurred at the time that the access request is made. For example, in the case of ducts, the costs of sub-duct might be incremental to the access seeker that uses that sub-duct but all other costs (ducts, trenches and chambers) could be shared among the operators accessing a section of underground CEI.

to both the length and the size of the trench, which in turn is driven by the need for the ducts to accommodate sub-ducts (when available) or copper cables. While the responses to Consultation 15/67 (leading up to the 2016 Access Pricing Decision) pointed out that cable capacity was not a significant issue for poles, no such case was made in relation to ducts. As a result, the pricing of duct access reflects capacity constraints by reference to duct occupancy determined with reference to the metres of cables/sub-ducts.

522 Under the per metre of sub duct approach the unit cost of duct is dependent on the total amount of copper and fibre cables hosted on Eircom's network. Sub ducts tend to be of a similar size to copper cables in terms of circumference. Therefore, pricing on the basis of access to dedicated sub-duct is also consistent with the principle of cost causation as it recognises the capacity of ducts in trenches to carry both sub-duct and cables.

523 The per metre of sub duct approach is considered further below in subsection 6.5.

6.4.2 Primary / secondary user approach:

524 The primary / secondary user approach has been described at paragraphs 448-451. Many of the same considerations as those highlighted above in the context of pole access pricing apply in relation to duct access pricing.

525 There are however significant differences. In particular, while it may be considered efficient to remove redundant cables from poles, as it helps to diminish the load on the pole, thereby helping to prolong its technical life, removing cables from duct risks damaging other cables in the duct. Hence, removal of redundant copper cable from ducts is generally undertaken by an operator to overcome duct capacity constraints or when repairs to cables/ducts are being undertaken. Therefore, different considerations govern the efficient retirement and eventual withdrawal of copper cables in duct and duct access lends itself much less to a primary / secondary user approach than for pole access.

526 The primary / secondary user approach is considered further below in subsection 6.5.

6.4.3 Per customer approach:

527 The per customer approach has been described at paragraphs 452-455 above and many of the same considerations that apply in respect of the per customer approach for pole access also apply in the context of sharing costs for duct access. In particular, implementing a per customer approach for duct access requires an objective basis to determine the relevant customer numbers and achieving such a basis is difficult when the infrastructure is shared between rival operators that are targeting the same set of customers (as Eircom) with a similar range of services.

528 The per customer approach in the context of duct access is considered further below in subsection 6.5.

6.5 Applying the cost sharing options to duct access

529 In the subsection above ComReg has set out the three cost sharing options that it has considered in the context of allocating shared costs for duct access. In the following paragraphs ComReg has assessed these options in the context of duct access for Generic Access and for access by NBI's MIP to Eircom's ducts across the Commercial Areas and in the NBP IA footprints.

6.5.1 Duct access pricing in the Commercial Areas:

Generic Access to duct in the Commercial Areas:

530 As set out in Section 5, paragraphs 220-232, ComReg proposes that in the context of Generic Access to CEI in the Commercial Areas that all of the access costs (incremental, shared network costs as well as common corporate costs) should be recovered by Eircom in the context of providing a competing operator with access to its CEI network. Further, ComReg proposes that Generic Access prices should be set based on the costs associated with the Commercial Areas given the unlikely demand for Generic Access to CEI in the NBP IA. Please see further details out at paragraphs 220-232. This means that the existing pricing structure for ducts (a price in the Dublin area and a price for Provincial areas) would no longer apply and instead a national price would apply for duct.

531 ComReg is of the preliminary view that for Generic Access to Eircom's duct the existing **per metre of sub duct** approach remains appropriate and reasonable. In particular, this approach provides for the recovery of all duct related costs including an allocation of shared network costs and common corporate costs. As set out in Section 5 paragraphs 220-232 Eircom is likely to continue to use its ducts in the Commercial Areas to provide wholesale access services to its Retail division and to other retail service providers. To ensure long term sustainability in that context, the price for Generic Access to duct must be set at a level that allows Eircom to recover all duct related costs i.e., incremental costs as well as an allocation of shared network costs and common corporate costs.

532 An approach which does not allow Eircom to recover a similar contribution of shared network costs and common corporate costs would likely have distortive effects on competition as Eircom would likely be left to recover an increasing proportion of these costs from the residual customers it retains.

533 For this reason, the **primary / secondary user** approach, which only allows for the recovery of the incremental costs of duct access, does not appear to be appropriate for Generic Access to Eircom's duct.

534 Inappropriate cost recovery may be less of an issue with the **per customer approach** than it is with the primary / secondary user approach, as it would allow Eircom to receive a contribution of the shared network costs and common corporate costs from the Generic Access prices for duct. However, it would be difficult to implement. ComReg considers that it is not possible to have an objective basis to determine the relative number of customers that each operator is serving using shared ducts, and therefore that there is no objective basis on which to apply a per customer approach.

535 Hence, ComReg is of the preliminary view that the per metre of sub duct approach remains the most appropriate pricing approach for Generic Access to Eircom's ducts in the Commercial Areas. It promotes market entry by enabling operators to share the costs of existing infrastructure, it helps sustain viable competition by allowing competing operators contribute to the cost recovery of shared network assets on equivalent terms and maintains investment incentives as it allows Eircom to continue to recover its efficiently incurred cost plus a return on capital employed over the long-run. Further, operators are familiar with this approach which has been in place since 2016 and there should be no difficulties with implementing / administering it.

NBI's MIP access to ducts in the Commercial Areas:

536 In Section 5, subsection 5.4.1, ComReg assessed a number of costing methodology options for the CEI access price for NBI's transit access in the Commercial Areas. While each option has its pros and cons ComReg tends to the view that Eircom should only recover the long run incremental costs caused by NBI in this area and ComReg welcomes the views of interested parties on this proposal. If a LRIC approach is adopted for NBI's transit access in the Commercial Areas then it is expected that there would be no shared network costs or common corporate costs to be allocated to NBI's MIP.

537 However, if an alternative costing methodology is adopted and there are shared network costs and common corporate costs to be allocated to NBI's MIP ComReg has set out some observations and considerations below on what might be an appropriate cost sharing approach for allocating any shared network costs and common corporate costs relevant to duct access by NBI for transit access in the Commercial Areas.

538 It appears to ComReg that the existing **per metre of sub duct** approach applied to access to duct by NBI's MIP in the Commercial Areas could result in excess cost recovery by Eircom with potentially distortive effects on competition. Under that approach, Eircom would likely recover a significant part of the shared network costs of ducts from NBI even though NBI cannot use its subsidised network to provide services outside the NBP IA so as to serve and compete for customers in the Commercial Areas. As Eircom suffers no wholesale or retail revenue losses from

providing such transit access to NBI, such a contribution (to Eircom's shared network costs for ducts) from NBI could mean that Eircom may use this excess contribution as an opportunity to reduce the prices of wholesale access services where it is faced with competition from rival network operators, as already set out at paragraph 467.

539 Adopting a **per customer** approach for attributing shared network costs and common corporate costs for ducts in the context of NBI's transit access in the Commercial Areas could be seen as more consistent with the fact that NBI cannot compete for customers in the Commercial Areas. This is because a per customer approach for NBI's MIP in the Commercial Areas would result in NBI's MIP being charged for duct access on the basis of the incremental costs[116], without any contribution to shared network costs or common corporate costs as NBI has no customers to serve in this area. It should accordingly avoid any risk of over-recovery of costs by Eircom.

540 ComReg also considered the similarity between the incremental pricing decision for Line Share in ComReg Decision D04/09 and the possibility of applying an incremental costing approach (and hence a possible per customer approach) for duct access for NBI's MIP in the Commercial Areas, as set out above at paragraphs 469-472.

541 ComReg considers that the **primary / secondary user** approach may not be appropriate in the case of determining the appropriate costs to be shared for duct access by NBI's MIP in the Commercial Areas for the reasons already set out at paragraph 525.

542 In summary, there are a number of cost sharing options for allocating any shared network costs and common corporate costs for duct access in the context of NBI's transit access in the Commercial Areas. The per customer approach may be seen as a reasonable alternative to the existing per metre of sub duct approach while the primary / secondary user approach may not be appropriate in the context of duct access as the need to encourage the efficient retirement and withdrawal of copper cables in duct is less important in the case of duct access than it might be in the case of pole access. However, if a LRIC approach is adopted as the preferred option (subject to consultation responses and further consideration of the options by ComReg) for setting duct access prices for NBI's transit access in the Commercial Areas, then the need to allocate shared network costs and common corporate costs is not relevant as LRIC does not include shared network costs or

[116] In the case of the NBI's MIP, for duct access in the Commercial Areas, incremental costs are modelled as being confined to the costs of sub-duct as it is assumed that other duct related costs such as trenching, duct installation, blockage clearance and surface reinstatement are part of the normal network maintenance costs for Eircom, given that it continues to use the network in perpetuity. Sub-duct is considered incremental as ComReg is of the preliminary view that capacity constraints are most likely to exist for sub-ducts.

common corporate costs and so a decision on the cost sharing methodology becomes somewhat moot. ComReg invites views on these considerations.

6.5.2 Duct access pricing in the NBP Intervention Area:

Generic Access to ducts in the NBP IA:

543 As set out in Section 5, paragraph 262, the demand for Generic Access to Eircom's CEI in the NBP IA is not likely to be material. ComReg proposes in Section 5 that the costs / prices for Generic Access to CEI should reflect the BU-LRAIC+ and the TD HCA costs, set by reference to the costs in the Commercial Areas. Please see paragraphs 220-232 for further details. Hence, it is proposed that one national price would apply for Generic Access to ducts (rather than the existing structure of a price in the Dublin area and a price in Provincial areas).

544 The cost sharing approaches considered for Generic Access to ducts are set out in paragraphs 531-535, in the context of the Commercial Areas. ComReg proposes that the existing approach of a per metre of sub duct remains appropriate to allocate the shared network costs associated with Generic Access to ducts, based on the costs in the Commercial Areas.

NBI's MIP access to ducts in the NBP IA:

545 Insofar as access to Eircom's ducts by NBI's MIP in the NBP IA is concerned, ComReg is of the view that two approaches to cost-sharing are appropriate, including the per customer approach, and the existing cost sharing approach of a per metre of sub duct.

546 The **per-customer** approach would provide an appropriate allocation of shared network costs and common corporate costs between Eircom and NBI. The per customer approach would mean that all of the incremental costs that are incurred by Eircom to support the provision of the duct access service to NBI's MIP would be recovered from NBI. The residual (shared network) costs, which likely include the legacy costs of duct related assets that Eircom has deployed in the past and which are not fully depreciated as well as the costs that Eircom may continue to incur to enable the ongoing supply of access services to its declining customer base in the NBP IA, would be shared between Eircom and NBI's MIP in proportion to each operator's customer base in the NBP IA.

547 To estimate the reusable duct costs specific to the NBP IA ComReg has made a number of assumptions in the Draft DAM. Please see Section 5, paragraphs 397-408 for the details. In essence, the NBV of Eircom's reusable duct assets in the NBP IA is close to zero and the only shared network costs that remain to be recovered from the operators sharing duct in the NBP IA are the costs Eircom is likely to incur in remediating and repairing ducts to maintain its access network and

support the appropriate service levels for its customer base. Unlike poles, which may have to be replaced as part of an ongoing maintenance programme, operators generally do not carry out routine maintenance on ducts unless it is necessary to resolve existing or recurring faults. The shared network costs associated with ducts in the NBP IA are accordingly not likely to be material.

548 ComReg considers that the per customer approach is only appropriate where there is an objective basis and it should only be considered where it is possible to ascertain on an objective basis the relevant customer numbers for each operator. This is likely to be the case only in the context of NBI's MIP service as a result of the classification of premises inside and outside the NBP IA.

549 Furthermore, Eircom has no plans to deploy fibre in the NBP IA and its copper network will gradually be replaced by NBI's fibre network, so Eircom is likely to have little incentive to invest in duct related assets on an ongoing basis in the NBP IA over and above that required to maintain appropriate service levels for its customers.[117] As Eircom's customer numbers are likely to decline as customers migrate to NBI's fibre services, duct maintenance will be limited. Absent a requirement to meet NBI's duct access requests, Eircom would likely sweat existing assets rather than invest in its duct network in the NBP IA. Therefore, ComReg would expect that the level of shared network costs that would be allocated between duct access users based on the existing **per metre of sub duct** approach is likely to be relatively small, and the most significant proportion of duct related costs in the NBP IA in the future should be the incremental costs that arise from Eircom's investments to support NBI's MIP. Indeed, almost all duct related expenditure in the NBP IA could be regarded as incremental to NBI's MIP as NBI will ultimately be the only operator that could benefit from this expenditure.

550 This also means that the amount to be paid by NBI's MIP could be lower under the existing per metre of sub duct approach (where all duct shared network costs and incremental costs are allocated between operators based on a measure of the capacity of trench occupied by each operator), than under the per customer approach (where the totality of the incremental costs would be recovered from NBI's MIP and only the shared network costs would be allocated to duct users in proportion to relative customer numbers in each period). This could be the case if the proportion of incremental costs relative to shared network costs is significant.

551 Ducts have long asset lives and normally it is difficult to determine which services or duct users will ultimately benefit from any investments that are undertaken in any period as assets can remain in use for many decades and benefit services and users that may not even exist when the associated investment was first made.

[117] As set out in Section 3, Eircom is the designated USP. As a result, Eircom must adhere to a number of service availability targets.

552 However, given the economic characteristics of the NBP IA discussed in Section 3, it is unlikely that another duct access user will make significant use of the sub-ducts that are being installed by Eircom to support NBI's deployment of its fibre network. Therefore, the per customer approach could have merits as a cost sharing option compared to the per metre of sub duct approach as it ensures that cost recovery better aligns with the principles of both cost causation (the initial investment happens because of NBI's MIP demand for duct access in the NBP IA) and the distribution of benefits (NBI will be the primary beneficiary of this investment both in the short term and in the long term). ComReg welcomes the views of interested parties regarding both approaches (per metre of sub duct and per customer approach).

553 It should be noted that when and if Eircom retires its copper network in the NBP IA, NBI is expected to be the only operator present[118] in those segments of underground route, where duct (trench) occupancy becomes irrelevant as a basis for a cost sharing approach. In the Commercial Areas ComReg does not expect a similar situation, as Eircom is expected to continue to provide fixed line commercial services as well as continued replacement of copper cables with fibre cables in this area. Hence, the price for NBI's access in Commercial Areas should take into account the duct (trench) occupancy by both Eircom and NBI's cables (or indeed any other commercial operators), as shown in Table 18 in Section 9.2, under the "per meter of cable" approach.

554 In the same way as for poles, as highlighted earlier in this section (6.3), the per-customer approach may prove difficult to implement. If this were the case, ComReg believes that the existing per metre of sub-duct approach would be a reasonable alternative.

555 Table 9 below summarises ComReg's proposals on the cost sharing methodologies that ComReg considers should be adopted as a means to determining the duct access rental prices for Generic Access users of Eircom's CEI as well as NBI's MIP access. In the case of Generic Access, the cost sharing approaches are applied to the total costs in Commercial Areas (with the exception of sub-duct), which are pooled and shared between access users (including Eircom), while for NBI's MIP the sharing approaches are only applied to the costs which have been identified as network shared costs and not the costs identified as incremental costs as outlined in subsection 5.8.9.

[118] By "present" ComReg means "active", i.e., where cables are providing a service to a customer(s). Removing redundant copper cables can risk damaging other cables in the duct, so cables are not normally removed unless the perceived benefit outweighs that risk, e.g. freeing up capacity in the duct. Therefore, ComReg is of the preliminary view that the pricing approach for duct access in the NBP IA does not need to incentivise Eircom to remove redundant cables, given that duct capacity constraints are not likely to be a material concern in the NBP IA.

Table 9: ComReg's proposed costing sharing methodology for ducts

Duct	Access Seeker	Generic Access to Duct (Total Cost)			NBI's MIP Access to Duct (Shared cost only)	
	GEOGRAPHIC FOOTPRINTS	**Commercial Areas**	**NBP Intervention Area***		**Commercial Areas****	**NBP Intervention Area*****
Proposed cost sharing approach for ducts	Per metre of sub duct	✓	✓		n/a	×
	Primary / Secondary User	×	×		n/a	×
	Per customer	×	×		n/a	✓

**ComReg is proposing (as set out in paragraph 530) to determine the costs for Generic Access to CEI based on the costs relevant to the Commercial Area as that is the region where we expect all of the demand for such access to arise.*

***This is on the basis of the proposed LRIC methodology being adopted for NBI's MIP in the Commercial Area. In this case the consideration of a cost sharing methodology is moot as there are no shared network costs or common corporate costs to allocate between CEI users. However, if there were shared network costs to be allocated then ComReg considers that the per customer approach may be a reasonable alternative to the existing per operator approach.*

****In the case of the NBP IA, based on ComReg's analysis, it is expected that there will be significant incremental costs incurred by Eircom in the case of NBI's access to ducts but in the case of duct access by NBI's MIP in the Commercial Areas the incremental costs are confined to the costs of sub-duct as it is assumed that other duct related costs are part of the normal network maintenance costs for Eircom, given that it continues to use the network in perpetuity.*

ComReg's Preliminary View:

556 In the case of Generic Access to duct, the per metre of sub duct approach should continue to be used to allocate the shared network costs and common corporate costs associated with Generic Access to ducts, based on the costs in the Commercial Areas.

557 In the case of NBI's MIP in the NBP IA, a per customer approach should be used to allocate the shared network costs between NBI's MIP and Eircom, as a means to determining the duct access rental price, but if implementation of it were to be overly burdensome, maintaining the existing per metre of sub duct approach would be a reasonable alternative.

558 In the case of NBI's transit access in the Commercial Areas, while a per customer approach may be seen as a reasonable alternative to the existing per metre of sub duct approach for determining the duct access rental prices in that area, if a LRIC approach is adopted as the preferred option (subject to consultation responses and

further consideration of the options by ComReg) then the need to allocate shared network costs and common corporate costs is not relevant as LRIC does not include shared costs or common corporate costs. In that case a decision on the cost sharing methodology becomes somewhat moot.

Q. 10 Do you agree with ComReg's preliminary views on the proposed cost sharing methodologies that should be applied as a means to determining the duct access rental price for Generic Access to duct as well as NBI's MIP access to duct in the in the NBP IA and for transit access in the Commercial Areas? Please provide reasons for your response.

6.6 Implementation of the per customer approach for ducts and poles:

6.6.1 Options for determining appropriate customer base:

559 As set out in subsections 6.3 and 6.5 above, ComReg is of the preliminary view the per customer cost sharing approach is an option for allocating any shared network costs in the context of NBI's MIP in the NBP IA and for NBI's transit access in the Commercial Areas. ComReg believes, however, that the manner in which it would be implemented requires careful consideration. In that context ComReg has considered two options in terms of selecting an appropriate customer base for NBI's MIP in the NBP IA and for NBI's transit access in the Commercial Areas:

- Option 1: Use the number of active customer lines (or relative share of customers connected to NBI and Eircom's network) to allocate the shared network costs for pole / duct access; or
- Option 2: Use a customer threshold approach to allocate the shared network costs for pole / duct access.

Option 1: Number of customer lines:

560 Option 1 requires using some form of active customer lines. ComReg recognises that there are different ways to establish the appropriate customer base in the two areas i.e., in the NBP IA and for NBI's transit access in the Commercial Areas, and we invite the views of interested parties on this point.

561 Under the per customer approach being considered by ComReg in this Consultation, the incremental costs for poles / ducts associated with NBI's MIP would be recovered from NBI while the shared network costs for poles / ducts would be recovered between Eircom and NBI's MIP in proportion to a metric such as the relative number of premises actively connected to their respective networks. The fact that the recovery of shared network costs for poles / ducts between Eircom and NBI's MIP is likely to be in proportion to the relative share of customers actively

connected to each operator's network in the NBP IA should help minimise any potential disincentives for both Eircom and NBI regarding copper withdrawal.

562 ComReg also considers that attributing the shared network costs for pole / duct access between Eircom and NBI's MIP on the basis of the number customers actively connected to each of the operator's networks in the NBP IA also reflects the relative extent that both operators benefit from their use of poles / ducts in the NBP IA.

563 In the case of NBI's transit access in the Commercial Areas, there is the option to allocate any shared network costs for NBI's transit access in this area in proportion to customer numbers – similar to the NBP IA above. This could be done on the basis of those customer numbers associated with NBI's transit in the Commercial Areas, i.e. in proportion to the number of customers in the Commercial Areas that are actively connected to either the Eircom network or the NBI network. However, the fact that NBI cannot offer services in the Commercial Areas would indicate that NBI would not have any active customers in the Commercial Areas, with the result that NBI would not receive an allocation of shared network costs based on this option.

564 Alternatively, this could be done in proportion to the combined customer numbers for NBI and Eircom in the NBP IA and (for transit) in the Commercial Areas, i.e. the relative customer numbers would be determined by the proportion of customers that are actively connected to either the Eircom network or the NBI network regardless of which footprint those customers are located in. This would mean that NBI and Eircom would always receive an allocation of shared network costs though most of the shared network costs would be allocated to Eircom as Eircom's network is currently in a position to serve all premises in the country, while NBI can only serve the sub-set of customers in the NBP IA. However, the prospect that other operators will also be renting Eircom's ducts and poles in the Commercial Areas could mean that this could prove to be difficult to implement and so this has not been considered further in this Consultation.

565 Determining the price for CEI access for NBI's MIP in the NBP IA on per customer basis in each period requires data on which premises have been passed by NBI's MIP network and whether those premises are served by either Eircom or NBI. NBI will have available information on premises passed and connected. However, the equivalent information for Eircom's copper-based services may be incomplete. ComReg considers that the possible challenge for Eircom in this regard is to ensure that its systems are updated to identify the number of the designated premises passed by NBI's MIP which remain connected to Eircom's network. ComReg would welcome the views of NBI and Eircom on the information that is currently available to them as well the information they could possibly provide so as to satisfy the proposal of using the number of each operator's active connections to those designated premises (of circa 537,000 delivery points) in the NBP IA as a basis for

attributing the shared network costs between Eircom and NBI's MIP.

566 There does not appear to be any good reason to conduct the analysis on an 'exchange area by exchange area' or 'route by route' basis. Such an analysis is likely to be overly complex to undertake and to monitor and it may lead to a higher potential for disputes. Hence, ComReg considers that any assessment of relative customer share should be performed with reference to all designated premises in the NBP IA that have been passed by NBI's MIP.

567 For example, in the case where NBI's MIP has passed 300k premises in the NBP IA and 100k of these premises are connected to NBI's services while 100k of the premises passed in the NBP IA are still connected to the Eircom network, the cost per pole for NBI's MIP under the per customer approach should be based on 100% of the incremental costs per pole and 50% of the shared network costs per pole for all those poles that NBI has obtained access to in the NBP IA. As this example suggests there should be times in the earlier part of the transition period when the costs to NBI's MIP are likely to be lower on the per customer approach than under the per operator approach but this situation should be reversed in the later stages of the transition period.

Option 2: Customer threshold:

568 Option 2 involves setting a threshold whereby NBI's fibre network only makes a contribution towards the shared network costs for pole access once it reaches a specific number / percentage of customer lines. Please see paragraphs 498-501. In short, costs are allocated to NBI's fibre network according to the amount by which the fibre customer lines exceed the threshold set, rather than the fibre customer line share itself. Under this option, all pole access costs would be allocated to the copper network until the fibre customer line share reaches this threshold, which Dot Econ refers to as the "*augmented line share rule*".

569 Dot Econ, in Section 7.4 of its report at Annex 2, sets out that the theoretical attractions of such an approach in terms of giving somewhat more efficient incentives for copper network shutdown. However, it has the disadvantage of requiring that an additional parameter is chosen. Dot Econ also considers that rather than applying this approach on an area-by-area basis, an overall threshold could be applied to all areas, but the actual share of subscriber lines that are fibre may potentially vary if roll-out has been prioritised in some areas. If copper is decommissioned in an area, that area could be eliminated from the calculation. However, Dot Econ also recognises that there are potential issues associated with the implementation of such an augmented approach, including the definition of the appropriate geographic units at which the per customer approach should be applied and the fact that deriving the value of the specified '*t*' threshold requires an understanding of the level of network specific fixed costs of NBI's fibre network.

570 ComReg is of the preliminary view that option 1 appears to be more attractive and the simpler of the two options to adopt. However, ComReg welcomes the views of interested parties on both options. In particular, ComReg is interested in the views of Eircom and NBI on the information that is currently available to them as well as the information that they could possibly provide so as to satisfy the proposal of using the number of each operator's active connections to those designated premises (of circa 537,000 delivery points) in the NBP IA.

ComReg's Preliminary View:

571 The number of customer lines would be an appropriate basis to implement the per customer cost sharing approach for NBI's MIP in the NBP IA (and in the Commercial Areas for NBI's transit access if there are shared network costs to allocate) provided that factors such as the need for reliable data and the accurate tracking of customer numbers by operator, can be effectively managed.

572 In the NBP IA, the number of customer lines should be the number of each operator's active connections on their networks to the premises designated by the DCCAE (of circa 537,000 delivery points) in the NBP IA.

573 In the case where a per customer approach were adopted for NBI's transit access in the Commercial Areas, there are a number of options to establish the number of customer lines as indicated at paragraphs 563-564. ComReg invites the views of interested parties on these options.

Q. 11 Do you agree with ComReg's preliminary view on the use of number of customer lines and in particular the use of the number of each operator's active connections on their networks (Eircom and NBI) to those designated premises (of circa 537,000 delivery points) in the NBP IA, is an appropriate basis to implement the per customer approach for NBI's MIP in the NBP IA? Do you agree with the various options considered at paragraphs 563-564 for allocating any shared network costs and common corporate costs associated with NBI's transit access in Commercial Areas in the event that a per customer approach were chosen in this area? Please provide reasons for your response. ComReg would welcome the views of NBI and Eircom on the information that is currently available to them as well the information they could possibly provide so as to satisfy the proposal of using the number of each operator's active connections to those designated premises (of circa 537,000 delivery points) in the NBP IA and information required for NBI's transit access in the Commercial Areas.

6.6.2 Monitoring and oversight of per customer approach:

574 Another consideration in terms of implementation of the per customer approach is how to process any differences between the forecasted customers connected on Eircom and NBI's networks in the NBP IA in the cost modelling exercise and the

actual outcomes.

575 ComReg understands that that CEI access charges are levied (quarterly) in advance which would mean that forecasts of relative customer numbers for both operators would be required to inform the level of these charges under a per customer approach. Consequently, there is a risk that error in forecasts could result in the level of charges that does not tally with the actual share of customers connected by both operators in that period.

576 However, it should be possible to establish a review process to monitor the materiality of any inconsistencies between forecasts and outturns so as to provide for rebates or surcharges as and if required to address any over- or under-charging. This could be part of the proposed annual review process discussed in Section 10, subsection 10.2.2.

577 If the per customer approach is adopted, on a quarterly basis, ComReg could monitor the actual number of customers actively connected on NBI's and Eircom's networks at the end of each quarter. The actual number of customers actively connected on each operator's network (NBI and Eircom) is expected to be part of information gathered by ComReg more generally for its quarterly reports. Separately, NBI is also likely to provide similar data in terms of premises passed and connected to the DCCAE, and such data could also be used to inform the per customer approach.

578 Subsequently, as part of the annual review process discussed at subsection 10.2.2, the up-to-date information on the actual active customers connected on Eircom's network and NBI's network in the NBP IA should be reflected in the [Draft] PAM and [Draft] DAM. The up-to-date information on the actual active connections for NBI can be provided to Eircom so that Eircom can update the [Draft] PAM and [Draft] DAM with this data and its own data on the active customers connected on its network in the NBP IA. This information along with NBI's data should be used by Eircom to determine if Eircom has over-or-under recovered its CEI shared network costs in the context of NBI's access to its CEI in the NBP IA compared with the forecasted trajectory in the [Draft] PAM and in the [Draft] DAM.[119] Please see subsection 10.2.2 on the proposed annual review process. Nonetheless, the need for customer forecasts highlights that a per customer approach could give rise to greater uncertainty in terms of future CEI access charges compared with other cost sharing approaches.

[119] A similar process could be carried out for NBI's transit access in the Commercial Areas, should a per customer approach be chosen if there were shared network costs to be allocated between NBI and Eircom.

Q. 12 Do you agree with ComReg's preliminary view on the process to monitor and to assess actual outturns of active customer numbers (compared to the forecasts) on their respective networks in the NBP IA at the end of each quarter and to update for the actual active connections in the [Draft] PAM and [Draft] DAM as part of the annual review process in subsection 10.2.2 so as to address any over- or under-charging by Eircom? Please provide reasons for your response.

6.6.3 Duct prices by surface type for Generic Access:

579 As set out in subsection 6.5, ComReg is of the preliminary view that Eircom's duct access rental prices should be set based on a per metre of sub duct for Generic Access to duct while the price for duct access by NBI's MIP should be set using the per customer basis.

580 There are two factors that can influence the costs associated with duct access, namely the surface type in which the duct is deployed and the geographic area where that duct is deployed in. As summarised in Section 5, the existing duct access prices are differentiated by surface type and by area (Dublin and Provincial).

581 The three surface types for duct are:

- *Carriageway*: this refers to duct that is laid beneath the road surface and is the most expensive duct — as the cost of excavation is higher as well as the cost of surface re-instatement;
- *Footway*: this refers to duct that is laid beneath the footpath and is less expensive than carriageway;
- *Verge*: this refers to duct that is laid by the road-side and is the least expensive to deploy.

582 The cost of trench excavation and surface re-instatement for Eircom continues to differ depending on the surface type. Hence, ComReg is of the preliminary view that the cost differentials between surface types should continue for Generic Access to duct as this reflects the way contractors typically charge customers, including Eircom, for their services. In the case of NBI's MIP access to ducts, it is proposed that the cost / price is based on an average across the three surface types based on assumed weightings towards each of the three surface types above, as set out in Section 5.8, paragraph 378.

583 For the existing duct access prices, contractor rates charged to Eircom for duct access work are higher in Urban areas than in other areas. However, in the recently agreed rates between Eircom and its contractors, the costs associated with duct access works are no longer differentiated between areas i.e., Dublin and Provincial,

and are instead charged as one rate. Hence, ComReg is of the preliminary view that it is no longer appropriate to differentiate duct access prices by Dublin / Provincial.

ComReg's Preliminary View:

584 The duct access rental prices for Generic Access to ducts should continue to be differentiated between the various surface types i.e., carriageway, footway and verge.

Q. 13 Do you agree with ComReg's preliminary view that the duct access rental price for Generic Access to ducts should be differentiated by surface type? Please provide reasons for your response.

7 WACC for CEI access in the context of the NBP

7.1 Overview

585 In this section ComReg considers whether a specific WACC should be used when setting prices for Eircom's CEI in the context of the NBP.

586 This is discussed under the following subheadings:

1. Background to the WACC;
2. Summary of the key WACC parameters used for the generic fixed line telecoms WACC;
3. Proposed WACC for Eircom's CEI in the context of NBI's MIP.

7.2 Background to the WACC

587 The purpose of the WACC is to estimate the expected rate of return to investors in a company (or investment), taking into account the company's sources of capital, including equity and debt. In broader terms, it provides a benchmark for returns for investing in a portfolio of companies, sectors or industries. ComReg uses the WACC methodology when setting regulated prices to allow for a reasonable return on capital employed in providing the associated regulated services.

588 For access to Eircom's CEI, NBI will be required to pay Eircom regulated prices for duct and pole access, with one component of the price being a reasonable return on capital employed, which is calculated by the means of a WACC.

589 On 10 June 2020 ComReg notified the European Commission of the draft measures relating to the fixed line telecoms WACC (of 5.61%), which is referred to in this Consultation as the '**Notified 2020 WACC Decision**'. The European Commission provided its response to ComReg's notified draft measures on 9 July 2020. ComReg has not yet published its decision.[120]

590 In the consultation leading up to the Notified 2020 WACC Decision i.e., in Consultation Document 19/54[121] (hereafter, the '**2019 WACC Consultation**'), ComReg asked respondents (at Question 10 in that Consultation) what principles

[120] See European Commission notifications, Case IE/2020/2250 at: https://circabc.europa.eu/ui/group/2328c58f-1fed-4402-a6cc-0f0237699dc3/library/0691f2ea-b435-4a33-805a-0cfcb8eda462

[121] ComReg Document No 19/54, Review of Weighted Average Cost of Capital (WACC), dated 31 May 2019.

should be adopted, if any, for differentiating WACCs (for the likes of CEI assets, FTTC and FTTH) and to decide if project specific risks need to be taken into account.

591 NBI, Eircom and ALTO provided a response to this question. In summary, Eircom considered that a differentiated WACC for CEI assets in the context of the NBP was not appropriate stating that:

> "*While certain CEI assets owned by eir may be used for the National Broadband Plan, eir does not consider that a revised separate WACC is appropriate*."[122]

592 Furthermore, Eircom added that:

> "*Any revision to the WACC would penalise commercially negotiated positions - which may not be consistent with State Aid rules or the spirit of ComReg 18/51*."[123]

593 NBI on the other hand stated that:

> "…*the risk profile that may be attached to its NBP-utilised CEI assets will be very different than that which OE [Eircom] faces in relation to its active wholesale products or even its own-use CEI outside the IA, thus supporting the argument for a differentiated WACC for CEI assets in the context of the NBP*."[124]

594 ALTO considered that whether differentiated WACCs should apply must be assessed on a case by case basis.[125]

595 In the subsections below ComReg has set out the more specific points raised by Eircom and NBI concerning a differentiated WACC for CEI in the context of the NBP.

596 In assessing the options and in reaching the preliminary views below, ComReg has taken into account the proposed recommendations from ComReg's economic advisors, Europe Economics. The Europe Economics draft report is included at Annex 3.[126]

[122] Eircom's Response to the 2019 WACC Consultation, paragraph 182, provided as part of the non-confidential responses to the Notified 2020 WACC Decision.
[123] Eircom's Response to the 2019 WACC Consultation, paragraph 202, provided as part of the non-confidential responses to the Notified 2020 WACC Decision.
[124] NBI's response to the 2019 WACC Consultation, page 7, provided as part of the non-confidential responses to the Notified 2020 WACC Decision.
[125] ALTO's response to the 2019 WACC Consultation, page 7, provided as part of the non-confidential responses to the Notified 2020 WACC Decision.
[126] Europe Economics Report on Cost of Capital for Poles and Ducts Access, dated September 2020.

7.3 Summary of key WACC parameters used for generic fixed line telecoms WACC

597 In the Notified 2020 WACC Decision ComReg decided on the parameters for determining the appropriate WACC that should apply to fixed line telecoms, mobile telecoms and broadcasting.

598 In Section 3 of the Notified 2020 WACC Decision ComReg outlined that its approach for estimating the WACC is based on the Capital Asset Pricing Model ('**CAPM**') methodology for the cost of equity using the following parameters:

- The gearing, which is the relative weighting of debt and equity in the overall capital structure of an operator;
- The cost of debt, which is equal to the risk-free rate plus any debt premium applied to the debt incurred by an operator;
- The cost of equity, which is derived from the CAPM and is equal to the risk-free rate plus the product of the equity beta and the equity risk premium;
- The nominal risk-free rate, which is the rate at which investors can borrow and lend funds with zero risk;
- The equity risk premium ('**ERP**'), which is the additional return over the risk-free rate expected by investors for investing in the entire equity market;
- The equity beta, which is a measure of a company stock's exposure to systematic risks. The equity beta indicates the sensitivity of the returns on the stock that is being examined to the entire equity market; and
- The corporate tax rate.

599 ComReg, assisted by Europe Economics, has set out in the Notified 2020 WACC Decision a WACC of 5.61% for the fixed line telecoms services. This WACC (of 5.61%) is set with reference to a combination of the approach taken by ComReg in its 2014 WACC assessment in ComReg Decision D15/14[127] (hereafter, the '**2014 ComReg WACC Approach'**) and the methodology set out by the European Commission on the calculation of the cost of capital for legacy (or copper)

[127] ComReg Document 14/136, Cost of Capital: Mobile Telecommunications – Fixed Line Telecommunications – Broadcasting (Market A and Market B) – Response to Consultation and Decision, dated 18 December 2014.

infrastructure[128] (hereafter, the '**Commission's Notice Approach**').[129]

600 Table 10 below summarises the final WACC of 5.61% for the fixed line telecoms services from the Notified 2020 WACC Decision.

Table 10: WACC for a hypothetical Fixed Line Service

Parameters	Notified 2020 WACC Decision
Nominal post-tax cost of equity (%)	6.67%
Nominal pre-tax cost of debt (%)	2.60%
Notional Gearing (%)	40%
Tax rate (%)	12.5%
Nominal pre-tax WACC (%)	5.61%

7.4 Possible differentiated WACC for Eircom's CEI in the context of NBI's MIP

601 ComReg has identified two options in terms of the WACC rate that should apply to Eircom's CEI for NBI's MIP. These options include:

1. The existing WACC rate for fixed line telecoms (of 5.61%);
2. A differentiated WACC for CEI to reflect the specific circumstances and effect of the NBP contract.

602 In terms of Option 2, while ComReg considers that some of the parameters used to determine the fixed line telecoms WACC in the Notified 2020 WACC Decision are also relevant to a WACC that may apply to Eircom's CEI prices in the context of the NBP (or NBI's MIP), ComReg recognises that some specific WACC parameters could be amended when determining the WACC that is relevant to the regulated prices for Eircom's CEI access in the context of NBI's MIP.

603 This is because the provision of CEI access in the context of NBI's MIP presents a

[128] Commission Notice on the calculation of the cost of capital for legacy infrastructure in the context of the Commission's review of national notifications in the EU electronic communications sector, OJEU 2019/C 375/01, 6 November 2019. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019XC1106(01)&from=EN

[129] For the cost of debt, consideration was also given to recent Eircom bond issuances. See Section 5 of the Notified 2020 WACC Decision for details on these methodologies.

set of new and specific conditions which result from the combination of, on one hand, the large scale and the long-term duration of the access by NBI's MIP and, on the other, the fact that the demand for Eircom's CEI is ultimately underpinned by the Irish State's commitment to the NBP through the "step-in rights" referred to at paragraphs 86-87.[130]

604 ComReg in Information Notice 18/51 already recognised the specific conditions of CEI access in the context of the NBP, stating that:

"*It is ComReg's position that the unique set of circumstances applicable to the NBP Specific Product Process Enhancements are unlikely to ever be replicated and ComReg notes also the scale and time constraints involved in the NBP access. The modifications to the poles and ducts products comprising the NBP Specific Product Process Enhancements are sought in the Transit Area ("TA") and Intervention Area ("IA") in the context of a draft NBP contract to be entered into between the Minister and NBPCo which would be obliged to deliver high speed broadband to in excess of 500,000 households. This project is State funded in response to a market failure. The proposed duration of any access contract between eir and NBPCo for access to CEI is 25 years. In ComReg's view this creates a unique set of requirements which are unlikely to ever be replicated given the scale and time constraints*."

605 In considering whether a differentiated WACC should apply to CEI in the context of NBI's MIP, ComReg remains of the view that the CAPM methodology is the appropriate approach for estimating the WACC. As ComReg outlined in the 2019 WACC Consultation the CAPM is the standard regulatory approach for estimating the WACC:[131]

- ComReg has employed it in past decisions;
- It is the most common approach adopted by members of the Body of European Regulators for Electronic Communications ('**BEREC**'),[132] and
- The European Commission has issued guidance on the calculation of the cost of capital for legacy infrastructure including the CAPM in the Commission's Notice Approach.

[130] Please see paragraph 8.48 of the 2019 WACC Consultation, which states that: "*ComReg has not yet determined whether a separate WACC should apply to CEI associated with the NBP or if the conditions and systematic risks are different to those of non-CEI assets. This is because the final structure of the NBP has yet to be determined and this may influence underlying assumptions*".
[131] Please see Section 3, paragraph 3.3 of the 2019 WACC Consultation.
[132] BEREC is established pursuant to Regulation (EU) 2018/1971 of the European Parliament and of the Council of 11 December 2018 establishing the Body of European Regulators for Electronic Communications (BEREC) and the Agency for Support for BEREC (BEREC Office), amending Regulation (EU) 2015/2120 and repealing Regulation (EC) No. 1211/2009.

606 Within this framework, ComReg has given further consideration to the values of all of the parameters determined in the Notified 2020 WACC Decision for the fixed line telecoms WACC, to assess whether they should be reviewed to take account of the new and specific conditions associated with the WACC for CEI in the context of NBI's MIP.

607 Given this, ComReg considers that it is appropriate to categorise the WACC parameters into two sub-categories:

- Generic WACC parameters i.e., parameters that are common across price controls and hence should be consistent across the fixed line telecoms WACC in the Notified 2020 WACC Decision and the possible differentiated WACC for CEI. These include the inflation rate, real risk-free rate, tax rate and the ERP. The generic WACC parameters used for fixed line telecoms are not part of the scope of this review, as they have already been determined and justified in the Notified 2020 WACC Decision; and

- Specific WACC parameters that should be amended from those used to calculate the fixed lines telecoms WACC in order to reflect the distinct characteristics of NBI's MIP access to CEI.

608 Table 11 below lists the generic WACC parameters considered by Europe Economics, which should be consistent across the fixed line telecoms WACC and a possible differentiated WACC for CEI. The generic WACC parameters are set based on the (modified) Commission Notice Approach which is considered in ComReg's Notified 2020 WACC Decision.[133] As noted by Europe Economics, the results for the cost of equity parameter under the Commission Notice Approach or the 2014 ComReg WACC Approach are very similar[134], but choosing the (modified) Commission's Notice Approach also allows for consistency with the approach adopted for the cost of debt as described below at subsection 7.4.1.[135]

Table 11: Generic WACC parameters

	Point
Inflation	1.70%
Real risk-free rate	-0.86%
Nominal risk-free rate	0.824%

[133] Please see Sections 3-5 of Notified 2020 WACC Decision for the derivation of these parameters and their justification, in the context of fixed line telecoms WACC.
[134] Under the Commission's Notice Approach the cost of equity is 6.59% while under the 2014 WACC Approach the cost of equity is 6.75%. See paragraph 4.130 of the Notified 2020 WACC Decision Document for the details.
[135] Footnote No.21 of the Europe Economics report at Annex 3 of this document.

ERP	7.21%
Tax Rate	12.5%

609 With regards to the specific WACC parameters, ComReg considers that the following parameters could be amended (from the parameters used for the generic fixed lines telecoms WACC in the Notified 2020 WACC Decision) in the context of a differentiated WACC for CEI associated with the NBP:

- The cost of debt;
- The gearing; and
- The asset beta.

610 The terms and conditions associated with NBI's CEI access under the NBP contract means that the specific WACC parameters identified above could reflect the changed composition of the risks faced by Eircom.

611 As already set out in Section 3, subsection 3.4, under its contract with the Irish State NBI is required to pass all premises in the NBP IA (i.e., 537,000 delivery points) and operate a fibre network for a minimum of 25 years. As a result, CEI access is likely to represent an increasingly significant share of Eircom's revenues in the NBP IA and the associated demand-side risks should be significantly reduced as these revenues will be stable and predictable. This means that Eircom's position as a significant and long-term provider of CEI in the NBP IA (and for NBI's transit access in the Commercial Areas) is close to that of a network utility such as an electricity network or a water utility, which tend to be regarded as textbook examples of natural monopolies.

612 In this regard, NBI, in its response to the 2019 WACC Consultation, pointed out that:

"…*the provision of CEI access would be more akin to the activities of a monopoly utility provider than it would with a vertically integrated fixed line operator selling access to a suite of active wholesale products and services to OAOs who compete with it at the downstream retail level*."[136]

613 Furthermore, NBI, in its response to the 2019 WACC Consultation, also noted that:

"…*rather than facing uncertain demand from a whole range of OAOs for different services in particular areas over specific timeframe, it [Eircom] will be providing service to a single large customer, one that will have by then committed to a 35-*

year contract. [137] [✂]".

614 Admittedly, the option of alternative CEI providers to Eircom cannot be entirely excluded. Indeed, as Europe Economics points out, CEI networks display similar technical characteristics to network utilities, which may allow for some degree of supply-side substitution.[138] This implies that there are relevant touch points between Eircom as a significant provider of CEI in the NBP IA and network utilities such as electricity or water networks, not least because CEI owned and operated by Ireland's electricity network, ESB Networks, could be complementary – and at the limit a substitute – to Eircom's network in meeting NBI's CEI requirements.

615 In this regard, Eircom stated in its response to the 2019 WACC Consultation that:

> "*eir is not the only supplier of network infrastructure within the NBP intervention area and the awarded company for the NBP may engage in negotiations with the ESB, eNet and other infrastructure owners in the area. In addition, the awarded company may make significant investments to erect its own poles and dig its own ducts within the intervention area… Similarly, the awarded company could change the technology from a fibre solution to a future wireless solution provided that it achieves the same level of service as fibre… Eircom would not see a 25-year return on its infrastructure as some or the entire network is migrated from Eircom to another provider* ".[139]

616 However, ComReg considers that the possibility of a wide scale substitution in the future (or a change in the underlying broadband technology) is unlikely given that there is only one other ubiquitous CEI operator, namely ESB Networks. In particular, Eircom's access network follows the public road routes while the ESB's overhead routes in rural areas do not in many cases follow road routes but instead cross over privately-owned fields or other rural property. As a result, once NBI has deployed its cables using Eircom's CEI, it will have incurred significant sunk costs and the additional costs involved in re-routeing its cable network to use the ESB's infrastructure would be expected to be prohibitive.

617 Furthermore, as already set out in Section 5, in setting CEI access prices one of ComReg's objectives is to provide appropriate investment incentives i.e., the correct build-or-buy signals, while also encouraging efficient use of existing assets

[137] NBI's response to the 2019 WACC Consultation, page 7, provided as part of the non-confidential responses to the Notified 2020 WACC Decision.
[138] SIRO's use of the ESB's overhead and underground civil infrastructure illustrates this supply-side substitution. SIRO is a joint venture company between Vodafone and ESB (Ireland's electricity network utility), operating in Ireland as wholesale telecommunications provider. https://siro.ie/about-us/
[139] Eircom's responses to the 2019 WACC Consultation, paragraphs 190 and 191, provided as part of the non-confidential responses to the Notified 2020 WACC Decision.

that are unlikely to be replicated. Therefore, one of the main considerations in the context of this review is that where possible other networks providers should use existing CEI infrastructure to avoid inefficient duplication of such infrastructure. This approach also takes into account European Recommendations / Guidelines, including the 2013 EC Recommendation.

618 Therefore, the regulated cost oriented CEI charges for NBI's MIP should be set at a level that encourages the reuse of existing CEI where possible, while also ensuring that Eircom can achieve a reasonable return on its investments related to that CEI, through the inclusion of an appropriate WACC in the cost/price calculations.

619 Eircom in its response to the 2019 WACC Consultation stated that:

"…*if there is a provision in the NBP contract which* ***guarantees*** *that the CEI of eir will be used (or at least paid for over the full 25 year contract) then it may suggest that the systematic risk faced by the project was significantly different from that faced by eir in its overall business*."[140]

620 Furthermore, as set out in Section 5, subsection 5.7, CEI assets (duct and poles) have long useful lives, longer than the 25 years of the NBP initial contract. Therefore, it is expected that Eircom would be left with a terminal value for the CEI assets that it is likely to deploy for NBI's MIP, should NBI no longer require access to Eircom's CEI beyond the 25 years of the initial contract. In this regard, Eircom pointed out that:

"…*as time elapses and the remaining length of the NBP contract (if awarded) is lower than the remaining asset lives (i.e., the recovery timeframe) the riskier new investments (or replacement of existing assets) by Eircom in CEI will become over time*."[141]

621 However, ComReg considers that it is unlikely that these assets (and their continued renewal) would cease to derive an economic return (with a similar level of risk) for Eircom beyond the duration of the NBP contract, on the assumption of a continued need to provide a fixed line broadband service to customers in the NBP IA. This is discussed in further detail below.

622 Hence, the scale and duration of NBI's demand for Eircom's CEI should be predictable and it is ultimately underpinned by a NBP contract providing the Irish State with step-in rights (see paragraphs 86-87), and so that there is significantly reduced risk that demand for Eircom's CEI to support NBI's MIP and the related

[140] Eircom's response to the 2019 WACC Consultation, paragraph 187, provided as part of the non-confidential responses to the Notified 2020 WACC Decision.
[141] Eircom's response to the 2019 WACC Consultation, paragraph 188, provided as part of the non-confidential responses to the Notified 2020 WACC Decision.

revenue streams would be affected over the 25 year period.

623 In light of these considerations, ComReg is of the view that it is appropriate to review the WACC specific parameters and determine their appropriate values taking into account the lower risks faced by Eircom when providing CEI access for the purpose of the NBP.

624 In the subsections below ComReg provides its preliminary views on the estimates for each of the specific parameters at paragraph 609, in the context of a possible differentiated WACC for CEI access services by NBI's MIP.

7.4.1 Cost of debt

625 The cost of debt reflects the combination of interest rates paid to banks and of returns paid to corporate bond holders (or other debt instruments), by a company. It is usually formulated as the sum of a risk-free component and a company-specific risk premium. For further details on what is meant by the cost of debt, please see Section 5 of the WACC draft response document provided as part of the Notified 2020 WACC Decision.

626 In the context of this Consultation, ComReg considers that the cost of debt could be very close to a risk-free investment as a result of the very low demand-side risks for Eircom. Given the step-in rights in the NBP contract, there is a significantly reduced risk that demand for Eircom's CEI to support NBI's MIP and the related revenue streams would be affected over the 25 year period, as discussed at paragraph 86-87.

627 Europe Economics, at Section 2.4.1 of its report at Annex 3, points out:

"*As regards demand risk, in the case of the NBP CEI that is almost wholly eliminated. The state provides investors with high confidence that CEI providers will receive the stream of payments associated with the NBP over a 25 year period (with some possibility of extension), if not from NBI then either from another provider or, in extremis, from the state itself. Residual demand risk arises only from the upside risk that NBI may ultimately demand additional CEI, along with the remote "triple failure" risk that the Irish government might default upon its undertakings in a situation in which NBI had defaulted and the Irish government had been unable to source an alternative NBP implementer*."

628 Europe Economics considers that the cost of debt for a CEI asset should be very close to that of a state-owned utility asset, or perhaps a risk-free asset with some allowance for issuance costs.[142] Europe Economics has proposed an estimate of 1.44% for nominal cost of debt based on the Commission's Notice Approach.

[142] Issuance costs are the costs incurred in issuing debt and include administrative costs, such as legal and accounting costs, and underwriting costs.

Europe Economics, in its report at Section 3.4 of Annex 3, states that:

"*As per our generic parameters, a risk-free asset would have a nominal return of 0.824 per cent. Allowing 10 bps above that for issuance costs*[143] *would imply a nominal cost of debt of 0.924 per cent. In its current consultation*[144]*, CRU estimates a real cost of debt of 1.0 to 2.6 per cent, with a point estimate of 2.0 per cent. However, as noted in our latest ComReg report*[145] *the cost of debt has fallen markedly since the data window used in that CRU report. The cost of debt we recommended in our latest ComReg report is 2.6 per cent in nominal terms, equating roughly to the very top of the CRU range. However, that figure includes what we refer to as an "Eircom premium" relative to the European Commission Notice approach value of 1.44 per cent. Reflecting our argument above that the cost of debt for a CEI asset should be close to risk-free, we adopt a value at the very bottom end of the range we recommended for Fixed Line debt, namely 1.44 per cent (nominal) (in line with the European Commission Notice Approach) as our estimate of the CEI cost of debt*"[146]

629 Given the above, ComReg proposes that a point estimate for nominal cost of debt of 1.44% for the WACC for CEI for NBI's MIP, instead of 2.60% in the Notified 2020 WACC Decision for fixed line telecoms, is an appropriate estimate.

7.4.2 Gearing:

630 Gearing is the ratio of a company's fixed financing to its total financing, or the ratio of the value of its debt to the sum of its debts and equity. For further details on what is meant by gearing, please see Section 6 of the WACC draft response document provided as part of the Notified 2020 WACC Decision.

631 In the context of this Consultation, ComReg considers that the optimal gearing for Eircom as a significant CEI provider may be higher than that of a fixed telecoms provider. As already noted at paragraphs 622 and 626, given the step-in rights in the NBP contract, there is a significantly reduced risk that demand for Eircom's CEI to support NBI's MIP and the related revenue streams would be affected over the 25 year period, allowing it to optimise its debt and gear up its equity.

632 On the point of gearing, NBI in its response to the 2019 WACC Consultation stated that:

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143 https://www.cru.ie/wp-content/uploads/2019/07/CRU19091e-Europe-Economics-RC3-WACC-Report.pdf, page 55.

144 https://www.cru.ie/document_group/irish-water-revenue-control-2020-2024/

145 Europe Economics, "The Cost of Capital for the Irish Communications Sector — Final Report", May 2020.

146 The 1.44% is the sum of the nominal risk-free rate value of 0.824 per cent and the debt premium value of 0.62 per cent, based on a 5-year average spread of European telecom operators' bonds. Please see paragraphs 5.23-5.27 of the WACC draft response document provided as part of the Notified 2020 WACC Decision.

"…*the [Open Eir's] CEI division might be able to sustain a higher gearing than fixed line operator providing access to active wholesale services... the debt associated with OE's CEI assets would be expected to be lower, due to decreased uncertainty and greater long-term stability in relation to the provision of CEI access in the context of the NBP*."[147]

633 Europe Economics, at Section 3.2 of its report at Annex 3, notes that:

"*It is common for assets with reasonably predictable streams of future revenue flows to be securitised. One hypothesis is that the government contract to lease passive infrastructure from Eircom would allow the CEI provider to treat the flow of revenue from this passive infrastructure as a 'quasi-securitised asset'."*

634 The statement above suggests that a reasonable comparator group for CEI access gearing is that of network utilities.

635 Section 3.2 of the Europe Economics report in Annex 3 describes that:

"…gearing for CEI should more closely resemble the gearing of a utility firm such as a water or electricity network company than a fixed line provider — indeed, in the case of some CEI it might literally be electricity network assets, whilst there are clear (albeit imperfect) similarities between water ducts and communications ducts — indeed, some duct providers sell both water and communications ducts. Typical determined gearing levels for utility networks are of the order of 50-60 per cent. For example:

- *The PR4 electricity sector gearing was 55 per cent*[148]*;*
- *The CRU RC3 consultation is on a gearing of 50 per cent*[149]*;*
- *the Ofwat provisional view for PR19 was 60 per cent*[150]*;*
- *the Ofgem December 2018 RIIO-2 Sector Specific Methodology was 60 per cent*[151]*; and*
- *the NERL 2018 WACC consultation gearing assumption for NERL was 60 per cent*"

636 Europe Economics proposes adopting a gearing of 55% for CEI access by placing more weight upon the PR4 electricity sector comparator based upon the drawn similarities between CEI access (for the NBP) and the electricity provider in Ireland.

[147] NBI's response to the 2019 WACC Consultation, page 8, provided as part of the non-confidential responses to the Notified 2020 WACC Decision.
[148] https://www.cru.ie/wp-content/uploads/2015/07/CER15296-Decision-on-TSO-and-TAO-Transmission-Revenue-for-2016-to-2020-1.pdf
[149] https://www.cru.ie/wp-content/uploads/2019/07/CRU19091e-Europe-Economics-RC3-WACC-Report.pdf
[150] See Ofwat (Dec 2017): "Delivering Water 2020: Our final methodology for the 2019 price review", and the accompanying "Appendix 12: Aligning risk and return".
[151] See Ofgem (Dec 2018): "RIIO-2 Sector Specific Methodology", and the accompanying RIIO-2 Finance Annex.

637 Given the above, ComReg proposes that a point estimate for gearing of 55% for the WACC for CEI for NBI's MIP, instead of 40% in the Notified 2020 WACC Decision for fixed line telecoms, is an appropriate estimate.

7.4.3 Asset beta

638 Asset beta is a measure of the exposure of a company's assets to systematic, non-diversifiable risks, without the impact of debt. For further details on what is meant by asset beta, please see Section 4 of the WACC draft response document provided as part of the Notified 2020 WACC Decision.

639 Eircom in its response to the 2019 WACC Consultation stated that:

> "*While the underlying assets used in NBP are unlikely to play any significant part in the risk associated with variations in a project's cash inflows to eir, the upfront capital outlay by eir and the long payback period for CEI is significant and a relevant factor*."[152]

640 Furthermore, Eircom noted that:

> "*The alternative use of CEI in NBP intervention areas is low. With high fixed costs and given that eir's investment to facilitate the NBP may not be fully diversifiable means that eir's risk over the foreseeable future … will increase. This will directly influence the project's beta. This cannot be ignored*."[153]

641 Eircom also pointed out in its response to the 2019 WACC Consultation that:

> "*In the absence of pure play civil engineering comparators in the telecommunications sector (i.e., companies that only offer CEI for telecommunication services); a beta for eir's CEI wholesale offering could not be estimated with any reliability*." [154]

642 ComReg proposes that the beta for CEI access should be close to that of network utility and that, similar to the approach set out above in paragraph 635 in relation to gearing, these provide a reasonable comparator group for CEI betas.

643 As Europe Economics states in Section 2.4 of its report in Annex 3:

[152] Eircom's response to the 2019 WACC Consultation, paragraph 193, provided as part of the non-confidential responses to the Notified 2020 WACC Decision.
[153] Eircom's response to the 2019 WACC Consultation, paragraph 195, provided as part of the non-confidential responses to the Notified 2020 WACC Decision.
[154] Eircom's response to the 2019 WACC Consultation, paragraph 198, provided as part of the non-confidential responses to the Notified 2020 WACC Decision.

"*Indeed, as we have noted above, in the case of the NBP some of the CEI might potentially literally be the assets of an electricity network.*[155] *Similarly, water ducts have clear (albeit imperfect) similarities to communications ducts. Indeed, some duct providers sell both water and communications ducts.*[156] *That implies there may be supply-side substitutability between water-duct-production and communications-duct-production assets.*[157] *High supply-side substitutability would mean water and communications ducts belong to the same market, implying that they have the same, or very similar, cost-side risks affecting WACCs*."

644 Europe Economics has considered the range of betas provided by the Irish utilities regulator, the Commission for Regulation of Utilities ('**CRU**') (previously the Commissioner for Energy Regulation ('**CER**'), for both the electricity and water networks in recent consultations. Europe Economics proposes that a mid-point of this range should be applied as an asset Beta for CEI in the context of NBI's MIP access. Europe Economics stated in its report at Section 3.3 at Annex 3 that:

"As regards electricity networks, at PR4 CER determined that the asset beta was 0.4 in 2015.[158] *For RC3, CRU is consulting on a proposed asset beta range of 0.28-0.36, with a mid-point of 0.32 (down from 0.45 in 2016, reflecting a large movement in market betas that should also be expected to be reflected to some extent in electricity sector betas*).[159]"

645 If ComReg uses the full range of 0.28 to 0.4 as the asset beta for CEI in the context of NBI's MIP, that has a mid-point of 0.34.

646 NBI in its response to the 2019 WACC Consultation, pointed out that:

[✂]160

[155] Indeed, Eircom itself states in its response to ComReg Consultation 19/54: "eir is not the only supplier of network infrastructure within the NBP intervention area and the awarded company for the NBP may engage in negotiations with the ESB, eNet and other infrastructure owners in the area." *op cit*. para 190.
[156] eg see https://www.drainagepipe.co.uk/ducting/top-tips-for-using-underground-ducting/
[157] A further example of such supply-side substitutability in the telecommunications sector would be SIRO, a joint venture between ESB and Vodafone Ireland. SIRO's network uses ESB's electricity distribution network to carry fibres through ducts and on poles.
[158] See Table 7.1 of https://www.cru.ie/wp-content/uploads/2015/07/CER15296-Decision-on-TSO-and-TAO-Transmission-Revenue-for-2016-to-2020-1.pdf
[159] https://www.cru.ie/wp-content/uploads/2019/07/CRU19091e-Europe-Economics-RC3-WACC-Report.pdf
[160] NBI's confidential response to the 2019 WACC Consultation, pages 9 and 10.

647 With respect to the range considered for a CEI WACC (and the need to choose a midpoint estimate, similar to the approach adopted by ComReg in the 2014 ComReg WACC Decision), ComReg considers, for the reasons already noted above, the ranges provided by Europe Economics for specific WACC parameters and the proposed "point" estimates are appropriate.

648 Regarding NBI's point on [✂ [redacted]] ComReg proposes that the WACC for CEI should be subject to annual updates, similar to the approach provided for the generic fixed line telecoms WACC in the Notified 2020 WACC Decision.

649 Given the above, ComReg proposes that a reasonable estimate for the asset beta for CEI access is 0.34.

650 Table 12 below sets out the estimates for the various parameters for a differentiated WACC associated with CEI access by NBI's MIP, with a comparison to the parameters set for the fixed line telecoms WACC in the Notified 2020 WACC Decision.

Table 12: Proposed WACC for CEI in context of NBP

WACC	NBP CEI	Fixed Line
Nominal Risk-free rate	0.824%	
Nominal ERP	7.21%	
Asset beta	0.34	
Gearing	55%	
Equity beta at notional gearing	0.76	
Nominal cost of debt	1.44%	2.60%
Nominal cost of equity	6.30%	6.67%
Tax	12.50%	12.50%
Nominal pre-tax cost of equity	7.20%	7.62%
Nominal pre-tax WACC	4.03%	5.61%

651 ComReg proposes that a differentiated WACC rate for CEI access for NBI's MIP in the NBP IA and for NBI's transit access in the Commercial Areas may be appropriate to reflect the factors set out above in subsection 7.4, while all other CEI

users would continue to pay the fixed line telecoms WACC of 5.61%. ComReg invites the views of interested parties on this proposal.

652 For NBI's transit access in the Commercial Areas, ComReg considers that a differentiated WACC may be justified for the same reason as set out at paragraph 631. In summary, given the step-in rights in the NBP contract, there is a significantly reduced risk that demand for Eircom's CEI to support NBI's MIP for transit access in the Commercial Areas and the related revenue streams would be affected over the 25 year period, allowing it to optimise its debt and gear up its equity. ComReg invites the views of interested parties. Please also see Section 3.6 of the Europe Economics, which is included at Annex 3 of this Consultation document.

ComReg's Preliminary View:

653 A differentiated WACC for CEI access by NBI's MIP may be appropriate to reflect the specific conditions of NBI's MIP access, for the reasons discussed above.

654 ComReg tends to the view that Eircom should recover a WACC of no more than 4.03% for access to its CEI by NBI's MIP in the NBP IA and for NBI's transit access in the Commercial Areas.

655 The WACC for CEI in the context of NBI's MIP should be subject to annual updates, consistent with the approach taken in the Notified 2020 WACC Decision.

Q. 14 Do you agree with ComReg's preliminary view on a differentiated WACC rate of 4.03% for Eircom's CEI in the context of access by NBI's MIP NBP IA and for NBI's transit access in the Commercial Areas? Do you agree that the WACC for CEI should be subject to annual updates? Please provide reasons for your responses.

8 Other related / one-off CEI access costs

8.1 Overview

656 So far this document has considered and provided preliminary views on the proposed costing / pricing methodologies for setting the recurring rental prices for access to Eircom's CEI services.

657 In this section ComReg looks at how related services and / or one-off costs associated with Eircom's CEI services should be recovered.

658 The proposed CEI rental prices set out in this Consultation are calculated on the basis that these charge(s) recover all costs associated with an operator obtaining access to Eircom's ducts and poles. However, ComReg has identified two possible other CEI related activities, i.e., replacing a pole with pole furniture and tree trimming activities, which may result in additional costs that Eircom may need to recoup separately through a one-off charge, where Eircom can demonstrate that the relevant costs associated with these activities are not already recovered as part of the ongoing CEI rental charges.

659 If Eircom considers that there are other CEI related costs that should be charged to an operator accessing its CEI (and where such costs are not already included in the rental price) then Eircom should make a pricing proposal to ComReg.

660 Eircom is subject, under Section 12.2 of Decision Instrument at Appendix 20 of the 2018 WLA / WCA Market Review Decision to an obligation of cost orientation in respect of prices charged to any other Undertaking for Access to or use of those products, services and facilities referred to in Section 7.1 of that Decision Instrument, which include CEI. Under a cost orientation obligation, Eircom is required to ensure that it recovers no more than the actual costs incurred adjusted for efficiency plus a reasonable rate of return. The remainder of this section discusses possible cost recovery options for the related CEI costs discussed above.

8.2 Possible cost recovery options for other related CEI costs

661 In assessing the appropriate means by which related CEI costs should be recovered, ComReg has taken into account ComReg's objectives set out in Section 12 of the Acts as well as the provisions in Regulation 13 of the Access Regulations. In particular, under Regulation 13(2) of the Access Regulations operators subject to an obligation of cost orientation are entitled to recover the investment made as well as a reasonable rate of return on capital employed. These objectives are

considered further below.

662 It should be noted by way of preliminary remark that the existing CEI access prices set out in the 2016 Access Pricing Decision (and re-imposed in the 2018 WLA / WCA Market Review Decision) as well as the draft CEI access prices set out in this Consultation are calculated on the basis that the access rental charge(s) recover all costs associated with an operator obtaining access to Eircom's ducts and poles.

663 For instance, in the particular case of duct access, the existing per metre of sub duct price includes a contribution to the costs of trenches, ducts and chambers. Furthermore, all of the costs associated with installing sub duct i.e., clearing duct blockages, the cost of rod, rope and test and process related costs (see paragraphs 416-418), are included. However, if Eircom considers that there are other costs which it must incur in order for another operator to access Eircom's ducts, sub ducts and chambers and which are not included in the existing or proposed duct access charges then ComReg invites submissions in this regard. Eircom's submission to ComReg should include details of the specific activities and costs identified as not being recovered via the ongoing rental or other CEI access charged referred to above, together with detailed justification for the proposed price.

664 In this subsection ComReg has identified other possible related CEI costs and we discuss how these should be recovered by Eircom, under the following headings:

- Pole furniture costs; and
- Tree trimming costs.

8.2.1 Pole furniture costs

665 Considered below is the costing / pricing methodology that should be used to recover the costs associated with another operator's furniture / equipment being placed on Eircom's poles. An example of pole furniture could be equipment associated with distribution points for overhead drop wires, cable management systems or closures for splices.

666 In the paragraphs below ComReg sets out some proposals on how the costs associated with other operator's furniture placed on Eircom's poles should be recovered. There are two options as follows:

1. Option 1: Pole furniture costs should be recovered as part of the recurring pole rental price; or
2. Option 2: Pole furniture costs should be recovered in an upfront or one-off pole furniture price.

Option 1: Recovery of pole furniture costs as part of the recurring pole rental price

667 ComReg considers that recovering Eircom's pole furniture costs as part of a recurring pole rental price may not be the most appropriate way of ensuring that Eircom can recover its efficient level of costs plus a reasonable rate of return. In order to derive a cost oriented rental charge for pole furniture and avoid any over-or-under recovery of costs ComReg would need to consider a number of factors, some of which are uncertain. These factors include the likelihood that a pole on which an operator has placed its furniture may need to be replaced while that operator still has its furniture located on the pole, as the operator will tend to locate its equipment on an Eircom pole for a period that is shorter than the asset life of the pole.

668 Poles have an asset life of 30 years, which is intended to reflect the average age at which a pole is replaced. However, ComReg understands that many poles in Eircom's network are older than 30 years. It is quite possible that another operator might only choose to locate its furniture on an Eircom pole for a period of 10 years or less, during which time the pole does not need to be replaced. Therefore, a rental price for pole furniture would need to consider not just the additional costs that arises when Eircom replaces a pole with furniture, but also the probability that when an operator locates its furniture on a pole it will subsequently be replaced while the furniture is still located on the pole.

669 In the case where the operator locates its furniture on an Eircom pole for 10 years but removes that furniture before the pole needs to be replaced then no additional furniture related cost will be incurred whenever the pole is eventually replaced. Hence, recovering the pole furniture related costs by way of a recurring rental charge may lead to Eircom over recovering its costs.

670 The longer time frame associated with NBI's MIP access requirements suggests that the probability that a pole with NBI's furniture on it being replaced could be higher than for Generic Access users. Therefore, recovering the additional costs of replacing poles with furniture by means of a recurring rental charge could penalise those Generic Access users that rent poles for shorter durations, and which do not impact the costs Eircom incurs as a result of their access.

671 In addition, a recurring rental charge for pole furniture may also need to take account of the period over which the incremental cost associated with replacing a pole which has pole furniture should be depreciated. One option is to use the asset life of the pole to annualise (depreciate over time) these costs but another option to consider is the average number of years that various operators on the network are expected to have their furniture on Eircom's poles, which will tend to be longer for those operators with long term commitments to access Eircom's CEI. Other factors that would require consideration in order to determine a recurring rental price for

pole furniture include an NPV assessment as well as consideration of the appropriate WACC rate and any cost trends that would impact on future costs.

672 ComReg considers that given the uncertainty on the various relevant parameters (i.e., the probability of pole replacement occurring when the furniture is in-situ, the timing of that replacement and the period over which the estimated costs are to be annualised), makes it difficult to set an accurate recurring pole rental charge which would include these costs.

Option 2: Recovery of pole furniture costs in an upfront or one-off pole furniture price

673 A key consideration in this regard is whether there is an additional (or higher) cost to Eircom for replacing a pole with furniture compared to the cost of replacing a pole without furniture. ComReg considers that there may be an additional cost of pole replacement to Eircom where there is already operator furniture on the pole, arising from the potential increased effort and complexity involved when a pole with furniture is replaced. In particular, the operator's furniture will need to be removed from the old pole and then relocated onto the new pole without compromising the service that the furniture supports.

674 ComReg considers that if there are additional costs to Eircom associated with pole furniture, then these should be recovered by Eircom in line with Regulation 13(2) of the Access Regulation (where Eircom should be allowed to recover the cost of its investment plus a reasonable rate of return).

675 ComReg considers that requiring an operator to bear the cost associated with deploying its pole furniture on a pole would enhance efficiencies. The fact that an operator incurs an additional charge for deploying pole furniture on a pole should incentivise the operator to deploy its furniture in the most efficient way ('productive efficiency') thereby reducing the overall level of cost (or pole furniture charge) it incurred. In addition, as the operator deploying the furniture is the only operator to benefit from its deployment then it seems appropriate that the pole furniture charge for any additional costs to Eircom should be recovered solely from the operator with the furniture on the pole. These considerations take account of the general principles of pricing such as cost causation, distribution of benefits and encouraging efficiency.

676 Recovering the additional cost of replacing a pole with furniture as a one-off charge may be a more proportionate and practical solution. A one-off charge would only be levied on the operator at the time the pole is actually replaced and would be based on the additional incremental costs as they are incurred. As a result, any uncertainty in relation to the probability of pole replacement occurring when the furniture is in-situ, the timing of that replacement and the period over which estimated costs are to be annualised becomes irrelevant when the additional costs

may be recovered in the form of a one-off charge that is levied at the time of the replacement event. Eircom should also comply with the pricing notification procedures specified in the transparency obligations set out in the 2018 WLA / WCA Market Review Decision, unless otherwise determined by ComReg.

677 A one-off charge may also encourage efficiencies in that it may incentivise an operator to minimise the amount of pole furniture it deploys on Eircom's poles (similar to the point made in relation to the additional rental charge) but this option (2) may also reduce the incidence of pole furniture replacement overall. This is because each operator is likely to face an additional charge for deploying furniture on a pole when that specific pole is replaced. Consequently, if we compare the one-off charge with Option (1) (of an ongoing rental charge), the one-off charge means that operators would be incentivised to deploy their furniture on newer poles or poles in relatively good condition, as the incidence of pole replacement increases depending on the age and condition of the pole. Also, in the case where the furniture has become redundant a one-off charge provides the operator with the incentive to remove the furniture from the pole in advance of pole replacement so the additional costs of replacing the furniture on the pole can be avoided. This incentive does not exist if the operator has already paid for the costs of replacing the furniture through an ongoing rental charge.

678 ComReg proposes that Eircom should not capitalise the additional cost of pole furniture removal and replacement against a pole asset but should instead capitalise it against the asset that the furniture is associated with, e.g. against a copper cable asset if it is associated with copper cables or a fibre cable asset if is associated with fibre cables, in its cost accounting systems.

ComReg's Preliminary View:

679 Eircom should recover any additional costs associated with replacing a pole with pole furniture located on it by means of a one-off charge levied at the time the pole is replaced. Eircom should comply with its pricing notification procedures specified in the transparency obligations set out in the 2018 WLA / WCA Market Review Decision.

680 Eircom should not capitalise the additional cost of pole furniture removal and replacement against a pole asset but should instead capitalise it against the asset that the furniture is associated with in its cost accounting systems.

Q. 15 Do you agree with ComReg's preliminary view that Eircom should recover any additional costs associated with replacing a pole with pole furniture located on it by means of a one-off charge levied at the time the pole is replaced? Do you agree that the cost of pole furniture removal and replacement should be capitalised against the asset that the furniture is associated with, in its cost accounting systems? Please provide reasons for your response.

8.2.2 Tree trimming costs:

681 ComReg is of the view that tree trimming costs should be regarded primarily as cable related costs. Tree trimming is generally undertaken by Eircom as part of a preventative maintenance programme to reduce the potential for damage to aerial cables from overhanging tree branches along a pole route. Furthermore, as ComReg understands it, the majority of tree trimming is actually undertaken when cables are first deployed and Eircom tends to capitalise the costs it incurs (to aerial cable assets) during its own cable deployment as part of the cable investment.

682 Consequently, ComReg is of the preliminary view that other operators could also be charged for the tree trimming costs incurred by Eircom to facilitate the deployment of that operator's cables along an Eircom pole route. As such, tree trimming costs could be considered to be incremental to a specific operator's request. This may be particularly relevant in the case of NBI's MIP access in the NBP IA where the prospect of other operators benefiting from that same investment in tree trimming in the future is limited.

683 In addition to this, and as noted above, tree trimming is also undertaken by Eircom as part of a dedicated preventive maintenance programme, so it seems reasonable that all operators who have cables along the route and who therefore benefit from it should contribute to the recovery of the associated costs. However, it does not appear that Eircom carries out tree trimming on a systematic basis and that the costs of tree trimming undertaken as part of preventative maintenance programmes appears to vary significantly year on year.

684 Furthermore, as already indicated earlier in Section 3 of this Consultation document, NBI's MIP is likely to become the sole operator in the NBP IA providing access services to end-users in the NBP IA and so NBI may be the only operator with cables deployed along a route in the NBP IA. It is reasonable to consider that Eircom should not be maintaining aerial cable routes, where it no longer has cables deployed and indeed greater efficiency may be achieved in the future if NBI streamlines its activities such as tree trimming to coincide with other cable maintenance activities that it undertakes on its network. If this were to be the case, ComReg would expect that the associated costs would be a direct cost to NBI's MIP and so would not form part of a related or one-off CEI charge.

685 ComReg proposes that Eircom should ensure that any proposed one-off charges for tree trimming activities comply with the pricing notification procedures specified in the transparency obligations set out in the 2018 WLA / WCA Market Review Decision[161], and include a demonstration of compliance with its cost orientation obligation. This ensures that there is transparency (and non-discrimination)

[161] Please see Section 10.12 and 10.13 of the Decision Instrument at Appendix 20 of the 2018 WLA / WCA Market Review Decision.

regarding the CEI related prices that Eircom proposes to charge operators for any related CEI activities.

ComReg's Preliminary View:

686 Tree trimming associated with pole replacement should be recovered as part of the pole rental charge. ComReg has included a contribution towards tree trimming costs in the draft prices set out in Section 9 of this Consultation.

687 All tree trimming costs to prepare aerial cable routes in advance of cable deployment should be recovered from operators as a one-off charge on an as-needs basis (or indeed any other agreed request from operators to tree trim specific pole routes outside of Eircom's preventative maintenance programme). Eircom should also ensure that any proposed one-off charges for tree trimming activities comply with the pricing notification procedures specified in the transparency obligations set out in the 2018 WLA / WCA Market Review Decision and include a demonstration of compliance with its cost orientation obligation.

Q. 16 Do you agree with ComReg's preliminary view that tree trimming costs to prepare aerial cable routes in advance of cable deployment should generally be recovered by means of a one-off charge? In the case of tree trimming associated with pole replacement, do you agree with ComReg's proposal that such costs should be recovered as part of the pole rental charge? Please provide reasons for your response.

9 Draft maximum rental prices for Eircom's CEI

9.1 Overview

688 In this section ComReg has set out draft maximum annual rental prices for access to Eircom's CEI services (duct and pole access), based on the proposed costing / pricing methodologies set out in Sections 5 and 6, the WACC proposals set out in Section 7 as well as the preliminary views set out in Section 8 on other CEI related costs.

689 ComReg has derived these draft CEI access prices from the Draft PAM and the Draft DAM, as described at paragraphs 371-373.

690 Please see subsection 5.8 (paragraph 364) for the details regarding access to the non-confidential versions of the Draft PAM and Draft DAM by interested parties.

9.2 Draft CEI prices

691 The draft maximum annual rental prices for access to Eircom's CEI services are set out in Table 13 - Table 18 below, for both Generic Access to CEI and for NBI's MIP access.

692 The draft prices are provided for each of the next five years based on Eircom's Financial Year i.e., 1 July to 30 June. The tables below also indicate the average CEI prices for Generic Access over the 5 year period and for NBI over the 25 year period of the NBP contract. ComReg proposes that the annual CEI rental prices (rather than the average prices) should apply for Generic Access and for NBI's access to CEI and ComReg welcomes views of interested parties on this point. Please also see Section 10 on the proposed process for review of the CEI prices during the price control period, in particular the proposed annual review of the CEI prices for NBI's MIP.

693 The draft rental prices for NBI's MIP in respectively the NBP IA and in the Commercial Areas are set based on the proposed WACC for CEI of 4.03% (as per the proposal in Section 7), while the draft prices for Generic Access to CEI are set based on the general fixed line telecoms WACC of 5.61% in the Notified 2020

WACC Decision.

694 It should be noted that the **proposed CEI prices for NBI's MIP** will depend on the cost sharing methodology chosen.

695 Table 15 presents the draft total annual costs for poles used by NBI on a per pole basis.

696 Table 16 presents, for each of the cost sharing approaches, the draft maximum annual rental prices for poles based on the draft total annual cost per pole and taking into account the modelled (or forecasted) mix of pole volumes consumed by NBI's MIP as a shared pole user and as a single pole user in the relevant period.

697 Table 17 presents the draft total annual costs of a metre of duct (trench) used by NBI i.e., without taking into account the cable occupancy of duct (trench).

698 Table 18 presents, for each of the cost sharing approaches, the draft maximum annual rental prices for ducts based on the draft total annual cost of a metre of duct (trench) and taking into account the modelled (or forecasted) mix of metres of duct (trench) consumed by NBI's MIP as a shared duct user or as a single duct user in the relevant period.

Table 13: Draft maximum annual rental prices for Generic Access users of poles

Generic access	1 July 2020 – 30 June 2021 €	1 July 2021 – 30 June 2022 €	1 July 2022 – 30 June 2023 €	1 July 2023 – 30 June 2024 €	1 July 2024 – 30 June 2025 €	5 year average €
National pole price*	18.63	19.47	20.34	21.04	21.27	20.15

**This is the total price of a pole and so the annual rental price may vary depending on the number of generic access users seeking access to the pole*

Table 14: Draft maximum annual rental prices for Generic Access users of ducts by surface type

Generic access to ducts (per metre of sub duct)	1 July 2020 – 30 June 2021 €	1 July 2021 – 30 June 2022 €	1 July 2022 – 30 June 2023 €	1 July 2023 – 30 June 2024 €	1 July 2024 – 30 June 2025 €	5 year average
Verge	0.43	0.43	0.42	0.42	0.48	0.43
Footway	0.70	0.66	0.63	0.62	0.68	0.65
Carriageway	0.74	0.71	0.69	0.68	0.80	0.72

Table 15: Draft total annual costs for poles used by NBI

NBI Pole Access		1 July 2020 – 30 June 2021 €	1 July 2021 – 30 June 2022 €	1 July 2022 – 30 June 2023 €	1 July 2023 – 30 June 2024 €	1 July 2024 – 30 June 2025 €	Avg. 25 Yrs
NBP IA	*Shared cost*	*9.78*	*10.13*	*10.48*	*10.76*	*11.05*	*12.28*
	Incremental cost	*2.70*	*3.70*	*3.89*	*4.05*	*4.11*	*2.56*
	Total*	**12.47**	**13.83**	**14.37**	**14.81**	**15.16**	**14.84**
Commercial Areas	*Shared cost*	*14.25*	*14.95*	*15.68*	*16.26*	*16.45*	*17.87*
	Incremental cost	*0.07*	*0.07*	*0.07*	*0.07*	*0.07*	*0.07*
	Total*	**14.32**	**15.02**	**15.75**	**16.33**	**16.52**	**17.94**

*The totals may not add exactly to the stated sub-totals above due to rounding.

Table 16: Draft maximum annual rental prices for pole access by NBI

NBI Pole Access		1 July 2020 – 30 June 2021 €	1 July 2021 – 30 June 2022 €	1 July 2022 – 30 June 2023 €	1 July 2023 – 30 June 2024 €	1 July 2024 – 30 June 2025 €	Avg. 25 Yrs
NBP IA	Per operator	6.24	6.91	7.18	7.41	7.64	13.11
	Per customer	3.18	4.46	5.18	5.90	6.53	12.57
Commercial Areas	Per operator	7.16	7.51	7.88	8.17	8.26	8.97
	Per customer	0.07	0.07	0.07	0.07	0.07	0.07

Table 17: Draft total annual rental costs for ducts used by NBI

NBI Duct Access		1 July 2020 – 30 June 2021 €	1 July 2021 – 30 June 2022 €	1 July 2022 – 30 June 2023 €	1 July 2023 – 30 June 2024 €	1 July 2024 – 30 June 2025 €	Avg. 25 Yrs
NBP IA	*Shared cost*	*0.21*	*0.21*	*0.21*	*0.20*	*0.14*	*0.05*
	Incremental cost	*0.30*	*0.30*	*0.30*	*0.29*	*0.29*	*0.26*
	Sub duct	*0.18*	*0.18*	*0.18*	*0.17*	*0.17*	*0.15*
	Total*	**0.69**	**0.69**	**0.68**	**0.66**	**0.60**	**0.46**
Commercial Areas	*Shared cost*	*1.22*	*1.27*	*1.31*	*1.31*	*1.26*	*1.06*
	Incremental cost	*0.02*	*0.02*	*0.02*	*0.02*	*0.02*	*0.02*
	Sub duct	*0.14*	*0.14*	*0.14*	*0.14*	*0.14*	*0.14*

	Total*	**1.38**	**1.43**	**1.47**	**1.47**	**1.41**	**1.22**

*The totals may not add exactly to the stated sub-totals above due to rounding.

Table 18: Draft maximum annual rental prices for duct access by NBI

NBI Duct Access		1 July 2020 – 30 June 2021 €	1 July 2021 – 30 June 2022 €	1 July 2022 – 30 June 2023 €	1 July 2023 – 30 June 2024 €	1 July 2024 – 30 June 2025 €	Avg. 25 Yrs
NBP IA	Per metre of cable	0.50	0.49	0.49	0.48	0.45	0.43
	Per customer	0.49	0.49	0.50	0.50	0.50	0.45
Commercial Areas	Per metre of cable	0.55	0.52	0.49	0.49	0.53	0.53
	Per customer	0.16	0.16	0.16	0.16	0.16	0.16

9.3 Billing options for NBI's MIP

699 Given the unique characteristics of NBI's MIP access to Eircom's CEI, it is possible that Eircom and NBI may prefer an arrangement whereby Eircom's incremental investments in respect of NBI's access is recovered as an upfront fee levied rather than a recurring annual rental charge. If there is no prospect of another operator benefiting from the investment even in the medium to long term, then the recovery by Eircom of NBI related CEI investment as a one-off fee does not appear to raise any issues. Any shared network costs that exist would still be recovered between both pole / duct access users in proportion to relative customer numbers that each pole / duct user serves in the NBP IA but NBI would pay for all the incremental investment once the poles / ducts are available for use. ComReg proposes that any such pricing arrangements (that diverge from the proposed rental charges set out in this Consultation) should be pre-notified to ComReg. ComReg welcomes the views of interested parties on this point.

700 This could benefit both Eircom and NBI. For Eircom, the benefits of certainty and the timing of cash flows could be attractive. For NBI there are also benefits. The total payments by NBI could be lower over the lifetime of that contract if it was able to fund / recover the investment at a lower interest rate than the regulated WACC

(i.e., the return that Eircom would recover as part of the annualised rental charge), as long as there is equivalence between the two approaches taking into account the time value of money / inflation. ComReg welcomes the views of interested parties on this point.

Q. 17 Do you have any views on the option of Eircom recovering the incremental CEI (duct and pole) investment associated with NBI's MIP as an upfront fee levied on NBI's MIP rather than as a recurring annual rental charge, as outlined at paragraph 699. Please provide reasons for your response.

10 Price control monitoring and implementation

701 In this section ComReg discusses the following:

- Cost accounting and accounting separation obligations for CEI; and
- Price control period and annual review.

702 Each one is discussed under the relevant headings below.

10.1 Cost accounting and accounting separation obligations for CEI:

10.1.1 General requirements

703 Pursuant to the 2018 WLA / WCA Market Review Decision Eircom is subject to the obligation to maintain appropriate cost accounting systems, to justify its prices / costs for WLA products, services and facilities.[162] The 2018 WLA / WCA Market Review Decision also imposes an obligation of accounting separation on Eircom in the WLA Market[163], the detailed nature of which is set by reference to ComReg Decision D08/10 (hereafter, the '**2010 Accounting Separation Decision**').[164]

704 ComReg considers that it is necessary to have a clear and comprehensive understanding of the costs associated with Eircom's provision of WLA services, including CEI services. Obligations to maintain appropriate cost accounting systems generally support price control obligations (as well as accounting separation) and can also assist ComReg in monitoring compliance with the obligation of non-discrimination.[165]

705 The current annual review process (between Eircom and ComReg) pursuant to the 2010 Accounting Separation Decision is intended to address any issues regarding the provision of specific information as part of Eircom's HCAs.[166] Hence, ComReg considers that Eircom's application of its cost accounting obligation and accounting separation obligation in respect of specific CEI costs could be discussed with

[162] Section 12.1 of the Decision Instrument at Appendix 20 of the 2018 WLA / WCA Market Review Decision.
[163] Section 11 of the Decision Instrument at Appendix 20 of the 2018 WLA / WCA Market Review Decision.
[164] Response to Consultation, and Final Decision: Accounting Separation and Cost Accounting Review of Eircom Limited, ComReg Document 10/67, dated 31 August 2010.
[165] As further explained in paragraphs 7.1393 and 7.1394 of the 2018 WLA / WCA Market Review Decision.
[166] As noted at paragraph 7.1347 of the 2018 WLA / WCA Market Review Decision.

Eircom as part of the annual review process referred to above.

706 In the context of this Consultation, however, ComReg considers that the expected increase in the uptake of CEI rental services (by NBI's MIP) from Eircom may require some revisions to how Eircom reports CEI costs and revenues as part of Eircom's HCA (or Separated Accounts).

707 In particular, the expected scale of CEI access required as part of NBI's MIP could, in future years, result in the majority of Eircom's pole network and a significant proportion of its underground duct network being used primarily to support CEI access for NBI's MIP service (especially in the NBP IA). Consequently, ComReg considers that it is necessary to report ducts and poles as separate network elements within the Statement of Network Costs in Eircom's HCAs. This should provide greater transparency in the HCAs and in particular give visibility on whether there is a non-discriminatory allocation of the associated CEI costs to the appropriate markets and services.

708 ComReg's proposals in Sections 5 and 6 of this Consultation document for setting the prices for CEI access could also have consequences for how costs are reported in the HCAs. For example, the added requirement to identify costs associated with CEI in the NBP IA separate from the CEI costs in the Commercial Areas in Eircom's cost accounting systems should facilitate transparency and help monitor cost recovery across services. Hence, Eircom should separately identify CEI costs incurred for the purposes of NBI's MIP both in the Commercial Areas and in the NBP IA, separate to the costs incurred in facilitating Generic Access to CEI in the same areas, in its cost accounting systems.

709 The added transparency on CEI expenditure in Eircom's HCAs should assist ComReg's understanding of the TD HCA costs incurred by Eircom (while recognising that this is only one element of the overall costs used to set the CEI prices in the PAM and DAM), particularly in light of the significant costs expected for the deployment of CEI for NBI's requirements in the NBP IA. In this regard, ComReg also considers that, as CEI take-up increases, Eircom should develop a separate Income Statement and Statement of Capital Employed for CEI. ComReg intends to engage with Eircom on the approaches to cost allocation and reporting that should support the preparation and audit of such statements. These statements will be assessed as part of the annual review discussions between ComReg and Eircom on the HCAs. Given that NBI's MIP is expected to give rise to significant demand for CEI access for the duration of the NBI contract and beyond, it should be possible for Eircom to establish processes that will facilitate the harvesting, analysis and reporting of the necessary data to comply with the necessary reporting obligations without imposing an undue burden on Eircom.

710 In addition, given ComReg's proposal in Section 8 of this Consultation document that pole furniture is charged as a once-off charge, ComReg proposes that Eircom

separately identify the costs associated with pole furniture from other pole related costs in its cost accounting systems. At the moment Eircom is the sole user of almost all of its poles with the result that all existing pole furniture is associated with Eircom's equipment. Consequently, any additional costs associated with furniture removal and replacement of these poles should not form part of the pole access charges levied on other operators including NBI.

711 As discussed in paragraphs 699-700 it is possible that Eircom and NBI could agree that some elements of duct remediation and clearance that is undertaken to support NBI's MIP cable deployments in the NBP IA could be paid for on an upfront basis rather than as part of an ongoing duct rental charge. Should this option be preferred, ComReg believes that Eircom would need to account for the associated expenditure as an 'operating cost', possibly under a "Repayable Works Order" rather than capitalising it against a duct asset class. This would facilitate the reporting of these type of costs against the appropriate revenue stream and also minimise any potential risk of double recovery in the future. Even if the costs are to be capitalised and recovered as part of the duct rental charge to NBI's MIP, consideration should be given to the determination of a separate duct asset class for NBI's MIP specific costs.

712 ComReg considers that the cost accounting system should also be capable of separately identifying all of the costs associated with managing NBI's MIP to facilitate the recovery of such costs as part of the NBI's MIP charge.

ComReg's Preliminary View:

713 Eircom should develop its cost accounting systems and HCAs so that CEI costs can be reported in a transparent and meaningful way, including the provision of poles and ducts as separate network elements in the Statement of Network Costs in Eircom's HCAs. The details should be determined as part of the annual review process discussed at paragraph 705.

714 Eircom should separately identify the costs associated with pole furniture from other pole related costs in its cost accounting systems.

Q. 18 Do you agree with ComReg's preliminary view that Eircom should develop its cost accounting systems and its HCAs so that CEI costs can be reported in a transparent and meaningful way, the details of which should be determined as part of the annual review process discussed at paragraph 705? Do you agree that Eircom should separately identify the costs associated with pole furniture from other pole related costs in its cost accounting systems? Please provide reasons for your response.

10.1.2 Annual CEI Statement:

715 The 2018 WLA / WCA Market Review Decision[167] requires Eircom to provide ComReg with an annual poles statement on its investment in poles no later than seven months after its financial year end. The aim of this statement, imposed as an obligation since the 2016 Access Pricing Decision, is to allow for a comparison between the actual investment in poles made by Eircom and the assumptions and estimations made in the Revised CAM when the CEI access prices were set in 2016. Please see Annex 13 of the 2016 Access Pricing Decision for the details.

716 ComReg considers that Eircom should continue to provide an annual statement for poles but this process should also be extended to include duct investment by Eircom.

717 As Eircom is expected to carry out significant investment in poles and ducts in the NBP IA in order to make its network 'NGA ready', the annual CEI statement should make a distinction between pole and duct investment in the NBP IA compared to investment in poles and ducts in the Commercial Areas.[168]

718 Hence, in the case of poles and ducts, Eircom should submit annually to ComReg, and at the same time publish on its website, a statement including:

(i) The actual number of poles and ducts deployed and the corresponding capital expenditure for each during the respective financial year, disaggregated between the NBP IA and the Commercial Areas, in line with the templates set out in Annex 5 (for poles) and Annex 6 (for duct) of this Consultation document. This information will allow ComReg to compare the pole and duct investment assumptions in the [Draft] PAM and [Draft] DAM respectively, with the actual investments being made by Eircom.

(ii) Confirmation on whether the forecasted number of poles and duct for subsequent years remains appropriate, in line with the template set out in Annex 5 (for poles) and Annex 6 (for duct) of this Consultation document. Where this is not the case, Eircom should provide an update on the revised forecasts as part of the annual CEI statement.

719 The annual statements for poles and ducts should be provided in accordance with the procedures which govern the provision of Additional Financial Information ('**AFI**') contained in the Decision Instrument annexed to the 2010 Accounting Separation Obligation and should be provided no later than seven months after the end of the financial year. Please refer to Annex 5 of this Consultation for the annual

[167] Section 12.8 of the Decision Instrument at Appendix 20 of the 2018 WLA / WCA Market Review Decision.
[168] The requirement to disclose the poles and duct broken down by the NBP IA and Commercial Areas seems sufficient to allow for visibility of NBI's MIP investments. Eircom should always ensure that the information related specifically to NBI's MIP is visible in the poles and ducts annual statements.

pole statement to be provided by Eircom as part of the annual AFI process. The proposed annual statement for ducts is set out in Annex 6 of this Consultation document, which should also be provided in line with the AFI process discussed above.

720 ComReg also proposes that the annual statement should be published on Eircom's website, which would provide transparency to other interested parties.

721 ComReg considers that the annual statement should facilitate adequate cost recovery while also supporting continued investment by Eircom in its existing access network. This should incentivise Eircom to invest in maintaining or upgrading its CEI network in the knowledge that its actual efficiently incurred expenditure can be recouped.

ComReg's Preliminary View:

722 In the case of poles and ducts, Eircom should submit annually to ComReg, and at the same time publish on its website, a statement including:

(i) The actual number of poles and duct deployed and the corresponding capital expenditure for each during the respective financial year, disaggregated between the NBP IA and the Commercial Areas, in line with the templates set out in Annex 5 and Annex 6 of this Consultation document. This information will allow ComReg to compare the pole investment assumptions in the [Draft] PAM and the duct investments in the [Draft] DAM with the actual investments being made by Eircom.

(ii) Confirmation on whether the forecasted number of poles and ducts for subsequent years remains appropriate, in line with the template set out in Annex 5 and Annex 6 of this Consultation document. Where this is not the case, Eircom should provide an update on the revised forecasts as part of the annual duct and pole statements.

723 The annual statements for poles and ducts should be provided in accordance with the existing procedures which govern the provision of AFI contained in the Decision Instrument annexed to the 2010 Accounting Separation Decision and should be provided no later than seven months after the end of Eircom's financial year. Please refer to Annex 5 for the template of the annual pole statement and Annex 6 for the template of the annual duct statement, to be provided by Eircom to ComReg as part of the annual AFI statements.

Q. 19 Do you agree with ComReg's preliminary view that Eircom should provide ComReg with an annual statement of the actual and forecasted investment in ducts and poles for both the NBP IA and the Commercial Areas, in line with the templates contained in Annex 5 and Annex 6 of this Consultation? Do you agree with ComReg's proposal that Eircom should publish it on its website? Please provide reasons for your response.

10.2 Price control period and annual review

10.2.1 Price control period:

724 In the absence of any anticipated significant changes to CEI costs for Generic Access, ComReg proposes that Generic Access prices calculated on the basis of the PAM and DAM at the date of ComReg's final decision are fixed per year for a period of five years, subject to Eircom's obligation of cost orientation continuing for that period. Were there any significant changes to CEI costs and/or to the WACC during that time, ComReg would rely on Regulation 13(4) of the Access Regulations to assess adjustments required and issue directions to Eircom as and if required. On the expiry of the five year period, again subject to Eircom's obligation of cost orientation continuing, Eircom would be required to derive cost oriented prices on the basis of the PAM and DAM.

725 Insofar as CEI access for NBI's MIP is concerned, ComReg does not believe that in light of the significant investments required and associated uncertainties, it would be appropriate to direct actual prices for any period of time. Instead, ComReg proposes that Eircom derive prices for CEI access again on the basis of forecasted information in the PAM and DAM as discussed in previous sections of this document, which would be reconciled on an annual basis in accordance with the annual review process discussed below. ComReg proposes accordingly that published prices for CEI access for NBI's MIP are reviewed annually and where adjustments are required in light of actual investments as compared to forecasted, or to number of premises actively connected, that adjusted prices are published to apply from the following 1 July. It should be noted however that, given the time lag in obtaining actual accounting information on which adjustments can be made, insofar as the first two years of the price control, any adjustments would not be reflected until the first day of financial year 3 (1 July). The annual review mechanism is described in further detail below.

Q. 20 Do you agree with ComReg's preliminary view that prices for Generic Access to CEI should be directed for five years consistent with the proposed approach at paragraph 724? Please provide reasons for your response.

10.2.2 Annual review of CEI prices for NBI's MIP:

726 As already set out at subsection 10.1.2 above, ComReg proposes that Eircom should continue to provide the annual statement for poles, and to also include Eircom's actual duct investment, in line with the templates at Annex 5 and Annex 6 of this Consultation.

727 In addition to the requirement to submit annual statements in accordance with Annex 5 and Annex 6, ComReg also proposes that on an annual basis Eircom should **review the [Draft] PAM and [Draft] DAM**. This annual review process is a means of ensuring Eircom's compliance with its cost orientation obligation in relation to the CEI prices for NBI's MIP, set by reference to the [Draft] PAM and [Draft] DAM.

728 In particular, given the significance of NBI's access to Eircom's CEI and the magnitude of the investment required in CEI by Eircom to facilitate that access, especially in the NBP IA, it is important that the costs, assumptions and parameters used in the [Draft] PAM and [Draft] DAM are reviewed by Eircom on an annual basis to ensure that the CEI prices for NBI's MIP appropriately reflect the actual level of expenditure that takes place by Eircom. The draft NBI MIP prices are dependent on a number of key assumptions including the level of pole replacement or duct renewal undertaken by Eircom and the associated cost, the customer take-up of NBI's fibre service in the IA, including the timing of the eventual withdrawal of Eircom's copper network. As part of Eircom's annual review process, the key assumptions used to derive the indicative MIP prices in the Draft PAM and Draft DAM should be compared to the actual outcomes, by Eircom. It is also worth noting that if an alternative cost sharing method (to the proposed customer approach) is used then different assumptions may apply. This will be assessed further as part of the consultation process. If Eircom's rate of expenditure in CEI is materially lower than what was forecasted in the [Draft] PAM and/or in the [Draft] DAM for the relevant financial year under review then Eircom should not be entitled to recoup that expenditure as part of the CEI annual rental prices for NBI's MIP. On the other hand, if Eircom's rate of expenditure in CEI is materially higher than what was forecasted in the [Draft] PAM and/or in the [Draft] DAM then Eircom should be allowed to recoup that expenditure through a possible variation to the CEI annual rental prices relating to NBI's MIP, provided such costs were efficiently incurred. The annual review should also take into account updates to the [Draft] PAM and [Draft] DAM to reflect the actual active premises connected by Eircom and NBI to their respective networks in the NBP IA. Please see paragraphs 577-578 regarding the possible ways of obtaining the information on actual active customers for NBI and Eircom's networks.

729 The proposed annual review of the [Draft] PAM and [Draft] DAM by Eircom should also include an assessment of the key inputs and variables in the models. For

example, the review should include an assessment of the actual year to date capital records from Eircom's FAR for the asset classes relevant to CEI access, the operating costs incurred with respect to management and maintenance activities, updates to labour and material costs for pole replacements or duct renewal capital activities.

730 In particular, the review should take account of the actual expenditure incurred by Eircom in the context of providing NBI's MIP access to CEI for the respective financial year, taking into account the information provided by Eircom in the annual statement for poles and duct (as outlined above). If Eircom's actual expenditure in poles and ducts for NBI's MIP is materially different to the assumed / forecasted costs in the [Draft] PAM and [Draft] DAM, then such differences should be reflected and updated in the [Draft] PAM and [Draft] DAM as part of Eircom's annual review. Such updates to the [Draft] PAM and [Draft] DAM, which form the basis for calculation of the annual rental charges, may result in changes to prices for NBI's MIP access to CEI going forward. However, where material differences are noted by way of the review of the [Draft] PAM and [Draft] DAM, a more detailed assessment may be necessary to assess historic data and forecasted data on expenditure and CEI take-up. For example, a material difference in actual CEI expenditure in one particular year compared to the forecasted expenditure in the model may be offset in the following year and so it is important to ensure that any one-off differences do not lead to price instability.

731 Furthermore, consistent with the approach set out in the Notified 2020 WACC Decision, Eircom would be required when updating the [Draft] PAM and [Draft] DAM to use the most recent WACC for CEI in the context of NBI's MIP updated in accordance with subsection 7.4 above.

732 ComReg proposes that Eircom's annual review of the [Draft] PAM and [Draft] DAM should be completed no later than seven (7) months after the year end, so as to coincide with the timelines for submission of the annual statement as discussed at paragraphs 722-723 above. Hence, ComReg proposes that Eircom should submit an updated [Draft] PAM and [Draft] DAM to ComReg, no later than seven months after its financial year end. Given that NBI's MIP is expected to give rise to significant demand for CEI access for the duration of the NBI contract and beyond, ComReg considers that it should be possible for Eircom to establish processes that will facilitate the harvesting, analysing and reporting of the necessary data to comply with this requirement without imposing an undue burden on Eircom. As noted below, ComReg would intend to review the contents of any updated PAM / DAM models together with the annual statements to monitor Eircom's compliance with its cost orientation obligations.

733 Furthermore, and in tandem with Eircom's submission of the updated [Draft] PAM and [Draft] DAM to ComReg, ComReg proposes that Eircom should also provide a written statement of compliance (hereafter, the '**CEI Statement of Compliance**').

The CEI Statement of Compliance should consider the contents of the annual statements for poles and duct at paragraph 722 as well as the review of the [Draft] PAM and [Draft] DAM at paragraphs 727-731 and demonstrate Eircom's compliance with its cost orientation obligation regarding its CEI annual rental charges to NBI's MIP.

734 The CEI Statement of Compliance should include the following:

- The details of Eircom's review of the [Draft] PAM and [Draft] DAM and what changes have been made to the inputs and variables identified at paragraph 727-731, including where appropriate an explanation for any material variances;
- Confirmation of whether changes are required to the annual rental prices for NBI's MIP and a proposal on what these new revised prices should be;
- Any other information that Eircom considers relevant to its demonstration of compliance with its cost orientation obligation.

735 As part of monitoring Eircom's compliance with its cost orientation obligation, once Eircom makes its annual submission to ComReg, ComReg will review the CEI Statement of Compliance provided by Eircom (with the annual statement at paragraph 722 and the updates to the [Draft] PAM and [Draft] DAM as set out at 727-731). ComReg will assess the information and the materiality of any proposed changes by Eircom in relation to the CEI annual rental charges for NBI's MIP, while also taking into account the point noted at paragraph 730 about possible one-off differences. ComReg may be required to engage with Eircom as part of this annual review process. This is a relatively complex option to administer and monitor but ComReg's preliminary view is that it could be practically implemented without a disproportionate administrative burden. We will consider any evidence about this issue in arriving at a final decision.

736 If as a result of this annual review process, ComReg considers that NBI's MIP CEI annual rental charges are no longer cost oriented, then it is proposed that the required price changes (i.e., increases or reductions) become effective from 1 July (first day in Eircom's financial year). It should be noted however that, given the time lag in obtaining actual accounting information, any changes to prices relating to NBI's MIP would not be reflected in the prices before the start of financial year 3 of NBI's MIP. For that reason, the prices for Year 1 and Year 2 of the price control would be the prices as produced by the PAM and DAM at the date of the Decision, with any adjustments required materialising in respectively Year 3 and Year 4 prices. For any such prices changes, ComReg would require Eircom to follow the price change notification procedures specified in the transparency obligations set

out in the 2018 WLA / WCA Market Review Decision[169], unless otherwise determined by ComReg.

737 ComReg considers that the proposed measures in this section are proportionate given the significant volume of CEI that Eircom will provide to NBI's MIP, particularly in the NBP IA. This annual review process should also provide certainty to Eircom in terms of its cost recovery expectations as Eircom can expect that if it invests in CEI in an efficient manner then the CEI annual rental prices will take account of this investment to allow it to recover the investments actually made in CEI (including expenditure on the associated cost accounting obligations), while other stakeholders can be assured that there is no over-recovery of such investments.

738 ComReg invites the views of interested parties on the various proposals set out above.

ComReg's Preliminary View:

739 ComReg proposes that on an annual basis Eircom review the [Draft] PAM and [Draft] DAM, to assess the key inputs, assumptions and variable of the models (referenced at paragraph 728-731, including an assessment of the actual expenditure incurred by Eircom in the context of NBI's MIP access consistent with the details provided in the annual duct and pole statements described at paragraph 722.

740 If Eircom's actual costing / volumes information for poles and ducts for NBI's MIP is significantly different to the assumptions and forecasts in the [Draft] PAM and ducts provisioned in the [Draft] DAM, then such differences need to be reflected and updated in the [Draft] PAM and [Draft] DAM as part of Eircom's annual review.

741 Eircom should also provide the CEI Statement of Compliance demonstrating Eircom's compliance with its cost orientation obligation for its CEI annual rental charges relating to NBI's MIP, in line with the information sought at paragraph 734.

742 Eircom should submit the updated [Draft] PAM and [Draft] DAM and the CEI Statement of Compliance to ComReg, no later than seven months after its financial year end.

743 Where changes to prices are justified, then any changes should be implemented by Eircom from 1 July, Eircom having published the prices in accordance with the requirements of ComReg Decision D10/18. It should be noted however that, given the time lag in obtaining actual accounting information, any changes to prices relating to NBI's MIP would not be reflected in the prices before the start of financial year 3 of NBI's MIP. For that reason, the prices for Year 1 and Year 2 of the price

[169] Please see Section 10.12 and 10.13 of the Decision Instrument at Appendix 20 of the 2018 WLA / WCA Market Review Decision.

control would be the prices as produced by the PAM and DAM at the date of the Decision, with any adjustments required materialising in respectively Year 3 and Year 4 prices.

Q. 21 Do you agree with ComReg's preliminary view on the proposed price control application set out in Section 10.2.1 and the annual review process discussed at Section 10.2.2 (paragraphs 726-737), regarding CEI access by NBI's MIP? Please provide reasons for your response.

11 Regulatory Impact Assessment (RIA)

11.1 Overview

744 A Regulatory Impact Assessment ('**RIA**') is an analysis of the likely effect of proposed new regulation or regulatory change. The RIA should help identify regulatory options and should establish whether the proposed regulation is likely to have the desired impact. The RIA is a structured approach to the development of policy and analyses the impact of regulatory options on various stakeholders.

745 ComReg's approach to the RIA is set out in the Guidelines published in August 2007 in ComReg Document No. 07/56 and 07/56a. In conducting the RIA, ComReg takes into account the RIA Guidelines[170], issued by the Department of An Taoiseach in June 2009 under the Government's Better Regulation programme. Section 13(1) of the Acts, requires ComReg to comply with Ministerial Policy Directions. The Policy Direction of February 2003[171] requires that, before deciding to impose regulatory obligations on undertakings, ComReg shall conduct a RIA in accordance with European and International best practice and otherwise in accordance with measures that may be adapted under the Government's "Better Regulation" programme.

746 In conducting the RIA, ComReg has regard to the RIA Guidelines. ComReg's ultimate aim in conducting a RIA is to ensure that all measures are appropriate, proportionate and justified. To ensure that a RIA is proportionate and does not become overly burdensome, a common sense approach will be taken towards a RIA. In fact this Consultation document constitutes an impact assessment of the various regulatory options considered by ComReg as well as our preferred approach. Hence, the entire document should be considered part of the RIA.

747 In the context of this Consultation, while ComReg is not proposing to change the underlying price control obligation for CEI access i.e., the obligation of cost orientation, ComReg is proposing to further specify it in context of the costing / pricing methodology used to determine Eircom's CEI access prices for the purposes of CEI access for the NBP.

748 In this regard, ComReg has considered, in Sections 5, 6, 7 and 8 of this Consultation document, the various regulatory options available to it in determining the

[170] See "RIA Guidelines: How to conduct a Regulatory Impact Analysis", October 2005 and revised in 2009 - see https://www.djei.ie/en/What-We-Do/Business-Sectoral-Initiatives/Reducing-Administrative-Burdens/Responsibility-for-Better-Regulation-in-Ireland/

[171] Ministerial Policy Direction made by the Minister for Communications, Marine and Natural Resources on 21 February 2003.

appropriate costing / pricing methodology for CEI access, the WACC that should apply to CEI assets as well as the options for recovery of other related CEI costs, particularly in the context of the NBP (or NBI's MIP). In assessing the various costing / pricing methodology options for CEI access for the NBP, the starting point is the existing costing / pricing methodology that is currently in place for CEI (for Generic Access users). Our analysis focuses on why an alternative approach may be justified and proportionate in the context of CEI access prices for the purposes for the NBP.

749 The rest of this section looks at the five steps involved in conducting a RIA, with specific focus on the costing / pricing methodology for CEI access in the context of the NBP.

11.2 Steps for assessing regulatory options

750 In assessing the available regulatory options, ComReg's approach to the RIA is based on the following five steps:

- Step 1: describe the policy issue and identify the objectives;
- Step 2: identify and describe the regulatory options;
- Step 3: determine the likely impacts on stakeholders;
- Step 4: determine the likely impacts on competition;
- Step 5: assess the likely impacts and choose the best option.

751 Each step is discussed in detail below.

11.3 Step 1: Describe the policy issue and identify the objectives

752 As set out in Section 3 of this Consultation, in the 2018 WLA / WCA Market Review Decision Eircom has been designated with SMP in the WLA Market, nationally. As a result a number of regulatory obligations were imposed on Eircom across the national WLA Market to address various competition problems, including the obligation that Eircom provides access to its CEI and that the CEI prices are set in line with the obligation of cost orientation.

753 In the 2018 WLA / WCA Market Review Decision ComReg re-imposed the costing / pricing methodology (and associated maximum annual rental prices for pole and duct access) for CEI from the 2016 Access Pricing Decision, as discussed in

Section 3.3.[172] Therefore, ComReg's review of Eircom's CEI costing / pricing methodologies in this Consultation is pursuant to the SMP findings set out in 2018 WLA/WCA Market Review Decision (ComReg Decision D10/18).

754 In determining the appropriate costing / pricing methodology for Eircom's CEI in the context of the NBP, ComReg has taken into account the competition concerns identified in the WLA Market, as set out in the 2018 WLA / WCA Market Review Decision, including the risk of excessive pricing by Eircom as well as the potential for Eircom to distort competition given its presence in both the wholesale and retail market broadband markets. ComReg has also taken into account developments in the market since the 2018 WLA / WCA Market Review Decision. Please see Section 3, for further details.

755 There are two main considerations in this RIA. The first consideration is whether it is justified and proportionate to further specify the existing price control obligation (of cost orientation) for CEI access in the context the NBP (or NBI's MIP). The second consideration is whether it is justified and proportionate to use a differentiated WACC for CEI access for the purposes of the NBP.

756 Section 5 of this Consultation assesses the various options considered by ComReg for the CEI costing methodology i.e., LRIC, LRAIC, LRAIC+. Section 6 assesses the various options considered by ComReg for the CEI cost sharing / pricing methodology i.e., per operator, per customer, primary / secondary user approaches. Section 7 assesses the various parameters considered by ComReg for the appropriate WACC in the context of CEI access by NBI's MIP.

757 In Section 8 ComReg assesses the options for the recovery of other costs related to Eircom's CEI services e.g., tree trimming services and pole furniture. Separately, in Section 10, ComReg considers the option of Eircom undertaking an annual review of the [Draft] PAM and [Draft] DAM so as to demonstrate compliance with its cost orientation obligation for NBI's MIP. Please see Section 10 for further details

758 In choosing the appropriate costing / pricing methodology as well as the appropriate WACC in the context of CEI access for the NBP, ComReg has taken account of Section 12 of the Acts, Regulation 6(1) of the Access Regulations, Regulation 8(6) of the Access Regulations, Regulation 13 of the Access Regulations and Regulation 16 of the Framework Regulations.

759 In the subsection below, ComReg has assessed its proposals on the appropriate costing / pricing methodology and the appropriate WACC in the context of CEI access with reference to the analysis and reasoning already set out in the earlier sections of this Consultation document against the various statutory objectives cited

[172] Please see Section 12.6 of the WLA Decision Instrument at Appendix 20 of the 2018 WLA Market Review Decision.

above at paragraph 758.

11.3.1 Section 12 of the Acts

760 ComReg's objectives as set out in Section 12 of the Acts aims to:

(i) *Promote competition and in particular to encourage efficient investment in infrastructure and promoting innovation;*

(ii) *Contribute to the development of the internal market;*

(iii) *Promote the interests of users within the Community and in particular to encourage access to the internet at a reasonable cost to end-users.*

Promote competition and encourage efficient investment in infrastructure:

761 In Section 3.5 of this Consultation, ComReg has set out its regulatory objectives including details on the objective of promoting competition and encouraging efficient investment in infrastructure.

762 In the **NBP IA** given that the prospects of entry by another commercial operator are extremely limited — largely due to the less favourable cost and scale characteristics of the NBP IA, and hence the need for State intervention — ComReg's statutory objectives of promoting competition and encouraging efficient investment do not mean setting a price control in order to create sustainable and long term competition with Eircom, and facilitate new commercial entry, by either CEI providers or alternative wholesale broadband providers. Rather promoting competition and encouraging efficient investment mean, in ComReg's preliminary view, allowing for a cost effective deployment of NBI's network and avoiding inefficient duplication of CEI assets.

763 ComReg is of the view that promoting competition and encouraging efficient investment in the NBP IA means ensuring that the CEI access service being provided by Eircom to NBI's MIP and its fibre network will, when roll-out is completed, be available to all operators to seek wholesale access service to supply retail customers in the area. Hence, Eircom ought to be allowed to recover its efficiently incurred investment (plus a reasonable rate of return) when upgrading its CEI assets to allow for the sharing of those assets with NBI. It also means, taking into account that NBI is likely to eventually replace Eircom's copper-based services, as well as Eircom's plan as regards copper switch-off, avoiding inefficient investment through duplication of fixed costs and failure to achieve economies of scale and having duplicate (Eircom's and NBI's) networks running in parallel after the new fibre network is rolled out.

764 At some point in the future it is likely that Eircom will switch-off its copper access network (or in the case of poles withdraw its copper cables), in the NBP IA. In fact,

it is likely that Eircom's copper network in the NBP IA will ultimately be replaced by NBI's fibre network, where NBI will become the main user of CEI in the NBP IA. However, the timing of Eircom's copper switch-off (and withdrawal of its copper cables from poles) remains uncertain. ComReg believes that meeting its statutory objective of encouraging efficient investment means in the context of CEI access in the NBP IA, setting the right incentives for the transition from copper to fibre services in the NBP IA. In particular, setting CEI access prices too low might provide an inefficient incentive for Eircom to decommission the copper services too early, whereas setting the CEI access prices at a level that is too high, might cause the prices of copper services to be lower than they otherwise might have been and thereby delay the transition to fibre. Please see Section 3.5 of this Consultation for further details.

765 The issue of copper to fibre transition in the context of the NBP IA and the extent that different CEI cost sharing options (of per customer, primary/secondary user and per operator) discussed in Section 6 of this Consultation might provide Eircom with suitable incentives to decommission its copper network.

766 Different considerations apply in the **Commercial Areas**, and it is also necessary to distinguish between Generic Access and access to CEI by NBI for transit purposes. The considerations which led to the adoption of the existing price control for CEI continue to apply insofar as Generic Access is concerned. In particular the price for Generic Access should provide the correct investment incentives to promote competition by existing competing operators and facilitate commercial entry by alternative infrastructure providers, taking into account that by contrast to the NBP IA, Eircom is likely to continue to invest in CEI in these areas in order to continue to provide fixed line services to other operators, self- supply to its own retail arm and to end-users. Promoting competition and encouraging efficient investment mean sending the correct 'build-or-buy' signals to Eircom and other operators.

767 By contrast, NBI's CEI access in the Commercial Areas may not be used for the purpose of competing with other operators in the Commercial Areas, as part of the conditions to the subsidy from the State (see Section 3.4). NBI's CEI access in the Commercial Areas is limited to those situations where it requires access for the purposes of transit in order to provide its services in the NBP IA, using its subsidised network. A factor for consideration in terms of NBI's access to CEI in the Commercial Areas is the fact that Eircom has already replaced poles and cleared duct blockages in the Rural Commercial Area to facilitate the deployment of its own 300k FTTH Rural Network and so the existing CEI assets in this context could be considered reusable for the provision of fibre broadband services by NBI in the Commercial Areas. ComReg has given due consideration to the particular circumstances of NBI's transit access in the Commercial Areas as part of its assessment of an appropriate costing / pricing methodology in Sections 5 and 6 of

this Consultation document.

Contribute to the development of the internal market:

768 In terms of contributing to the development of the Internal market, in Section 3, subsection 3.7, ComReg has set out the relevant European Commission Recommendations and Directives which have been considered as part of this review. One of the key considerations as part of our review of the costing methodology for CEI is the assessment of Reusable CEI Assets and Non-reusable CEI Assets, which is a key focus of the 2013 EC Recommendation. This is considered by ComReg in Section 5, subsections 5.4, 5.5, 5.6 and 5.8 of this Consultation document.

769 Separately, in Section 7 of this Consultation ComReg considers why a differentiated WACC (to the generic fixed line telecoms WACC) may be appropriate for setting the prices for CEI access services in the context of the NBP. ComReg's analysis recognises that while some other European jurisdictions use the generic telecoms WACC for passive (CEI) access services, that in the case of CEI access for the NBP ComReg proposes that an alternative WACC may be justified and proportionate. This is further discussed in Section 7, of this Consultation document.

770 In addition, and in terms of contributing to the development of the internal market, the draft measures will be made accessible to the European Commission, BEREC as well as other NRAs in other European Member States, further to Regulations 13 and 14 of the Framework Regulations. ComReg will consider all responses received to this Consultation (and draft Decision) before proceeding to a final decision.

Promote interests of users within the community / Encourage access to internet at reasonable cost to end-users:

771 ComReg is required to take all reasonable measures to promote the interests of users within the community as well as encourage access to the internet at reasonable cost to end-users.

772 In the NBP IA, there is likely to be a transition from Eircom's copper based network to NBI's fibre based network over the next few years. As a result end-users should benefit from the availability of high speed broadband services, once NBI's network is deployed. As part of ComReg's assessment of the appropriate CEI wholesale prices that Eircom should charge for NBI's use of its CEI network, ComReg is cognisant of the fact that it would ultimately be inefficient to have duplicate networks running in parallel once the new fibre network is rolled out. i.e., Eircom's copper network running alongside NBI's fibre network.

773 In Section 6, ComReg's preferred cost sharing (of a per customer approach) in the NBP IA for NBI's MIP gives due consideration to ways of setting the right incentives for the migration of copper to fibre services once NBI's fibre network is rolled out.

These measures should ultimately benefit end-users in terms of migration towards fibre based services.

774 The impact on the prices to customer / end-users as a result of the proposed measures set out in this Consultation (compared to the status quo) is assessed in the Dot Econ report, Annex C, part C.4 (for the Commercial Areas) and in part C.5 (for the NBP IA).

11.3.2 Regulation 6 of the Access Regulations

775 Regulation 6(1) of the Access Regulations provides that the Regulator shall acting in pursuit of its objectives set out in Section 12 of the Communications Regulation Acts and Regulation 16 of the Framework Regulations, encourage and, where appropriate, ensure adequate access, interconnection and the interoperability of services in such a way as to:

- Promote efficiency;
- Promote sustainable competition;
- Promote efficient investment and innovation; and
- Give the maximum benefit to end-users.

Promote efficiency:

776 A cost oriented price control aims to ensure that prices do not exceed an appropriate level of efficient costs.

777 There are three forms of efficiency including:

- Allocative Efficiency: Where prices of different products results in an optimum allocation of resources to end-users;
- Productive Efficiency: Where the cost of producing the products is minimised;
- Dynamic Efficiency: This refers to the efficiency of investor and end-user behaviour over time.

778 ComReg believes that any pricing remedy imposed needs to strike a balance between these three forms of efficiency.

779 Allocative and productive efficiency are essentially static concepts taking into account the level of costs to deliver products/services at a particular point in time. In terms of productive efficiency, ComReg believes that the sequential nature of investment decisions, when assessing whether the level of costs reported is efficiently incurred, needs to be considered in the pricing remedy.

780 The BU-LR(A)IC approach already assumes a level of efficiency (as it assumes a

brand new network) therefore no further adjustments are required. Please see Section 5, subsections 5.3-5.8, for further details on the proposed cost modelling approach relevant to CEI access.

781 With regard to ComReg's consideration of efficiency adjustments regarding Eircom's HCA data, please see paragraph 393.

Promote sustainable competition

782 Please refer to paragraphs 761-767.

Promote efficient investment and innovation

783 Please refer to paragraphs 761-767.

Give the maximum benefit to end-users

784 Please refer to paragraphs 771-774.

11.3.3 Regulation 8 of the Access Regulations

785 Regulation 8(6) of the Access Regulations provides that:

> *Any obligations imposed in accordance with this regulation shall –*
>
> *a) Be based on the nature of the problem identified,*
>
> *b) Be proportionate and justified in light of the objectives laid down in section 12 of the 2002 Act and Regulation 16 of the Framework Regulations, and*
>
> *c) Only be imposed following consultation in accordance with Regulation 12 and 13 of the Framework Regulations.*

Based on the nature of the problem identified:

786 As set out in Section 3, in the 2018 WLA / WCA Market Review Decision ComReg identified the competition problems associated with the WLA market, which include exploiting end-users by virtue of Eircom's SMP position e.g. excessive pricing, leveraging its market power into adjacent vertically or horizontally related markets and foreclosing or excluding competitors so as to protect its existing dominance on the market or markets in question. Please see Section 3, subsection 3.3, for further details.

787 Separately, in Section 3.5, ComReg has also set out ComReg's regulatory objectives and how the various problems identified in this review of CEI and the proposed measures set out meet those objectives.

Proportionate and justified:

788 Sections 5 and 6 of this Consultation document sets out the reasons why the proposed costing / pricing methodology for CEI access in the context of NBI's MIP is proportionate and justified. Our advisors, Dot Econ, support the basis of the proposals set out in this Consultation on the preferred costing / pricing methodology for NBI's MIP (and also for Generic Access to CEI). Please see Annex 2 for the justification and reasoning set out in the Dot Econ report.

789 Section 7 of this document sets out reasons why the proposed differentiated WACC for CEI assets in the context of NBI's MIP is proportionate and justified. Our advisors, Europe Economics, support the basis of the proposals set out in this Consultation document regarding the WACC for CEI. Please see Annex 3 for the justification and reasoning set out in the Europe Economics report.

790 Section 10 of this document sets out a number of proposals regarding measures to assess the CEI costs incurred by Eircom as well as means of monitoring Eircom's compliance with its cost orientation obligation, particularly with regard to NBI's MIP. Section 10 sets out reasons why Eircom should develop their cost accounting systems and HCAs so that CEI costs can be reported in a transparent and meaningful way. Furthermore, Section 10 looks at the reasons why Eircom should provide an annual CEI statements to ComReg for its expenditure on CEI. In addition, Section 10 also sets out the reasons why Eircom should carry out an annual review of the [Draft] PAM and [Draft] DAM in the context of NBI's MIP charges as well as assessing its compliance with its cost orientation obligation for CEI, the details of which should be provided to ComReg by 7 months after Eircom's financial year end. Please see Section 10 of this Consultation for further details.

Only be imposed following consultation:

791 ComReg will consider all responses it receives to this Consultation and draft Decision. Based upon those responses it may amend some of its views before it proceeds to notify its draft measures to the European Commission and which it may then issue a final decision.

11.3.4 Regulation 13 of the Access Regulations

792 Regulation 13(1) of the Access Regulations considers that ComReg may:

> *"…impose on an operator obligations relating to cost recovery and price controls, including obligations for cost orientation of prices and obligations concerning cost accounting systems, for the provision of specific types of access or interconnection in situations where a market analysis indicates that a lack of effective competition means that the operator concerned may sustain prices at an excessively high level or may apply a price squeeze to the*

detriment of end users."

793 The requirements set out in Regulation 13(1) have already been addressed in the 2018 WLA / WCA Market Review Decision at the time of imposition of the cost orientation obligation on Eircom in the WLA Market. In this Consultation ComReg proposes to further specify the cost orientation obligation for CEI, that has already been imposed.

794 Regulation 13(2) of the Access Regulations provides that:

> *To encourage investments by the operator, including in next generation networks, the Regulator shall, when considering the imposition of obligations under paragraph (1), take into account the investment made by the operator which the Regulator considers relevant and allow the operator a reasonable rate of return on adequate capital employed, taking into account any risks involved specific to a particular new investment network project.*

795 In Section 5 of this Consultation ComReg considers the investments already made by Eircom in its CEI infrastructure as well as the likely investments to be made in the NBP IA and Commercial Areas over the next few years, and how this should be captured in determining the proposed CEI rental prices. Please see Section 5, subsections 5.4-5.8, for further details.

796 Section 7 of this Consultation considers the proposal of a differentiated WACC (or rate of return) in the context of CEI access by NBI's MIP, recognising the somewhat lesser risks associated with the revenues that Eircom will receive for provision of CEI access for purposes of the NBP. Please see Section 7 of this Consultation for further details.

797 Section 10 of this Consultation considers an annual review process so as to assess the level of actual CEI expenditure incurred by Eircom compared to that forecasted in the [Draft] PAM and [Draft] DAM models. This process recognises in particular the significance of NBI's MIP access for Eircom's CEI and the fact that a review of Eircom's rate of expenditure against that assumed / forecasted in the [Draft] PAM and in the [Draft] DAM is necessary to assess Eircom's compliance with its cost orientation obligation so as to ensure no material over-or-under recovery of costs on an annual basis. In addition, this annual review process should also provide certainty to Eircom such that if Eircom's invests in CEI in an efficient manner then the CEI prices should allow it to recover the investments that it actually makes in CEI (including expenditure on the associated cost accounting obligations), while other stakeholders can be assured that there is no over-recovery of such investments.

798 Regulation 13(3) of the Access Regulations provides that:

The Regulator shall ensure that any cost recovery mechanism or pricing methodology that ComReg imposes under this Regulation serves to promote efficiency and sustainable competition and maximise consumer benefits. In this regard, the Regulator may also take account of prices available in comparable competitive markets.

Promote efficiency:

799 In terms of the provision in Regulation 13(3) regarding promoting efficiency, please refer to paragraphs 776-781778.

Promote sustainable competition:

800 In terms of the provision in Regulation 13(3) regarding promoting sustainable competition, please refer to paragraphs 761-767.

Maximise consumer benefits:

801 In terms of the provision in Regulation 13(3) regarding maximising consumer benefits, please refer to paragraphs 771-774.

802 Regulation 13(4) of the Access Regulations provides that:

"*Where an operator has an obligation under this Regulation regarding the cost orientation of its prices, the burden of proof that charges are derived from costs, including a reasonable rate of return on investment shall lie with the operator concerned*……"

803 As set out in Section 10 of this Consultation, ComReg has proposed that Eircom undertake an annual review process, including the provision of annual CEI statements on its expenditure on CEI, a review of the [Draft] PAM and [Draft] DAM and the provision of a statement of compliance to ComReg to ensure that the CEI prices for NBI's MIP are in compliance with its cost orientation obligation. Hence, these proposed measures should ensure that the burden of proof remains with Eircom to ensure that the CEI prices continue to reflect the efficient costs incurred by it in terms of its CEI investments, particularly in the context of the TD HCA costs.

11.3.5 Regulation 16 of the Framework Regulations

804 Regulation 16 of the Framework Regulations aims to:

(1) "In addition to …its objectives under section 12 of the Act of 2002, the Regulator shall–

(a) …*take the utmost account of the desirability of the technological neutrality in complying with the requirements of the Specific Regulations having particular regard to those designed to ensure effective competition*,

(b) in so far as the promotion of competition is concerned–

(i) ensure that elderly users and users with special social needs derive maximum benefit in terms of choice, price and quality and

(ii) ensure that, in the transmission of content, there is no distortion or restriction of competition in the electronic communications sector,

(c) in so far as contributing to the development of the internal market is concerned, co-operate with BEREC in a transparent manner to ensure the development of consistent regulatory practice and the consistent application of European Union law in the field of electronic communications, and

(d) in so far as promotion of the interests of users within the European Union is concerned–

(i) address the needs of specific social groups, in particular, elderly users and users with special social needs, and

(ii) promote the ability of end-users to access and distribute information or use applications or services of their choice.

(2) …*the Regulator shall apply objective, transparent, non-discriminatory and proportionate regulatory principles…"*

805 While some of the main requirements / objectives of Regulation 16 of the Framework Regulations have already been addressed above as part of the discussion on Section 12 of the Acts and Regulation 8 and Regulation 13 of the Access Regulations, set out below is some other key requirements associated with Regulation 16 which have not been addressed so far as part of the discussions above.

Promoting regulatory predictability by ensuring a consistent approach over appropriate review periods:

806 With regard to promoting regulatory predictability by ensuring regulatory consistency across review periods, ComReg has assessed the costing / pricing options for determining the prices for CEI access against the existing (status quo) costing / pricing methodology in Section 5.4 and in Section 6.3 and Section 6.5, while considering the need for consistency across regulatory review periods.

807 While ComReg proposes to continue with the existing costing / pricing methodology for Generic Access requests to CEI, for NBI's MIP access to CEI, ComReg is proposing differentiated costing / pricing methodologies for CEI access in the NBP IA and separately in the Commercial Areas for the reasons set out in Sections 5 and 6, as referenced above at paragraph 806.

808 For the WACC for CEI in the context of the NBP, Section 7 looks at the proposal to differentiate the WACC used for NBI's MIP in the NBP IA and for NBI's transit access in the Commercial Areas. While the new proposed WACC rates for CEI in the context of NBI's MIP differs to the newly revised WACC for generic fixed telecoms services in the Notified 2020 WACC Decision, some of the parameters used are consistent across both. There are a number of specific WACC parameters that warrant a differentiated approach for CEI associated with NBI's MIP (compared to the WACC for generic fixed telecoms services) for the reasons justified at Section 7 of this Consultation document.

809 While ComReg proposes to continue to require Eircom to provide an annual statement for its expenditure in poles, this statement is extended to include duct expenditure by Eircom as well as providing a split of the expenditure between the NBP IA and the Commercial Areas. These additional requirements are justified in Section 10 of this Consultation document.

Taking due account of the variety of conditions relating to competition and consumers that exist in the various geographic areas within the State:

810 With regard to taking due account of the variety of conditions relating to competition and consumers that exist in the various geographic areas within the State, Section 4 of this Consultation document discusses the possible differentiation of the CEI price control remedy in relation to NBI's MIP in both the NBP IA and in the Commercial Areas so that ComReg can meet its regulatory objectives.

811 The reasons why such a variation of the price control for CEI is considered proportionate and justified for NBI's MIP access in the NBP IA and in the Commercial Areas is set out in Section 5 (costing methodology for CEI) and in Section 6 (cost sharing methodology for poles and ducts) as well as Section 7 for the proposed differentiated WACC in the context of NBI's MIP access in the NBP IA and in the Commercial Areas.

11.4 Step 2: Identify and describe the regulatory options

812 The regulatory options considered in this Consultation are discussed in the earlier sections of this Consultation Document i.e., Sections 5 – 8 and in Section 10.

813 In summary, the regulatory options considered in the context of determining the appropriate costing methodology to apply to Eircom's CEI access services in the context of NBI's MIP are discussed in Section 5. These options include LRIC, LRAIC, LRAIC+ cost standards, BU and TD models as well as historic costs and Current costs. Please see Section 5 for further details.

814 The regulatory options considered in the context of the determining the appropriate cost sharing / pricing methodology to apply to Eircom's CEI access services in the

context of NBI's MIP are discussed in Section 6. These options include the per customer, per operator and primary / secondary approach (as well as the per metre of sub duct for duct access). Please see Section 6 for further details.

815 The regulatory options considered in the context of the WACC parameters that should apply in the context of Eircom's CEI for the purposes of the NBP are discussed in Section 7. Please see Section 7 for further details.

816 In Section 8 ComReg assesses the options for the recovery of other costs related to Eircom's CEI services e.g., tree trimming services and pole furniture. Separately, in Section 10, ComReg considers the option of Eircom undertaking an annual review of the [Draft] PAM and [Draft] DAM so as to demonstrate compliance with its cost orientation obligation for NBI's MIP. Please see Section 10 for further details.

11.5 Step 3: Determine the likely impact on stakeholders

817 Throughout this Consultation document ComReg considers the impacts of the various regulatory options and ComReg's preferred approach. Please refer to Sections 5 – 10 of this Consultation document.

818 Separately, Dot Econ, in its report at Annex 2 of this Consultation document, has assessed the impact of the proposed CEI pricing measures on the various stakeholders. Please refer to Annex C, parts C.4 and C.5 of the Dot Econ report for further details.

819 Europe Economics, in its report at Annex 3 of this Consultation document, has assessed the impact of the proposed WACC for CEI services in the context of the NBP on the various stakeholders, including Eircom and other CEI providers. Please refer to Section 3 (subsection 3.7) of the Europe Economics report for further details.

11.6 Step 4: Determine the likely impacts on competition

820 The likely impacts on competition of the various regulatory options considered in this Consultation are already detailed in Section 3 (subsection 3.5), Section 5 (in particular subsection 5.4) and Section 6, of this Consultation document. Please refer to those sections for further details.

11.7 Step 5: Assess the likely impacts and choose the best option

821 As discussed in Section 11.3 above, ComReg has taken account of Section 12 of the Acts, Regulation 6(1) of the Access Regulations, Regulation 8(6) of the Access Regulations, Regulation 13 of the Access Regulations and Regulation 16 of the Framework Regulations, in arriving at its preliminary views on the appropriate

costing / pricing methodologies and the WACC for access to Eircom's CEI, in particular in the context of the NBP, in the earlier sections of this Consultation document.

822 In addition, ComReg has considered the potential impact of our proposals in the context of the key stakeholders, as summarised at Section 11.5. On balance, ComReg considers that the proposed measures set out in this Consultation (and draft Decision) should met ComReg's regulatory objectives while addressing the competition concerns associated with the WLA Market, for the reasons already discussed in Sections 5 – 8 and in Section 10 of this Consultation document.

Q. 22 Do you have any comments on the Regulatory Impact Assessment and in your opinion are there other factors which ComReg should consider in completing its Regulatory Impact Assessment? Please provide reasons for your response, clearly indicating the relevant paragraph numbers to which your comments refer, along with relevant factual evidence supporting your views.

12 Submitting comments

823 The consultation period will run for 8 weeks from 9 September to 5.30pm on **4 November 2020** during which time ComReg welcomes written comments on any of the issues raised.

824 In light of the current remote working arrangements, ComReg requests that any responses to this consultation be submitted to ComReg by email only, to arrive on or before 5.30pm, on 4 November 2020. All responses to this consultation should be clearly marked "Response to ComReg Document No 20/81" and submitted to **wholesaleconsult@comreg.ie**. Any interested parties who wish to submit a response to consultation other than via email are requested to contact ComReg[173] in advance of such submission.

825 All comments are welcome to the consultation, however, it would make the task of analysing responses easier if comments were referenced to the relevant question number from this Consultation document.

826 Having analysed and considered the comments received, ComReg will review the preliminary views set out in the consultation, amend if necessary in light of representations received and will then notify the draft measure to the European Commission, the NRAs and BEREC pursuant to Regulation 13 of the Framework Regulations. ComReg will take utmost account of any comments received from the European Commission as well as from other aforementioned parties. ComReg will then adopt and publish the final decision in its subsequent Response to Consultation and final Decision.

827 In order to promote further openness and transparency ComReg will publish all non-confidential responses to this Consultation, subject to the provisions of ComReg's guidelines on the treatment of confidential information in ComReg Document No. 05/24.

828 ComReg appreciates that many of the issues raised in this paper may require respondents to provide confidential information if their comments are to be meaningful. As it is ComReg's policy to make all responses available on its website and for inspection generally, respondents to this Consultation are requested to clearly identify confidential material within their submissions and place any such confidential material in a separate document to their response, with this also being provided by the date referred to at paragraph 823.

829 Confidential elements of responses must be clearly marked as such, using the following format: [✂ text deemed to be confidential ✂], and be set out in a separate document which must also be provided to ComReg by the closing date

[173] Caroline.jordan@comreg.ie

set out above at paragraph 823.

830 Such information will be treated subject to the provisions of the guidelines on treatment of confidential information as set out in ComReg Document No. 05/24. In submitting comments, respondents are also requested to provide a copy of their submissions in an unprotected electronic format in order to facilitate their subsequent publication by ComReg.

Annex: 1 Draft Decision Instrument: WLA Market

1 STATUTORY POWERS GIVING RISE TO THIS DECISION INSTRUMENT

1.1 This Decision Instrument ("Decision Instrument") is made by the Commission for Communications Regulation ("ComReg"):

(i) Pursuant to Regulation 18 of the Access Regulations;

(ii) Pursuant to, and having regard to, the significant market power (SMP) designation of Eircom as provided for in Section 5 of the WLA Decision Instrument;

(iii) Pursuant to the cost orientation price control obligation, imposed pursuant to Regulation 8 and Regulation 13 of the Access Regulations in Section 12.2 of the WLA Decision Instrument;

(iv) Pursuant to Regulation 13(4) of the Access Regulations;

(v) Pursuant to Regulation 10.12 of the WLA Decision Instrument;

(vi) Having had regard to Sections 10 and 12 of the Communications Regulation Act 2002 (as amended); Regulation 16 of the Framework Regulations; and Regulations 6, 8, and 13 of the Access Regulations;

(vii) Having, pursuant to Section 13 of the Communications Regulation Act 2002 (as amended), complied with Ministerial Policy Directions where applicable;

(viii) Having taken utmost account of the European Commission's 2010 Recommendation and 2013 Recommendation;

(ix) Having regard to the provisions contained in the European Electronic Communications Code;

(x) Having notified the draft measure and the reasoning on which the measure is based to the European Commission, BEREC and the national regulatory authorities in other EU Member States pursuant to Regulation 13 and Regulation 14 of the Framework Regulations and having taken account of any comments made by these parties;

(xi) Having had regard to the analysis and reasoning set out in ComReg Decision D10/18;

(xii) Having had regard to the analysis and reasoning set out in ComReg Document No. 20/81 and having taken account of the submissions received from interested parties in response thereto following a public consultation pursuant to Regulation 12 of the Framework Regulations; and

(xiii) Having had regard to the analysis and reasoning set out in ComReg Decision […/…]. *[this CEI Decision]*

1.2 This Decision Instrument shall, where appropriate, be construed consistently with the provisions of ComReg Decision D10/18, ComReg Document No. 18/94 and ComReg Decision […/…], ComReg Document No. […/…] (this Decision).

PART I - GENERAL PROVISIONS

2 DEFINITIONS

2.1 In this Decision Instrument, unless the context otherwise suggests:

"(the) 2010 Recommendation" the European Commission's Recommendation of 20 September 2010 on regulated access to Next Generation Access Networks (C(2010) 572 final);

"(the) 2013 Recommendation" means the European Commission Recommendation of 11 September 2013 on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment (C(2013) 5671 final);

"Access Regulations" means the European Communities (Electronic Communications Networks and Services) (Access) Regulations 2011 (S.I. No. 334 of 2011);

"ComReg Decision D10/18" means ComReg Document No. 18/94 entitled "Market Review – Wholesale Local Access (WLA) provided at a Fixed Location and Wholesale Central Access (WCA) provided at a Fixed Location for Mass Market Products: Response to Consultation and Decision" dated 19 November 2018;

"Effective Date" means the date specified in Section 11 of this Decision Instrument;

"Eircom" means Eircom Limited, a company incorporated in Jersey (Number 116389), registered as a Branch in Ireland (Number 907674), with an Irish registered Branch Office at 2022 Bianconi Avenue, Citywest Business Campus, Dublin 24, D24 HX03;

"European Electronic Communications Code" means Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code;

"Framework Regulations" means the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No. 333 of 2011);

"WLA Decision Instrument" means the Decision Instrument included at Annex 20 of ComReg Decision D10/18.

3 SCOPE AND APPLICATION

3.1 This Decision Instrument further specifies the price control obligations imposed on Eircom in respect of access to Civil Engineering Infrastructure in the WLA Decision Instrument and determines the timelines applicable to Sections 12.6 and 12.8 of the WLA Decision Instrument as substituted by this Decision Instrument.

3.2 This Decision Instrument shall apply to Eircom and its subsidiaries and any related companies, and any Undertaking which it owns or controls, and any Undertaking which owns or controls Eircom, and its successors and assigns, and the terms "subsidiary" and "related company" shall have the meanings ascribed to them in the Companies Act 2014.

3.3 The prices directed in Section 12.6 of the WLA Decision Instrument, as amended by Section 5.1 of this Decision Instrument, in respect of the period [Year 1] shall apply from the first day of the third month following the Effective Date of this Decision Instrument.

PART II – AMENDMENTS OF THE WLA DECISION INSTRUMENT AND FURTHER SPECIFICATION OF OBLIGATIONS IN THE WLA DECISION INSTRUMENT

4 AMENDMENT OF SECTION 2.1 OF THE WLA DECISION INSTRUMENT: DEFINITIONS

4.1 Section 2.1 of the WLA Decision is hereby amended by adding the following definitions:

"Authorised Undertaking" has the same meaning as defined in Regulation 2 of the Authorisation Regulations";

"Commercial Area" means the collective areas within the Urban Commercial Area and the Rural Commercial Area, representing all areas in the State outside of the Intervention Area;

"Duct Access Model" or "DAM" means the model, as may be amended from time to time (subject to approval by ComReg), used to calculate costs based on both Top Down HCA and BU-LRAIC+ costing methodologies (including all LRIC/LRAIC/LRAIC+ variants) as are more particularly described in Chapter […] of ComReg Decision […];] *[this CEI Decision]*

"Fully Allocated Costs" or "FAC" means an accounting method to distribute all costs, including common corporate costs, among Eircom's various products and services in line with the allocation methodologies set out in Eircom's HCA regulatory accounts;

"Generic Access" means Access requested by or provided to an Undertaking to Eircom's CEI, excluding Access within the context of NBI's MIP;

"**High Speed Broadband Map"** means the interactive map made available by the Department of Communications, Climate Action and Environment, which may be updated from time to time, that identifies locations and premises in the State as being either AMBER areas (Intervention Area), BLUE areas (Urban Commercial Area) or LIGHT BLUE areas (Rural Commercial Area);

"Intervention Area" means the total geographic area comprising the premises for which there is no existing or planned commercial deployment of high-speed broadband services, identified by the AMBER areas on the High Speed Broadband Map;

"Long Run Incremental Costs" or **"LRIC"** means the costs derived from the economic and/or engineering model of an efficient network that are directly attributable to the provision of a service which would be avoided in the long run if Eircom did not provide that service and as such exclude shared network costs and common corporate costs. For the avoidance of doubt, in the context of CEI Access, the Long Run Incremental Costs of CEI Access are the costs which Eircom would have avoided had it not provided Access to CEI to the Undertaking or Undertakings concerned;

"**Long Run Average Incremental Costs"** or **"LRAIC"** means the average efficiently incurred variable and fixed costs derived from the economic and/or engineering model of an efficient network that are directly attributable to a particular activity over the long-run including, for the avoidance of doubt, an apportionment of joint and common (shared) costs but excluding common corporate costs;

"National Broadband Plan" or "NBP" means the State subsidised project whereby NBI has been appointed under the NBI State Contract to roll out a high-speed broadband network in the Intervention Area;

"NBI" means the Authorised Undertaking NBI Infrastructure Designated Activity Company, a company registered in Ireland with number 629167 whose registered office at [*date of Decision Instrument*] is at Ten Earlsfort Terrace, Dublin 2, D02T380, Ireland;

"NBI MIP" or **"NBI's MIP"** means the major infrastructure project to deliver the National Broadband Plan, as more particularly described in the NBI State contract;

"NBI's MIP access" means NBI's Access to Eircom's CEI for the purposes of the NBI MIP**;**

"NBI State Contract" means the contract concluded between the Minister for Communications, Climate Action and the Environment and NBI signed on 19 November 2019;

"Non re-useable Civil Engineering Infrastructure" or "Non re-useable CEI" means Civil Engineering Infrastructure that is used for the copper network but cannot be reused to accommodate an NGA network without further investment;

"Pole Access Model" or "PAM" means the model, as may be amended from time to time (subject to approval by ComReg), used to calculate costs of poles based on both Top Down HCA and BU-LRAIC+ costing methodologies, including all LRIC/LRAIC/LRAIC+ variants as more particularly described in Chapter […] of ComReg Decision […/…]; *[this CEI Decision]*

"Process costs" means the costs associated with the processing of CEI access requests, including a contribution to wholesaling costs such as product development / product management, billing or account management);

"Re-useable Civil Engineering Infrastructure" or "Re-useable CEI" means Civil Engineering Infrastructure that is used for the copper network which can be reused to accommodate an NGA network without further investment;

"**Rural Commercial Area**" means the areas where Eircom committed to deliver (or has delivered) commercial rural deployment of a high speed broadband network, identified by the LIGHT BLUE areas on the High Speed Broadband Map**;**

"Urban Commercial Area" means the areas where commercial operators are delivering or have indicated plans to deliver high speed broadband services, identified by the BLUE areas on the High Speed Broadband Map;

"2020 WACC Decision" means ComReg Decision […/…];

"WACC" means Weighted Average Cost of Capital.

4.2 The definitions in Section 2.1 of the WLA Decision Instrument corresponding to the definitions in this Section 4.2 are hereby substituted and replaced as follows:

"Bottom Up Long Run Average Incremental Cost Plus" or **"BU-LRAIC+"** means the average efficiently variable and fixed costs derived from the economic and/or engineering model of an efficient network that are directly attributable to a particular activity over the long-run, including an apportionment

of joint and common (shared) costs (including by contrast with LRAIC, an apportionment of common corporate costs); and

"Top-Down HCA" means the costs calculated using Eircom's HCA and network information, adjusted for efficiencies.

5 AMENDMENTS OF SECTIONS 12.6 AND 12.8 OF THE WLA DECISION INSTRUMENT: SPECIFICATION OF THE PRICE CONTROL OBLIGATION

5.1 The specification of the obligation of cost orientation imposed by Section 12.2 of the WLA Decision Instrument is hereby amended by the substitution of Section 12.6 with the following section and sub-sections:

"12.6 - The cost orientation obligation set out in Section 12.2 is hereby specified as follows in respect of CEI:

Poles

Generic Access

12.6.1 Save for the circumstances set out in Section 12.6.5 below, Eircom shall ensure that the annual rental price for Access to a Pole charged by Eircom to any Undertaking is no more than the cost of a Pole calculated in accordance with Section 12.6.2 divided by the number of Generic Access users (including Eircom) availing of that Pole.

12.6.2 For the purpose of Section 12.6.1, the cost of Pole Access shall be the total costs incurred by an efficient operator providing Civil Engineering Infrastructure outside the Intervention Area as set out in the Pole Access Model, calculated on the basis of a combination of Top-Down HCA (calculated on a Fully Allocated Cost basis) and BU-LRAIC+ cost methodologies, reflecting the proportion of Reusable and Non-Reusable Poles respectively, divided by the total number of poles outside the Intervention Area resulting, for the period [5 years from Effective Date], subject however to Section 12.6.3, in the following costs per Pole:

TABLE A1 – Annual Cost per Pole (€)		
Year 1	1 July 2020 – 30 June 2021	18.63
Year 2	1 July 2021 – 30 June 2022	19.47
Year 3	1 July 2022 – 30 June 2023	20.34
Year 4	1 July 2023 – 30 June 2024	21.04
Year 5	1 July 2024 – 30 June 2025	21.27

12.6.3 ComReg may, from time to time, update or require update to the Pole Access Model and amend the table at Section 12.6.2 accordingly.

12.6.4 For the avoidance of doubt no charges other than those provided for under Section 12.6.1 may be raised by Eircom on an Undertaking in respect of Pole Access unless and until Eircom demonstrates in advance to ComReg's satisfaction that any such additional charges are required for the purpose of ensuring the cost orientation of the price for Pole Access and Eircom has complied with the requirements of Section 10.12.

NBI's MIP

12.6.5 Where Pole Access is for the purpose of NBI's MIP, Eircom shall ensure that the annual rental price for Access to a Pole is no more than the annual cost of a Pole incurred by an efficient operator providing Civil Engineering Infrastructure as set out in the Pole Access Model, allowing Eircom the rate of return set in accordance with Sections 12.6.15 and 12.6.16 below, which cost shall be determined and allocated as follows:

(a) In respect of Pole Access in the Intervention Area, the cost of Pole Access shall include the LRIC associated with the provision of Pole Access to NBI in the Intervention Area and allocated in full to NBI, to which shall be added the shared (common) cost of Pole Access in the Intervention Area calculated on the basis of a combination of Top-Down HCA (excluding common corporate costs) and BU-LRAIC cost methodologies reflecting the proportion of Reusable and Non-Reusable Poles respectively, which costs shall be allocated between Eircom and NBI in proportion to the number of premises actively connected to NBI's network relative to the number of premises actively connected to Eircom's network in the Intervention Area each year; and

(b) In respect of Pole Access outside the Intervention Area, the cost of Pole Access shall be calculated on the basis of the LRIC directly attributable to the provision of Pole Access to NBI outside the Intervention Area and allocated in full to NBI.

12.6.6 Subject to Section 12.8.1(c), the prices referred to in Section 12.6.5 for [Year 1] and for [Year 2] shall be the prices set in Table B1 below which shall apply from [Date] and 1 July [Year] respectively. The prices referred to in Section 12.6.5 for any subsequent year shall be calculated as part of the annual review process set out in Section 12.8 and having been notified to ComReg under Section 12.8.1(d), and published in accordance with the requirements of Section 10.12, shall apply from 1 July of the relevant year.

TABLE B1 – Annual Price per Pole (€)			
		Intervention Area	**Outside the Intervention Area**
Year 1	1 July 2020 – 30 June 2021	3.18	0.07
Year 2	1 July 2021 – 30 June 2022	4.46	0.07

12.6.7 For the avoidance of doubt, save where Section 12.6.17 applies, no charges other than those provided for under Section 12.6.5 may be raised by Eircom in respect of Pole Access for NBI's MIP unless and until Eircom demonstrates in advance to ComReg's satisfaction that any such additional charges are required for the purpose of ensuring the cost orientation of the price for Pole Access and Eircom has complied with the requirements of Section 10.12.

Ducts

Generic Access

12.6.8 Save for the circumstances set out in Section 12.6.12 below, Eircom shall ensure that the annual rental charge for Access to Duct charged by Eircom to any Undertaking per metre of sub-duct shall be no more than the annual cost of a metre of sub-duct calculated in accordance with Section 12.6.9 below.

12.6.9 For the purpose of Section 12.6.8, the cost per metre of sub-duct shall be the costs incurred by an efficient operator providing Civil Engineering Infrastructure outside the Intervention Area set out in the Duct Access Model on the basis of combination of Top-Down HCA (calculated on a Fully Allocated Cost basis) and BU-LRAIC+, reflecting the proportion of Reusable and Non-reusable Ducts respectively, by adding to the incremental cost per metre of subduct, the total annual costs of the Duct network per metre (being the total annual Duct network costs per metre, divided by the average number of cables (copper and fibre) per Duct), allocated according to the type of surface (verge, footway or carriageway) resulting, for the period [5 years from Effective Date], subject however to Section 12.6.10, in the following costs:

TABLE A2 – Annual Cost per metre of sub-duct in €				
		Verge	**Footway**	**Carriageway**
Year 1	1 July 2020 – 30 June 2021	0.43	0.70	0.74
Year 2	1 July 2021 – 30 June 2022	0.43	0.66	0.71
Year 3	1 July 2022 – 30 June 2023	0.42	0.63	0.69
Year 4	1 July 2023 – 30 June 2024	0.42	0.62	0.68

Year 5	1 July 2024 – 30 June 2025	0.48	0.68	0.80

12.6.10 ComReg may, from time to time, update or require update to the Duct Access Model and amend the table at Section 12.6.9 accordingly.

12.6.11 For the avoidance of doubt, no charges other than those provided for under Section 12.6.8 may be raised by Eircom on an Undertaking in respect of Duct Access unless and until Eircom demonstrates in advance to ComReg's satisfaction that any such additional charges are required for the purpose of ensuring the cost orientation of the price for Duct Access and Eircom has complied with the requirements of Section 10.12.

NBI's MIP

12.6.12 Where Duct Access is for the purpose of NBI's MIP, Eircom shall ensure that the annual rental price charged for Duct Access per metre of sub-duct is no more than the annual cost of a metre of sub-duct incurred by an efficient operator providing Civil Engineering Infrastructure as set out in the Duct Access Model, allowing Eircom the rate of return set in accordance with Sections 12.6.15 and 12.6.16 below, which cost shall be determined and allocated as follows:

(a) In respect of Duct Access in the Intervention Area, the cost of Duct Access shall include the LRIC associated with the provision of Duct Access to NBI in the Intervention Area and allocated in full to NBI, to which shall be added the shared (common) cost of Duct Access in the Intervention Area calculated on the basis of a combination of Top-Down HCA (excluding common corporate costs) and BU-LRAIC cost methodologies reflecting the proportion of Reusable and Non-Reusable Ducts respectively, which costs shall be allocated between Eircom and NBI in proportion to the number of premises connected to NBI relative to the number of premises connected to Eircom in the Intervention Area each year; and

(b) In respect of Duct Access outside the Intervention Area, the cost of Duct Access shall be calculated on the basis the Duct Access Model by reference to the LRIC associated with the provision of Duct Access to NBI outside the Intervention Area and allocated in full to NBI.

12.6.13 Subject to Section 12.8.1(c), the prices referred to in Section 12.6.12 for [Year 1] and for [Year 2] shall be the prices set in Table B2 below which shall apply from [Date] and 1 July [Year] respectively. The prices referred to in Section 12.6.12 for any subsequent year shall be calculated as part of the annual review process set out in Section 12.8 and having been notified to ComReg under Section 12.8.1(d), and

published in accordance with the requirements of Section 10.12, shall apply from 1 July of the relevant year.

TABLE B2 – Annual Price per metre of subduct (€)			
		Intervention Area	**Outside the Intervention Area**
Year 1	1 July 2020 – 30 June 2021	0.49	0.16
Year 2	1 July 2021 – 30 June 2022	0.49	0.16

12.6.14 For the avoidance of doubt, and save where Section 12.6.17 applies, no charges other than those provided for under Section 12.6.12 may be raised by Eircom in respect of NBI's MIP in respect of Duct Access unless and until Eircom demonstrates in advance to ComReg's satisfaction that any such additional charges are required for the purpose of ensuring the cost orientation of the price for Duct Access and Eircom has complied with the requirements of Section 10.12.

NBI's MIP – WACC

12.6.15 Strictly for the purpose only of Sections 12.6.5 and 12.6.12 above, and by way of derogation from Section 4.1 and Section 4.2 of the Decision Instrument at Annex [1] of the 2020 WACC Decision, the reasonable rate of return allowable for Eircom shall be set by reference to the Weighted Average Cost of Capital as defined in the 2020 WACC Decision using the criteria set out in [Table 12] of ComReg Decision […/…] *[this CEI Decision]*.

12.6.16 The WACC referred to in Section 12.6.15 shall be set at 4.03% on the Effective Date, and subject to annual review, to be conducted at the same time and in the same manner as the annual review set out in Section [X] of the Decision Instrument of the 2020 WACC Decision.

NBI's MIP – Recovery of process costs and Alternative billing arrangements

12.6.17 Where the costs calculated in accordance with Section 12.6.5 and Section 12.6.12 do not include process costs, Eircom shall recover any such efficiently incurred costs by way of charges which shall be notified and published in accordance with the requirements of Section 10.12.

12.6.18 Subject to NBI's prior agreement in writing, and Eircom having notified ComReg of that agreement prior to its entering into force, Eircom

may recover the charges calculated in accordance with Sections 12.6.5 and 12.6.12 other than by way of recurring charges, in part or in full, and in particular may recover part of the charges by way of an upfront fee or other interim payments.

5.2 Section 12.8 of the WLA Decision Instrument shall be substituted as follows:

"12.8 Pursuant to Regulation 13(4) and Regulation 18 of the Access Regulations, for the purpose of Eircom's obligation of cost-orientation set out in Section 12.2, ComReg hereby specifies and directs as follows:

12.8.1 Eircom is hereby directed to provide ComReg with full justification of the continued cost-orientation of the prices referred to in Section 12.6.5 and Section 12.6.12 by submitting to ComReg annually, commencing after Eircom's first full financial period after the Effective Date, the following:

(a) a statement of Eircom's actual investment in Poles for the preceding financial year, using the template contained in Annex 5 of ComReg Decision […/…]; *[this CEI Decision].*

(b) a statement of Eircom's actual investment in Ducts for the preceding financial year, using the template contained in Annex 6 of ComReg Decision […/…]; *[this CEI Decision].*

(c) the Pole Access Model and the Duct Access Model updated as and where required to adjust for differences identified between actual and modelled investments and any other updates as and where justified, including on the basis of information provided by ComReg in particular as regards the number of premises actively connected to NBI's network, actual and forecasted, and accounting for any cumulative over or under recovery of cost arising in previous years;

(d) having regard to any adjustments made under (c), as the case may be, an updated Price List(s) stating the prices of CEI for the following five years calculated in accordance with Section 12.6.5 and Section 12.6.12; and

(e) a statement confirming that Eircom's published annual rental prices for CEI remain cost-oriented or in the alternative that the annual rental prices for CEI set out in the Price List(s) referred to in (d) above are cost-oriented, allowing Eircom in either case no more than a rate of return in the amount of the applicable WACC (the "CEI Price Compliance Statement").

12.8.2 The statements referred to in Section [12.8.1 (a) and (b)] shall be provided to ComReg in accordance with the procedure which governs the provision of Additional Financial Information contained in the Decision Instrument annexed to ComReg Decision D08/10 no later than seven months after the end of Eircom's financial year and published by Eircom on its website on the same day.

12.8.3 The updated Pole Access Model and Duct Access Model, and the CEI Price Compliance Statement, shall be provided to ComReg at the same time as the statements required by Section 12.8.1 (a) and (b), in accordance with the procedure which governs the provision of Additional Financial Information contained in the Decision Instrument annexed to ComReg Decision D08/10, and shall be provided no later than seven months after the end of Eircom's financial year in any given year.

12.8.4 Upon receipt of the information referred to in Section 12.8.1, including the CEI Price Compliance Statement, and any additional information that ComReg may require, ComReg may direct Eircom pursuant to Regulation 13(4) of the Access Regulations to adjust the prices for CEI."

6 DETERMINATION OF APPLICABLE TIMELINES FOR THE PURPOSE OF SECTION 10.12 OF THE WLA DECISION INSTRUMENT

6.1 In respect of Section 10.12 of the WLA Decision Instrument, ComReg hereby determines that in the case of a new product, service or facility the price of which is to be determined in accordance with Section 12.6 of the WLA Decision Instrument, as substituted by this Decision Instrument, the price shall be made publicly available and published on Eircom's publicly available wholesale website at least two (2) months in advance of the new product, service or facility becoming available.

PART III – OPERATION AND EFFECTIVE DATE

7 STATUTORY POWERS NOT AFFECTED

7.1 Nothing in this Decision Instrument shall operate to limit ComReg in the exercise and performance of its statutory powers or duties conferred on it under any primary or secondary legislation in force prior to or after the Effective Date of this Decision Instrument.

8 MAINTENANCE OF OBLIGATIONS

8.1 Unless expressly stated otherwise in this Decision Instrument, all obligations and requirements contained in Decision Notices and Directions made by ComReg applying to Eircom and in force immediately prior to the Effective Date of this Decision Instrument, including all obligations specified in the WLA Decision Instrument, continue in force and Eircom shall comply with same.

9 CONFLICT

9.1 For the avoidance of doubt, to the extent that there is any conflict between a ComReg Decision Instrument or ComReg document dated prior to the Effective Date and Eircom's obligations now set out herein, this Decision Instrument shall prevail.

10 SEVERANCE

10.1 If any Section(s), clause(s) or provision(s), or portion(s) thereof, contained in this Decision Instrument, is(are) found to be invalid or prohibited by the Constitution, by any other law or judged by a court to be unlawful, void or unenforceable, that(those) Section(s), clause(s) or provision(s), or portion(s) thereof, shall, to the extent required, be severed from this Decision Instrument and rendered ineffective as far as possible without modifying the remaining Section(s), clause(s) or provision(s), or portion(s) thereof, of this Decision Instrument, and shall not in any way affect the validity or enforcement of this Decision Instrument or other Decision Instruments.

11 PUBLICATION, NOTIFICATION AND EFFECTIVE DATE

11.1 This Decision Instrument shall be published on ComReg's website (www.comreg.ie) and on the same day, notified to Eircom.

11.2 The Effective Date of this Decision Instrument shall be the date of its notification to Eircom.

11.3 This Decision Instrument shall remain in force until further notice by ComReg.

GARRETT BLANEY
COMMISSIONER
THE COMMISSION FOR COMMUNICATIONS REGULATION
THE […]TH DAY OF […] 2020

Q. 23 Do you believe that the draft text of the proposed Decision Instrument for the Wholesale Local Access market at a fixed location (WLA Market or Market 3a) is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required

Annex: 2 Draft Dot Econ Report

A 1.1Please see ComReg Document 20/81A.

Annex: 3 Draft Europe Economics Report

A 1.2Please see ComReg Document 20/81B.

Annex: 4 Consultation Questions

Q. 1 Do you have any comments or views on the matters considered in this Section 3, including in particular the regulatory objectives pursued by ComReg? Please provide reasons for your response..... 38

Q. 2 Do you agree with ComReg's preliminary views on the general costing methodology principles? Please provide reasons for your response. 55

Q. 3 Do you agree with ComReg's preliminary views on the costing methodology that should apply in the case of Generic Access to CEI and for NBI's MIP access to CEI in the NBP IA and for NBI's transit access in the Commercial Areas? ComReg will consider the alternatives further depending on responses to this Consultation. Please provide reasons for your response..... 70

Q. 4 Do you agree with ComReg's preliminary views on the costing principles that should apply in relation to Reusable CEI Assets and Non-reusable CEI Assets? Please provide reasons for your response..... 75

Q. 5 Do you agree with ComReg's preliminary views on the proposed depreciation approaches used to determine the annuity associated with (i) the CEI costs relevant to Generic Access to CEI (ii) the CEI costs for NBI's MIP access in the NBP IA and (iii) the CEI costs for NBI's transit access in the Commercial Areas? Please provide reasons for your response. 81

Q. 6 Do you agree with ComReg's preliminary view that the existing regulatory asset lives for Eircom's poles and ducts should be maintained at 30 years and 40 years respectively? Please provide reasons for your response. 83

Q. 7 Do you agree with ComReg's preliminary view that CEI process related costs should be recovered as part of the recurring rental prices for Generic Access to CEI while the process related costs could be recovered as a one-off charge in the case of NBI's MIP access to CEI, which should be pre-notified to ComReg? Please provide reasons for your response..... 100

Q. 8 Do you agree with ComReg's proposed cost modelling approach in the Draft PAM and in the Draft DAM in order to determine the per unit costs associated with pole and duct access, as described in subsection 5.8? Please provide reasons for your response. 103

Q. 9 Do you agree with ComReg's preliminary views on the proposed cost sharing methodologies that should be applied as a means to determining the pole access rental price for Generic Access to poles and for NBI's MIP access to poles in the NBP IA and in the Commercial Areas? Please provide reasons for your response. 121

Q. 10Do you agree with ComReg's preliminary views on the proposed cost sharing methodologies that should be applied as a means to determining the duct access rental price for Generic Access to duct as well as NBI's MIP access to duct in the

in the NBP IA and for transit access in the Commercial Areas? Please provide reasons for your response. 130

Q. 11Do you agree with ComReg's preliminary view on the use of number of customer lines and in particular the use of the number of each operator's active connections on their networks (Eircom and NBI) to those designated premises (of circa 537,000 delivery points) in the NBP IA, is an appropriate basis to implement the per customer approach for NBI's MIP in the NBP IA? Do you agree with the various options considered at paragraphs 563-564 for allocating any shared network costs and common corporate costs associated with NBI's transit access in Commercial Areas in the event that a per customer approach were chosen in this area? Please provide reasons for your response. ComReg would welcome the views of NBI and Eircom on the information that is currently available to them as well the information they could possibly provide so as to satisfy the proposal of using the number of each operator's active connections to those designated premises (of circa 537,000 delivery points) in the NBP IA and information required for NBI's transit access in the Commercial Areas. 133

Q. 12Do you agree with ComReg's preliminary view on the process to monitor and to assess actual outturns of active customer numbers (compared to the forecasts) on their respective networks in the NBP IA at the end of each quarter and to update for the actual active connections in the [Draft] PAM and [Draft] DAM as part of the annual review process in subsection 10.2.2 so as to address any over- or under-charging by Eircom? Please provide reasons for your response. 135

Q. 13Do you agree with ComReg's preliminary view that the duct access rental price for Generic Access to ducts should be differentiated by surface type? Please provide reasons for your response..... 136

Q. 14Do you agree with ComReg's preliminary view on a differentiated WACC rate of 4.03% for Eircom's CEI in the context of access by NBI's MIP NBP IA and for NBI's transit access in the Commercial Areas? Do you agree that the WACC for CEI should be subject to annual updates? Please provide reasons for your responses. 152

Q. 15Do you agree with ComReg's preliminary view that Eircom should recover any additional costs associated with replacing a pole with pole furniture located on it by means of a one-off charge levied at the time the pole is replaced? Do you agree that the cost of pole furniture removal and replacement should be capitalised against the asset that the furniture is associated with, in its cost accounting systems? Please provide reasons for your response..... 157

Q. 16Do you agree with ComReg's preliminary view that tree trimming costs to prepare aerial cable routes in advance of cable deployment should generally be recovered by means of a one-off charge? In the case of tree trimming associated with pole replacement, do you agree with ComReg's proposal that such costs should be recovered as part of the pole rental charge? Please provide reasons for your response. 159

Q. 17Do you have any views on the option of Eircom recovering the incremental CEI (duct and pole) investment associated with NBI's MIP as an upfront fee levied on NBI's MIP rather than as a recurring annual rental charge, as outlined at paragraph 699. Please provide reasons for your response..... 165

Q. 18Do you agree with ComReg's preliminary view that Eircom should develop its cost accounting systems and its HCAs so that CEI costs can be reported in a transparent and meaningful way, the details of which should be determined as part of the annual review process discussed at paragraph 705? Do you agree that Eircom should separately identify the costs associated with pole furniture from other pole related costs in its cost accounting systems? Please provide reasons for your response. 168

Q. 19Do you agree with ComReg's preliminary view that Eircom should provide ComReg with an annual statement of the actual and forecasted investment in ducts and poles for both the NBP IA and the Commercial Areas, in line with the templates contained in Annex 5 and Annex 6 of this Consultation? Do you agree with ComReg's proposal that Eircom should publish it on its website? Please provide reasons for your response. 171

Q. 20Do you agree with ComReg's preliminary view that prices for Generic Access to CEI should be directed for five years consistent with the proposed approach at paragraph 724? Please provide reasons for your response..... 171

Q. 21Do you agree with ComReg's preliminary view on the proposed price control application set out in Section 10.2.1 and the annual review process discussed at Section 10.2.2 (paragraphs 726-737), regarding CEI access by NBI's MIP? Please provide reasons for your response..... 176

Q. 22Do you have any comments on the Regulatory Impact Assessment and in your opinion are there other factors which ComReg should consider in completing its Regulatory Impact Assessment? Please provide reasons for your response, clearly indicating the relevant paragraph numbers to which your comments refer, along with relevant factual evidence supporting your views..... 191

Q. 23Do you believe that the draft text of the proposed Decision Instrument for the Wholesale Local Access market at a fixed location (WLA Market or Market 3a) is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required 206

Annex: 5 Poles annual statement

Template 1: Pole investments

	Pole investments	
GEOGRAPHIC FOOTPRINTS	**Commercial Areas**	**NBP Intervention Area**
	Number of poles	
Replacement of poles for Pole access		
Poles replaced for other network operational reasons		
Pole additions		
	Actual pole investment - €	
Replacement of poles for Pole access		
Poles replaced for other network operational reasons		
Pole additions		

Eircom shall provide ComReg with analysis of the quantity and cost relating to investment in poles during the past year indicating if the investments were required to support Pole Access or for other operational reasons such as pole replacement as part of ongoing maintenance programmes, pole additions or to allow Eircom deploy new cables.

Template 2: Forecasts for pole investments

	Year 1	Year 2	Year 3
Number of poles			
Pole investments			

Eircom shall provide ComReg with the latest available forecast of pole investments for the next three years.

Annex: 6 Ducts annual statement

Template 1: Duct investments

	Duct investments	
GEOGRAPHIC FOOTPRINTS	**Commercial Areas**	**NBP Intervention Area**
	Duct (Trench) lengths	
Remediation of ducts for Sub duct access		
Ducts remediated for other network operational reasons		
Duct (Trench) additions		
	Actual duct investment - €	
Remediation of ducts for Sub duct access		
Ducts remediated for other network operational reasons		
Duct (Trench) additions		

Eircom shall provide ComReg with analysis of the quantity and cost relating to investment in underground CEI during the past year indicating if the investments were required to support Duct Access or for other operational reasons such as clearing and repairing ducts to allow Eircom deploy new cables.

Template 2: Forecasts for duct investments

	Year 1	Year 2	Year 3
Length of Ducts (Trench)			
Duct investments			

Eircom shall provide ComReg with the latest available forecast of duct investments for the next three years.