



Market Review of the Electronic Communications Sector

Final Report, Final Decision and Order

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1. INTRODUCTION

1. The Regulatory Authority of Bermuda (**RA**) according to section 23 of the Electronic Communications Act 2011 (**ECA**), issues the last round of public consultation of the 2025 Electronic Communications Market Review (**ECMR**). The purpose of this Final Report, Decision and Order (**Final Report**) is to present the RA's assessment of the responses to the Electronic Communications Market Review Preliminary Report, Decision and Order (**Preliminary Report**) and to provide the public with the RA's Final Decisions and Order.
2. As mentioned in the Consultation Document and Preliminary Report, the RA acts independently when conducting the ECMR including obtaining the assistance of its consultant partner Plum Consulting (**Plum**).
3. This Final Report is structured as follows:
 - a. section 2 sets out the consultation procedure;
 - b. section 3 sets out the legislative context and framework;
 - c. section 4 sets out the background;
 - d. section 5 summarises the responses to the Preliminary Report and provides the RA's final responses and conclusions;
 - e. Section 6 sets out the RA's final conclusions regarding the market definition, significant market power assessment and the *ex ante* remedies;
 - f. Section 7 sets out the international price benchmarking, the final benchmarking results and price control remedies;
 - g. Section 8 sets out the RA's final decision and order;
 - h. Annex A sets out the RA's information request to other regulators and responses received;
 - i. Annex B sets out a the price and specification adjustment process for retail anchor products, retail price adjustments and wholesale price adjustments;
 - j. Annex C sets out the calculation of the weighted average retail price and of Y for the initial retail price reduction in the fixed broadband market;
 - k. Annex D sets out the information provision and key performance indicators;
 - l. Appendix A sets out the General Determination; and
 - m. Appendix B sets out the schedule for the General Determination.

2. CONSULTATION PROCEDURE

4. The RA initiated the consultation by publishing a Consultation Document on 22 January 2025 inviting responses from members of the public, electronic communications sectoral providers, as well as other interested parties.
5. Responses to the Consultation Document were solicited from the public electronically through the RA's website at www.ra.bm.
6. The response period commenced on 22 January 2025 and concluded on 27 February 2025.
7. The RA received 5 written responses to the Consultation Document from:
 - (a) Bermuda Telephone Company Limited and Telecommunications (Bermuda & West Indies) Limited (together **Digicel**);
 - (b) LinkBermuda Limited (**Link**);
 - (c) One Communications Ltd and its affiliates Bermuda Digital Communications Ltd. (**BDC**) and Logic Communications Ltd. (**Logic**) (together **OneComm**);
 - (d) Paradise Mobile Limited (**Paradise**); and
 - (e) Mr Raymond Seymour.
8. On 2 May 2025, the RA issued the Preliminary Report, Decision and Draft General Determination inviting responses from members of the public, electronic communications sectoral providers, as well as other interested parties.
9. Responses to the Preliminary Report were solicited from the public electronically through the RA's website at www.ra.bm.
10. The Response period commenced on the 2 May 2025 and concluded on 9 June 2025.
11. The RA received written responses to the Preliminary Report from the 4 stakeholders listed below:
 - (a) Bermuda Telephone Company Limited and Telecommunications (Bermuda & West Indies) Limited (together **Digicel**);
 - (b) LinkBermuda Limited (**Link**);
 - (c) One Communications Ltd and its affiliates Bermuda Digital Communications Ltd. (**BDC**) and Logic Communications Ltd. (**Logic**) (together **OneComm**); and
 - (d) Mr Raymond Seymour.
12. Section 72(4) of the RAA outlines the required contents of the Final Report which are set out below. The Final Report should:

- (a) summarise the responses received regarding the preliminary report, recommendation or decision and order;
- (b) provide a reasoned explanation of the basis on which the RA revised any significant factual finding, policy determination or legal conclusion contained in the preliminary report, recommendation or decision and order;
- (c) in the case of a final report, state the RA's final conclusions;
- (d) in the case of a final recommendation, state the policy or regulations that the RA recommends the Minister adopt; and
- (e) in the case of a final decision and order, specify –
 - (i) any administrative determinations that the RA has adopted; and
 - (ii) subject to section 67 of the RAA, the date on which such administrative determinations will become effective.

13. On this basis, this document constitutes the RA's Final Report under Part 4 of the ECA, sections 59(1) (2) and 72(4) of the RAA.

3. LEGISLATIVE CONTEXT

14. The ECA is the applicable sectoral legislation governing the electronic communications sector. It received royal assent on 18 December 2011 and commenced on 28 January 2013.
15. Section 9 (2) (c) (xv) of the ECA states as follows:

“(2) The functions of the Authority shall include –

(c) the making of administrative determinations to provide for the control and conduct of public electronic communications, including –

(xv) the establishment of any other terms, conditions or requirements that are authorized or stipulated by this Act;”
16. Part 4 of the ECA contains the process for the RA to impose *ex ante* obligations on sectoral providers found to have Significant Market Power (**SMP**).
17. Section 2 of the ECA states that significant market power means a position of economic strength in the relevant market or markets that affords an undertaking, either individually or jointly with others, the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers, which may provide the basis for imposition of *ex ante* remedies.
18. Under section 20 (1) of the ECA, the RA may make administrative determinations that impose *ex ante* remedies on a communications provider in respect of its provision of electronic communications or the provision of subscription audiovisual programming content in a relevant market or markets if, individually or together with others, the communications provider has SMP in that market.
19. According to section 20(2) of the ECA, in order to determine whether a communications provider has SMP, the RA must conduct a review of a relevant market or markets according to section 23 of the ECA and section 59(2) of the RAA.
20. The principles and objectives of the market review are to determine whether to impose, modify or withdraw SMP obligations regarding a particular provider or providers based on a review of the relevant market, and in deciding which types of obligations to apply the RA must seek to:
 - (a) develop or maintain effective and sustainable competition for the benefit of consumers with regard to price, innovation and choice;
 - (b) promote investment in the electronic communications sector;
 - (c) establish *ex ante* remedies that are effective but proportionate, taking into account the costs of compliance and the ultimate benefits to consumers;
 - (d) establish *ex ante* remedies that apply on a technology-neutral and service-neutral basis whenever feasible; and
 - (e) rely on market forces and withdraw, reduce or limit *ex ante* remedies in circumstances where the RA concludes that markets are effectively competitive or

likely to become so within a reasonable period of time, taking into account actual and expected market circumstances.

21. Section 22 of the ECA requires the RA to issue a notice identifying any relevant product and geographic market which in its view appears to be susceptible to the imposition of *ex ante* remedies, based on a forward-looking assessment.
22. As required in section 22(1) of the ECA, the RA includes in this consultation its preliminary assessment of the relevant product and geographic markets.
23. Under section 22(2) of the ECA, the identified markets may include retail and wholesale markets and must be identified on the basis of the RA's preliminary assessment that the markets meet all of the following criteria and any other criteria that the RA deems pertinent:
 - (a) the relevant market is characterised by high and non-transitory barriers to entry;
 - (b) taking into account actual and expected market circumstances during the period under review, the relevant market either—
 - (i) is not likely to be affected by technological changes or other developments that would render it effectively competitive, or
 - (ii) is likely to cease to be effectively competitive; and
 - (c) the application of *ex post* competition rules alone would not be sufficient to promote or preserve effective competition in the relevant market.
24. According to section 23(1) of the ECA, the RA can publish advisory guidelines that identify or clarify the criteria for:
 - (a) defining relevant product markets based upon demand and supply-side characteristics;
 - (b) defining relevant geographic markets;
 - (c) assessing market power in such markets based on a forward-looking assessment;
 - (d) establishing effective *ex ante* remedies and obligations; and
 - (e) any other aspect of the market review process.
25. Section 23(2) of the ECA states that the RA shall, in conducting a market assessment pursuant to sections 23(1)(a), (b), or (c) of the ECA, consider all the factors that it deems relevant under the circumstances which may include the following:
 - (a) the overall size of the communications provider and its share of the relevant market;
 - (b) the volatility of shares in the relevant market;
 - (c) the communications provider's control over infrastructure not easily duplicated;

- (d) the communications provider's technological advantages or superiority;
 - (e) the degree of countervailing buyer power;
 - (f) the communications provider's ability to access capital and financial markets relative to that of its competitors;
 - (g) the existence of economies of scale or scope;
 - (h) the diversification of products or services (including bundles);
 - (i) the relative advantages of vertical integration enjoyed by the sectoral provider;
 - (j) the presence of *de jure* or *de facto* barriers to market entry or expansion; and
 - (k) evidence of previous anti-competitive behaviour.
26. Section 23(3) of the ECA states that in assessing if two or more communications providers operating in the same relevant market jointly have SMP, the RA must consider, amongst other relevant factors, if:
- (a) the relevant market is concentrated;
 - (b) each provider has a relatively high and stable share of the relevant market;
 - (c) significant barriers to entry exist; and
 - (d) there are reasonable grounds for concluding that the that these factors, in combination with any relevant factors set out in section 23(2), are evidence of a market structure that is likely to give rise to tacit coordination and thereby prevent, restrict or distort competition in the provision of products or services in the relevant market.
27. According to section 23(4) of the ECA, the RA must conduct a public consultation to review the markets identified in section 22 or pursuant to section 23(6) of the ECA to:
- (a) evaluate if these relevant markets are, or continue to be, correctly defined based on an economic assessment of supply and demand;
 - (b) analyse if a communications provider, individually or with others, in fact possesses or continues to hold significant market power in one or more of these relevant markets based on the applicable facts and circumstances; and
 - (c) decide which obligations, if any, should be imposed in respect of each relevant market characterized by significant market power to promote or preserve effective competition, according to section 24 of the ECA.
28. Pursuant to section 23(5) of the ECA, the RA must issue one or more general determinations designating the communications provider, if any, which, individually or with others, has significant market power in each relevant market reviewed pursuant to section 23(4) and specifying any *ex ante* obligations that must apply in accordance with section 24 of the ECA.

29. Under section 23(6)(a) of the ECA the RA must conclude a further review of each relevant market within a period of not more than four years from the date of completion of the previous review of the same relevant market in any case in which it has made a finding of significant market power.
30. The RA made a finding of SMP on 1st September 2020. According to section 23(6)(a) of the ECA the RA should have concluded a further review on or before 1st September 2024. However, the Minister of Home Affairs granted the RA an extension to conclude the Market Review of the Electronic Communications Sector by 1st September 2025 (sections 5(6), 5(7) and 10 of the RAA).
31. According to section 23(7) of the ECA, a general determination made by the RA finding that a communications provider possesses SMP in a relevant market must be considered interim, and must not constitute final RA action for purposes of the RAA, until the RA makes a determination specifying the *ex ante* obligations, if any, that shall apply in respect of such relevant market according to section 24 of the ECA.
32. Under section 24 of the ECA, the RA may impose *ex ante* remedies if necessary to prevent or deter anti-competitive effects that are or may be caused by the presence of significant market power in a relevant market.
33. Under section 59(1) of the RAA, the RA may impose *ex ante* remedies on a sectoral provider with SMP, when authorized to do so by sectoral legislation.
34. Under section 59(2) of the RAA, in any case in which sectoral legislation directs the RA to conduct a market review prior to imposing or maintaining *ex ante* remedies on a sectoral participant, the RA, in accordance with sectoral legislation shall:
- (a) identify those relevant markets in which *ex ante* remedies may be appropriate
 - (b) conduct a market review of each relevant market identified to determine whether any sectoral provider has SMP; and
 - (c) determine whether imposition or maintenance of *ex ante* remedies on a sectoral provider with SMP is necessary and if so, impose or maintain proportionate remedies.
35. Under section 24(5) of the ECA, following a further review by the RA of a relevant market that is already subject to one or more *ex ante* remedies and that continues to be characterized by the lack of effective competition, may following a public consultation, make an administrative determination modifying any relevant obligations or imposing such additional remedies as it deems necessary, taking into account the impact and efficacy of the existing obligations and the costs and benefits of any changes.
36. Under section 25 of the ECA, if as a result of a market review conducted under section 23 of the ECA, the RA determines that a relevant market is effectively competitive it must not impose any *ex ante* remedies in respect of that market and must remove any *ex ante* remedies previously imposed within a reasonable period of time. However, the RA may decide not to remove certain obligations, including transparency and accounting separation obligations, if they continue to be necessary to preserve effective competition in cases where a closely related relevant market is subject to *ex ante* regulation.

4. BACKGROUND

36. The RA commenced the consultation regarding the electronic communications market review by publishing the Consultation Document on 22 January 2025. The Consultation Document invited responses from members of the public including sectoral participants, sectoral providers and other interested parties. Interested parties were requested to provide responses to the Consultation Document by 27 February 2025. For more detailed information regarding the Consultation Document parties are advised to consult the RA's Consultation Page on its website.
37. As part of the Market Review, the RA published in Appendix A of the Consultation Document a Preliminary Notice of Identification of any Relevant Product and Geographic Markets.
38. The Consultation Document received 5 responses. The Consultation Document and the responses received can be found on the RA's website under the Consultation section.
39. On 2 May 2025, the RA issued its Preliminary Report. The Preliminary Report contained the RA's preliminary decisions, market power assessment, and proposed *ex ante* remedies, proposed methodology for international price benchmarking, preliminary decision and order, draft General Determination and the draft Schedule of the General Determination. The Preliminary Report invited responses from members of the public including sectoral participants, sectoral providers and other interested parties. Interested parties were requested to provide responses to the Preliminary Report by 9 June 2025.
40. The Preliminary Report received responses from 4 stakeholders. The Preliminary Report and the responses received can be found on the RA's website under the Consultation section.
41. In August 2025, OneComm supplied the RA with its audited accounts for the year ending December 2024. These accounts assigned all corporate adjustments to costs and assets to OneComm Bermuda and none to OneComm Cayman. The RA is now reviewing this restatement of OneComm's annual accounts to see how it impacts on the profitability of OneComm.

5. SUMMARY AND DISCUSSION OF RESPONSES TO THE PRELIMINARY REPORT

42. In this section the RA discusses the responses received by referring to the subjects of the Preliminary Report. The RA:
- summarises the general comments made by stakeholders and response to them in Section 5.1.
 - responds to the more specific comments by stakeholders on the Preliminary Report in Sections 5.2 (Digicel), Section 5.3 (Link), Section 5.4 (OneComm), and Section 5.5 (Raymond Seymour).
 - sets out its initial assessment of the restatement of audited financial accounts by OneComm in August 2025 in Section 5.6.

5.1. Summary of the General Comments by Stakeholders

43. As mentioned, the RA received responses from Digicel, Link, OneComm and Mr Raymond Seymour, regarding the Preliminary Report.
44. Digicel disagrees with the RA's assessment that there is significant evidence that competition is limited in the main markets of the EC sector based on the analysis of the return on capital employed (**ROCE**) of Bermuda's main sectoral providers and alleges that the RA's analysis is not economically sound. Digicel also disagrees with the RA's identification of relevant products and geographic markets. It argues that the RA should include Low Earth Orbit (**LEO**) services and Direct-to-Device (**D2D**) services to mobile phone users to the market definitions. For Digicel, the fixed broadband and mobile markets' current sectoral providers found to have SMP should not be subject to *ex ante* remedies due to the potential entry of LEO service's sectoral providers. Digicel also disagrees with the RA's position that over-the-top (**OTT**) communications services cannot functionally substitute for mobile services because they do not include the access component. For Digicel, the RA's position is incorrect because it is based on a narrow technical viewpoint and suggests that OTT services do not provide access to the network since they depend on mobile services to reach consumers. Digicel argues that the RA should evaluate the substitution between OTT services and mobile services via a consumer survey or an analysis of previous market indicators such as the number of SMS messages or minutes of voice calls in mobile services. Digicel also suggests conducting analysis as was done by the Comisión de Regulación de Comunicaciones of Colombia (CRC of Colombia) to support its arguments.
45. Additionally, Digicel argues that the RA's assessment of the three criteria test (section 22(2) of the ECA) in all the relevant markets is flawed and that the RA failed to prove that any of the markets identified passed the three criteria test. Digicel disagrees with the RA's preliminary decision to regulate markets that are not presently competitive. It argues that the entry of LEO service sectoral providers will render the fixed broadband and mobile markets competitive in the future. Moreover, Digicel disagrees with the RA's reference to the European Commission Guidelines 2018 regarding evidence of existing dominant position if there are market shares in excess of 50%. Digicel also disagrees with the RA's SMP assessment, approach to international benchmarking and the *ex ante* remedies proposed.
46. Link agrees with the RA's findings of SMP in the business connectivity market. However, Link argues that Digicel still has SMP (jointly with OneComm) in the fixed broadband market because

their market share remains close to 40% and due to the fact that Digicel and OneComm together hold over 90% of the market share. Link agrees that the RA should impose *ex ante* remedies to support access to wholesale services at fair and reasonable prices in the business connectivity market. However, Link reiterates their concern that some of the remedies contain subjective elements that can create uncertainty for wholesale access seekers and potentially provide opportunities for SMP sectoral providers to abuse the process. Link argues that international benchmarking is not suitable for setting retail minus x% caps and claims that it is an arbitrary measure for pricing. For Link, the *ex ante* remedy should be cost-based, and the RA should not allow SMP sectoral providers to require bundling where it is ‘technically infeasible or generates disproportionate costs’ to unbundle and to demonstrate reasonable demand to request wholesale services. Link argues that if the RA imposes the retail minus remedy, the effect of the remedy should be retroactive, or, at the very least, apply when the initial retail minus x% price is determined by the RA, ensuring that all wholesale customers pay the same prices. Link also requests that the retail prices for wholesale prices be published on the RA’s website, allowing wholesale purchasers and SMP sectoral providers to know where to apply X%. Moreover, Link reiterates its concern regarding the approach to wholesale price caps, alleging that the criteria proposed by the RA are subjective. Furthermore, Link demonstrates concern regarding the RA’s proposed requirements for providers of voice call and messaging services, suggesting that the proposed requirement for all voice providers to interconnect with each other represents a significant barrier for new market entrants.

47. OneComm disagrees with the RA’s ECMR process and alleges that the RA did not adhere to the procedural standards required for the ECMR. For OneComm, the Preliminary Report is not based on forward-looking analysis, contains an incorrect and inconsistent application of European Commission Guidelines, lacks evidentiary support provided in the consultation, lacks due process and proper analysis (identifying relevant markets, determining SMP and assessing competitive outcomes) and fails to consider the sufficiency of *ex post* powers properly. OneComm expresses concerns regarding the conclusions reached by the RA in the Preliminary Report. OneComm claims that in their response, they identify factual errors and misclassifications in the Preliminary Report. They believe that the Preliminary Report presents a high burden of regulation that is not supported by the facts underlying the operation of Bermuda’s EC sector. For OneComm, the RA’s proposed *ex ante* remedies will not achieve better services or benefit competition in the EC market. Instead, the proposed *ex ante* remedies will undermine investors’ confidence and unnecessarily stifle competition in the market to the detriment of consumers. OneComm argues that the RA’s assessment of SMP for each market and the market definition are flawed and improper for a number of reasons. For instance, they claim that the differences in technology between OneComm’s DOCSIS 3.1 HFC network and Digicel’s GPON fibre network are relevant to a finding that there has been no tacit collusion between OneComm and Digicel and that the RA ignores this fact in the assessment of SMP in that market. OneComm also criticises the ROCE benchmarking methodology. They allege that the RA previously acknowledged that ROCE was unreliable and, as such, relying on it was inherently irrational. Moreover, OneComm alleges that there was a lack of transparency regarding the Preliminary Report estimates, which prevented verification of a central SMP justification and introduced misleading figures at a late stage in the consultation. For OneComm, such an approach affects other elements, including market definition, SMP designation, and the application of remedies. Furthermore, OneComm urges the RA to consider the public policy considerations that logically arise from its Preliminary Report. They allege that OneComm’s investors did not receive too high a return on their invested capital and should not be restricted from profiting going forward. For OneComm the RA is acting contrary to its duties under the ECA

especially to its requirement to promote investment and an orderly development of the EC sector.

48. Mr Raymond Seymour criticises the Preliminary Report's structure and content, suggesting that the Preliminary Report is a framework largely established rather than a collaborative effort to build a community-driven strategy. He also states that he perceives resistance to incorporating diverse external input and raises concerns about the inclusivity in the decision-making process. Additionally, Mr Seymour states that the primary source of market information is data provided by the sectoral providers. For him, there is value in the input provided by the sectoral providers; however, he suggests that the ECMR must incorporate broader, independent data sources and comprehensive consumer insights to prevent potential bias. Mr Seymour raises concerns about absence of a regulated technical standard for broadband, limited regulatory intervention focused solely on entry-level service, impact of anchor pricing on SMP sectoral providers dynamics, lack of dynamic market oversight for dominance, discrepancy with regional market benchmarks and future projections, deficient consumer role and absence of consumer-centric metrics, misapplication of market logic: utility vs. retail, ambiguity in future planning and subsidies, mobile specific concerns such as establishment of a comprehensive and technically defined anchor product, ensuring inclusive benchmarking for all consumer segments, modernization and expansion of anchor product information provision and clarification of market communication and accountability for anchor product. Mr Seymour proposes that the RA establish clear broadband and mobile technical standards, expand regulatory intervention implementing quality of standards for all service tiers and not just entry-level anchor products in the mobile and broadband markets, re-evaluation of anchor product pricing impact, development of dynamic market correction mechanisms, enhancement of consumer representation, publication of regular consumer market reports, recognition of broadband as a public utility, clarification of funding for future build outs without disproportionate taxpayer burden, ascertaining inclusive mobile benchmarking, modernisation of mobile anchor product information and clarification of mobile market communication and accountability.
49. Mr Seymour also submitted a supplemental response to the Preliminary Report, where he states that the ECMR plan is procedurally sound but structurally constrained. For him, while the ECMR meets the legal requirements of the ECA, the RA appears to lack the internal operational capacity and functional structure to implement the review's findings. Mr Seymour then recommends the establishment of a statutory mechanism for baseline operational funding for the RA, funding of at least two sector-specific hires, and the mandating of an annual consumer-focused outcomes report covering service reliability, affordability, and service quality.
50. In their general comments to the Preliminary Report both Digicel and OneComm, similarly to their comments to the Consultation Document, claim that:
- There is vigorous competition in the electronic communications sector of Bermuda;
 - there is no sectoral provider with SMP in any market; so
 - no remedies are required.
51. It is worth noting that the responses from Digicel and OneComm contain several points which they also made in response to the ECMR Consultation Document, particularly in commenting on identification of relevant markets (for example comments about OTT and LEO satellite services). The RA's analysis covers these points with references to the Preliminary Report where

appropriate, but in many cases, the sectoral providers have not added significant new data or analysis between their Consultation Document and Preliminary Report responses.

52. Regarding Digicel's and OneComm's responses concerning the RA's analysis of ROCE as supporting analysis of limited competition in the main markets of the EC sector, the RA reminds its stakeholders that the RA did not rely on ROCE estimates in its decision making processes. As per Paragraph 51 of the Preliminary Report, the RA found the following evidence that competition in the main markets of the EC sector was limited:
- Over the last two years retail prices for key products in the relevant markets increased much more rapidly than inflation. For example, the price of OneComm's fixed broadband product offering 200 Mbps download and 30 Mbps upload increased from \$130 per month in December 2023 to \$150 per month in February 2025. That price has increased by 15% over 15 months while inflation was at just over 2.5% per annum.
 - Regulatory constraints on retail price rises in Bermuda were largely absent, except for regulated anchor prices for entry-level fixed broadband products. There were no other regulatory constraints on the retail prices Digicel and OneComm could charge in the relevant markets.
 - Whilst there are a number of minor sectoral providers other than Digicel and OneComm in the relevant markets, in most cases their combined share of each relevant market is less than 5%. The other 95% is shared between Digicel and OneComm.
53. The ECMR analysis was made based on the requirements of the ECA and where appropriate the RA also relied on European Jurisprudence. It did not depend upon the ROCE observed.
54. Additionally, on further analysing Digicel and OneComm's statement, it is noted that the RA invited Digicel and OneComm to provide indicators of the profitability of their fixed and mobile businesses separately to the RA when responding to the Preliminary Report (Paragraph 53 of the Preliminary Report). However, the RA did not receive any indicators from either sectoral providers.
55. Regarding OneComm's argument that the RA previously acknowledged that ROCE was unreliable, the RA notes that such assertion is incorrect. The RA in its 2020 Electronic Communications Market Review General Determination referred to ROCE calculations in Paragraphs 138 and 139. Paragraph 138 recognized certain limitations based on the data provided at the time. However, while the data limitations did prevent the RA from conducting more detailed analysis on the ROCEs of OneComm and Digicel, Paragraphs 140 -144 established that the RA did in fact made ROCE estimations. This data was presented in table 6.1 of the 2020 Electronic Communications Market Review.
56. Regarding Digicel and OneComm's arguments that the ECMR failed to meet the three criteria test and to adhere to the procedural standards for it, the RA notes that as demonstrated in the Consultation Document, the Preliminary Report and below, the RA met the three criteria test for each identified market and that the RA complied with Part 4 of the ECA in its ECMR analysis.
57. In analysing the statements made in Annex A of OneComm's response, which the RA granted confidential treatment given the nature of the response (as permitted under section 33 of the RAA), the RA notes that OneComm is concerned that further investments could be constrained if

the RA regulated its fixed broadband offerings. OneComm also states that the ECA lists technological advantage as a factor that should be considered when assessing SMP. In response to OneComm's concerns the RA states the following:

- The RA has no intention of removing OneComm's incentives to invest further in fixed broadband infrastructure. But it is concerned that OneComm is currently generating excessive profits and decided to regulate via imposition of *ex ante* remedies regarding fixed broadband services to remove such excess.
- The RA agrees that technological advantage is a factor that should be considered when assessing SMP. However, in line with the European Commission, the primary criterion for assessing SMP is market share, and technological advantage is a secondary criterion¹.
- Based on an analysis of public information, the RA could not find evidence of technological advantages amongst the main sectoral providers.

58. This situation could change over the next few years. The RA may, therefore, monitor developments and, if appropriate, initiate a further fixed broadband market review before the current ECMR ends.

59. Additionally, OneComm asserts that the rollout of 5G will strengthen competition in the fixed broadband market between the three mobile network sectoral providers - OneComm, Digicel and Paradise - through offerings of FWA-based fixed broadband over 5G.

60. Based on the above, the RA believes that the extent to which competition will increase is very uncertain given that:

- OneComm and Digicel will be concerned not to cannibalise their wireline broadband customer base and will want to make their wireline and wireless FBB offerings complementary.
- Paradise is still a minor player in the mobile market in Bermuda and its future success as an effective competitor to OneComm and Digicel is far from clear – it is unusual in a jurisdiction with a population of less than 500,000 people for there to be three successful entities running their own independent mobile network infrastructures.

61. In addressing Mr Seymour's supplemental response, the RA notes that while Mr Seymour agrees that the ECMR process is procedurally sound and complies with the requirements of the ECA he alleges that the process is structurally constrained. Mr Seymour further suggests that there are insufficient resources supporting the EC sector. Mr Seymour's assessment of the RA resources with EC responsibility does not fully account for RA staff directly responsible for EC matters or RA staff that support the EC sector as part of the RA's shared services groups. The RA appreciates Mr. Seymour's concerns regarding its staffing structure, however, the RA seeks to manage the sectors that it is responsible for under the RAA in the most cost effective manner possible. In each year, the RA is required to prepare an annual budget that includes estimates of

¹ [Communication from the Commission — Guidelines on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services Text with EEA relevance.](#)

the total expenditures for the upcoming financial year. This process is governed by section 43 of the RAA. The RA strives to provide a balance between functionality and the impact on the sectors that it manages. The RA will consider Mr Seymour's concerns in the upcoming Work Plan for 2026-2027.

62. The RA will address the answers of each sectoral provider and stakeholder in the order set out in their response to facilitate understanding of the points argued and further response of the RA. In the following paragraphs the RA will discuss in a broader context the responses received.

5.2. Response from Digicel

63. Digicel's response to the Preliminary Report includes a number of points made in response to the RA's analysis of responses to the Consultation Document (Section 3 of Digicel's response to the Preliminary Report). The issues covered here are:

- ROCE analysis;
- Decommissioning of the copper network; and
- LEOs.

64. Analysis of Digicel's response on these points is provided below, followed by analysis of other points raised by Digicel in response to the Preliminary Report.

5.2.1. ROCE

65. In section 3.1 of Digicel's response they claim that the RA's analysis of ROCE in Paragraph 51 of the Preliminary Report is not economically sound because ROCE must be compared with the company's WACC rather than the ROCE of other companies. Digicel further points out that European comparator companies have reported ROCE below WACC. Digicel states that evidence on ROCE should, therefore, be disregarded.

RA's Response to Digicel comment

66. The RA rejects Digicel's position.
67. The RA agrees with Digicel that it is important for a market player's ROCE to exceed its WACC to give it investment incentives. However, as explained in Paragraph 51 of the Preliminary Report, the RA takes account of the expected WACC for OneComm in reaching the preliminary conclusion that OneComm's 2023 ROCE was excessive. The RA did not, as Digicel claims, rely on the ROCEs of different sectoral providers in different countries in assessing OneComm's financial performance.

5.2.2. Decommissioning the Copper Network

68. Digicel stresses the importance and urgency of closing its copper access network as soon as possible.

RA's Response to Digicel comment

69. As noted in the Preliminary Report, the RA anticipates closure of Digicel's copper network in the next regulatory period (2025 – 2029). The RA and Digicel are currently in discussion about the timing and method of copper switch-off, and this process is being progressed outside of the ECMR. As Digicel raises the copper network closure on a few occasions in its response, it is important to clarify that the RA has been waiting for Digicel to present a proper discontinuation plan since 2020 to conduct a consultation. Once Digicel provides a complete discontinuation project plan (addressing all the items that have been discussed in the past) for the discontinuation of the copper network the RA will commence the consultation.

5.2.3. LEO Satellites

70. Digicel notes that the RA has included LEO services in its market definition, and that LEO services are not presently available in Bermuda. It says that, for a forward-looking analysis, the RA should consider the market impact of launch by Starlink in Bermuda and that LEO service launches should trigger new market reviews.
71. Digicel's comments on LEOs cover the fixed broadband and business connectivity markets. Digicel also mentions the mobile market, noting the possible impact of satellite D2D services.

RA's Response to Digicel comment

72. The RA has taken the potential entry of Starlink into account in making its forward-looking assessment of SMP in its Preliminary Report. The RA has concluded that the potential licensing of a LEO provider and take up of LEO services does not change its SMP findings. In Paragraph 38 of the Preliminary Report, the RA indicates that it has considered the possibility of such entry and based on that the RA decided that:
- The entry was unlikely to significantly change the distribution of market power in the fixed broadband market over the current regulatory period; and
 - If it did, the RA would consider a new fixed broadband market review before 2029 as provided under section 23 (6) of the ECA.
73. Additionally, having further considered the concerns regarding LEOs and D2D services, the RA has decided to consult on the impact of such services in Bermuda as well as licence conditions and obligations, and regulatory fees for such services to provide fair treatment to all sectoral providers operating in these markets (fixed broadband and business connectivity). Therefore, no LEO or D2D licences will be granted until the RA has concluded its consultation.
74. Based on the above, the RA, decided that:
- The entry is unlikely to significantly change the distribution of market power in the fixed broadband and business connectivity market over the current regulatory period; and
 - If it does, the RA will consider a new fixed broadband and business connectivity market review before 2029 as provided under section 23 (6) of the ECA.

5.2.4. Identification of Relevant Markets

5.2.4.1. LEO Satellite Services

75. See Section 5.2.3 above which summarises Digicel’s response to the Preliminary Report in relation to LEO satellites and sets out the RA’s position in response.

5.2.4.2. OTT Services

76. Digicel disagrees with the RA that OTT services are not substitutes for mobile services.
77. Digicel posits that the RA should consider substitutability from the user perspective, and should carry out a user survey or analyse previous evolution of indicators such as SMS minutes.
78. Further, Digicel comments on the steps identified by the RA required to make a VoIP call, suggesting that these steps do not present obstacles to consumers, meaning that the RA should regard mobile voice calls and OTT services as substitutes.
79. Digicel also suggests that including OTT services in fixed voice and mobile markets would be consistent with the European Commission’s SMP Guidelines.

RA’s Response to Digicel comment

80. Weighing all the evidence and taking a forward looking assessment for the period under consideration (2025 - 2029), the RA does not include OTT services in its market definitions nor SMP decisions set out in the Final Report.
81. As stated in the Preliminary Report, OTT services cannot functionally substitute for mobile services as they do not include the access component (see Paragraph 120 of the Preliminary Report).
82. Whilst a user survey may provide valuable insights on consumer experience in Bermuda across a number of topics, this would not address the central question of the lack of functional equivalence between the services.
83. The RA notes Digicel’s reference to the EU SMP Guidelines. However, these Guidelines do not include evidence of substitutability between mobile and OTT services. In fact, the European Commission has stated:
- “[...] over-the-top (OTT) services [...] today are generally not considered as direct substitutes to traditional services provided by electronic communication service providers, and which in any case do not provide physical and data connectivity”²*
84. The RA understands the need to continue to monitor technology and service development, and that this is an important factor in market reviews. However, the RA’s decision is that it does not foresee substantive changes in either OTT services or FWA networks that could significantly

² Commission Recommendation of 18.12.2020 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation.

impact the competitive dynamics of the markets during the market review period. For this reason, the OTT services have not been included in the fixed voice and mobile markets.

5.2.4.3. Fixed and Mobile Termination Markets

85. Digicel's comments suggest that they have interpreted the RA's position as being that the RA does not believe that call termination services meet the three criteria test.

RA's Response to Digicel comment

86. The RA believes that Digicel may have misunderstood its position on mobile termination markets. In its response to the Preliminary Report, Digicel says that the *"RA also makes clear that termination markets do not meet the three criteria, and therefore they must not be included as markets suitable for regulation"*. This is not the RA's position. Whilst the RA has noted that the bill and keep pricing model which operates for call termination in Bermuda means that the problem of excessive termination rates does not arise, each network sectoral provider remains in control of termination services on its network. This is the position on which the RA is developing its market definition and SMP decisions.
87. As explained in the Consultation Document, the three criteria were met when defining this market. The RA concluded that:

*"(a) **Barriers to entry:** The market is characterised by high and non-transitory barriers to entry. The small size of Bermuda's market means that there are economic barriers to entry, which imply that entrants (even retail only players) are likely to struggle to achieve sufficient scale to render market entry an attractive proposition. In terms of the wholesale market, Bermuda has two existing island wide providers which are already likely to be operating at below minimum efficient scale for mobile networks.*

However, the above notwithstanding, it is important to note that there has indeed been recent a relatively recent entry into Bermuda's mobile services market – that of Paradise Communications (Paradise) which is deploying its own 5G network in Bermuda. While this may indicate that market entry is possible, it is early days: the RA has limited data with which to assess the impact of Paradise's entry or the sustainability of its operations over the medium to long term. Furthermore, the RA is aware of other aspirant entrants who have the necessary licence to offer mobile based services based on Mobile Virtual Network Offering (MVNO) from OneComm. These new entrants (FKBNet (trading as LiveNet) and iTech (Bermuda) Ltd (trading as B-Mobile) are relatively recent entrants and have not made a discernable impact on the market as yet. Additional market entry (based on a self-build model) into the mobile market is unlikely. The RA provisionally concludes that barriers to entry remain high but notes that this should be monitored over the review period.

*(b) **Technological change and developments:** Technological change or other foreseeable developments are unlikely to significantly disrupt this market over the time horizon of this review. The RA notes that all market players are in the process of deploying 5G*

services or are planning to do so. The RA does not anticipate other technological changes materially impacting the competitive environment.

*(c) **Ex-post competition rules:** Ex post competition rules alone are not sufficient to promote or preserve effective competition in the event of market failure resulting from the existence of SMP. Ex ante regulation allows for the imposition of specific remedies and monitoring regimes to address competition problems, as well as scope for timely and efficient intervention to avoid adverse effects on consumers. Investigating complaints of anti- competitive conduct may also be costly for all parties concerned, and may not be resolved in a timely manner.”*

5.2.5. The Three Criteria Test on Relevant Markets

5.2.5.1. High and Non-Transitory Barriers to Entry

88. Digicel challenges the RA’s identification of high and non-transitory barriers to entry as follows:

- In the **fixed broadband market**, Digicel asserts that different technologies had different cost curve and, therefore, economies of scale. For them economies of scale for FWA are much lower than in wired networks and as such the minimum profitable size of a FWA sectoral provider is lower than that of a wired sectoral provider in the same area. Digicel also asserts that the RA omitted the fact that LEO networks achieve economies of scale at the regional level. For this reason, it is Digicel’s belief that LEO networks face no barriers to entry to the Bermuda market, because their incremental cost of doing so once they have the network deployed to serve other contiguous markets is zero or close to zero.
- In the **mobile market** Digicel points to entry to the market of Paradise Mobile at the infrastructure level and the Mobile Virtual Network Operators (**MVNOs**) FKBNNet and BMobile. Digicel suggests that the minimum efficient scale in mobile markets can be achieved between 18% and 27% market share. Digicel points out that costs are lower for MVNOs than for network sectoral providers and, therefore, they do not need to achieve the same scale as network sectoral providers to compete effectively.
- In the **fixed voice market**, Digicel asserts that competing services can be provided over a number of technology platforms, including mobile, FWA, WiFi and LEO and that OTT services are substitutes for fixed voice.

RA’s Response to Digicel comment

89. The RA notes that there is little evidence of FWA or LEO based sectoral providers achieving a significant market share in high income countries like Bermuda other than by offering FWA over 4G and 5G mobile networks. Such developments are unlikely in Bermuda for the reasons set out in Paragraph 60 above. The RA notes Digicel’s analysis of economies of scale available to LEO satellite based providers at regional level. However, the RA’s forward looking assessment of the market took account that no LEO service is currently licensed in Bermuda. Whilst the RA will monitor the impact of LEO services in the market in the event that such services are licensed, and take account of this in future market analysis, the potential licensing of a LEO provider or providers and take up of LEO services does not change the RA’s findings on barriers to entry (nor, as already stated, the RA’s SMP findings).

90. Based on the factors relied upon in the Consultation Document, Preliminary Report and further analysis the RA confirms its decision that there are still high and non-transitory barriers in this market.
91. Regarding the mobile market, Digicel does not provide any evidence to support its claim that minimum efficient scale in mobile markets can be achieved between 18% and 27% market share in a market where the population is only 65,000. The RA has taken account of entry to the market of Paradise Mobile and the MVNOs in its assessment (see Paragraph 137 of the Preliminary Report). As stated, the new entrants together gained approximately 4% of the market. Such percentage of market share is not indicative of a competitive market. Based on the factors relied upon in the Consultation Document, Preliminary Report and further analysis the RA confirms its decision that there are still high and non-transitory barriers in this market.
92. In response to points about the fixed voice market, the RA has noted that subscriber numbers are falling (see Paragraph 241 of the Preliminary Report), and it is unlikely that new entrants will seek to enter this declining market. The RA's analysis and identification of relevant markets clearly demonstrates that OTT services are not substitutable for fixed voice. As stated above, the RA has taken account of FWA and LEO in its analysis of the fixed broadband market, but this does not affect the RA's findings on fixed voice market definition, barriers to entry nor SMP in the fixed voice market. Based on the factors relied upon in the Consultation Document, Preliminary Report and further analysis the RA confirms its decision that there are still high and non-transitory barriers in this market.

5.2.5.2. Changes or Developments which Might Render the Market Effectively Competitive

93. Digicel asserts that there are changes underway in the markets identified as relevant by the RA which are likely to render all these markets competitive.
- In the fixed broadband market, Digicel repeats its reference to LEO services as potential entrants to the market, and states that the prospect of new entry can disrupt market dynamics.
 - In the mobile market, Digicel repeats that Paradise Mobile and MVNOs have entered the market, and that LEO satellite services have the potential to compete through direct to device services.
 - In the fixed voice market, Digicel repeats that the RA has failed to sufficiently consider mobile voice and OTT services.
 - In the business connectivity market, Digicel states that LEO satellite services are relevant to the business connectivity market, potentially providing a technology platform for new market entry.

RA's Response to Digicel comment

94. Firstly, it is noted that Digicel's response in identifying factors which they think may make markets effectively competitive, suggests that they may not regard the relevant markets as being currently competitive.

95. On Digicel's comments on the fixed broadband market, as stated the RA has included LEO satellite broadband services in the market definition for fixed broadband services.
96. The RA notes Digicel's reference to the work of Baumol Panzar and Willig and their description of a "perfectly contestable market". The RA has examined the fixed broadband market extensively in the ECMR and found it not to be perfectly contestable. The RA further notes that Baumol Panzar and Willig's analysis includes the ability for new entrants to serve a market using the same productive techniques as incumbents. This is not a characteristic of the fixed broadband market in Bermuda where further market entry is unlikely using the same technology or architecture for connectivity as the incumbent companies (ie fixed broadband via FTTH or a DOCSIS based HFC network).
97. With reference to Digicel's comments on the mobile market, as previously stated:
- The RA has taken account of entry to the market of Paradise Mobile and the MVNOs in its assessment. These entrants have achieved only small numbers of customers which does not indicate that barriers to entry are not present.
 - The RA has not identified evidence to indicate that market entry by the LEO satellite providers will result in the market becoming effectively competitive in the next regulatory period.
98. Regarding Digicel's comments on the fixed voice market, as stated above, this market is in decline and unlikely to be attractive to new entrants going forward.
99. Regarding the business connectivity market, the RA has included LEO satellite services in the market definition for business connectivity.

5.2.5.3. Competition Alone is Insufficient to Adequately Address the Identified Market Failures

100. Digicel positions its comments on the sufficiency of competition law in the context that they do not regard the first two criteria in the three criteria test as being met for the fixed broadband, mobile services, fixed voice or business connectivity markets.
101. Digicel argues that *ex-post* competition law is preferable in these markets to *ex-ante* regulation.
102. Digicel characterises *ex-ante* remedies as "rigid and slow" compared to *ex-post* regulation and suggests that *ex-ante* regulation is not well equipped to address problems in fast changing markets.

RA's Response to Digicel comment

103. Firstly, for the reasons explained above, the RA has demonstrated that the first two criteria in the three criteria test are met for the relevant markets. The RA's response to Digicel should be considered in that context.
104. In the Preliminary Report (Paragraph 141) the RA noted that:

“investigating complaints about anti-competitive conduct can be both time-consuming and costly. Moreover, there is the risk of ongoing consumer harm occurring (eg from excessive pricing) while the RA investigates the issue.”

105. Regarding Digicel’s position on the time needed to establish *ex-ante* regulations, it is not relevant to compare the time taken to implement *ex-post* remedies with the time to implement *ex ante* remedies. This is because *ex ante* remedies are intended to prevent anti-competitive outcomes whereas *ex-post* remedies are intended to address them after they happen. There is, therefore, a greater possibility of harm occurring during the implementation time lag when *ex-post* competition remedies are applied.
106. The RA notes that in general *ex ante* remedies are applied on a forward-looking basis to help move a market towards effective competition (or to mimic a competitive outcome). By contrast, *ex post* competition law rules are used in a backward-looking capacity to address historic instances of abuse of dominance or anti-competitive conduct. In this regard the use of competition law tools could expose the market to further harm resulting from anti-competitive conduct while an investigation is carried out.
107. In addition, *ex ante* remedies allow the imposition of more targeted interventions and are, in general, a more appropriate tool where the intervention must be sustained over time. They are also important for creating regulatory certainty for consumers and other market participants (such as access seekers). Regarding this, the European Commission has noted:

“Ex ante regulation would for example be an appropriate complement to competition law in circumstances where the regulatory obligation necessary to remedy a market failure could not be imposed under competition law (e.g. access obligations under certain circumstances or specific cost accounting requirements), where the compliance requirements of an intervention to redress a market failure are extensive and must be maintained over time (e.g. the need for detailed accounting for regulatory purposes, assessment of costs, monitoring of terms and conditions including technical parameters and so on), or where frequent and/or timely intervention is indispensable, or where creating legal certainty is of paramount concern (e.g. multi-period price control obligations).”³

5.2.6. SMP Assessments and Proposed Remedies

5.2.6.1. Methodological Points

108. Digicel respond to the RA’s referencing the European Commission SMP Guidelines (2018) which state that the existence of market share in excess of 50% as evidence of a dominant position. Digicel states that the European Guidelines also includes discussion of other factors which may affect a finding of dominance, including the ability of new entrants to win market share and fluctuations of market share over time. Digicel points out that the European Guidelines recommend consideration of other factors where market share is lower than 50%.

³ European Commission, Explanatory Note accompanying the Commission Recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation. Pp14. (2020) <https://digital-strategy.ec.europa.eu/en/news/commission-updated-recommendation-relevant-markets> . Accessed 2 July 2025.

109. Digicel also discusses the methodology to assess joint SMP, referring again to the European SMP Guidelines.

RA's Response to Digicel comment

110. Principally, the RA has carried out the ECMR following the requirements set out in the ECA. The relevance of European markets which follow a similar framework is understood by the RA. Therefore, the RA has taken account of and reflected on European jurisprudence where it is relevant and appropriate.
111. As clearly set out throughout the Consultation Document and Preliminary Report, the RA's SMP assessments do not rely on static market share alone, and takes account of factors including trends in market share over time (historic and forecast), technology factors and barriers to market entry. (See for example Section 5 of the Consultation Document which sets out the RA's approach to market definition and identification of relevant markets).
112. In identifying joint SMP the RA's assessment has focussed on, as it is required to, the criteria in Section 23(3) of the ECA. In the mobile services and business connectivity markets the RA has found these criteria to be met, as clearly set out in the Preliminary Report (see Sections 6.3.2 and 6.5.2 in the Preliminary Report).
113. Based on the RA's findings in the Consultation Document, Preliminary Report and further analysis of the market and data provided the RA confirms its findings of joint SMP in the mobile and business connectivity services markets.

5.2.6.2. The Mobile Services Market - SMP

114. Digicel argues that the RA has not proven that the mobile services market passed the three-criteria test. In sections 5.2.5.1. and 5.2.5.2. above, the RA sets out arguments as to why the three criteria test is met and the markets are susceptible to *ex-ante* regulations.
115. Digicel refers to the market share forecasts for Paradise Mobile and suggests these are unrealistic, showing market share of third sectoral providers in selected countries of between 10% and 38%.
116. Digicel sets out further claims about economies of scale and produces a regression analysis which it argues demonstrates that the number of sectoral providers is not driven by population size but by GDP per capita and service penetration.

RA's Response to Digicel comment

117. In relation to market share forecasts for Paradise Mobile, as stated in the Preliminary Report (Paragraph 137), the RA considers it is too early to judge whether the new entrants will be sustainable in the medium term. It also notes that there are no jurisdictions with populations similar to that of Bermuda that support three rather than two mobile networks of any size.
118. The RA considers that Digicel's regression analysis exhibits a number of flaws which means that its conclusions cannot be relied upon. These flaws include:

- Multicollinearity. In regression analysis multicollinearity occurs when two or more explanatory variables are highly correlated with one another. Digicel's model includes population and aggregate GDP and the number of subscribers – all of which are likely to be *highly* correlated with each other. There are a number of implications of this:
 - The coefficient estimates for those variables are likely to be unstable and unreliable;
 - the coefficients may have high standard errors and low significance levels, even though they are jointly significant; and
 - coefficients may have the “wrong” sign or implausible magnitudes.⁴

For instance, some instability can be observed in the change to the coefficient and sign of the ‘total subscriptions’ variable. This means the coefficient estimates are likely to be highly sensitive to changes in the dataset and model specification. The likelihood of substantial multicollinearity in these models means that individual parameter estimates cannot be relied upon.

- Small sample size. The total sample size of 17 is small for a cross-sectional regression. This is also likely to compound the issues of multicollinearity in the model.
- Potential selection bias. Digicel has picked a number of countries for the analysis but does not give any rationale for its particular sample of countries, and the inclusion of relatively large countries in the sample (Jamaica and Bahrain) are likely to weight results towards outcomes in those countries.

119. The above factors raise concerns about the reliability of any conclusions from Digicel's regression analysis. The RA thus does not find the analysis persuasive.

5.2.6.3. The Mobile Services Market – Joint SMP

120. Digicel discusses factors included in the European Commission SMP Guidelines, and comments that the RA has not made an assessment of offerings in the market in reaching its provisional view that there is joint SMP in the mobiles services market. Digicel also again cites the entrance of Paradise Mobile and MVNOs, suggesting that the RA has not considered the number of market players in its assessment.

121. Digicel goes on to describe reductions in regulation in Europe as the list of markets susceptible to *ex-ante* regulation has changed since 2003, and the focus of regulation has shifted upstream to wholesale and access markets.

122. Digicel also states that the RA did not evaluate the incumbents offerings as done in previous ECMRs and that the RA did not conduct another analysis to attempt to show evidence that the incumbents participated in tacit collusive conduct.

⁴ Greene. *Econometric Analysis*. Fourth Edition. pp256.

RA's Response to Digicel comment

123. In identifying joint SMP, the RA's assessment has focused, as it is required to, on the criteria in section 23(3) of the ECA. The RA has found these criteria to be met in the mobile services market, as clearly set out in the Preliminary Report.
124. The RA notes the discussion of the evolution of the European framework in Digicel's response. The removal of markets from the list of markets susceptible to *ex-ante* regulation was the result of identifiable market trends in Europe. This is quite different from the position in Bermuda because it was in reaction to European national regulators finding retail markets to be competitive in contrast to the SMP findings in retail markets which the RA has provisionally made in Bermuda.
125. Furthermore, the focus in Europe on wholesale and access markets does not preclude NRAs from analysing other markets, including retail markets. The 2020 Recommendation on relevant product and service markets within the electronic communications sector specifically notes that NRAs may also analyse other markets (i.e. outside the two listed in the recommendation) if they have sufficient grounds to consider that the three criteria test is met.
- [...] national regulatory authorities can also define other relevant product and service markets, not listed in this Recommendation, if they can prove that in their national context, the markets meet the three criteria test.⁵*
126. Under this process, EU member states have applied *ex ante* regulation to retail telecommunications markets. For example, as of 2020, six member states were still regulating the retail market for access to the public telephone network at a fixed location (despite this market not being on the list of recommended markets).⁶ These member states had followed the market review guidelines (market definition, susceptibility to *ex ante* regulation, SMP assessment and remedy design) for this retail market.
127. This indicates that (a) the European Commission approach is designed to encompass reviews of both wholesale and retail markets; (b) it is not incorrect to apply this approach to retail markets; and (c) it is appropriate to assess markets not listed in the Recommendation if warranted by the national context.
128. The legal tests for determining if the conditions of the relevant market support tacit coordination at the time of its decision and in the future start with section 23 of the ECA. The RA should decide based on sections 23(2) and (3) of the ECA. The ECA does not require the RA to have actual proof of tacit coordination to find that sectoral providers have joint SMP. The RA's view is that as has been decided by other regulators like ECTEL, there is no need to demonstrate

⁵European Commission, Commission Recommendation on relevant Markets within the electronic communications sector susceptible to *ex ante* regulation. Article 22. (2020) <https://digital-strategy.ec.europa.eu/en/news/commission-updated-recommendation-relevant-markets> . Accessed 2 July 2025.

⁶European Commission, Study on Future electronic communications product and service markets subject to *ex-ante* regulation Recommendation on relevant markets. Pp. 238-239. (2020) <https://digital-strategy.ec.europa.eu/en/library/study-future-electronic-communications-product-and-service-markets-subject-ex-ante-regulation> . Accessed 2 July 2025.

evidence of express agreement or contact between the sectoral providers.⁷ All that is necessary is to demonstrate that the relevant market structure would likely give rise to tacit coordination.⁸ Regarding this, a good indicator of tacit coordination can be price changes, coordinated changes of prices, high prices, poor quality of services, excessive profits, and the like. Additionally, according to the European Commission, a finding of two or more sectoral providers enjoying a dominant position can occur not only when there are structural or other links between sectoral providers but also when the structure of the relevant market is conducive to coordinated effects.⁹

5.2.6.4. The Mobile Services Market - Remedies

- 129. Digicel's comments on remedies are made notwithstanding their position that there is no SMP in the mobile services markets.
- 130. Digicel provides comments on median price monitoring separately (section 5 of its response).
- 131. Digicel comments that anchor prices should not be specified identically for all regulated providers. They claim that this is not consistent with the objective to promote competition and state that, so long as the prices of all anchor products are low enough to constrain excessive profits, they do not need to be identical.

RA's Response to Digicel comment

- 132. The purpose of the anchor price is to ensure that prices in Bermuda are not excessive through, as Digicel correctly states, a chain of substitution effect in which the anchor price will constrain other prices.
- 133. Further information on the product specifications for anchor prices is provided in Section 6 of the Final Report. Broadly the approach is to establish a minimum set of service specifications including a price ceiling and minimum data allowance. Sectoral providers are free to vary their offerings to meet these requirements (for example, by offering greater than the minimum data allowance and/or pricing below the ceiling).
- 134. Digicel's comments on median price monitoring are assessed below.

5.2.6.5. The Fixed Broadband Market

- 135. Digicel comments that they do not believe the fixed broadband market meets the three criteria test, and hence it should not be regulated.

RA's Response to Digicel comment

- 136. A response to this point is included in Sections 5.2.5.1. and 5.2.5.2. above.

⁷ ECTEL, 'Electronic Communications: Guidelines on Market Analysis and the Assessment of Significant Market Power for Networks and Services' (Eastern Caribbean Telecommunications Authority 2016) p 13 2016 www.ectel.int/wp-content/uploads/2016/12/guidelines-market-analysis.pdf . Accessed 2 July 2025.

⁸ Ibid (n 6); Section 23(2) and 23(3) of the Electronic Communications Act 2011.

⁹ Recital 26 of Directive 2002/21/EC.

5.2.6.6. Business Connectivity Services – Joint SMP

137. In disagreeing with the RA's provisional conclusion that Digicel and OneComm have joint SMP in the business connectivity market, Digicel suggests that the RA has assumed that any new entrant will gain market share only from Digicel's rival, OneComm. Digicel provides their own analysis to forecast a new market entry scenario under which Digicel's share is projected to fall below 50%.

RA's Response to Digicel comment

138. The RA's forecasts are based on a continuation of the trendline for revenue market shares based on data since 2020. It is noted that Digicel's forecast is for revenue market shares of Digicel 46%, OneComm 40%, and new entrant 14% by 2029, an outcome which would still be consistent with a finding of SMP (subject to investigation) for Digicel (and OneComm) at the end of the next regulatory period.

5.2.6.7. Business Connectivity Services - Remedies

139. Digicel's comments on remedies are made notwithstanding their position that there is no SMP in the mobile services markets.
140. Digicel disagrees with the proposed remedy to establish retail minus X% caps for wholesale business connectivity services. They argue that, because business connectivity prices are not transparent, it will not be possible to provide appropriate benchmarks.

RA's Response to Digicel comment

141. The RA has set out its data sources and methodology for establishing a retail minus X% wholesale price cap for business connectivity services in Section 7 of the Final Report.

5.2.6.8. Fixed Voice Services - SMP

142. Digicel comments that they do not believe the fixed voice services market meets the three criteria test, and hence it should not be regulated.
143. Digicel states that they disagree with the RA's conclusion based on a falling subscriber market share and rising revenues. They suggest that a more realistic forecast would see market share in revenues evolve at the same pace as the subscriber share.
144. Digicel also restates that the RA should have taken account of OTT services in its SMP assessment.

RA's Response to Digicel comment

145. As mentioned in sections 5.2.5.1. and 5.2.5.2. above, the RA has proven the three-criteria test to define this market.
146. The RA's analysis of the fixed voice services market in the Preliminary Report takes account of both revenue and subscriber market share. The RA estimates that Digicel's revenue share of this market is currently around 80%, while its subscriber share is around 63%. On a forward-looking

perspective, notwithstanding falling subscriber numbers, it is likely Digicel's revenue share will remain above the SMP threshold for the duration of the market review period.

147. The data indicate that OneComm's subscriber share is growing and this is likely driven by their ability to offer fixed voice service as a managed VoIP service over its broadband network. Digicel provisioning also include their legacy copper network (as discussed above). The remedies proposed for this market (see below) are designed to allow for an efficient transition from copper to fibre provisioning of fixed voice services.
148. The RA has identified and explained the functional differences between PSTN/managed VoIP and unmanaged VoIP (see Paragraph 121 of the Preliminary Report).

5.2.6.9. Fixed Voice Services - Remedies

149. Digicel's comments on remedies are made notwithstanding their position that there is no SMP in fixed voice markets.
150. Digicel comments that remedies should be technology neutral, i.e. left to the designated provider to decide how it will provide required services to its customers.

RA's Response to Digicel comment

151. The remedies proposed in the Preliminary Report are intended to provide a technology neutral framework for provision of fixed voice services in the future. In particular, the proposed requirement on Digicel to provide fixed voice services island wide on a standalone basis is specified on a technology neutral basis.

5.2.7. Comments on the Proposed Methodology for International Price Benchmarking

152. Whilst acknowledging that international benchmarking can provide useful regulatory insights, Digicel suggests that the methodology to be employed by the RA does not appropriately capture jurisdictions in which price drivers are equal or close to Bermuda. They seek to demonstrate this using a regression analysis to identify statistical relationships between a number of variable factors and mobile ARPU.
153. Digicel goes on to say that they think the RA has misrepresented Digicel's view in para 190 of the Preliminary Report which deals with the relevance of promotional discounts in relation to price benchmarking. Digicel clarifies their position, saying that median prices take no account of the distribution of prices, and are not as good as average prices as a means of assessing the status of competition in a market.
154. Digicel suggests that the RA should consult separately on international price benchmarking.

RA's Response to Digicel comment

155. The RA's benchmarking methodology and the results of the benchmarking exercise are included in the Final Report at Section 7. From this it can be seen that the methodology includes calibrations to ensure that benchmarked data represents cost and price drivers which are close to those in Bermuda. These include careful selection of countries for size, income per capita and

population distribution, as well as adjustments to account for local and international cost inputs using blended exchange rates. This has given the RA a robust data set for the comparison.

156. Digicel's regression analysis of ARPU drivers does not change the RA's approach. As with Digicel's other regression (discussed in Section 3.6.2), this analysis exhibits a number of serious flaws:

- Multicollinearity. In regression analysis multicollinearity occurs when two or more explanatory variables are highly correlated with one another. Digicel's model includes population and aggregate GDP and total number of subscribers – all of which are likely to be *highly* correlated with each other. There are a number of implications of this:
 - The coefficient estimates for those variables are likely to be unstable and unreliable;
 - the coefficients may have high standard errors and low significance levels, even though they are jointly significant; and
 - coefficients may have the “wrong” sign or implausible magnitudes.¹⁰

This instability can be observed in the change to the coefficients and signs of the ‘population’ and ‘total subscriptions’ variables in the different model specifications.

- Small sample size. The total sample size of 7 is extremely small for a cross-sectional regression. This is also likely to compound the issues of multicollinearity in the model.
- Potential selection bias. Digicel does not indicate which countries are included in this analysis nor why.

157. The RA concludes, therefore, that the conclusions of Digicel's regression analysis cannot be relied upon.

158. Median prices are a reasonable data point on which to compare prices in the selected markets. Distributional data are unavailable for the benchmarking exercise, and median prices will be a light touch and proportionate method of monitoring prices to identify the high level relationship between Bermuda prices and the benchmarks. The results of benchmarking will be carefully analysed as part of any regulatory assessment or initiatives flowing from them.

159. The RA notes Digicel's call for a separate consultation on price benchmarking. The RA's approach (with adjustments planned annually or bi-annually depending on the remedy) allows the RA to assess changes in the markets and adjust the price benchmarking based remedies accordingly. As such, the RA does not agree with Digicel's suggestion that a separate consultation on price benchmarking is necessary.

¹⁰ Greene. *Econometric Analysis*. Fourth Edition. pp256

5.3. Response from Link

5.3.1. SMP in the Fixed Broadband Market

160. Link expresses surprise at the RA's finding that Digicel no longer holds joint SMP in the fixed broadband market. They point out that Digicel's market share remains close to 40% and the combined market shares of Digicel and OneComm are above 90%.

RA's Response to Link comment

161. Having considered the evidence on revenue market shares over time and the requirements of Section 23(3) of the ECA, the RA takes the view that it is no longer possible to support a finding of joint dominance between OneComm and Digicel. Instead, it finds OneComm to have single SMP, see Paragraphs 226 to 232 of the Preliminary Report.

5.3.2. Key Terms in the Proposed Supply Conditions for Wholesale Business Connectivity Products

162. Link is concerned that some of key terms set out in Paragraph 239 of the Preliminary Report are not sufficiently well-defined. In particular they seek to clarify definitions of terms such as "*technically infeasible*", "*reasonable demand*" and "*disproportionate costs*" so as to give access seekers greater regulatory certainty.

RA's Response to Link comment

163. The RA envisages commercial negotiations between sectoral providers as the first step in this regard. Only where there is a failure in this regard can an aggrieved party bring a complaint to the RA under the sectoral provider dispute resolution provisions under section 58 of the RAA. In such an instance, the RA will consider what is in the long-term interest of end-users and, wherever possible, weigh the likely incremental costs and benefits of disputed supply conditions in interpreting these terms. To further assist in this regard, the following definitions have been provided for non-exhaustive guidance:

- **Technically Infeasible:** This refers to a situation where implementing a specific interconnection or network modification is not possible due to physical, structural or technological constraints. An example of this is where the requested technology is not available or not compatible with existing systems.
- **Reasonable Demand:** This refers to a justifiable and practical request for interconnection or service based on market demand. A request is typically deemed reasonable if it aligns with commercial viability, technical feasibility and regulatory expectations. Reasonable demand helps prevent parties from being obligated to fulfill requests that are speculative or excessive.
- **Disproportionate Costs:** This refers to situations where the cost of fulfilling a request far exceeds the expected benefit or revenue making it economically unjustifiable. An example of this may include being required to make upgrades (to facilitate a request) that requires significant investment with minimal return.

5.3.3. Use of the Retail Minus X% Price Cap

164. Link argues that the price of wholesale products for both fixed broadband and business connectivity services should be costs based rather than based on international benchmarks.

RA's Response to Link comment

165. The RA sets out in Paragraph 252 of the Preliminary Report (and more extensively in the Consultation Document) why it has decided to base price controls on international benchmarks rather than cost orientation. It also notes that international benchmarks are used extensively in other jurisdictions, especially in microstates like Bermuda.

5.3.4. Dealing with Retail Discounts

166. Link seeks clarity on how the retail minus X% price cap will deal with retail discounts for bundling or volume purchases and how compliance with the cap will be enforced.

RA's Response to Link comment

167. The RA's remedy for implementing the wholesale price cap requires the regulated access provider to demonstrate that it complies with the cap whenever it makes major price changes.¹¹ This means that the regulated access provider will need to demonstrate to the RA that its retail revenues, net of discounts provided complies with the following condition:

- Total retail revenues net of discounts from supply of the relevant product range multiplied by $1 - X\%$ should be greater than total revenues from such supply if wholesale prices to access seekers are used instead of retail prices.

In addition, the RA proposes that:

- In the fixed broadband market the relevant products are all fixed broadband products.
- In the business connectivity market the relevant products are wholesale terminating segments.

5.3.5. Retroactive Application of Retail – X% Regulated Prices

168. Link asks for the retail minus X% prices to be made available to access seekers who are in mid-contract on products supplied at previously negotiated wholesale prices.

RA's Response to Link comment

169. The RA takes the view that (similar to the Retail minus X% adjustment that was implemented in June 2024) any price adjustments should apply to both new requests and existing contracts that contain such wholesale provisions. In order to ensure that there is sufficient time to properly implement these changes, the RA will set out in the Final Order that such price adjustments

¹¹ At either the retail or wholesale level.

must be implemented no later than 1 October 2025 (which corresponds to a full billing cycle after the date of the Final Order).

5.3.6. Consultation on the Retail – X% Control

170. Link seeks a consultation on the way the Retail minus X% wholesale regulation will work. In particular it seeks discussion on the size of X.

RA's Response to Link comment

171. The RA notes Link's call for a separate consultation on price benchmarking. The RA's approach (with adjustments planned annually or bi-annually depending on the remedy) allows the RA to assess changes in the markets and adjust the price benchmarking based remedies accordingly. As such, the RA does not agree with Link's request to have a separate consultation on price benchmarking. Please see section 7 of this report for a full description of the benchmarking methodology.

5.3.7. Publication of Key Performance Indicators (KPIs)

172. Link notes that the RA has specified that regulated access providers should supply both the RA and access seekers with KPIs (as set out in Figure 5.3 of the preliminary report). But Link observes that this requirement is missing from Appendix B of the Preliminary Report.

RA's Response to Link comment

173. The RA thanks Link for pointing out this inconsistency. This will be addressed in the remedies set out below. More details on KPIs are provided in Annex D to this Final Report.

5.3.8. The Definition of Wholesale Terminating Segment

174. Link seeks confirmation that the term *wholesale terminating segments* used in the Preliminary Report includes the final mile/local loop component of this transmission link.

RA's Response

175. The RA can confirm that this is the case.

5.3.9. Obligation to Interconnect for Voice Services

176. Link is concerned that the RA requires "*all voice providers to interconnect with each other*" on the grounds that this would raise the costs of offering voice services unnecessarily.

RA's Response to Link comment

177. The RA is guided by section 5(1) of the ECA in this regard. The RA is also guided by the principles first established in section 21 of the Telecommunications Act 1986 (TA86) which set out various duties of carriers including "to furnish telecommunication service upon any reasonable request thereof and on reasonable terms and conditions" and "to establish physical connections with other Carriers on reasonable terms and conditions".

178. ICOL Licences created under the ECA included interconnection obligations that essentially mirrored section 21 of the TA86 but these obligations were permitted to fall away if the ICOL holder was not found to have SMP. In the most recent ECMR, the majority of ICOL holders were not found to have SMP and were, therefore, by default released from the interconnection obligations set forth in their respective licences. Those ICOL holders that were found to have SMP (currently One Communications and Digicel) still had these obligations.
179. Prior to the moratorium on new ICOLs being lifted in 2019, there had been little change to the EC sector participants for over a decade. There were certainly no new fixed voice/mobile providers. As a result, there were few (if any) new interconnection requests for voice/SMS.
180. In 2020, there were two new ICOLs issued (Paradise Mobile and Wave Bermuda (Horizon)). Both of these new entrants sought interconnection with existing ICOL holders and experienced a number of challenges linked in part to the fact that there was no interconnection obligation remaining on existing ICOL holders that did not have SMP. The RA did implement an Emergency General Determination (Interconnection and Interoperability Emergency General Determination 2021¹²) in November 2021 to address this matter. Since that time, it is the RA's understanding that all requests for voice and SMS interconnection (with ICOL holders that already had such networks in place) have been addressed.
181. To avoid repetition of this issue in the future, the RA has included a definition of Call Termination in the Preliminary Report. Section 6.7 of the Preliminary Report considers that any fixed and mobile network sectoral provider in Bermuda has a monopoly (and therefore SMP) on terminating calls that are routed to its network using an E164 telephone number. As these sectoral providers will have SMP as assessed by this ECMR, the obligations contained in their licences with respect to interconnection will now be in force once again.

5.4. Response from OneComm

5.4.1. Forward-looking Analysis

182. OneComm argues that the Preliminary Report adopts an overly historical perspective, relying on historical data without forecasting future market dynamics. While OneComm acknowledges there are forecasts, they note they are extrapolations of past trends. OneComm also argues that the Preliminary Report does not analyse emerging trends, such as LEO satellite services, and new entrants such as Paradise Mobile and OTT providers.

RA's Response to OneComm comment

183. The RA notes that in carrying out a market review it is necessary to analyse historic data to assess the developments of the markets and to understand how competition is developing over time. This informs not only the market definition process, but also the SMP assessment and the design of potential remedies. The RA further notes it has provided market share projections to take a forward-looking perspective. The RA does not consider that other methods of developing projections would be substantially more robust in this context.

¹²Regulatory Authority, Interconnection and Interoperability Emergency General Determination 2021: Public Consultation, (2021) https://cdn.prod.website-files.com/62670c93ceef61f2e8acc1ce/63f9082eefa3cc509a30613a_Consultation%20on%20Interconnection%20and%20Interoperability%20EGD.pdf accessed 8 August 2025.

184. Regarding the emerging trends listed by OneComm:

- The Preliminary Report explicitly mentioned that LEO services would be included in the fixed broadband market definition. Further, it notes LEO services would also be included in the business connectivity market where such services offer business-grade connectivity. The RA notes that LEO services are not currently available in Bermuda and it is unknown whether any new LEO entrant will gain sufficient traction to materially affect the fixed broadband market in the review period. The RA also notes that if LEO satellite broadband services become available in Bermuda (due to a grant of a licence), the RA reserves the right to review the fixed broadband market to determine if the definitions and applicable remedies to the market should be adjusted (section 23(6) of the ECA).
- The Preliminary Report discussed the impact of Paradise Mobile, noting that Paradise had only a very small market share and is unlikely to attain sufficient market presence to materially impact competitive dynamics in the mobile market. The RA noted that new entrants (Paradise Mobile and MVNOs) have gained little traction in the mobile market with a combined market share of approximately 4% as of 31 December 2024. The RA considers it is too early to judge whether these new entrants will be sustainable over the medium term.
- Regarding OTT services, the Preliminary Report stated that OTT communications services could not functionally substitute for mobile services as they did not include the access component. It also stated that the RA did not foresee substantive changes in OTT communications services that were likely to significantly impact the competitive dynamics of the identified markets. OneComm does not identify any specific OTT providers or trends nor explain how these will affect the competitive dynamics in Bermuda.

185. OneComm references the Telecommunications Authority of Trinidad and Tobago regarding OTT services. However, the quote is selective. The full quote [emphasis added] is supplied below.

“The Authority’s Determination: Retail Domestic Mobile Telephony Market Definition highlights that OTTs significantly influence the domestic mobile market in Trinidad and Tobago, with 70%– 90% of respondents using these services. OTTs act as a competitive constraint on traditional mobile operators, although they are not seen as perfect substitutes for entire mobile plans.”¹³

186. Regarding OTT services, the European Commission has stated:

“[...] over-the-top (OTT) services [...] today are generally not considered as direct substitutes to traditional services provided by electronic communication service providers, and which in any case do not provide physical and data connectivity”¹⁴

¹³Telecommunications Authority of Trinidad and Tobago, Framework on Over-the-Top Services (OTT) in Trinidad and Tobago (2024) <https://tatt.org.tt/wp-content/uploads/2024/10/Framework-on-OverTheTop-services-October-2024.pdf> . Accessed 2 July 2025.

¹⁴ Commission Recommendation of 18.12.2020 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation.

5.4.2. Interpretation of the European Commission's Market Review Guidelines

187. OneComm notes that the Preliminary Report draws upon the European Commission's guidelines on Market Analysis. However, they argue that, as EU regulators apply those regulations predominately to wholesale markets, it is incorrect to use this approach to justify applying *ex ante* regulation to retail markets.
188. To illustrate this point, OneComm notes the European Commission's 2020 recommendation on relevant markets, which stated that only two markets (both wholesale) should be susceptible to *ex ante* regulation. This contrasts with earlier guidance from 2003, which listed 18 markets (including seven retail markets). OneComm argues that the RA is thus relying on what it terms "outdated" guidance.

RA's Response to OneComm comment

189. Principally the RA has carried out the ECMR following the requirements set out in the Electronic Communications Act 2011. The RA notes though the relevance of European markets which follow a similar framework. Therefore, the RA has taken account of and reflected European jurisprudence where it is relevant and appropriate.
190. The RA also notes that the European Courts have developed a rich case law on the application of competition law, and the European approach is globally influential and widely regarded as best practice. It is thus valid for the RA to draw upon the European approach and experience in carrying out a market review.
191. The RA does not agree with OneComm's interpretation that it is incorrect to apply the European Commission's approach to retail markets. Indeed, the Commission itself states that:

*The starting point for the identification of wholesale markets susceptible for ex ante regulation should always be the analysis of corresponding retail market(s).*¹⁵

192. Under the Modified Greenfield approach, retail markets are defined and assessed first, before moving on to wholesale markets. In respect of market definition, the European Commission states that:

*The starting point of any analysis should be an assessment of relevant retail market(s), taking into account demand-side and supply-side substitutability from the end-user's perspective over the next review period based on existing market conditions and their likely development.*¹⁶

193. It further states:

¹⁵ European Commission, Guidelines on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services. Article 15. (2018) [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018XC0507\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018XC0507(01)) . Accessed 2 July 2025.

¹⁶ Id. Article 26.

When carrying out a market analysis under Article 67 of the Code, both the national regulatory authorities and the Commission should start the analysis from the retail markets.¹⁷

194. It is true that, across the EU as a whole, the focus of electronic communications regulation has shifted to wholesale markets: the most recent recommendation on relevant markets includes just two wholesale markets and no retail markets.¹⁸ This is quite different from the position in Bermuda because it was in reaction to European national regulators finding retail markets to be competitive in contrast to the SMP findings which the RA has provisionally made in Bermuda.

195. Also, the European focus on wholesale markets does not preclude NRAs from analysing other markets, including retail markets. The 2020 Recommendation on relevant product and service markets within the electronic communications sector specifically notes that NRAs may also analyse other markets (i.e. outside the two listed in the recommendation) if they have sufficient grounds to consider that the three criteria test is met:

[...] national regulatory authorities can also define other relevant product and service markets, not listed in this Recommendation, if they can prove that in their national context, the markets meet the three criteria test.¹⁹

196. Under this process, EU member states have applied *ex ante* regulation to retail telecommunications markets. For example, as of 2020, six member states were still regulating the retail market for access to the public telephone network at a fixed location (despite this market not being on the list of recommended markets).²⁰ These member states had followed the market review guidelines (market definition, susceptibility to *ex ante* regulation, SMP assessment and remedy design) for this retail market.

197. Taken together, this indicates that (a) the European Commission approach is designed to encompass reviews of both wholesale and retail markets; (b) it is not incorrect to apply this approach to retail markets; and (c) it is appropriate to assess markets not listed in the Recommendation if warranted by the national context.

5.4.3. Publication of Market Data

198. OneComm notes that The Regulatory Authority Act 2011 (“RAA”) states at Section 71 that the administrative record in a public consultation shall include “any additional material, not generally available to the public on which the Authority relied” and “any reports,

¹⁷ European Commission, Commission Recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation. Article 23. (2020) <https://digital-strategy.ec.europa.eu/en/news/commission-updated-recommendation-relevant-markets> . Accessed 2 July 2025.

¹⁸ European Commission, Commission Updated the Recommendation on Relevant Markets (December 2020) <https://digital-strategy.ec.europa.eu/en/news/commission-updated-recommendation-relevant-markets> See the explanatory note linked and Article 43 in the Commission’s Recommendation. Accessed 2 July 2025.

¹⁹ Id. Article 22.

²⁰ European Commission, Study on Future electronic communications product and service markets subject to ex-ante regulation Recommendation on relevant markets. Pp. 238-239. (2020) <https://digital-strategy.ec.europa.eu/en/library/study-future-electronic-communications-product-and-service-markets-subject-ex-ante-regulation> . Accessed 2 July 2025.

recommendations or decisions, whether preliminary or final, adopted in the course of the public consultation.”

199. OneComm argues that the RA has not published critical market data used in the study.

RA’s Response to OneComm comment

200. The RA intends to publish the Market Analysis Reports for 2023 and 2024 on Friday 29 August 2025. The delay in publishing this report has been largely due to inaccuracies in the data provided by sectoral providers which has taken the RA (and several sectoral providers) several iterations to resolve.

5.4.4. Termination Markets

201. OneComm states that there is no precedent for the combination of mobile and fixed termination in a single market.

RA’s Response

202. As set out in Figure 5.2 of the Preliminary Report, the RA is clear that it is proposing to define two separate markets for mobile termination and fixed termination.

5.4.5. Sufficiency of *Ex Post* Regulation

203. OneComm argues that the Preliminary Report is lacking a proper explanation as to why *ex post* competition rules alone would not be sufficient to promote or preserve competition in each of the relevant markets. It notes that the RA has not exercised such powers in the last review period and argues that the RA has no reasonable basis to draw the conclusion that *ex post* regulation is insufficient for the next 4 years.

RA’s Response to OneComm comment

204. In the Preliminary Report the RA noted that:

“investigating complaints about anti-competitive conduct can be both time-consuming and costly. Moreover, there is the risk of ongoing consumer harm occurring (eg from excessive pricing) while the RA investigates the issue.”

205. The RA notes that in general *ex ante* remedies are applied on a forward-looking basis to help to move a market towards effective competition (or to mimic a competitive outcome). By contrast, *ex post* competition law rules are used in a backward-looking capacity to address historic instances of abuse of dominance or anti-competitive conduct through restrictive agreements. In this regard the use of competition law tools could expose the market to further harm resulting from anti-competitive conduct while an investigation is carried out.
206. In addition, *ex ante* remedies allow the imposition of more targeted interventions and are, in general, a more appropriate tool where the intervention must be sustained over time. They are also important for creating regulatory certainty for consumers and other market participants (such as access seekers). The European Commission has noted.

“Ex ante regulation would for example be an appropriate complement to competition law in circumstances where the regulatory obligation necessary to remedy a market failure could not be imposed under competition law (e.g. access obligations under certain circumstances or specific cost accounting requirements), where the compliance requirements of an intervention to redress a market failure are extensive and must be maintained over time (e.g. the need for detailed accounting for regulatory purposes, assessment of costs, monitoring of terms and conditions including technical parameters and so on), or where frequent and/or timely intervention is indispensable, or where creating legal certainty is of paramount concern (e.g. multi-period price control obligations).”²¹

5.4.6. Profitability Metrics

207. OneComm argues that the RA’s Preliminary Report introduces ROCE benchmarking as its main justification for implementing a variety of proposed *ex ante* remedies. OneComm notes that the RA has estimated a 58% ROCE for OneComm in 2023, which would represent a significant increase from the 18% ROCE estimates for 2020. It criticises what it regards as a lack of transparency in deriving these figures.
208. OneComm notes that their Bermuda business includes non-licensed and licensed business activities. They also argue that ROCE is not an appropriate measure of profitability for the sector, given the data problems inherent in its calculation. OneComm argues that EBITDA margins are a more appropriate metric for reflecting the degree of profitability of electronic communications companies, and they provide a report by research firm Twimbit, which indicates EBITDA margins for telecommunications service providers that are around 34% on average.

RA’s Response to OneComm comment

209. The RA does not agree with OneComm’s contention that ROCE benchmarking represents the RA’s “main justification for implementing a variety of proposed *ex ante* remedies”. The justification for *ex ante* remedies is the finding of SMP in the identified markets. In turn, this finding is based on consideration of market share and the factors set out in ECA Section 23(2). The RA notes that.

*Very large market shares held by an undertaking for some time – in excess of 50% – are in themselves, except in exceptional circumstances evidence of the existence of a dominant (SMP) position.*²²

210. The RA has, therefore, not used ROCE benchmarks as the basis or justification for implementing the *ex ante* remedies. The ROCE benchmarks were used as ancillary or supporting data points which, taken together with other evidence, are generally indicative of a lack of competitive pressure in Bermuda’s EC markets which would drive down retail prices to competitive levels.

²¹ European Commission, Explanatory Note accompanying the Commission Recommendation on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation. Pp14. (2020) <https://digital-strategy.ec.europa.eu/en/news/commission-updated-recommendation-relevant-markets> . Accessed 2 July 2025.

²² Extract from the European Commission's SMP guidelines for 2018. [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018XC0507\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018XC0507(01)) . Accessed 2 July 2025.

211. Regarding OneComm’s specific points on calculation of ROCE, the RA’s estimate of OneComm’s ROCE was derived from OneComm’s audited annual reports. The estimate of 58% for 2023 was based on OneComm’s Annual Report for 2023. ROCE was given by the formula:

$$\text{ROCE} = \text{EBIT} / (\text{total assets less current liabilities})$$

212. The RA discusses the application of this formula to estimate OneComm’s ROCE in Section 5.6 below and considers the impact OneComm’s restated audited accounts for 2024 on the ECMR process.

5.5. Response from Mr Raymond Seymour

213. Mr Seymour’s response raises a number of issues which are not in the scope of the Preliminary Report and ECMR. This includes Mr Seymour’s supplemental response dated 9 June 2025, which focuses on the RA’s funding mechanism and staffing levels. The analysis below addresses the issues raised which fall within scope of the ECMR.

5.5.1. Technical Standards for Broadband

214. Mr Seymour comments that the report lacks proposals for a regulated technical standard for broadband. He states that in other markets regulators implement minimum technical standards. Mr Seymour considers the absence of a standard “*risks allowing carriers to offer any level of service at any price, with significant regulatory freedom.*”

RA’s Response to Mr Seymour’s comment

215. The RA notes the importance of distinguishing between technical network Quality of Service (QoS) standards (such as on failure rates, jitter, latency, and download speeds) and customer service QoS standards (such as provisioning timescales and fault repair times). Some telecoms regulators set QoS standards for the latter while others just require sectoral providers to publish customer service QoS offers. The RA is aware of some more recent legislation (eg the Telecommunications (Quality of Service Standards) Rules 2023 enacted by OUR Jamaica²³) that have sought to provide further clarity in this area. The RA intends to pursue similar requirements in the upcoming Update to the Principles of Consumer Protection.

5.5.2. Disparity Between Advertised and Delivered Speeds and Lack of Consumer-Centric Quality of Service Metrics

216. Mr Seymour notes a significant disparity between advertised speeds (reported by the RA in 2022 to be 259 Mbps) and delivered speeds (reported to be 91.96 Mbps by Cable.co.uk). Mr Seymour further notes a lack of data on service quality, including uptime, coverage or speeds, and suggests the RA should survey customers about their experience.

RA’s Response to Mr Seymour’s comment

217. The RA notes the disparity highlighted by Mr Seymour. For clarity, the “advertised speed” referred to by Mr Seymour in 2022 is shown in the RA’s Market Analysis 2022 as the Average

²³ OUR Jamaica, The Telecommunications Act: The Telecommunications (Quality of Service Standards) Rules, 2023 (2023) <https://our.org.jm/wp-content/uploads/2024/09/The-Telecommunications-Quality-of-Service-standard-Rules2023-002.pdf>. Accessed 8 August 2025.

Broadband Subscription Speed. This metric is calculated from data submitted by the sectoral providers and is admittedly on the higher end of the ranges. Sectoral providers are currently required to submit the number of subscribers in bands) for example 2 Mbps to less than 10 Mbps, 10 Mbps to 30 Mbps, 30 Mbps to 100 Mbps, 100 Mbps to 300 Mbps etc. The number presented in the Market Analysis reports has consistently used the upper number for calculating the Average Broadband Subscription Speed. If the calculation was amended to use the middle of each range, the Average Broadband Subscription Speed for 2022 would be 231 Mbps. The RA acknowledges that this form of calculation is imprecise by its very nature. The RA will consider what steps can be taken to enhance the accuracy of this statistic in the future.

218. The RA further notes the data provided by Cable.co.uk (Worldwide broadband speed league 2024²⁴) shows that Bermuda's mean download speed for 2024 is 107.4 Mbps (which is different to the 91.96 Mbps noted by Mr Seymour). This is comparable to the recent Speedtest Intelligence report²⁵ by Ookla that shows Bermuda as having a median download speed of 106.49 Mbps for Q4 2024. It is worth noting that the Speedtest median download speed for Q2 2025 is now 133.69 MBps.
219. The RA intends to include customer experience measurements in future Market Analysis reports that will be made available for public viewing. This inclusion will likely involve data from various sources including Ookla and Cable.co.uk. The RA will also consider including a customer based survey in this regard.

5.5.3. The Proposed Broadband Anchor Service

220. Mr Seymour notes the proposed broadband anchor service is focused solely on entry-level service. Mr Seymour argues that the historical anchor pricing regulation established a "price floor" for other services. Mr Seymour further argues that the broadband offering of 50 Mbps entry is significantly below regional norms and proposes an ambitious roadmap where the download speed of the anchor is increased to 1 Gbps by 2029.

RA's Response to Mr Seymour's comment

221. The regulated anchor price for an entry-level product sets a price cap rather than a specific price. This means that the anchor product price does not set a price floor in itself. But it does provide a regulatory constraint on the prices charged by the regulated sectoral provider for higher functionality services via chain of substitution effects whereby, if the provider raised the prices of higher speed broadband services significantly, consumers would be likely to switch to the entry-level anchor service.
222. The RA is also of the view that retaining a degree of pricing flexibility for other services in the market is beneficial for competition and innovation in the market.
223. The RA notes that, at 50 Mbps, the entry-level product offers a download speed well below that in most of the benchmark countries. Given this finding, as will be seen below, the RA has

²⁴ Best Broad Band Deals, Worldwide Broadband Speed League 2024 (2024) <https://bestbroadbanddeals.co.uk/broadband/speed/worldwide-speed-league/> . Accessed 9 July 2025.

²⁵ Ookla, Caribbean Broadband Competition Picks Up (2025) https://www.ookla.com/articles/caribbean-broadband-competition-picks-up?utm_source=Ookla%20Insights&utm_medium=email&utm_campaign=Express_2025-07-10_06:30:00&utm_content=Caribbean%20Broadband%20Competition%20Picks%20Up . Accessed 11 July 2025.

increased the download speed of the regulated anchor product but not to the level proposed by Mr Seymour.

5.5.4. The Proposed Mobile Anchor Service

224. Mr Seymour argues that the RA should provide a comprehensive definition for the mobile service anchor product comprising: voice minutes, text messages, GB data allowance size, specific perks (if any), throttle speed, associated license fee, overage fees, behaviour of hard caps (causing shut-off), soft caps (causing slowdown or overage fees), and regulated speeds (for 4G and 5G).
225. Mr Seymour further argues that the RA should mandate that Digicel and OneComm prominently and accessibly include anchor product information within their digital platforms.

RA's Response to Mr Seymour's comment

226. The RA notes that the mobile data allowance is the main element by which service tiers are differentiated by sectoral providers. The RA's view is that:
- This metric should be the primary metric used for defining the entry level mobile anchor service;
 - the entry-level product should be prominently advertised in the marketing material (and especially on the website) of the SMP sectoral providers; and
 - other less important characteristics of the entry-level product can be determined through competitive mechanisms.

5.5.5. Mobile Price Benchmarking for Pre-Pay

227. Mr Seymour argues that the benchmarking methodology for mobile services must be expanded to all consumer segments including pre-pay services. Mr Seymour also argues that these segments function differently.

RA's Response to Mr Seymour's comment

228. The RA reiterates its view (as expressed in the initial Consultation Document) that the retail mobile services market includes both postpaid and prepaid customers. The RA noted that retail mobile services provided under prepaid or contract subscriptions offer identical functionality, and concluded that there was demand-side and supply-side substitutability between both types of service.
229. Given these substitution effects, the RA does not consider it necessary to benchmark the prices of prepaid services as well as postpaid services: the price of one type of service will constrain the other. It has selected postpaid rather than prepaid services for the mobile anchor because:
- Post pay services generate the bulk of mobile services revenue in Bermuda; and
 - adding a prepay anchor would significantly increase the complexity of the regulation and could easily lead to regulatory error and market distortions.

5.6 OneComm's Restatement of its Financial Results for 2024

230. The audited annual financial statements of OneComm have provided a segment breakdown (separating Bermuda, Cayman and Corporate) for a number of years. The RA has used the Bermuda segment statistics in its general calculations for overall profitability of OneComm in the Bermuda EC market.
231. The RA received a copy of OneComm's audited financial accounts for 2024 on 6 August 2025. Upon initial review, the RA noted that the previous segment breakdown showing Bermuda, Cayman and Corporate had been abbreviated to just reflect Bermuda and Cayman. Closer examination using the 2023 annual report (and the restatement of the 2023 statistics in the 2024 annual report) revealed that virtually all of the corporate cost structure was absorbed into the Bermuda segment. In 2023, only \$5k was assigned to the Cayman segment and in 2024, all of the corporate cost structure was assigned to the Bermuda segment.
232. The RA has had an initial discussion with OneComm on this matter. OneComm has advised the RA that they have always treated the corporate cost structure as being part of the Bermuda business. They specifically noted that the vast majority of their staff costs have been included in the corporate segment.
233. The RA is still reviewing submissions from OneComm in this regard. However, this review will take time and will involve additional discussion with OneComm. The results of this review will not be available before the end of August 2025 when this Final Report is required to be published. However, as discussed in this document ROCE was not a determinant factor for the RA's ECMR analysis and conclusions.
234. In the Preliminary Report, the RA reported that OneComm's (Bermuda segment only) ROCE had grown from 18% in 2020 to 58% in 2023. Using the restated segment data, OneComm (Bermuda only – including Corporate) had a ROCE of 22%. OneComm's ROCE for 2024 (using the new reporting format) was 23%. This compares with a weighted average cost of capital (WACC) for ATNI, OneComm's owners, of 6.6%.²⁶
235. The RA recognises that OneComm needs a ROCE that exceeds its WACC by a premium that compensates it for regulatory market risk if it is to continue to make future investments in the sector. However, and as reported in the Preliminary Report, the RA regards a ROCE of over 20% (with a reasonable WACC of around 10%) as a cause for concern. OneComm's ROCE of 23% in 2024 combined with ATNI's WACC of 6.6% continues to demonstrate evidence of significant profits.
236. Based on its initial analysis of the restatement, the RA has concluded that:
- The impact of the restatement (absent any further amendments) reduces the ROCE and EBITDA of the Bermuda segment of OneComm reported in the Preliminary Report.

²⁶ Guru Focus, What is ATN International WACC %? (August 2025)
<https://www.gurufocus.com/term/wacc/ATNI#:~:text=What%20is%20ATN%20International%20WACC,of%20capital%20is%206.24%25%25> . Accessed 18 August 2025.

- The findings of the market review process are unaffected by this uncertainty. The RA's findings on market definition, identification of relevant markets, assessment of SMP and development of remedies follow the requirements of the ECA. They do not in any way rely on the profit levels of OneComm or Digicel – the two sectoral providers found to have SMP in the EC sector.

6. FINAL MARKET DEFINITION, SMP ASSESSMENT AND REMEDIES TO PREVENT OR DETER ANTI-COMPETITIVE EFFECTS THAT ARE OR ARE LIKELY TO BE CAUSED BY THE PRESENCE OF SMP IN A RELEVANT MARKET

6.1. Market Definition Final Conclusions

237. This section sets out the RA's final market definitions regarding the EC sector.
238. During the ECMR process, the RA analysed the EC market, financial data submitted by the EC sectoral providers and responses to the Consultation Document and Preliminary Report to estimate with more detail the specific markets that form the basis for the assessment of market power.
239. The RA, as required under section 22 of the ECA, issued a notice identifying relevant products and geographic market which in its view appeared to be susceptible to the imposition of *ex ante* remedies based on a forward-looking assessment in its Consultation Document.
240. The RA, according to section 21 of the ECA, must determine whether to impose, modify or withdraw SMP obligations relating to a particular sectoral provider or sectoral providers based on its review of the relevant market and in deciding the obligations that it should apply.
241. Based on the statutory obligations of Part 4 of the ECA, the RA defined the relevant markets of the EC sector as per Figure 6.1 below:

Figure 6.1: Relevant Markets Identified and Report on Market Definition and Relevant Markets

Service type	Relevant market definition
Fixed broadband	Retail provision of fixed broadband Internet connectivity, provided over any technology, and for any speed, on an island wide basis
	Wholesale provision of fixed broadband Internet connectivity, provided over any technology, and for any speed, on an island wide basis
Mobile services	The island wide provision of retail mobile services (ie voice, text and data).
	The island wide provision of wholesale mobile services
	Wholesale voice call and messaging (SMS/MMS) termination services on each mobile sectoral provider's network
Fixed Voice	The island wide provision of retail voice services (ie voice call access and origination) from a fixed location
	Wholesale voice call termination services on each fixed voice sectoral provider's network
Business connectivity	Retail business connectivity services on an island wide basis
	Wholesale terminating segments for business connectivity services on an island wide basis

242. The above market definitions are adopted in the RA's General Determination and inserted in Appendix B of the Schedule of the General Determination.

6.2. SMP Assessment's Final Conclusions

243. As stated above, Part 4 of the ECA contains the process for the RA to impose *ex ante* obligations on sectoral providers found to have SMP.
244. Under section 2 of the ECA SMP means a position of economic strength in the relevant market or markets that affords an undertaking, either individually or jointly with others, the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers, which may provide the basis for imposition of *ex ante* remedies.
245. The SMP assessment was conducted pursuant to section 23 of the ECA and section 59(2) of the RAA.
246. The RA, upon identifying the relevant products and geographic markets, is required to analyse each market to assess if any sectoral providers have SMP as defined in section 23 of the ECA.
247. If the RA determines that a market is not effectively competitive and that sectoral providers have SMP in relevant markets, it may make administrative determinations that impose one or more obligations on any sectoral provider found to have SMP in a relevant market. The aim of the administrative determination is to prevent or deter anti-competitive effects that are, or are likely to be, caused by the presence of SMP in a relevant market (section 24 of the ECA).
248. As stated in the Consultation Document and the Preliminary Report, the three criteria set out in section 22(2) of the ECA were met in each market listed in section 6.1 above.
249. The RA, based on its assessment during the ECMR process, determines that the following sectoral providers have SMP in the following relevant markets:
- OneComm possesses SMP in the retail and wholesale fixed broadband market on an island wide basis.
 - Digicel and OneComm possess joint SMP in the retail and wholesale mobile services market on an island wide basis.
 - Digicel possesses SMP in the retail fixed voice services market on an island wide basis.
 - Digicel and OneComm possess joint SMP in the retail and wholesale business connectivity services market on an island wide basis.
 - That all sectoral providers possess SMP in the retail and wholesale call termination services market on an island wide basis.
250. Giving the RA's determination all sectoral providers identified as having SMP must comply with the *ex ante* remedies imposed by the RA according to section 24 of the ECA in section 6.3 below as specified in the RA's General Determination.

6.3. Remedies Proposed in the Preliminary Report to Prevent or Deter Anti-Competitive Effects that are or Are Likely to be Caused by the Presence of SMP in a Relevant Market

251. The RA's adoption of *ex ante* remedies is based on the determination of SMP in relevant markets as per section 20 of the ECA, the principles and objectives of the ECMR process as per section 21 of the ECA, the markets identified according to section 22 of the ECA, the principles for determination of SMP in section 23 of the ECA and, the RA's determination that *ex ante* remedies are necessary to prevent or deter anti-competitive effects that are or are likely to be caused by the presence of SMP in a relevant market as per section 24 of the ECA.

252. In May 2025, the RA published its Preliminary Report on the ECMR.²⁷ This presented the RA's assessment of responses to the January 2025 consultation on the ECMR,²⁸ its provisional conclusions on identification of SMP in electronic communications markets in Bermuda, and its proposals for remedies to address issues arising from SMP in the period 2025 to 2029.

253. The Preliminary Report included proposals for remedies to prevent excessive pricing in retail and wholesale markets in which SMP has been identified. This covered:

- **Price regulation of entry level products (anchor product price regulation) for fixed broadband and mobile postpaid services**

This proposed remedy sets the functionality and regulated price for entry-level products that are consistent with efficient benchmarks in comparative countries. The remedy is designed to provide a constraint on the prices of other services and packages in the same market through chain of substitution effects. That is if prices of other services/packages are excessive, consumers may switch to the regulated entry-level "anchor" product.

- **Monitoring of the retail prices of the median products in the fixed broadband and mobile services markets**

This proposed remedy is designed to identify excessive pricing using a comparison of prices in Bermuda with prices for equivalent or similar services in comparator countries. If prices are found to be excessive through this analysis, the RA may intervene to adjust them in line with efficient benchmarks.

- **Setting values of X for retail minus X% wholesale price caps for fixed broadband and business connectivity services**

This proposed remedy uses international benchmarks to establish a cap on the price of wholesale services set at the retail price minus X% where X provides sufficient margin between wholesale prices and downstream retail prices to safeguard access seekers from margin squeeze.

²⁷ Regulatory Authority, Market Review of the Electronic Communications Sector: Preliminary Report, Preliminary Decision and Order (May 2025) https://cdn.prod.website-files.com/62670c93ceef61f2e8acc1ce/681a18aab7e5a3eff7eedff4_EC%20Market%20Review%20Preliminary%20Report.pdf . Accessed 2 July 2025.

²⁸ Regulatory Authority, Market Review of the Electronic Communications Sector: Consultation Document (January 2025) https://cdn.prod.website-files.com/62670c93ceef61f2e8acc1ce/679163b5ac3207accba05f3f_20250122%20ECMR%20Initial%20Consultation%20Paper.pdf . Accessed 2 July 2025.

254. Below is a summary of the proposed remedies for each relevant market:

6.3.1. Retail and Wholesale Mobile Services Market

255. In the Preliminary Report, the RA made a finding that Digicel and OneComm had joint SMP in the mobile market and proposed the following remedies to address SMP in this market:

- Digicel and OneComm would both be required to provide an entry-level mobile service anchor product as specified by the RA. The price and functionality of this anchor product would be determined by an initial benchmarking exercise that would be carried out in parallel with the Preliminary Report and provided as part of the Final Report.
- Digicel and OneComm would be required to provide prominent and accessible information on the entry-level mobile service anchor product on their websites, in their showrooms and on sales scripts. Digicel and OneComm would also have to ensure that their staff were fully trained on the product offering.
- Digicel and OneComm could be required to adjust the entry-level mobile service anchor product pricing and functionality as a result of the RA's annual benchmarking exercise reviewing the entry-level mobile services anchor product. The result of the RA's first annual benchmarking exercise can be seen in Section 7 below.
- Digicel and OneComm could be required to adjust their retail prices by either capping or reducing the retail pricing as a result of the RA's annual benchmarking exercise reviewing the median price points in the mobile services market.
- Digicel and OneComm would both be required to offer mobile services on a stand-alone basis.
- Digicel and OneComm would both be required to provide the RA with KPIs on this market.
- Digicel and OneComm would both be required to supply wholesale services to access seekers on a fair, reasonable and non-discriminatory basis. Access seekers would be required to demonstrate reasonable demand for the wholesale products requested from Digicel and OneComm.
- Digicel and OneComm would both be required to provide the RA with KPIs on the supply of wholesale products to both access seekers and their own downstream retail business.

256. The RA upon reviewing the responses to the Preliminary Report, conducting the benchmarking exercise, analysing the EC sector and data provided by the sectoral providers, confirms that it will impose the above remedies on Digicel and OneComm. Based on this decision the RA confirms that Digicel and OneComm must comply with the obligations regarding the provision of retail and wholesale mobile services contained in figure 6.2 below.

257. For clarity the RA notes that the data allowance for the retail mobile anchor product is 10GB. This is the same data allowance proposed in the Consultation Document. Therefore, as will be

seen in the benchmarking results in section 7 below, the anchor product must have at least 10GB per month data allowance for a maximum price of \$50 per month.

258. Regarding the median price *ex ante* obligation, as a result of the benchmarking exercise in section 7 below, the RA's decision is that no price adjustment is necessary at this moment. The RA will continue to monitor the median retail prices and anchor product prices for the mobile services annually according to the benchmark methodology (set out in Section 7 of the Preliminary Report) and determine each year if the prices must be adjusted. As mentioned above, if a price adjustment is determined to be necessary, Digicel and OneComm must adjust their prices at that time.
259. Digicel and OneComm must implement the remedies listed above by no later than 1 October 2025.
260. Details regarding the information provision and KPIs reports can be found in Annex C below. Digicel and OneComm are required to provide information to the RA and must follow the process and timelines contained in the General Determination when submitting information to the RA.

6.3.2. Retail and Wholesale Fixed Broadband Services Market

261. In the Preliminary Report, the RA made a finding that OneComm had SMP in the fixed broadband market and proposed the following remedies to address SMP in this market:
- OneComm would be required to provide an entry-level anchor fixed broadband product as specified by the RA. The price and functionality of this anchor product would be determined by an initial benchmarking exercise that will be carried out in parallel with the Preliminary Report and provided as part of the Final Report.
 - OneComm would be required to provide and maintain prominent and accessible information on the entry-level fixed broadband anchor product on its website, in its showrooms and on sales scripts. OneComm would also have to ensure that their staff were fully trained on the product offering.
 - OneComm could be required to adjust the entry-level fixed broadband anchor product pricing and functionality as a result of the RA's annual benchmarking exercise reviewing the entry level fixed broadband anchor product.
 - OneComm could be required to adjust their retail prices by either capping or reducing the retail pricing as a result of the RA's annual benchmarking exercise reviewing OneComm's median pricing.
 - OneComm would be required to offer fixed broadband on a stand-alone basis.
 - OneComm would be required to provide the RA with KPIs on this market.
 - OneComm would be required to supply wholesale services to access seekers on a fair, reasonable and non-discriminatory basis.

- OneComm could not supply wholesale products that were unwanted by the access seeker unless OneComm could demonstrate that unbundling was technically infeasible or generated disproportionate costs. Access seekers would be required to demonstrate reasonable demand for the wholesale products requested from OneComm.
- OneComm could be required to supply wholesale inputs (wholesale broadband access) at a price that was capped at Retail minus X% where X would be set at a level to enable efficient competition in retail markets. The initial Retail minus X% would be determined by an international benchmarking exercise carried out by the RA in parallel with the Preliminary Report and provided as part of the Final Report. Subsequent reviews would be carried out by the RA on a biennial basis.
- OneComm may be required to adjust the Retail minus X% of the fixed broadband wholesale products because of the biennial international benchmarking exercise carried out by the RA.
- OneComm would be required to provide the RA with KPIs on the supply of wholesale products to both access seekers and its own downstream retail business.

262. The RA, upon reviewing the responses to the Preliminary Report, conducting the international benchmarking exercise and analysing the EC sector and data provided by the sectoral providers, decides to impose the above remedies on Digicel and OneComm.
263. For clarity, the RA notes that it has revised and increased the download and upload speed of the fixed broadband anchor product which in the 2020 ECMR was determined to be at least 25 Mbps download with at least 10 Mbps upload speed priced at a maximum of \$80 per month to at least 100 Mbps download and 20 Mbps upload for a maximum price of \$80 per month. As will be seen in section 7 below, the change in the download and upload speed is a result of the benchmarking exercise carried out by the RA, as envisaged in the Preliminary Report, which showed that the download speed of the Bermuda fixed broadband anchor product was below the average download speed of the countries examined. As a comparative example, in March 2024, the Federal Communications Commission in the United States raised their benchmark for fixed broadband to a download speed of 100 Mbps and an upload speed of 20 Mbps.²⁹
264. Regarding the proposed adjustment of retail prices for fixed broadband services, as will be seen in the benchmarking analysis set out in sections 7.4.2. to 7.4.9 below, the RA made a finding that OneComm's retail prices for fixed broadband were excessively high. The price of the median fixed broadband product in Bermuda was 50% above benchmark level at the end of 2023. The price remains 50% above the benchmark level in mid-2025. Given this, the RA has imposed a two part price adjustment designed to address this excessive pricing for the fixed broadband market.
265. Adjustment 1: OneComm is required to implement a once off price adjustment of 7% on their Weighted Average Retail Price (**WARP**) on 1 October 2025. This provides a full billing cycle between the publication of this Final Report and the implementation date.

²⁹ FCC News, FCC Increases Broadband Speed Benchmark (March 2024)
<https://docs.fcc.gov/public/attachments/DOC-401205A1.pdf> . Accessed 13 August 2025.

266. Adjustment 2: Annual price cap review commencing in October 2025 (after the initial price adjustment) which is designed to reduce OneComm's WARP by Y% by October 2026 and again by October 2027, and October 2028. Y will be set annually with two objectives in mind: to reduce OneComm's WARP so that by 2029 it is close to benchmark levels as re-estimated annually and to maintain competition in the fixed broadband market.
267. Regarding the requirement of OneComm to supply wholesale broadband access at a price that is capped at Retail Minus X%, the RA has determined that the value of X is 50%. Details regarding the findings made by the RA through the benchmarking analysis can be found in section 7.2 below and its subsections.
268. OneComm must implement the remedies listed above by no later than 1 October 2025.
269. Details regarding the information provision and KPIs reports can be found in Annex D below. OneComm is required to provide information to the RA and must follow the process and timelines contained in the General Determination when submitting information to the RA.

6.3.3. Business Connectivity Services Market

270. In the Preliminary Report, the RA made a finding that Digicel and OneComm had SMP in the business connectivity market and proposed the following remedies to address SMP in this market:
- Digicel and OneComm would both be required to provide the RA with KPIs on their retail business connectivity services including their own downstream retail businesses.
 - Digicel and OneComm would both be required to supply wholesale services to access seekers on a fair, reasonable and non-discriminatory basis;
 - Digicel and OneComm could not supply wholesale products that were unwanted by the access seeker unless they could demonstrate that unbundling was technically infeasible or generated disproportionate costs. Access seekers would be required to demonstrate reasonable demand for the wholesale services requested from Digicel and OneComm;
 - Digicel and OneComm could both be required to supply wholesale inputs³⁰ at a price that is capped at Retail minus X% where X is set at a level to enable efficient competition in retail markets. The initial Retail minus X% would be determined by an international benchmarking exercise carried out by the RA in parallel with the Preliminary Report and provided as part of the Final Report. Subsequent reviews would be carried out by the RA on a biennial basis.
 - Digicel and OneComm may be required to adjust the Retail minus X% of the business connectivity products as a result of the biennial international benchmarking exercise carried out by the RA.
 - Digicel and OneComm would both be required to provide the RA with KPIs on the supply of wholesale products to both access seekers and its own downstream retail business.

³⁰ The key wholesale product in the supply of retail business connectivity service.

- OneComm would be required to provide the RA with KPIs on the supply of wholesale products to both access seekers and its own downstream retail business, so that the RA could detect any discrimination in non-price supply conditions.

271. The RA upon reviewing the responses to the Preliminary Report, conducting the international benchmarking report and analysing the EC sector and data provided by the sectoral providers, decides to impose the above remedies on Digicel and OneComm. As will be seen in the benchmarking analysis of section 7.2 and its subsections below, the value of X for the retail minus remedy is set at 42%.
272. Digicel and OneComm must implement the remedies listed above by no later than 1 October 2025.
273. Details regarding the information provision and KPIs reports can be found in Annex C below. Digicel and OneComm are required to provide information to the RA and must follow the process and timelines contained in the General Determination when submitting information to the RA.

6.3.4. Fixed Voice Telephony (FVT) Services Market

274. In the Preliminary Report, the RA made a finding that Digicel had SMP in fixed voice telephony services market and proposed the following remedies to address SMP in this market.
- Digicel would be required to maintain their existing copper access facilities until the RA approved the standards, procedure and timetable for decommissioning through a public consultation.
 - Digicel would continue to be required to offer fixed voice services on an island-wide and standalone basis. Consistent with the 2017 ECMR, this obligation to provide FVT is on a technology-neutral basis.³¹
 - Digicel would be required to provide the RA with KPIs on its delivery of FVT services.
275. The RA upon reviewing the responses to the Preliminary Report, conducting the international benchmarking exercise and analysing the EC sector and data provided by the sectoral providers, decides to impose the above remedies on Digicel.
276. Digicel must implement and comply with the remedies listed above by no later than 1 October 2025.
277. Details regarding the information provision and KPIs reports can be found in Annex C below. Digicel is required to provide information to the RA and must follow the process and timelines contained in the General Determination when submitting information to the RA.

³¹ For clarity Digicel can offer fixed voice as part of a bundle at the choice of the consumer and charge a different retail price for this value added service.

6.3.5. Call Termination Market – Fixed and Mobile

278. In the Preliminary Report, the RA made a finding that each of the fixed and mobile network sectoral providers in Bermuda had SMP in fixed and mobile call termination market. Based on this finding the RA proposed the following remedies to address SMP in this market:
- All sectoral providers would be required to terminate all valid calls or messaging (SMS/MMS) destined for their network;
 - All sectoral providers would be required to interconnect with other sectoral providers in Bermuda to allow exchange of calls and messaging (SMS/MMS) between them on a fair, reasonable and non-discriminatory basis; and
 - All sectoral providers would have to continue to follow the receiving party pays convention as discussed in section 6.7.3 Paragraph 250 of the Preliminary Report.
279. The RA notes that the “receiving party pays” convention noted above (and in the Preliminary Report) is not what occurs in the domestic market. The actual interconnection billing model in place is a “bill and keep” convention where sectoral providers do not charge each other for termination of calls within Bermuda. Each sectoral provider bills its own customers for the service. This convention has been in place for a number of years and encourages simplified interconnection.
280. The RA upon reviewing the responses to the Preliminary Report, conducting the international benchmarking report and analysing the EC sector and data provided by the sectoral providers, decides to impose the above remedies on sectoral providers.
281. All sectoral providers of the call termination fixed and mobile market must implement the remedies listed above by no later than 1 October 2025.
282. A table containing the summary of the market definitions and *ex ante* remedies that each sectoral provider found to have SMP must comply with can be found in section 6.5 below.

6.4. Methodology for SMP Sectoral Providers to Follow to Request Adjustment of the Prices of the *Ex Ante* Remedies on Relevant Markets for the Period 2025-29

283. The RA, consistent with the decisions made in the ECMRs of 2013 and 2020, has decided to provide a method in which sectoral providers can request adjustment regarding the prices of the *ex ante* remedies imposed in this 2025 ECMR. This methodology can be found in Annex B of this Final Report.

6.5. Summary of the Final Decision Regarding Market Definition and *Ex Ante* Remedies for Sectoral Providers Found to Have SMP in Bermuda on Relevant Markets for the Period 2025-29

Figure 6.2: Final Market Definitions and *Ex Ante* Remedies

Service Type & Relevant Market Definition	Sectoral Provider with SMP	<i>Ex Ante</i> Remedy
<p>Fixed Broadband</p> <p>Retail provision of fixed broadband Internet connectivity, provided over any technology, and for any speed, on an island wide basis.</p>	OneComm	<p>Excessive Retail Pricing</p> <ul style="list-style-type: none"> OneComm must provide an entry-level anchor fixed broadband product of (at least) 100 Mbps download and 20 Mbps upload priced at a maximum of \$80 per month. <p><i>The price and functionality of this anchor product was determined by an initial benchmarking exercise that was carried out in parallel with the Preliminary Report and provided as part of the Final Report.</i></p> <ul style="list-style-type: none"> OneComm must provide and maintain prominent and accessible information on the entry-level anchor product on its websites, in its showrooms and on sales scripts. OneComm must also ensure that its staff are fully trained in the product offering. OneComm may be required to adjust the entry-level fixed broadband anchor product pricing and functionality as a result of the RA's annual benchmarking exercise reviewing the entry level fixed broadband anchor product. OneComm must lower its fixed broadband WARP by 7% as of 1 October 2025 as a result of the RA's initial benchmarking exercise reviewing OneComm's median pricing. OneComm must lower its fixed broadband WARP at Y% each year through to 2029 (unless the further annual benchmarking exercises change this percentage). <p>Undue bundling and Tying of Retail Services</p> <ul style="list-style-type: none"> OneComm must offer fixed broadband on a stand-alone basis;
<p>Fixed Broadband</p>	OneComm	<ul style="list-style-type: none"> OneComm must lower its fixed broadband WARP by 7% as of 1 October 2025 as a result of the RA's initial benchmarking exercise reviewing OneComm's median pricing. OneComm must lower its fixed broadband WARP at Y% each year through to 2029 (unless the further annual benchmarking exercises change this percentage). <p>Undue bundling and Tying of Retail Services</p> <ul style="list-style-type: none"> OneComm must offer fixed broadband on a stand-alone basis;

Service Type & Relevant Market Definition	Sectoral Provider with SMP	Ex Ante Remedy
<p>Wholesale provision of fixed broadband Internet connectivity, provided over any technology, and for any speed, on an island wide basis.</p> <p>Fixed Broadband</p>	<p>OneComm</p>	<p>OneComm must provide the RA with Key Performance Indicators (KPIs) on this market. The KPIs must be submitted to the RA according to Annex D below</p> <p>Excessive Wholesale Pricing</p> <ul style="list-style-type: none"> • OneComm must supply wholesale services to access seekers on a fair, reasonable and non-discriminatory basis. • OneComm cannot supply wholesale products that are unwanted by the access seeker unless OneComm can demonstrate that unbundling is technically infeasible or generates disproportionate costs. Access seekers will be required to demonstrate reasonable demand for the wholesale products requested from OneComm. • OneComm must supply wholesale inputs at a price that is capped at Retail minus 50% where X is set at a level to enable efficient competition in retail markets. <p><i>The initial Retail minus X% was determined by an international benchmarking exercise carried out by the RA in parallel with the Preliminary Report and provided as part of the Final Report. Subsequent reviews will be carried out by the RA on a biennial basis.</i></p> <ul style="list-style-type: none"> • OneComm must adjust the Retail minus X% of the fixed broadband wholesale product as a result of the biennial international benchmarking exercise carried out by the RA. • OneComm must provide the RA with KPIs on the supply of wholesale products to both access seekers and its own downstream retail business. The KPIs must be submitted to the RA according to Annex D below.

Service Type & Relevant Market Definition	Sectoral Provider with SMP	Ex Ante Remedy
<p>Mobile Services</p> <p>The island wide provision of retail mobile services (ie voice, text and data).</p>	<p>Digicel and OneComm jointly for both Retail and Wholesale Mobile services.</p>	<p>Retail Mobile services</p> <ul style="list-style-type: none"> • Digicel and OneComm must provide an entry-level mobile service anchor product with at least 10GB monthly data allowance for a maximum price of \$50 per month. <p><i>The price and functionality of this anchor product was determined by an initial benchmarking exercise that was carried out in parallel with the Preliminary Report and provided as part of the Final Report.</i></p> <ul style="list-style-type: none"> • Digicel and OneComm must provide prominent and accessible information on the entry-level anchor product on their websites, in their showrooms and on sales scripts. Digicel and OneComm must ensure that their staff are fully trained on the product offering. • Digicel and OneComm must adjust the entry-level mobile service anchor product pricing and functionality as a result of the RA's annual benchmarking exercise reviewing the entry level mobile services anchor product. • Digicel and OneComm must adjust their retail prices by either capping or reducing the retail pricing as a result of the RA's annual benchmarking exercise reviewing the median price points in the mobile services market. • Digicel and OneComm must offer mobile services on a stand-alone basis. • Digicel and OneComm must provide the RA with KPIs on this market. The KPIs must be submitted to the RA according to Annex D below.

Service Type & Relevant Market Definition	Sectoral Provider with SMP	Ex Ante Remedy
<p>Mobile Services</p> <p>The island wide provision of wholesale mobile services.</p>	<p>Digicel and OneComm jointly for both Retail and Wholesale Mobile services</p>	<p>Excessive Wholesale Pricing</p> <ul style="list-style-type: none"> • Digicel and OneComm must supply wholesale services to access seekers on a fair, reasonable and non-discriminatory basis. Access seekers must demonstrate reasonable demand for the wholesale products requested from Digicel and OneComm. • Digicel and OneComm must provide the RA with KPIs on the supply of wholesale products to both access seekers and their own downstream retail business. The KPIs must be submitted to the RA according to Annex D below.
<p>Fixed Voice</p> <p>The island wide provision of retail voice services (ie voice call access and origination) from a fixed location.</p>	<p>Digicel</p>	<ul style="list-style-type: none"> • Digicel must maintain their existing copper access facilities until the RA approves the standards, procedure and timetable for decommissioning copper through a public consultation. • Digicel must continue to offer fixed voice services on an island-wide and standalone basis. • Digicel must provide the RA with KPIs on their fixed voice market. The KPIs must be submitted to the RA according to Annex D below.
<p>Business Connectivity</p> <p>Retail business connectivity services on an island wide basis.</p>	<p>Digicel and OneComm jointly for both Retail and Wholesale Business Connectivity.</p>	<p>Retail Business Connectivity Prices</p> <ul style="list-style-type: none"> • Digicel and OneComm must provide the RA with KPIs on their retail business connectivity services including their own downstream retail businesses. The KPIs must be submitted to the RA according to Annex D below.

Service Type & Relevant Market Definition	Sectoral Provider with SMP	Ex Ante Remedy
<p>Business Connectivity</p> <p>Wholesale terminating segments for business connectivity services on an island wide basis.</p>	<p>Digicel and OneComm jointly for both Retail and Wholesale Business Connectivity.</p>	<p>Wholesale Business Connectivity</p> <ul style="list-style-type: none"> • Digicel and OneComm must supply wholesale services to access seekers on a fair, reasonable and non-discriminatory basis. • Digicel and OneComm cannot supply wholesale products that are unwanted by the access seeker unless they can demonstrate that unbundling is technically infeasible or generates disproportionate costs. Access seekers must demonstrate reasonable demand for the wholesale services requested from Digicel and OneComm. • Digicel and OneComm must supply wholesale inputs at a price that is capped at Retail minus 42% where X is set at a level to enable efficient competition in retail markets. <p><i>The initial Retail minus X% was determined by an international benchmarking exercise carried out by the RA in parallel with the Preliminary Report and provided as part of the Final Report. Subsequent reviews will be carried out by the RA on a biennial basis.</i></p> <ul style="list-style-type: none"> • Digicel and OneComm must adjust the Retail minus X% of the business connectivity products as a result of the biennial international benchmarking exercise carried out by the RA. • Digicel and OneComm are both required to provide the RA with KPIs on the supply of wholesale products to both access seekers and its own downstream retail business. The KPIs must be submitted to the RA according to Annex D below.

Service Type & Relevant Market Definition	Sectoral Provider with SMP	Ex Ante Remedy
<p>Call Termination</p> <p>Wholesale voice call termination services on each fixed voice sectoral provider's network.</p> <p>Wholesale voice call and messaging (SMS/MMS) termination services on each mobile sectoral providers' network.</p>	<p>All Sectoral Providers that provide Voice Call and Messaging (SMS/MMS) Services.</p>	<ul style="list-style-type: none"> • All sectoral providers must terminate all valid calls or messaging (SMS/MMS) destined for their network. • All sectoral providers must interconnect (either directly or indirectly) with other sectoral providers in Bermuda to allow exchange of calls and messaging (SMS/MMS) between them on a fair, reasonable and non-discriminatory basis. • Sectoral providers that already provide call termination are prohibited from refusing a reasonable request to interconnect with a new entrant to this market. • All sectoral providers must continue to follow the "bill and keep" convention currently in place. Sectoral providers are not permitted to impose price controls for terminating calls or messaging (SMS/MMS) on their network.

7. INTERNATIONAL PRICE BENCHMARKING AND PRICE CONTROL REMEDIES

7.1. The Need for Benchmarking

284. In Section 6 of the Preliminary Report the RA proposed to use international benchmarking of prices for selected retail and wholesale services to implement price controls in the relevant markets. The RA's proposal was based on the following rationale:
- There was strong evidence of a need to introduce more price controls on SMP sectoral providers in relevant markets in Bermuda;
 - There were two main options for establishing price controls – to use international benchmarking or to set regulated prices based on cost orientation; and
 - The cost of setting and monitoring cost oriented prices varied little with the size of the sector. Therefore, in a microstate like Bermuda there was a significant danger that the cost oriented approach would raise regulatory costs to a level that could materially raise end-user prices. Setting cost oriented prices could also increase the scope for regulatory error and reduce both pricing freedom and investment incentives for sectoral providers.
285. As mentioned, the Preliminary Report contained proposals for remedies to prevent excessive pricing in retail markets in which SMP has been provisionally identified, including:
- Monitoring of median retail prices in the fixed broadband and mobile services markets;
 - price regulation of entry level services (anchor products) for fixed broadband and mobile postpaid services; and
 - setting values of X for retail minus X% wholesale price caps for fixed broadband and business connectivity (terminating segments).
286. Based on international benchmarking, Section 7.2 develops price control remedies for wholesale products in the fixed broadband and business connectivity markets. Section 7.3 then describes the methodology for retail price benchmarking. Using this approach Section 7.4 considers retail price benchmarking for the mobile services market and Section 7.5 considers retail fixed broadband. For the reasons set out in the Consultation Document and the Preliminary Report, the RA prefers to use international benchmarking to establish the price control remedies to be used by SMP sectoral providers in these markets in preference to the alternative of a cost modelling approach.

7.2. The Methodology for Deriving Values of X for Wholesale Services

7.2.1. Background and Introduction

287. In this study the RA has assessed and derived values of X to establish retail minus X% price caps for wholesale services in the fixed broadband and business connectivity markets in Bermuda.
288. In its Preliminary Report for the ECMR, the RA identified the need for regulation in these markets as follows:

- OneComm was identified as having SMP in fixed broadband markets and should be required to offer wholesale broadband access to access seekers at a price which avoided margin squeeze; and
- Digicel and OneComm were identified as having joint SMP in business connectivity markets and should be required to offer wholesale terminating segments to access seekers at a price which avoided margin squeeze.

289. The RA does not propose to set wholesale remedies in mobile services markets in Bermuda³² because existing wholesale services are established in the market and being consumed by retail providers (mobile virtual network sectoral providers – MVNOs)

290. The RA proposes to set a price cap of the form Retail minus X% as the mechanism for avoiding margin squeeze and so promoting greater competition in the retail markets for fixed broadband and business connectivity. The price benchmarking exercise described below is designed to set the value of X within this price cap.

7.2.2. The Function of the Wholesale Price Cap

291. Before estimating X, it is important to consider the purpose and function of the retail minus X% wholesale price cap. This is as follows:

- Retail prices of the SMP sectoral provider(s) are set to competitive levels, if necessary through regulation.³³
- In parallel, the RA sets a cap on the wholesale prices that a SMP sectoral provider can charge for key wholesale inputs to prevent margin squeeze.
- The wholesale price should be no more than the retail price minus X% where X% is the proportion of costs an access seeker which is as efficient as the access provider³⁴ incurs to provide retail services in competition with the vertically integrated SMP sectoral provider in addition to wholesale access costs.
- Wholesale and retail prices can be expressed as either individual product prices or the weighted average price across the range of relevant products. The latter is simpler for compliance purposes. It also offers SMP sectoral providers greater pricing flexibility at both wholesale and retail levels. Hence the RA decided that if retail minus X% wholesale caps are established, the compliance framework should be established on this basis.

³² The RA has provisionally found Digicel and OneComm to have joint SMP in mobile services markets.

³³ Note that this is the purpose of the median price benchmarking exercise and subsequent analysis contained in a separate report by Plum to the RA.

³⁴ An access seeker that is as efficient as the regulated access provider in delivering retail services and in provisioning the necessary network elements needed to convert broadband access into a retail product.

7.2.3. Wholesale Service Definitions

7.2.3.1 Wholesale Fixed Broadband Services

292. In the Preliminary Report, the RA decided not to proceed with infrastructure based regulation, e.g. local loop unbundling, access to passive infrastructure. The retail minus X% requirement is, therefore, designed instead to apply to wholesale broadband access by the SMP sectoral provider, OneComm.

7.2.3.2. Wholesale Business Connectivity

293. In business connectivity markets, at the wholesale level the focus is on the supply of wholesale terminating segments, i.e. the connection provided by an access provider between the end customer of the access seeker and the access seeker's own network.

7.2.4. Benchmark Methodologies to Derive Values of X

294. In the research three sources of data were used for benchmarks from which to derive values for X in retail minus X% wholesale price caps. These are:
- **Approach 1:** look at what national regulators in other countries have done when setting retail minus X% wholesale price caps.
 - **Approach 2:** look at the differences between retail prices and wholesale prices for wholesale broadband access and wholesale terminating segments in countries where national regulators have set the wholesale price at a cost oriented level.
 - **Approach 3:** calculate what proportion of the costs of an access seeker which is as efficient as the access provider³⁵ are needed to provide retail services in competition with the vertically integrated SMP sectoral provider in addition to wholesale access costs.
295. These three approaches are complementary. As such, they are used to cross check results. Consistent results between the three approaches can, therefore, be used for validation purposes.

7.2.5. Results of Analysis for Fixed Broadband Services

7.2.5.1. Data and Evidence Using Approach 1

296. Some regulators in other countries have set price caps for wholesale broadband access products on a retail minus X% basis - especially when setting initial wholesale prices for fibre access.
297. A relevant exercise was carried out by the CICRA³⁶ in the Channel Islands in 2014. This study established the margin that Jersey Telecom, as the SMP sectoral provider in Jersey, allowed to access seekers and compared it with margins based on regulated input prices in Australia, New

³⁵ An access seeker that is as efficient as the regulated access provider in delivering retail services and in provisioning the necessary network elements needed to convert broadband access into a retail product.

³⁶ The Channel Islands Competition and Regulatory Authorities.

Zealand and the UK. CICRA's analysis included ranges based on the pricing of competing retail products from competing internet service providers (ISPs) in the retail market. Figure 7.2 summarises these margins.³⁷

Figure 7.2: Benchmark Estimates of X for Fibre Based Wholesale Broadband Access Using Approach 1

Country	Key product (down / up Mbps)	% wholesale / retail margin	Value of X ³⁸
New Zealand	30/10	50% - 62%	44%
	100/50	42% - 57%	51%
Australia	50/20	48%	52%
	100/40	60%	40%
UK	40/2	55% - 57%	44%
	50/20	50% - 62%	44%

7.2.5.2. Data and Evidence Using Approach 2

298. Some regulators publish the regulated wholesale broadband access price for fibre access set using a cost oriented approach. The RA has used these prices, which vary little with download broadband speeds, together with the retail prices offered on a SMP sectoral provider's web site, to calculate wholesale/retail margins. The RA has looked at Guernsey and Jersey, both of a similar size to Bermuda, and also at Spain. Whilst levels of costs are sensitive to the size of jurisdiction, wholesale and retail costs are likely to be subject to similar economy of scale effects. This means that the value of X is much less likely to vary between large and small countries.
299. The results of this analysis are set out below in Figure 7.3.
300. The RA then ran a sensitivity analysis by weighting volumes using product volumes supplied to the RA by OneComm to see what impact this has on the value of X estimated.
301. This sensitivity analysis:
- Is not possible for Jersey, where public sources do not indicate product download speeds.
 - Is not appropriate for Spain, where the median product download speed is 600 Mbps compare with a median product download speed for OneComm of between 200 and 300 Mbps. This indicates that market conditions and the distribution of subscribers by download speeds are likely to be very different in the two jurisdictions.
 - Can be applied to Guernsey. Here if the RA apply the OneComm subscriber weights to the Guernsey products the RA finds that the value X increases from the 53% shown in

³⁷ The Channel Islands Competition and Regulatory Authorities, Wholesale Broadband Prices – JT (Jersey) Limited: Consultation Document (2014) <https://www.icra.je/media/4060/t878j-consultation-cicra-considers-wholesale-broadband-charges-in-jersey.pdf> . Accessed 9 July 2025.

³⁸ If $(1-X)RP \geq WP$ then $X = 1-WP/RP$ where RP = retail price and WP = wholesale price

Figure 3.2 to 57%. This does not change the range of values for X under this methodology, i.e. 44% - 58%.

302. In determining the value of X for fixed broadband taking account of all the data analysed across Approaches 1, 2 and 3 as discussed in Section 3.4 below, this sensitivity analysis has no material effect on the value of X.

Figure 7.3: Benchmark Estimates of X for Fibre-based Wholesale Broadband Access Using Approach 2

Country	Ave WBA price per month	Retail product (down Mbps)	Retail price	Assumed product weight	Average retail price	Value of X
Guernsey	£26 ¹²	75	£48	50%	£55	53%
		150	£58	30%		
		500	£65	15%		
		1000	£78	5%		
Jersey	£25 ¹³	Basic	£56	60%	£60	58%
		High	£62	35%		
		Premium	£100	5%		
Spain	€16 ¹⁴	300	€20	50%	€23	44%
		600	€25	40%		
		1000	€30	10%		

Data and Evidence Using Approach 3

303. The RA can also analyse wholesale/retail margins by considering what percentage of an efficient access seeker's retail price is needed to meet the cost of providing retail services in competition with the vertically integrated SMP sectoral provider in addition to wholesale access costs. The functions which retail provider needs to provide in addition to wholesale access are:

- the costs of its marketing, sales and customer support (retail costs);
- network costs in connecting the access provider's network to the access seekers core network; and
- costs in transporting the traffic generated by a fixed broadband connection from the access seeker's core network to an Internet exchange plus the costs of its global Internet usage.

304. The sum of these costs for an equally efficient access seeker needs to be no more than X% of its retail revenues if the access seeker is to compete profitably with the access provider at the retail level and avoid margin squeeze.

7.2.5.2.1. Retail Costs

305. There is a reasonable amount of information available on retail costs covering marketing sales and customer support from the discounts that mobile network sectoral providers give to their MVNOs that are pure resellers of their hosts retail products. These discounts are normally commercially negotiated and confidential. But some discounts have been established by national regulators. For example:

- In 2019 the Georgian regulator set an MVNO discount of 25%.³⁹
- The Irish regulator set an MVNO discount of 35% in 2021.⁴⁰
- In 2022 the regulator in North Macedonia also set an MVNO discount of 35%.⁴¹
- There are two existing MVNO arrangements in place in Bermuda (OneComm providing MVNO services to iTech (Bermuda) Ltd and FKBNNet). It is the RA's understanding that the commercially negotiated MVNO contracts are largely in line with the above discounts.

7.2.5.2.2. Network and Internet Usage Costs

306. Evidence on the networking and Internet usage costs of an access seeker is more difficult to find. But the RA notes that, in its fixed broadband retail bills, OneComm splits out these costs from its overall monthly charges. For example, a bill for a \$170 per month retail package indicates that \$60 of this bill is levied to cover Internet usage costs. When combined with the estimates for retail costs discussed above, this suggests that Internet usage costs might account for 35% (\$60/\$170). Given that sectoral providers may have incentives to overstate these costs, the RA has assumed a more modest 30%.

7.2.5.2.3. Value of X Under Approach 3

307. Given these findings the RA estimates the division of revenues as follows:
- 30% to cover retail costs
 - 30% to cover network and Internet usage costs
 - 40% to cover wholesale broadband access costs
308. These ratios would indicate that the wholesale broadband access charge should be set at no more than 40% of revenues to enable an access seeker to recover its costs for retail functions, and network and Internet usage. That is X should be set at 60%.

7.2.5.2.4. Proposed Value of X and Remedy

309. The three approaches provide the following estimates:
- under Approach 1 the average value of X implied by wholesale/retail differentials is 46%

³⁹ Georgian National Communications Commission, Recommendations Document on National Roaming Access Terms and Conditions as well as MVO access Terms and Conditions (2019) (<https://www.comcom.ge/uploads/other/4/4485.pdf> . Accessed 9 July 2025.

⁴⁰ ComReg, Final Report: The Role of MVNOS in Evolving Mobile Markets (2021) (<https://www.comreg.ie/media/2021/10/ComReg-21101a.pdf> . Accessed 9 July 2025.

⁴¹ Makedonski Telekom Ad, Annual report on the Operations of Makedonski Telecom AD – Skopje (2022) (https://www.telekom.mk/content/pdf/4.1_MKT-Annual-Report-on-Operations-for-2022.pdf. Accessed 9 July 2025.

- under Approach 2 the average value of X is 52%
- under Approach 3 the average value of X is 60%

310. The RA places greater weight on the results of Approaches 1 and 2 since these methodologies and calculations made use of data from regulated fixed broadband markets. Approach 3 relies on data from regulation of mobile markets (MVNO discounts) and a calculation of network and Internet usage costs based on OneComm's retail bills. Whilst Approach 3 provides a worthwhile cross-check, the RA thinks it prudent to weight its conclusions more towards Approaches 1 and 2 for the calculation of X.

311. Based on this analysis, the RA has set the value for X at 50%.

312. For ease of compliance and to ensure that access seekers are not subject to margin squeeze, the RA requires OneComm to offer prices for broadband access to meet the following conditions:

Total retail revenues net of discounts from supply of fixed broadband multiplied by $1 - X\%$ should be equal or greater than total revenues from such supply if wholesale prices to access seekers are used instead of retail prices.

7.2.6. Results of Analysis for the Business Connectivity Market

7.2.6.1. Data and Evidence Using Approach 1

313. Some regulators have set wholesale price caps for business connectivity products, including wholesale terminating segments, using a retail minus X% approach. In examining these benchmarks it is important to distinguish between:

- setting a wholesale price for the resale of end to end leased lines, where the network infrastructure is entirely supplied by the access provider; and
- setting a wholesale price for a wholesale terminating segment of a leased line or direct Internet access circuit - in which the access seeker buys the terminating segment and combines it with its own resources to provide a retail product.

314. The RA's focus is on the latter given that:

- The bulk of business connectivity revenues in Bermuda are now generated by terminating circuits for direct Internet access;
- the available evidence relates to jurisdictions where X is set for business connectivity transmission circuits that involve one rather than two wholesale terminating segments; and
- responses to the Preliminary Report (principally from Link Bermuda) confirmed stakeholder focus on terminating segments.

315. Notable retail minus X% benchmarks in **the resale category** include the following:
- In 2012 the regulator in Jersey set a retail minus 20% cap on the wholesale prices of the SMP sectoral provider for end to end leased circuits within Jersey.
 - In 2015 the regulator in Guernsey set an identical cap for resale of the same end-to-end leased lines in Guernsey.⁴²
 - The regulator in the Bahamas set a retail minus X% cap on the resale price for direct Internet access circuits. The value of X was set by the two access providers with SMP. One estimated X at 21% and the other at 22%.^{43 44}
316. Benchmark values of X for **wholesale terminating segments** are harder to come by and, unsurprisingly, are substantially higher than the value of X for resale - which just needs to cover only the retail costs of the access seeker. We have found two well-documented examples:
- In Spain, in 2022, the regulator set a retail minus 39% cap on the price of wholesale terminating segments for Ethernet leased lines.⁴⁵
 - In 2020, the Greek regulators set a retail minus 46% cap on the wholesale price of the SMP sectoral providers wholesale terminating segments that use Ethernet fibre.⁴⁶

7.2.6.2. Data and Evidence Using Approach 2

317. The variation and complexity of price structures for business connectivity products, when combined with the limited public access to relevant pricing information, means that it is very challenging to estimate the value of X using Approach 2. The RA has not done so.

7.2.6.3. Data and Evidence Using Approach 3

318. As for fixed broadband, Approach 3 requires the RA to estimate the split of costs for an access seeker between:
- The % required to cover retail costs;

⁴² Guernsey Competition & Regulatory Authority, Business Connectivity Market Review: Second Proposed Pricing Decision – Wholesale On-Island Leased Line Pricing (2023) <https://www.gcra.gg/sites/default/files/case-document/t1621g-second-proposed-pricing-decision-wholesale-on-island-leased-line-pricing.pdf> . Accessed 9 July 2025.

⁴³ The Tribune, BTC Offering 21% Niche ISP Discount (March 2021) <https://www.tribune242.com/news/2021/mar/01/btc-offering-21-niche-isp-discount/> . Accessed 9 July 2025.

⁴⁴ URCA Bahamas, Review of Draft Wholesale Dedicated Internet Access Reference Offers from BTC and CBL under Sections 39 and 40 of the Communications Act 2009: Consultation Document (Feb 2021) <https://urcabahamas.bs/wp-content/uploads/2021/02/Review-of-draft-wholesale-DIA-offers-from-BTC-and-CBL-Consultation-cover-note-DRAFT-19-02-21- WR25022021 CS250221 WR26022021.pdf> . Accessed 9 July 2025.

⁴⁵ Comisión Nacional de Los Mercados Y La Competencia, Press Release (April 2022) https://www.cnmc.es/sites/default/files/editor_contenidos/Notas%20de%20prensa/2022/20220405_NP_Merca%20do%20%20DEF_fin_en_GB.pdf . Accessed 9 July 2025.

⁴⁶ Refer to EC case letters Case EL/2020/2341 and Case EL/2020/2290.

- the % required to cover wholesale terminating segment access charges; and
- the % required to cover core network and Internet traffic costs.

319. Section 7.2.7.1 above (Approach 1 for business connectivity) suggests that the first of these percentages is lower, at around 20%, than the 30% we have estimated for fixed broadband. But the RA has, so far, found no evidence on the split of costs between the second and third of these three categories. If it assumes that they are similar in ratio for direct Internet access circuits⁴⁷ as for the equivalent costs for fixed broadband provision, then the cost distribution is as follows:

- 20% for the access seeker's retail costs
- 34% for the access seeker's core network and Internet costs
- 46% for the purchase of wholesale terminating segments.

320. With this distribution the price cap for a wholesale terminating segment should be set at retail minus 54%.

7.2.6.4. Proposed Value of X and Remedy

321. The three approaches provide the following estimates:

- Under Approach 1 the average value of X is 42%
- the RA was unable to estimate X using Approach 2
- Under Approach 3 the value of X is 54%

322. According to this analysis, and given the greater uncertainty over the value of X for wholesale terminating segments, the RA decides to:

- Set X at 42%.
- Allow sectoral providers with SMP to make submissions to the RA to change the value of X so long as the submissions are accompanied by compelling quantitative evidence.

323. For ease of compliance and to ensure that access seekers are not subject to margin squeeze, the RA requires that Digicel and OneComm offer prices for wholesale terminating segments that meet the following conditions:

- Total retail revenues net of discounts generated through the supply of wholesale terminating segments when multiplied by $1 - X\%$ should be equal to or greater than total revenues from such supply if wholesale prices to access seekers are used instead of retail prices.

⁴⁷ Which now constitute the bulk of business connectivity revenues in Bermuda.

7.3. The Retail Price Benchmarking Methodology

7.3.1. The Overall Approach

324. To carry out the retail price benchmarking the RA:

- Selected the appropriate benchmarking countries;
- Found the relevant benchmark price in the local currency unit (LCU) for each benchmark country; and
- Compared prices in Bermuda with those in the benchmark countries after converting the LCU price to \$US at a blended exchange rate (explained in Section 7.3.4 below).

7.3.2. Selecting the Appropriate Benchmark Countries

325. The RA selected benchmark countries that met each of the three following criteria:

- **Countries with populations of between 20,000 and 500,000.** Economically efficient prices for telecommunications services are subject to substantial economies of scale. This means it is important to compare telecommunication service prices in Bermuda with those in countries of similar size and to exclude countries with populations measured in the millions, where economies of scale are much greater and unit costs of supply significantly lower.
- **Countries with an annual per capita income in excess of \$14,006.** The World Bank defines “high income countries” as those with a gross national income per capita of greater than \$14,006.⁴⁸ Market conditions and prices are often very different in low and middle income countries from those in high income countries like Bermuda. The RA excludes such countries from the comparison.
- **Countries with a population density lower than 40 people per square kilometre.** Telecommunications sectoral providers in countries with a low population density face significant additional unit costs in providing geographical coverage of their networks to reach end users. The RA has, therefore, excluded them from the benchmark set for comparison with Bermuda, which has a population density of just under 1,200 people per square kilometre.

326. Applying these three criteria in combination gives the RA the benchmark set (with Bermuda included) specified in Figure 7.4:

⁴⁸World Bank Blogs, World Bank Country Classifications by Income Level for 2024-2025 (July 2024) <https://blogs.worldbank.org/en/opendata/world-bank-country-classifications-by-income-level-for-2024-2025> . Accessed 9 July 2025.

Figure 7.4: The Benchmark Set of Countries

Country	Population 2023	GDP per head (\$k)	Population density
Antigua and Barbuda	93,316	22	213
Aruba	107,359	34	600
Barbados	282,336	24	657
Bermuda	64,698	126	1197
British Virgin Islands	38,985	39	265
Brunei Darussalam	458,949	33	88
Cayman Islands	73,038	110	310
Gibraltar	38,471	109	5800
Guernsey	66,500	70	856
Isle of Man	84,165	94	148
Jersey	112,000	81	891
Liechtenstein	39,850	186	249
Seychelles	119,773	18	284
St. Kitts and Nevis	46,758	23	180
St. Lucia	179,285	16	295
Virgin Islands (U.S.)	104,917	44	243

7.3.3. Estimating the Benchmark Prices

327. There are two sets of benchmark prices to estimate:

- The **median** price in LCUs in Bermuda and the benchmark countries for mobile services and fixed broadband. We have used two datasets for this:
 - The datasets published by cable.co,⁴⁹ an independent UK research company, for 2023 (mobile service product prices) and 2024 (fixed broadband product prices); and
 - median prices for fixed broadband products displayed on company websites in July 2025.
- The entry level **anchor product** price benchmark for mobile services and fixed broadband. Here we have examined the websites of sectoral providers in the benchmark countries to find the cheapest available product which offers equivalent or superior functionality to that specified by the RA in its Preliminary Report. We have used the cheapest price of a product offering at least 50 Mbps for fixed broadband

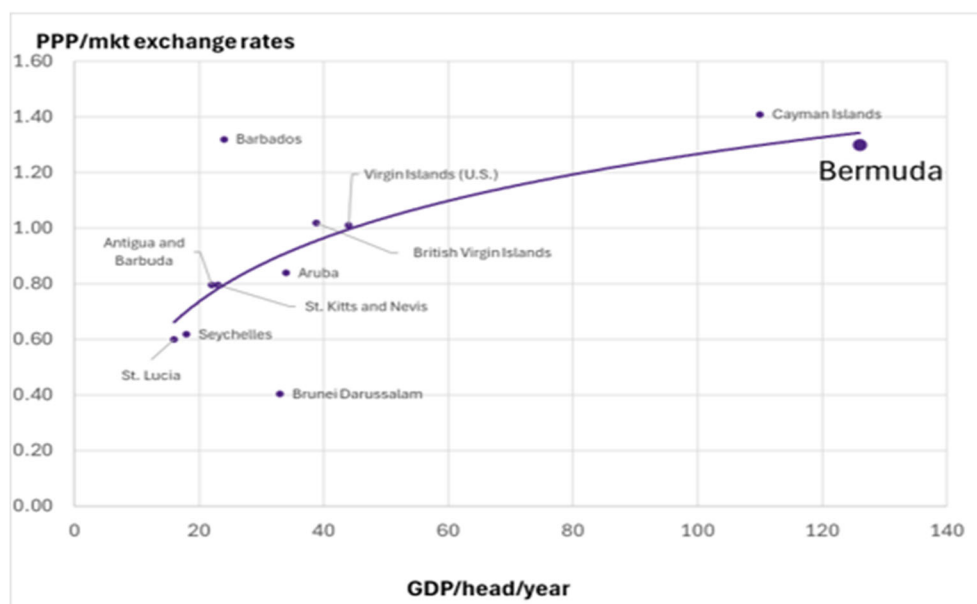
⁴⁹Best Broad Band Deals, Global Broadband Pricing League Table 2024 (2024)
<https://bestbroadbanddeals.co.uk/broadband/pricing/worldwide-comparison/> . Accessed 9 July 2025.

downloads and the cheapest postpaid SIM-only mobile product offering at least 10GB of data.

7.3.4. Calculating the Dollar Exchange Rate to be Used to Compare Prices

328. The RA has used a blended dollar exchange rate to convert the LCU prices to dollar prices. The blended exchange rate combines market exchange rates and exchange rates adjusted for purchasing power parity (PPP)⁵⁰ between the LCU and the US\$.⁵¹ This blended exchange rate is designed to estimate the prices that would be charged in Bermuda and the benchmark countries if the unit costs of local inputs were the same in all of them.
329. The market exchange rate and the PPP exchange rates (for private consumption)⁵² are taken from the latest available statistics of the World Bank. The RA has adjusted the PPP exchange rates for Gibraltar, the Isle of Man, Guernsey and Jersey where the World Bank assumes the same PPP exchange rate as for the UK, even though the GDP per capita is significantly higher than for the UK. To make this adjustment the RA has plotted the relationship between the ratio of PPP to market exchange rates and GDP per head for all the remaining benchmark countries as shown in Figure 7.5. The RA has then set the PPP exchange rate for the 4 specified countries using the trendline shown in Figure 7.5.

Figure 7.5: The Relationship between the Ratio of PPP to Market Exchange Rates and GDP per Capita.



⁵⁰ PPP is an established macroeconomic analysis metric used to compare living standards and costs between countries. PPP is the exchange rate at which one nation's currency would convert into another to purchase the same products or services

⁵¹ Note that the \$BMD market rate is pegged to the \$US on a one-to-one ratio.

⁵² There are two types of PPP conversion factor. The GDP conversion factor allows cross-country comparison of country-level GDP figures. The 'private consumption' conversion factor, which is used to compare relative levels of prices of goods and services that make up private consumption. The latter is the more appropriate measure for these purposes.

330. The blended rate is calculated as:
- 0.67 x PPP exchange rate plus
 - 0.33 x market exchange rate.
331. This weighted average reflects the proportion of the cost of telecommunication services which are acquired on global markets where the market exchange rate is more appropriate, and the proportion of the costs incurred in local markets where the PPP exchange rate is more appropriate.
332. The weights used are based on analysis of the audited accounts of Digicel and OneComm over the past five years. In estimating these weights, the RA assumes that annual depreciation and amortisation charges for assets (24% of total costs before interest and tax when averaged over the two sectoral providers) plus international transmission charges (estimated at just under 10% of total costs⁵³) represent internationally incurred costs. From this we have derived weights of 33% for the market exchange rate and 67% for the PPP exchange rate. These weights are then applied to Figure 2.3 to calculate the blended exchange rate.
333. Whilst the RA acknowledges that the weights used are subject to uncertainty, the RA notes that:
- The blended exchange rates used are relatively insensitive to the value of the weights. It is highly unlikely that the weight for the international exchange rate is lower than 25% or higher than 40%. This means that the blended exchange rate for Bermuda lies between BD\$ 1.18 and BD\$ 1.22 per US\$ while the blended rate used in the benchmarking is BD\$1.20 per US\$.
 - The RA proposed weights of 0.35 and 0.65 in its Preliminary Report (Paragraph 258 of the Preliminary Report). In their responses none of the stakeholders have questioned these estimates.
334. Figure 7.6 tabulates the market and PPP exchange rate used, together with the calculated blended exchange rate. In all cases we have used the latest available data.

⁵³ Based on OneComm's split of charges for fixed broadband between international Internet charges and other charges, and assuming that the bulk of such charges are generated in the broadband markets that generate 37% of sector revenues and costs as set out in the RA's annual sector report for 2022.

Figure 7.6: The Exchange Rates Used in the Benchmarking

Country	LCU/\$ market	LCU/\$ PPP	LCU/\$ blend
Antigua and Barbuda	2.70	2.15	2.33
Aruba	1.80	1.51	1.61
Barbados	2.00	2.64	2.43
Bermuda	1.00	1.30	1.20
British Virgin Islands	1.00	1.02	1.01
Brunei Darussalam	1.34	0.54	0.80
Cayman Islands	0.83	1.17	1.06
Gibraltar	0.78	1.30	1.13
Guernsey	0.78	0.90	0.86
Isle of Man	0.78	0.97	0.91
Jersey	0.78	0.94	0.88
Liechtenstein	0.88	1.29	1.16
Seychelles	14.00	8.65	10.42
St. Kitts and Nevis	2.70	2.15	2.33
St. Lucia	2.70	1.62	1.98
Virgin Islands (U.S.)	1.00	1.01	1.01

7.3.5. Benchmarking Prices for Retail Mobile Services

7.3.5.1. Introduction

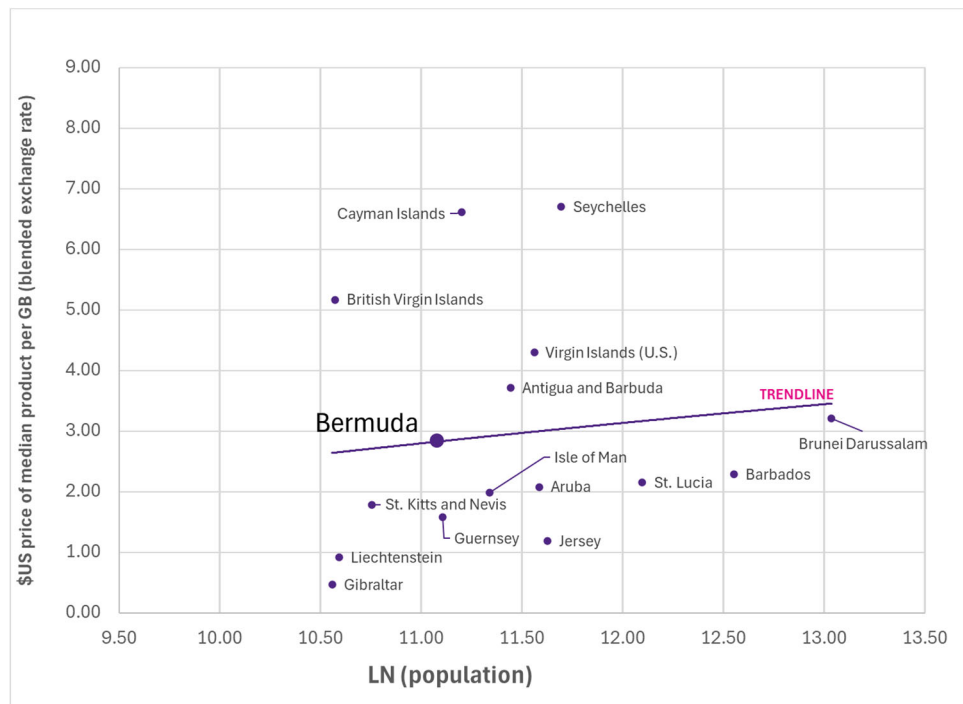
335. In its Preliminary Report the RA found Digicel and OneComm to have joint SMP in the mobile services market. This is a market where a substantial majority of subscribers use postpaid products and where, currently, there are no regulatory constraints on mobile retail prices.
336. Given this situation, the RA considers:
- Whether the median prices of postpaid mobile services are excessive when compared with those in the benchmark countries; and
 - whether the prices proposed by the RA in the Preliminary Report for an anchor product offering a 10 GB per month data allowance is reasonable when compared with the corresponding entry level prices in the benchmark countries.
337. In making this comparison the RA focus on the price of mobile data given:
- The prevalence of smart phones, which now depend for much of their value to end users on data applications;

- the static level of voice and text traffic per subscriber when compared with the growing demand for data; and
- mobile sectoral providers now emphasise the price of data rather than the price of voice or text messaging in their marketing and sales material.

7.3.5.2. The Median Price of Mobile Data

338. Figure 7.7 shows how the data price per GB per month in Bermuda for the median package compares with the corresponding prices in the benchmark countries. It indicates that the two main mobile sectoral providers in Bermuda charge retail prices that are consistent with the average of those charged in the benchmark countries. Figure 7.7 shows a trendline for the data set as a whole. This trendline is calculated using the least-squares methodology. This means that the trendline is set so that the sum, over all the countries shown, of the square of the price deviation from the trendline is minimised. Similar trendlines are provided for Figure 7.8, 7.10 and 7.11.

Figure 7.7: Price of Median Mobile Product per GB – Bermuda and the benchmark countries⁵⁴



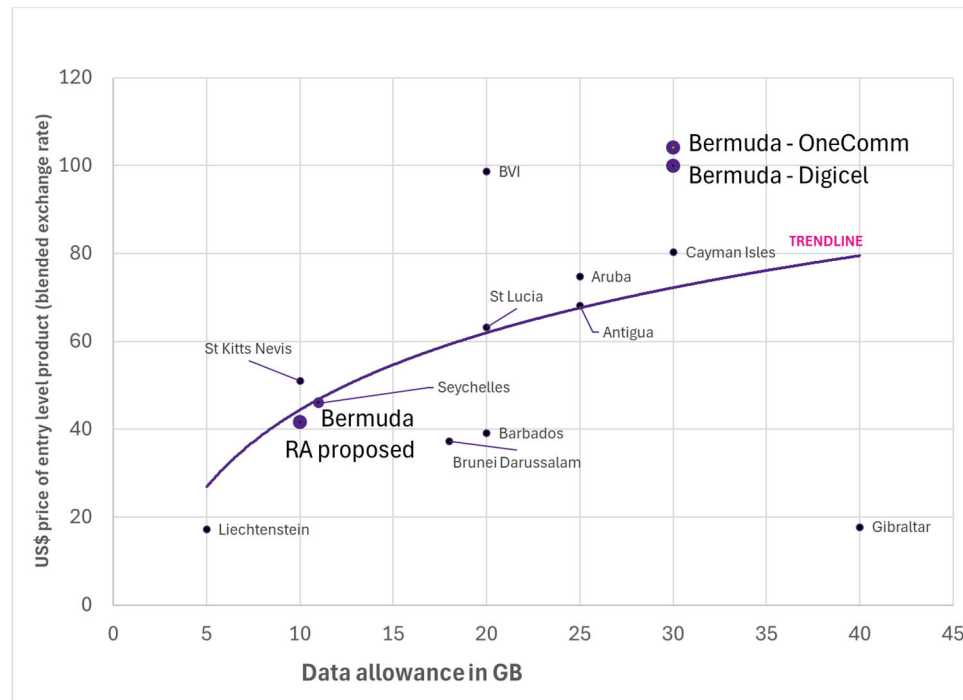
7.3.5.3. The Price and Functionality of the RA's Proposed Entry Level Anchor Product

339. Figure 7.8: plots the price of the mobile data allowance for entry-level products. These are defined as the cheapest postpaid package offered on the websites of mobile sectoral providers in each benchmark country and in Bermuda. It also plots the position of the RA's proposed anchor product for mobile services. The RA can see that:

⁵⁴ The RA plots the price per Mbps against the natural logarithm of the population in each country to account for any economies of scale effects. the RA uses the logarithm of the population rather than the population so as to spread the scatter plot to a greater extent along the x-axis for clarity.

- The current entry-level product prices in Bermuda are significantly higher than the benchmark trendline;
- the current entry-level data allowance in Bermuda is, with the exception of Brunei, the highest in the benchmark set of countries; and
- the RA's proposed anchor product allowance is at the low end of the benchmark range but is very close to the price trendline.

Figure 7.8: Price of entry level product in \$– Bermuda and benchmark countries



7.3.5.4. Discussion of Findings

340. In the RA's view the findings from Figures 7.7 and 7.8:

- do not indicate that the median price of mobile services in Bermuda is excessive; but
- do indicate that the entry-level data allowance in Bermuda needs to be reduced significantly and offered at a substantially lower price if it is to align with the benchmark countries.

7.3.5.4.1. Data Allowance of the Proposed Anchor Product

341. Some commentators in Bermuda might argue that the data allowance proposed by the RA for the entry-level anchor product is too low. But the RA notes that, at 10 GB per month, this allowance is consistent with **average** historic mobile data use in countries where a wide range of mobile data allowances is offered and national regulators believe that competition is effective. See **Figure 7.9**.

Figure 7.9: Average Mobile Data Consumption in Other Countries

Country	Ave. use per month GB	Year
France	10	2021
Germany	7	2023
Spain	15	2024
UK	10	2023
OECD average	14	2022

342. This suggests that the RA’s proposed data allowance is appropriate for an entry-level anchor product. Raising it from 10 GB per month would mean that end-users with relatively modest data requirements (by definition below the average shown in Figure 7.9) would be required to pay for mobile data capacity they would not use.

7.3.5.5. Remedies

343. Based on the benchmarking analysis the RA decided to impose the following *ex ante* remedies on Digicel and OneComm:
- Digicel and OneComm must offer an entry-level anchor product that uses at least 10 GB per month data allowance for a maximum price of BMD\$50 per month.
 - Digicel and OneComm must give the entry-level anchor product due prominence in their marketing and sales activities.
344. The RA takes no action to reduce the prices of the median mobile packages of Digicel or OneComm due to the results of the benchmark analysis.
345. The RA relies on this entry-level anchor product offering, through chain of substitution effects, to constrain the prices of other mobile services from Digicel and OneComm.
346. The RA will monitor average mobile data consumption per subscriber per month from now on.
347. The RA will repeat the price benchmarking exercise for mobile services on an annual basis. If adjustments are required, Digicel and OneComm must submit to the RA (with all relevant data for the RA to verify that the proposed change meets the requirements) the following information at least 10 days prior to the date the adjustment is required to be implemented:
- Their calculations of their WARP immediately prior to the adjustment.
 - Their calculations of their proposed WARP after the price adjustment has been implemented demonstrating that they have met the price adjustment requirement.
 - The RA will then be able to cross check these calculations against published fixed broadband prices, total number of fixed broadband subscribers reported, their quarterly KPI returns, and comparison with previous submissions by Digicel and OneComm on any regulated WARP reduction. If additional information is required, the RA will advise Digicel and OneComm accordingly.

348. At any time following a specified price adjustment and before any subsequent specified price adjustment, Digicel and OneComm must ensure that the WARP for their retail fixed broadband product (excluding any discounts or promotions) must be no greater than the WARP prior to the most recent price reduction.

7.4. Benchmark Prices for Retail Fixed Broadband

7.4.1. Introduction

349. In the past the RA found Digicel and OneComm to have joint SMP in the fixed broadband market and required them both to offer entry-level ‘regulated service’ products at prices specified by the RA. OneComm provides one of these – the retail supply of broadband at a download speed of 50 Mbps for a price of \$80 per month. This product is purchased by 15% of OneComm’s fixed broadband subscribers. Take up of the other regulated services is negligible.⁵⁵
350. In its Preliminary Report, the RA proposed to find OneComm dominant in the fixed broadband market, and to require it to supply a single entry-level anchor product – the 50 Mbps download product - at \$80 or less per month. This is designed to form the entry-level product for subscribers wanting to purchase fixed broadband for the period 2025 to 2029.
351. The RA considers, given the analysis set out in Section 5.6, that it is highly likely that the profits generated by OneComm from its Bermuda operation are excessive by international standards.
352. In these circumstances, the RA has assessed whether, when compared with the benchmark countries:
- the price of the median product for fixed broadband in Bermuda is excessive; and
 - the functionality and price of the RA’s proposed entry-level anchor product are appropriate.
353. The RA then considers how, in the light of these findings, it might regulate OneComm’s fixed broadband retail prices in the long-term interest of end-users in Bermuda.

7.4.2. The Median Price for Fixed Broadband

354. Figures 7.10 and 7.11 plot the price of the median broadband package in Bermuda alongside the corresponding prices in the benchmark countries against a measure of the size of each country’s population. Figure 7.10 uses the cable.co dataset for prices at the end of 2023 while Figure 7.11 provides the same analysis based on prices in July 2025.

⁵⁵ One reason for this may be because regulated service products are hidden beneath a menu on Digicel’s website and thus are not readily visible to potential customers.

Figure 7.10: Price of Median Fixed Broadband product – Bermuda and the benchmark countries (end of calendar 2023)

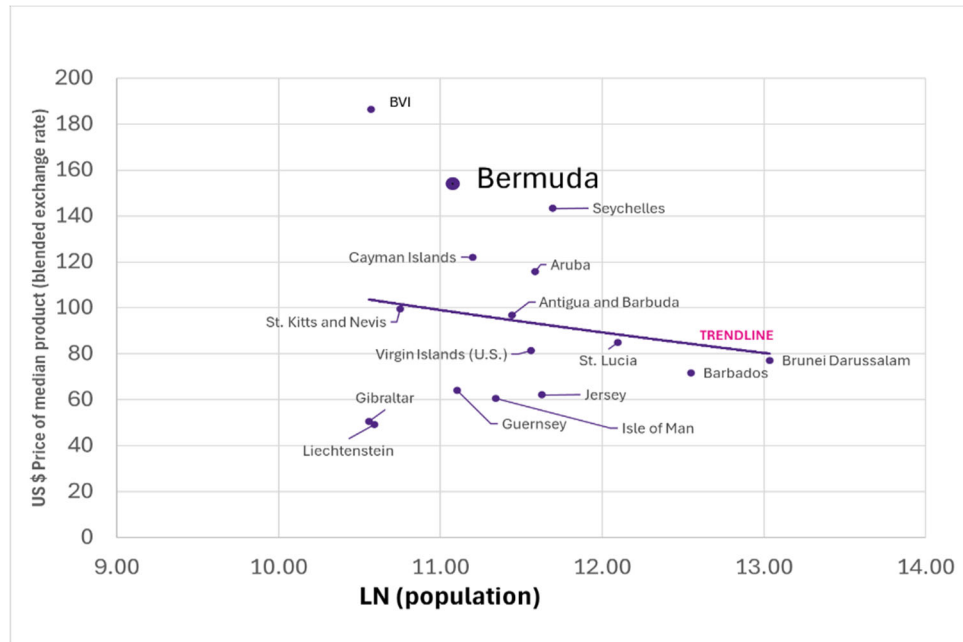
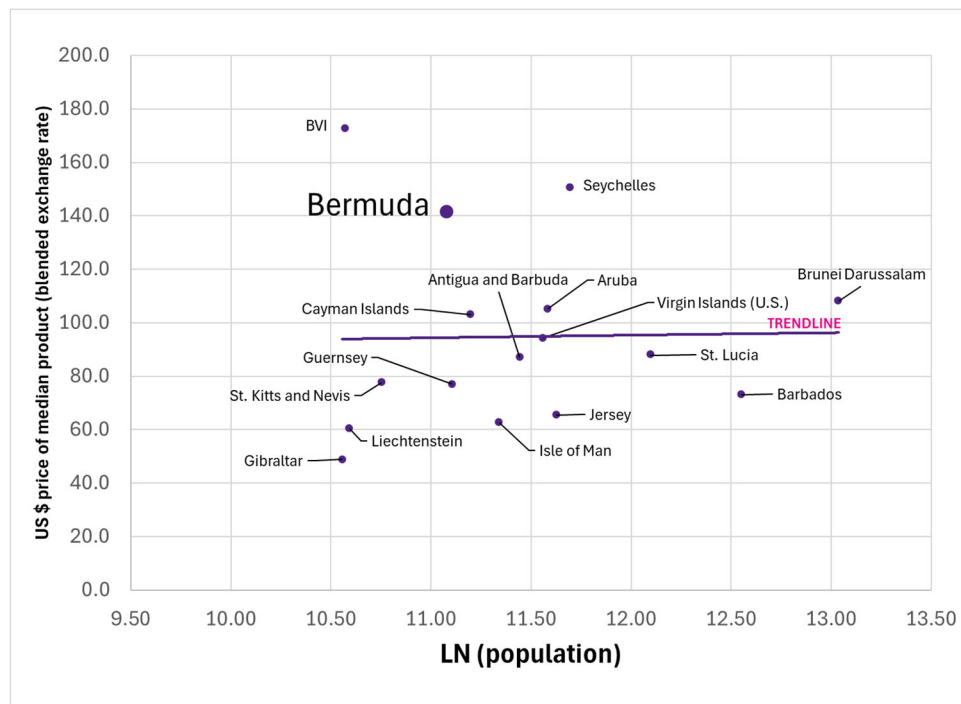


Figure 7.11: Price of Median Fixed Broadband product - Bermuda and the benchmark countries (Mid 2025)

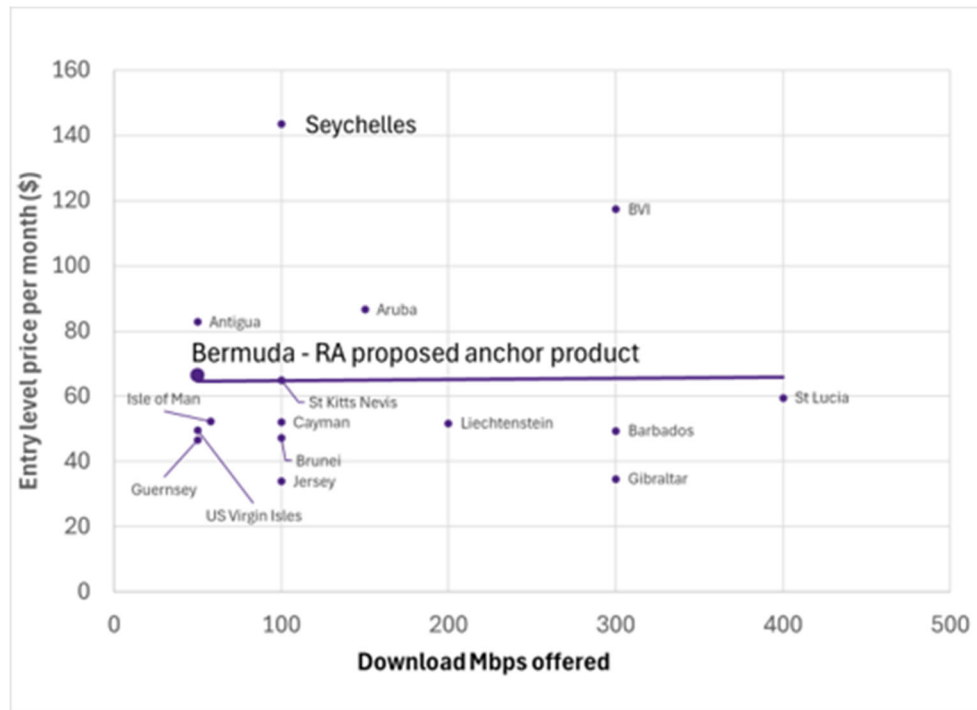


355. At both points in time the finding for the level of median prices in Bermuda relative to the benchmark countries are similar. The price of the median product in Bermuda is around 50% higher than in the average of the comparator countries.

7.4.3. The Functionality and Price of Bermuda's Anchor Product

356. Figure 7.12 plots, for each of the benchmark countries, the price of the entry-level product⁵⁶ against its download speed. The figure also plots the position of the RA's proposed fixed broadband entry-level anchor product (which has the same performance as OneComm's existing 'Fibrewire 50' plan).

Figure 7.12: Fixed Broadband Price of Entry-Level Products vs Download Speed



357. The RA can see that:
- The price proposed by the RA for the regulated entry-level anchor product is in line with the average price charged for entry-level products in the benchmark countries.
 - In many benchmark countries the download speed of the entry level product is significantly higher than the 50 Mbps proposed by the RA for the entry-level anchor product in the Preliminary Report. The RA notes that the median entry-level download speed in the benchmark countries is 100 Mbps.

7.4.4. The Need to Regulate OneComm's Retail Fixed Broadband Prices

358. The RA's Preliminary Report found that:
- OneComm had single SMP in the fixed broadband market; and

⁵⁶ The RA defines the entry-level product in a benchmark country as the cheapest product that offers 50 Mbps download speed or higher.

- any price regulation in this market should have been based on international benchmarking rather than cost modelling.

359. As Figures 7.10 and 7.11 above show, the price of the median fixed broadband product in Bermuda was 50% above benchmark level at the end of 2023 and remains at this level in mid-2025. The RA also notes that:

- OneComm has increased its fixed broadband prices at a significantly higher rate than inflation over the past three years.
- It is highly likely that OneComm's ROCE is excessive, given the arguments set out in Section 5.6 above.

360. In combination, this evidence leads the RA to conclude that OneComm's retail fixed broadband prices are excessive and need to be reduced through regulation.

7.4.5. Options For Regulation

361. The RA has identified 6 options for regulating OneComm's prices over the regulatory period through to 2029 to deal with this pricing problem:

- Option 1: to strengthen and then rely on the entry-level anchor product pricing proposed by the RA in its Preliminary Report.
- Option 2: to replace the entry-level anchor product with the median product and freeze its price through to 2029.
- Option 3: to price regulate OneComm's median product by imposing a price reduction of Y% per annum price cap on this product through to 2029.
- Option 4: to instead impose a price reduction of Y% per annum on OneComm's weighted average retail price (WARP) for fixed broadband.
- Option 5: to implement both Options 1 and 3.
- Option 6: to implement both Options 1 and 4.

362. The RA assesses each of these six options below.

7.4.5.1. Option 1: Regulate the Entry-Level Anchor Product

363. Under this option the RA would require OneComm to offer an entry-level product with a download speed of 100 Mbps and an upload speed of 20 Mbps for a price of \$80 per month until 2029. There is significant evidence that the requirements of many consumers would be easily met by download speeds of 100 Mbps.⁵⁷

⁵⁷ For example, Netflix recommends a download speed of at least 15 Mbps for streaming of ultra-high definition video. See <https://help.netflix.com/en/node/306> . Accessed 9 July 2025.

364. With these features in place end users may migrate to the regulated entry-level product while OneComm may freeze or reduce the prices it charges for higher functionality products to stem this migration. However, the RA has concerns about how effective Option 1 will be given that:

- The current regulated entry-level anchor products appear to have had limited impact on fixed broadband prices since they were introduced in 2020; and
- end user switching costs and inertia may limit the effectiveness of the remedy by reducing the volume and speed of end-user switching between fixed broadband products even though such switching would be economically rational.

7.4.5.2. Option 2: Regulate the Price of OneComm's Median Product

365. Here the RA would freeze the price of OneComm's median product at its current level until 2029.

366. This option is unlikely to do more than freeze the prices of OneComm's fixed broadband product range through chain of substitution effects. The RA believes that this is not enough to rectify the excessive pricing identified in Section 7.4.4. Therefore, the RA rejects this option.

7.4.5.3. Option 3: Reduce OneComm's Median Price Through a Price Cap Mechanism

367. Under this option the RA would, each year, impose price reduction of Y% on OneComm's median product through to 2029.

368. With the right value of Y this option comes much closer to removing the pricing problem identified above. But the RA notes that:

- Option 3 only requires OneComm to reduce its median product price; and
- price reductions for other broadband products in the range depend upon chain of substitution effects that are uncertain (as discussed under Option 1).

7.4.5.4. Option 4: Reduce OneComm's Weighted Average Retail Price Through a Price Cap

369. Here the RA would apply a price reduction of Y% to reduce the weighted average retail price (WARP) rather than just the price of the median product.

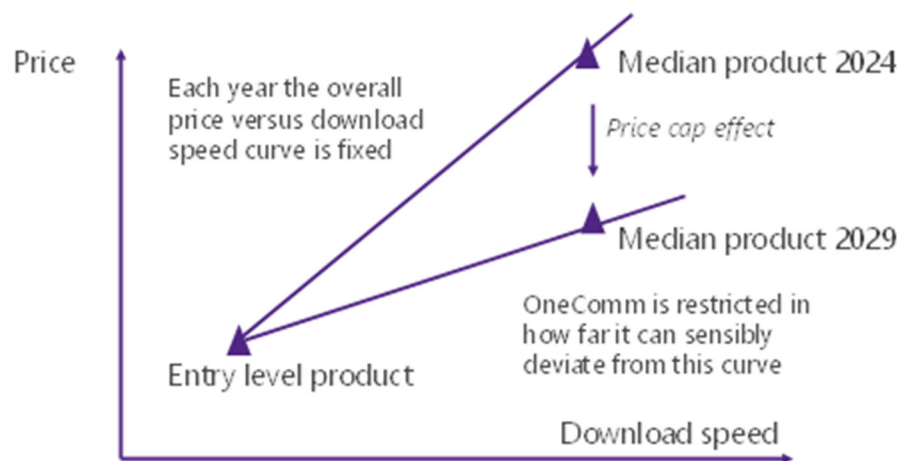
370. This option requires OneComm to make changes that affect more than just its median fixed broadband product to give a more certain pricing outcome than Option 3. It would not, therefore, rely on a chain of substitution or unpredictable switching behaviour to deliver benefits to all OneComm's fixed broadband customers. As such, the RA judges it to be superior to Option 3.

371. Another benefit of this option (using a price reduction of Y% on their WARP) is that OneComm will retain more control of their pricing and product options.

7.4.5.5. Option 5: Option 1 Plus Option 3

372. Under Option 5 the RA would implement both the entry-level anchor product control (Option 1) and median price reduction of Y% on OneComm’s median product (Option 3).
373. Option 5 fixes both the position of the entry-level product and the position each year of the median product. This means that regulation defines the gradient of the price/download speed curve. Once this curve is defined by regulation OneComm is significantly restricted in the extent to which it can deviate from this curve when setting the price of other fixed broadband products in the range. This effect is illustrated in Figure 7.13.

Figure 7.13: How Regulation Determines the Price/Download Speed Curve Under Option 5



374. The RA considers that this option would significantly weaken OneComm’s pricing freedom and hence restrict its ability to both price innovate and compete with rivals in the retail market. Given this analysis, the RA rejects Option 5.

7.4.5.6. Option 6: Option 1 Plus Option 4

375. Here the RA would impose both the entry-level anchor product regulation (Option 1) and the price reduction of Y% on OneComm’s WARP (Option 4).
376. This option is far less restrictive on OneComm’s ability to price innovate and compete with rivals than Option 5. It also offers a “belt and braces” approach to regulation in which there are two complementary measures.
- Entry-level anchor product pricing gives end users incentives to migrate to a product that better matches their needs; and
 - the price reduction provides a safeguard which ensures that OneComm’s broadband retail prices fall to a level far more in line with the international benchmarks.

7.4.6. Option 4 or Option 6?

377. The analysis set out above strongly indicates that the RA should choose between Option 4 and Option 6. Figure 7.14 compares these two options on key measures

Figure 7.14: Option 4 and Option 6 Compared

Criterion	Option 4	Option 6
Complexity	Single measure	Two complementary measures
Certainty of price reduction	Yes	Yes
Deals with the problem of end users paying for download speeds they do not want	No	Yes
Sensitivity of good economic outcomes to getting value of X right	High	Lower given the use of two complementary regulatory measures

378. Given the analysis set out above the RA believes that Option 6 is likely to be in the best long-term interests of end users in Bermuda for two main reasons:
- Option 6, unlike Option 4, provides information and incentives that should enable users to choose their fixed broadband products on a more informed basis.
 - Option 6 does not rely entirely on price reduction of Y% on OneComm's WARP to reduce OneComm's prices. If the regulated entry-level access product is effective it, rather than the price reduction, will largely resolve the fixed broadband pricing problem. The combination of remedies, therefore, allows the RA to set a lower value of Y than under Option 4 alone.

7.4.7. Determining the Value of Y

379. There are three factors to consider in determining the value of Y in implementing Option 6:
- What value of Y is required to ensure that OneComm's median fixed broadband price reduces in line with the average median fixed broadband product for the comparative similar sized jurisdictions by the end of the regulatory period?

In Annex C, the RA calculates an initial value for Y based on the benchmarking carried out in July 2025 as part of this ECMR process. This suggests that Y should be set no higher than 9.64% to achieve this objective by the end of the regulatory period.
 - The RA is cognizant that the implementation of a new entry level anchor product in the fixed broadband market may have an impact on the median retail price for fixed broadband independently of the Y% price reduction obligation. It therefore sees 9.64% as an upper limit on the value of Y.
 - The RA is concerned about the impact of a sharp reduction in the retail fixed broadband market across the sector.

As an example, OneComm's main rival Digicel will likely need to reduce its prices to match the regulated prices of OneComm if Digicel wishes to remain competitive and

preserve its fixed broadband customer base. Given Digicel's smaller size, its most recent financial results, and the costs it currently faces in closing its copper network, the RA is concerned that a sharp reduction in fixed broadband prices might weaken Digicel's ability to compete in the fixed broadband market.

380. With these considerations in mind the RA has decided to set the initial value of Y to 7% rather than 9.64% for the purposes of the initial price adjustment required in the retail fixed broadband market.

7.4.8. Remedies

381. Based on the analysis set out above, the RA imposes the following *ex ante* remedies for regulating OneComm's retail prices for fixed broadband:

- a) OneComm must offer an entry-level anchor product providing a download speed of at least 100 Mbps and upload speed of at least 20 Mbps for no more than \$80 per month until the conclusion of the next ECMR.
 - i) This product must be implemented by 1 October 2025.
 - ii) The specifications and price of this entry-level anchor product will be reviewed after an annual benchmarking exercise to be carried out each August. If there is a required change to the specifications and/or price, OneComm will be notified of this requirement by 1 September of each year. OneComm is required to implement any required specification and/or price adjustment on or before 1 October of each year.
- b) OneComm must make a total of four regulated price adjustment to their weighted average retail price for fixed broadband over the period October 2025 through October 2028.
 - i) The first regulated price adjustment has been specified as a 7% reduction in their weighted average retail price for fixed broadband. OneComm is required to implement the change on or before 1 October 2025.
 - ii) The next price adjustment will be carried out after an annual retail price benchmarking exercise has been carried out in August of 2026. The result of this benchmarking exercise will be notified to OneComm by 1 Sept 2026. If further price reductions in the retail fixed broadband sector are required, OneComm will be required to implement the required price change on or before 1 October 2026.
 - iii) Similar retail benchmarking reviews will be carried out in August 2027 and August 2028 with the results communicated to OneComm by 1 Sept of the applicable year. If further price adjustments in the retail fixed broadband sector are required, OneComm will be required to implement the required price adjustment before 1 October of the applicable year.
 - iv) For each price adjustment (including the initial price adjustment required for 1 October 2025), OneComm must submit to the RA (with all relevant data for the RA to verify that the change has met the requirements) the following information at least 10 days prior to the date the adjustment is required to be implemented:

- OneComm's calculation of their WARP immediately prior to the adjustment;
 - OneComm's calculation of their proposed WARP after the price adjustment has been implemented demonstrating that they have met the price adjustment requirement.
 - The RA will then be able to cross check these calculations against published fixed broadband prices, total number of fixed broadband subscribers reported, OneComm's quarterly KPI returns, and comparison with previous submissions by OneComm on any regulated WARP adjustments. If additional information is required, the RA will advise OneComm accordingly.
- v) At any time following a specified price adjustment and before any subsequent specified price adjustment, OneComm must ensure that the WARP for their retail fixed broadband product (excluding any discounts or promotions) must be no greater than the WARP prior to the most recent price adjustment.
- c) OneComm is required to submit quarterly KPIs in accordance with Annex D.

8. FINAL DECISION AND ORDER

382. The Regulatory Authority of Bermuda, pursuant to sections 12, 13 and 62 of the Regulatory Authority Act 2011 and sections 20 through 25 of the Electronic Communications Act 2011, hereby:
- (a) Adopts the General Determination and Schedule attached hereto at Annexes E and F respectively, defining relevant markets, assessing significant market power with the relevant markets and applying *ex ante* remedies to sectoral providers deemed to possess jointly or individually significant market power in those markets;
 - (b) Directs the Chief Executive of the Regulatory Authority to forward the General Determination to the Cabinet Secretary; and
 - (c) Authorises the General Determination to take effect on the date of its publication in the Official Gazette.
383. So Ordered this 27th of August 2025.

ANNEX A

Annex A – The RA’s Information Request to other Regulators

1. The RA’s Request

The RA’s information request to regulators included the following questions.

- a. Does [Country] have operators that are considered to have Significant Market Power (SMP) in the fixed broadband and business connectivity markets? In each case, please identify SMP holders in both the retail and wholesale markets.
- b. How widespread is use of fibre to the premise or hybrid fibre coax (HFC) technology in supplying fixed broadband?
- c. Does [Country] regulatory governance mandate safeguards against margin squeeze in any of these markets? If yes, please explain how this is done. If [Regulator] has established a regulated margin between retail and wholesale prices, please explain how this is calculated.
- d. How are the prices of wholesale fixed broadband and business connectivity services set in [Country]? Are they regulated? If so, please describe the methodology for setting these regulated wholesale prices?
- e. If available, please provide the current regulated prices for wholesale broadband access services (in the fixed broadband market) and for wholesale terminating segments (in the business connectivity market). If possible, please provide the volumes of subscribers for each product offered within these service categories for the most recent year where data is available.
- f. Does [Regulator] have any information on how the wholesale terminating segment prices relate to corresponding retail prices of current end-user products in the business connectivity market such as direct Internet access circuits or point to point leased lines? If so, please provide such information, however approximate it may be?
- g. Please provide any other information which [Regulator] thinks may be relevant to our work on retail minus X% wholesale price caps.

2. Summary of responses

The RA received responses from:

- URCA Bahamas
- OfReg, Cayman Islands
- ECTEL, OECS
- TRC, TCI

These responses are summarised below.

Figure A.1: Summary of responses to the RA's information request

Question	URCA	OfReg	ECTEL	TRC
1	The Bahamas includes different geographic markets. Cable Bahamas Ltd (CBL) has SMP in retail and wholesale fixed broadband services in Geographic Market 1. Bahamas Telecommunications Ltd (BTC) has SMP in retail and wholesale fixed broadband services in Geographic Market 2.	OfReg responded that it is currently undertaking a review of telecommunications markets which may lead to SMP determinations.	Cable & Wireless (Flow) has SMP in fixed voice and fixed broadband retail markets. Fixed voice services in the ECTEL member states have been subject to price regulation since 2004., the most recent instrument being the 2022 Retail Price Regulation Regime (RPRR). Note that, in the RPRR, there are requirements in St Lucia, Grenada and St Vincent and the Grenadines for an entry level retail broadband service priced at no more than \$EC99.00.	No operator has been found to have SMP in TCI in wholesale or retail markets.
2	At end 2024, 37% of fixed broadband subscribers have FTTP (residential and business). Note that Starlink is available and active in the Bahamas.	Four operators, Cable & Wireless (Flow), Digicel, Logic and C3 have rolled out direct fibre.	ECTEL's annual Electronic Communications Sector Review reported hybrid fibre coax (HFC) as the most popular technology for fixed broadband provision. A 2024 survey indicated FTTH was available to 69% of homes in Dominica, 25% in St Kitts and Nevis, 15% in St Lucia.	TRC provided data based on their 2020 survey showing FTTH with 40% penetration. TRC provided data from the survey for other technology platforms also.
3	URCA determined that margin squeeze is not a concern because URCA regulates the wholesale broadband access market.	Currently there is not a regulated margin between retail and wholesale prices in effect. Before 2022, requirements were in place for the incumbent operator to provide wholesale at retail minus a	The Telecommunications (Wholesale) Regulations includes provisions to safeguard against margin squeeze, and the Telecommunications (Retail Tariff) Regulations prohibit anti-	Anticompetitive practices are prohibited under the Telecommunications Ordinance and relevant Regulations. The TRC also

Question	URCA	OfReg	ECTEL	TRC
		discount to reflect the avoided retail costs to the incumbent of providing that service.	competitive conducts, including provisions to address margin squeeze.	issued Telecommunications Competition Guidelines in 2017.
4	<p>BTC and CBL required to demonstrate that each proposed tariff reflects efficiently incurred costs, including reasonable return.</p> <p>In addition the two companies must provide a detailed justification for any differences in non-price terms.</p>	Wholesale prices are no longer regulated.	<p>The Telecommunications (Wholesale) Regulations require operators to make wholesale versions of retail services available and includes provisions on pricing requirements.</p> <p>Wholesale provision is usually on commercial terms; ECTEL has dispute resolution functions.</p>	Wholesale broadband prices are not regulated in TCI. Interconnection services are regulated and the TRC uses a benchmark methodology to set interconnection charges. Benchmark data from 12 other Caribbean jurisdictions were used for this. This regulation is horizontal across 3 providers, and not SMP based.
5	URCA provides links to the pricing schedules for Wholesale Direct Internet Access (DIA) services provided by BTC and CBL.	Wholesale prices are no longer regulated. The data requested and collected from Licensees cannot be disclosed.	ECTEL states it has limited information on wholesale prices and volumes.	N/A
6	Information not available.	OfReg does not hold the requested information.	Information unavailable.	N/A
7	URCA provides links to the Preliminary and Final Determinations in its Fixed Market Review and Assessment.	No response.	ECTEL states that additional general information is available on its website.	N/A

ANNEX B

Annex B - Price and Specification Adjustment Process

1. General

- a. Where a date for implementation or data submission has been specified in this Final Report, the time for compliance must be 1700 Bermuda time on that date.
- b. Any changes to the prices, specifications, WARP adjustments or wholesale adjustments will be made by the RA in the form of an Administrative Determination.

2. Retail Anchor Products

- a. The specifications and price of entry-level anchor products will be reviewed after an annual benchmarking exercise to be carried out each August.
 - i. In the event that there is a required change to the specifications and/or price, the affected SMP sectoral provider(s) will be notified of this requirement by 1 September of each year.
 - ii. The affected SMP sectoral providers are required to implement any required specification and/or price change to the entry-level anchor product(s) on or before 1 October of each year.
- b. At the discretion of the RA, the prices and specifications for any anchor product may be adjusted if, within 10 business days following the date of issuance of this ECMR 2025 Final General Determination (or within 10 business days of any future price of specification or price change to an anchor product), SMP sectoral providers present robust evidence that the price or specifications are not sustainable on a forward looking basis.
 - i. If an adjustment to the price or specification of an anchor product is agreed by the RA, affected SMP sectoral providers will be required to implement the changes within one billing cycle (30 days) from the date the RA notifies the affected SMP providers of the new price or specification.
- c. Further adjustments to the anchor product pricing and specifications will only be considered after this initial 10-day period if there is a material change in circumstances, as supported by credible evidence, resulting in the proposed price cap not being sufficient to cover the costs of the SMP sectoral provider.

3. Retail Price Adjustments

- a. At the discretion of the RA, price reductions specified for a SMP sectoral provider's retail products may be adjusted if the affected SMP sectoral provider presents credible evidence that the price adjustment would not allow them to recover a reasonable return.

Such evidence (referred to above) must be presented within 10 business days following the date of issuance of the 2025 ECMR General Determination, or within 10 business days of the

SMP sectoral provider being advised of future price changes (scheduled for 1 Sept 2026, 1 Sept 2027 and 1 Sept 2028).

4. Wholesale Price Adjustments

- a. The X used in the Retail – X% calculation for wholesale products have been set out Paragraph 311 (Wholesale Fixed Broadband) and Paragraph 323 (Wholesale Business Connectivity) of the Final Report. This value will be reviewed bi-annually as part of an international benchmarking exercise.
- b. If there is reason for changing the value of X subsequent to the biannual international benchmarking exercise, the RA will notify the affected SMP sectoral provider(s) of the required change. The affected SMP sectoral provider(s) will be required to implement the change within one billing cycle (30 days).
- c. At the discretion of the RA, the value of X may be adjusted if, within 10 business days following the date of issuance of this ECMR 2025 Final General Determination (or within 10 business days of any future change to the initial value(s)), SMP sectoral providers present robust evidence that the value of X is not sustainable on a forward looking basis. If an adjustment to the value of X is agreed by the RA, affected SMP sectoral providers will be required to implement the changes within one billing cycle (30 days) from the date the RA notifies the affected SMP providers of the new value of X.

Annex C

Annex C – Calculation Processes

1. Calculation of Weighted Average Retail Price (WARP)

- a. The steps to calculate the WARP are as follows:
 - i. List all retail products currently being billed (whether currently advertised or not) with their retail prices (excluding any discounts or promotions)
 - ii. Obtain subscriber counts for each retail fixed broadband product.
 - iii. Multiply each price by its subscriber count.
 - iv. Sum all weighted prices
 - v. Divide by the total number of subscribers across all products.
- b. The formula for WARP is calculated as follows:
 - vi. P_i = Price of product i
 - vii. S_i = Number of subscribers (or units sold) for product i
 - viii. n = Total number of products
 - ix. \bar{P} = weighted average price which is calculated as:

$$\bar{P} = \frac{\sum_{i=1}^n P_i S_i}{\sum_{i=1}^n S_i}$$

2. Calculation of Y for Initial Retail Price Reduction in Fixed Broadband

- a. The RA assumes that, in the absence of additional regulation in Bermuda, the price of the median fixed broadband product would rise at $r\%$ in both Bermuda and the benchmark countries. In addition:
- P = the current median product price in the benchmark countries
 - $1.5P$ = the current median fixed broadband product price in Bermuda when compared to international benchmark levels in July 2025
 - Y = the % reduction required each year to bring the median product price in Bermuda down to international benchmark levels.
- b. With this notation:
- The median price in the benchmark countries would reach $P(1+r)^4$ by September 2029
 - The median price in Bermuda would reach $1.5P(1+r)^4$ by September 2029 without the proposed price regulation.
 - The median price in Bermuda would reach $1.5P(1+r)^4(1-Y)^4$ given the proposed four regulated price cuts of $Y\%$ each.
- c. To achieve the RA's regulatory objective, the price in Bermuda and in the benchmark countries would need to be the same by October 2028. That is

$$P(1+r)^4 = 1.5P(1+r)^4(1-Y)^4$$

Solving for Y in this equation gives us

$$1 = 1.5(1-Y)^4 \text{ or}$$

$$Y = 9.64\%$$

ANNEX D

Annex D – Information Provision and Key Performance Indicators

1. Introduction

- a. In the above Final Report, a number of *ex ante* remedies were identified spanning several markets. A number of these remedies incorporate the provision of information to the RA by means of Key Performance Indicators (KPIs) on a regular basis.
- b. KPIs enable the RA to track the service quality that SMP sectoral providers are offering both at a retail and wholesale level. The information will also be use by the RA to monitor compliance with key ex ante remedies.
- c. Where relevant, the RA will aggregate the KPI submissions and publish them on the RA website.
- d. SMP providers with a KPI obligation are required to provide KPI information to the RA on a quarterly basis. Specifically, the required information should be provided 4 times per year based on the following schedule which is consistent with the RA’s Fee Filing Instructions:

Filing Quarter	Period Covered	Filing Deadline is 1700 Bermuda time on the dates below
Q1	1 April – 30 June	31 August
Q2	1 July – 30 September	30 November
Q3	1 October – 31 December	28 February
Q4	1 January – 31 March	31 May

- e. The first KPI report (subsequent to the publication of this Final Report and General Determination) will be for Q3 2025-2026 (1 October 2025 – 31 December 2025) and will be due on 28 February 2026.
- f. In all instances, KPIs are to be provided as of the last day of the reporting period. KPIs are also to include all products including any that are supplied to end users but may not be current on the SMP sectoral provider website. Averages are to be provided over the entire reporting period unless specified otherwise.
- g. The RA will provide SMP sectoral providers with a template for the collection of the required information. This template will be made available by 1 October 2025.
- h. The information collected in any KPI requirement may overlap information collected annually by the RA for the RA’s Market Analysis reports. However, as the KPI information is gathered quarterly, it provides a more current view of the market.

- i. The RA will require SMP sectoral providers in certain markets to provide information on KPIs at the retail and wholesale levels. Both are discussed below.
2. In retail markets in which a KPI obligation is imposed (eg broadband, mobile), SMP sectoral providers will be required to provide the following information.
 - a. The number of customer complaints during the reporting period, sub-divided by type (i.e. reliability, speed, contractual terms, or billing) and service (fixed broadband, mobile, fixed voice, business connectivity etc).
 - b. The average time taken to address customer complaints during the reporting period, from when the complaint was first reported until the complaint was closed.
 - c. The three most common causes of complaints during the reporting period
 - d. The number of faults during the reporting period, subdivided by type (loss of service, intermittent dropouts etc). Faults are defined here as lost or impaired service due to issues in the SMP sectoral provider's network (i.e. those faults that are the responsibility of the SMP sectoral provider).
 - e. The average time taken to address faults during the reporting period (from first identification until conclusion).
 - f. The top three most common causes of faults during the reporting period (eg customer equipment, local loop fault, no fault found etc).
 - g. For Fixed Broadband (excluding wholesale broadband connections but including any fixed broadband product that is part of a bundle):
 - i. The number of subscribers on each product at the end of the reporting period (typically designated by download speed) including any anchor products subdivided by type (residential/commercial).
 - ii. The price of each retail product at the end of the reporting period.
 - h. For Mobile (including any mobile product that is provided as part of a bundle but excludes any MVNO services):
 - i. The number of subscribers on each retail mobile package at the end of the reporting period, subdivided by type (residential/commercial).
 - ii. The price of each retail mobile package at the end of the reporting period.
 - iii. The number of prepaid subscribers at the end of the reporting period.
 - iv. The average data use per user (averaged over the reporting period) for each mobile package subdivided by type (residential/commercial).

i. For Fixed Voice Telephony

- i. Total number of retail FVT customers split between residential and commercial use as well as service delivery method (eg copper, VOIP) at the end of the reporting period.
- ii. The price of each retail fixed voice package at the end of the reporting period
- iii. The average provisioning time (from customer order to service delivery and sign off by customer) for any FVT connection over the reporting period.

3. Wholesale KPIs

- a. In order to track the service quality that SMP sectoral providers are offering to wholesale access seekers, SMP sectoral providers are required to provide the RA with a number of wholesale KPIs according to the service offered to access seekers, as well as the services that the sectoral providers provide to their own retail division(s).
- b. In wholesale markets in which a KPI obligation is imposed (broadband, mobile and business connectivity), SMP sectoral providers will be required to provide the following information.
- c. In respect of broadband:
 - i. The number of wholesale fixed broadband connections and associated revenue at the end of the reporting period broken down by product/speed and access seeker.
 - ii. The average time taken to provide a new wholesale fixed broadband connection (from the time the order is placed by the access seeker to service acceptance by the access seeker). This average is to be calculated over the whole reporting period and provided per access seeker.
 - iii. The average time taken to provide a new fixed broadband connection for internal use (ie the wholesale SMP provider's retail division).
 - iv. The average time taken to address faults affecting the wholesale network during the reporting period, from when the fault was first reported by any wholesale access seeker until the fault has been closed. Faults are defined here as lost or impaired service due to issues in the wholesale network (i.e. faults that are the responsibility of the SMP sectoral provider).
 - v. The total number of faults affecting the wholesale network during the reporting period, sub-divided between faults reported by the SMP sectoral provider's retail division and faults reported by any wholesale access seekers.
 - vi. The top three most common causes of faults affecting the wholesale network during the reporting period (eg customer equipment, local loop fault, no fault found)
- d. In respect of mobile:
 - i. The number of MVNO subscribers broken down by MVNO on a per month basis

- ii. The total number of network faults reported by an MVNO to the SMP sectoral provider during the reporting period subdivided by each MVNO.
 - iii. The average time taken to address network faults reported by an MVNO to the SMP sectoral provider during the reporting period subdivided by each MVNO.
 - iv. The top three most common causes of network faults reported by a MVNO to the SMP sectoral provider during the reporting period.
 - v. The average data use per user (averaged over the reporting period) for each mobile package subdivided by access provider.
- e. In respect of business connectivity (which does not include any internet broadband services):
 - i. The number of wholesale terminating segments and associated revenue provided by the SMP sectoral provider at the end of the reporting period broken down by wholesale access seeker and product/speed.
 - ii. The number of wholesale terminating segments used internally by the SMP sectoral provider (self-supply) at the end of the reporting period broken down by product/speed.
 - iii. The average time taken to provide a new wholesale terminating segment (from the time the order is placed by the access seeker to service acceptance by the access seeker). This average is to be calculated over the whole reporting period and provided per access seeker.
 - iv. The average time taken to provide a new wholesale terminating segment for internal use (ie the wholesale SMP provider's retail division).
 - v. The average time taken to address network faults (from first identification) during the reporting period, sub-divided between the SMP sectoral provider's retail division and any wholesale access seekers. Faults are defined here as lost or impaired service due to issues in the SMP sectoral provider's network (i.e. those faults that are the responsibility of the SMP sectoral provider).
 - vi. The total number of faults during the reporting period, sub-divided between the SMP sectoral provider's retail division and any wholesale access seekers.
 - vii. The top three most common causes of faults during the reporting period (eg customer equipment, local loop fault, no fault found)

ANNEX E

General Determination

[DRAFT]

**REGULATORY AUTHORITY (MARKET REVIEW OF THE ELECTRONIC
COMMUNICATIONS SECTOR) GENERAL DETERMINATION 2025**

BR ____ / 2025

The Regulatory Authority, in the exercise of the power conferred by section 62 of the Regulatory Authority Act 2011, as read with sections 12 and 13 of that Act and sections to 25 of the Electronic Communications Act 2011, makes the following General Determination:

Citation

1. This General Determination may be cited as the Regulatory Authority (Market Review of the Electronic Communications Sector) General Determination 2025.

Interpretation

2. In this General Determination, unless the context otherwise requires, terms shall have the meaning given in the Regulatory Authority Act 2011 and the Electronic Communications Act 2011.

General Purpose

3. This General Determination identifies the relevant markets which the Authority has concluded require ex ante regulation and sets out the obligations that will apply, going forward, to those sectoral providers that have been found to have significant market power in the relevant markets.

Determination

4.
 - (1) This General Determination is made pursuant to the Consultation Document entitled “Market Review of the Electronic Communications Sector” dated 22 January 2025, the Preliminary Report, Preliminary Decision and Order dated 2 May 2025, and the Authority’s Final Decision and Order on them dated 27 August 2025.
 - (2) The Authority determines that this General Determination and the Schedule to this General Determination are consistent with the purposes of the Electronic Communications Act 2011.

Revocation of the 2020 General Determination

5. The Regulatory Authority (Market Review of the Electronic Communications Sector) General Determination 2020 is revoked on 1st October 2025.

Terms and Conditions of the General Determination

6. (1) The Schedule to this General Determination has effect.
- (2) The Schedule is also published on the Authority's website (<http://www.ra.bm/>) and is also available for inspection at the offices of the Authority (1st Floor, Craig Appin House, 8 Wesley Street, Hamilton HM 11) during ordinary business hours.

Effective Date of the General Determination

7. This General Determination becomes effective on the day it is published in the Official Gazette.

Signed this ____ of _____ 2025.

Chairman, Regulatory Authority

ANNEX F

Schedule for the General Determination

Schedule to the Regulatory Authority (Market Review of the Electronic Communications Sector) General Determination 2025

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Part 1. General

1. This Schedule sets out the determinations of the Authority following the most recent Electronic Communications Market Review which concluded in 2025.
2. Part 2 sets out:
 - a. the definitions of the relevant products and services which have been determined to be susceptible to the imposition of *ex ante* remedies;
 - b. those electronic communications sectoral providers who have been determined to possess significant market power; and
 - c. details of the resulting *ex ante* remedies to which the electronic communications sectoral providers so determined will be subject.
3. Part 3 sets out additional remedies in connection with the provision of information and key performance indicators (**KPIs**) to which the electronic communications sectoral providers so determined will be subject.
4. Part 4 sets out the process for the price and specification adjustment process in connection with anchor products, median price and retail minus adjustments, the details of which are initially provided in Part 2.
5. Part 5 sets out the determination of the Authority regarding the 2014 and 2015 Merger Control Obligations.

Part 2. Relevant Markets, Determination of Sectoral Providers with Significant Market Power (SMP) and *Ex ante* Remedies

2.1 Fixed Broadband

Retail Market

6. The relevant retail market is the retail provision of fixed broadband Internet connectivity, provided over any technology, and for any speed, on an island wide basis.
7. The sectoral provider with SMP in this market is **One Communications Ltd. (OneComm)** which is made up of Bermuda Cablevision Ltd. (BCV), Bermuda Digital Broadband Ltd, Bermuda Digital Communications Ltd., Logic Communications Ltd. and CableCo Ltd.
8. The following *ex ante* remedies are imposed:
 - a. OneComm must provide an entry-level anchor fixed broadband product of at least 100 Mbps download and 20 Mbps upload priced at a maximum of \$80 per month;¹
 - b. OneComm must provide and maintain prominent and accessible information on the entry-level fixed broadband anchor product on its websites, in its showrooms and on sales scripts, and it must also ensure that its staff are fully trained in the product offering;
 - c. OneComm may be required to adjust the entry-level fixed broadband anchor product pricing and functionality as a result of subsequent annual international benchmarking exercises conducted by the Authority;
 - d. OneComm must lower its fixed broadband weighted average retail price (WARP) by 7% as a result of the Authority's initial benchmarking exercise reviewing OneComm's median pricing;²
 - e. OneComm must adjust its fixed broadband WARP at Y% each year through to 2028, where Y will be set as a result of subsequent annual international benchmarking exercises conducted by the Authority; and

¹ The price and functionality of this anchor product was determined by a benchmarking exercise that was conducted in parallel with the Preliminary Report with the results provided as part of the Final Report.

² The initial WARP% was determined by an initial benchmarking exercise that was conducted in parallel with the Preliminary Report with the results provided as part of the Final Report.

- f. OneComm must offer fixed broadband on a stand-alone basis and must provide the Authority with KPIs on this market according to Part 3.

Wholesale Market

- 9. The relevant wholesale market is the wholesale provision of fixed broadband Internet connectivity, provided over any technology, and for any speed, on an island wide basis.
- 10. The sectoral provider with SMP in this market is **OneComm**.
- 11. The following *ex ante* remedies are imposed:
 - a. OneComm must supply wholesale services to access seekers on a fair, reasonable and non-discriminatory basis;
 - b. OneComm cannot supply wholesale products that are unwanted by the access seeker unless OneComm can demonstrate that unbundling is technically infeasible or generates disproportionate costs, and in so doing, OneComm may require access seekers to demonstrate reasonable demand for the wholesale products requested;
 - c. OneComm must supply wholesale inputs at a price that is capped at Retail minus X%, where X is set at a level to enable efficient competition in retail markets, and for the first two years of the forthcoming regulatory period, X is set at 50%;³
 - d. OneComm must adjust the Retail minus X% of the fixed broadband wholesale product as a result of subsequent biennial international benchmarking exercises conducted by the Authority; and
 - e. OneComm must provide the Authority with KPIs on the supply of wholesale products to both access seekers and its own downstream retail business according to Part 3.

³ The initial Retail minus X% was determined by an international benchmarking exercise conducted by the Authority in parallel with the Preliminary Report with the results provided as part of the Final Report.

2.2 Mobile Services

Retail Market

12. The relevant retail market is the island wide provision of retail mobile services, being voice, text and data.
13. The sectoral providers with SMP in this market are **Bermuda Telephone Company Limited and Telecommunications (Bermuda & West Indies) Limited (together Digicel) and OneComm.**
14. The following *ex ante* remedies are imposed:
 - a. Digicel and OneComm must provide an entry-level mobile service anchor product with at least 10 GB monthly data allowance for a maximum price of \$50 per month;⁴
 - b. Digicel and OneComm must provide prominent and accessible information on the entry-level mobile service anchor product on their websites, in their showrooms and on sales scripts, and both companies must ensure that their staff are fully trained on the product offering;
 - c. Digicel and OneComm must adjust the entry-level mobile service anchor product pricing and functionality as a result of subsequent annual international benchmarking exercises carried out by the Authority;
 - d. Digicel and OneComm must adjust their retail prices by either capping or reducing the retail pricing as a result of subsequent annual international benchmarking exercises carried out by the Authority;
 - e. Digicel and OneComm must offer mobile services on a stand-alone basis; and
 - f. Digicel and OneComm must provide the Authority with KPIs on this market according to Part 3.

⁴ The price and functionality of this anchor product was determined by an initial benchmarking exercise that was conducted in parallel with the Preliminary Report with the results provided as part of the Final Report.

Wholesale Market

15. The relevant wholesale market is the island wide provision of wholesale mobile services.
16. The sectoral providers with SMP in this market are **Digicel and OneComm**.
17. The following *ex ante* remedies are imposed:
 - a. Digicel and OneComm must supply wholesale services to access seekers on a fair, reasonable and non-discriminatory basis, and in so doing, OneComm and Digicel may require access seekers to demonstrate reasonable demand for the wholesale products requested; and
 - b. Digicel and OneComm must provide the Authority with KPIs on the supply of wholesale products to both access seekers and their own downstream retail business according to Part 3.

2.3 Fixed Voice

Retail Market

18. The relevant retail market is the island wide provision of retail voice services, being voice call access and origination from a fixed location.
19. The sectoral provider with SMP in this market is **Digicel**.
20. The following *ex ante* remedies are imposed:
 - a. Digicel is prohibited from discontinuing their existing copper facilities and is required to maintain this network until the Authority approves the standards, procedure and timetable for decommissioning copper through a public consultation;
 - b. Digicel must continue to offer fixed voice services on an island-wide and stand-alone and on a technology-neutral basis; and
 - c. Digicel must provide the Authority with KPIs on their fixed voice market according to Part 3.

2.4 Business Connectivity

Retail Market

21. The relevant retail market is the island wide provision of retail business connectivity services.

22. The sectoral providers with SMP in this market are **Digicel and OneComm**.

23. The following *ex ante* remedies are imposed:

- a. Digicel and OneComm must provide the Authority with KPIs on their retail business connectivity services including their own downstream retail businesses according to Part 3.

Wholesale Market

24. The relevant wholesale market is the island wide provision of wholesale terminating segments for business connectivity services.

25. The sectoral providers with SMP in this market are **Digicel and OneComm**.

26. The following *ex ante* remedies are imposed:

- a. Digicel and OneComm must supply wholesale services to access seekers on a fair, reasonable and non-discriminatory basis;
- b. Digicel and OneComm cannot supply wholesale products that are unwanted by the access seeker unless they can demonstrate that unbundling is technically infeasible or generates disproportionate costs, and in so doing, OneComm and Digicel may require access seekers to demonstrate reasonable demand for the wholesale products requested; and
- c. Digicel and OneComm must supply wholesale inputs at a price that is capped at Retail minus X%, where X is set at a level to enable efficient competition in retail markets, and for the first two years of the forthcoming regulatory period, X is set at 42%;⁵
- d. Digicel and OneComm must adjust the Retail minus X% of the business connectivity products as a result of subsequent biennial international benchmarking exercises conducted by the Authority ; and
- e. Digicel and OneComm must provide the Authority with KPIs on the supply of wholesale products to both access seekers and their own downstream retail business according to Part 3.

⁵ The initial Retail minus X% was determined by an international benchmarking exercise conducted by the Authority in parallel with the Preliminary Report with the results provided as part of the Final Report.

2.5 Call Termination

Wholesale Market

27. The relevant wholesale markets are wholesale voice call termination services on each fixed voice sectoral provider's network and wholesale voice call and messaging (SMS/MMS) termination services on each mobile sectoral provider's network.
28. The sectoral providers with SMP in these markets are **all sectoral providers that provide voice call and messaging (SMS/MMS) services.**
29. The following *ex ante* remedies are imposed:
- a. All sectoral providers must terminate all valid calls or messaging (SMS/MMS) destined for their network;
 - b. All sectoral providers must interconnect, either directly or indirectly, with other sectoral providers in Bermuda to allow exchange of calls and messaging (SMS/MMS) between them on a fair, reasonable and non-discriminatory basis;
 - c. Sectoral providers that already provide call termination are prohibited from refusing a reasonable request to interconnect with a new entrant to this market; and
 - d. All sectoral providers must continue to follow the existing bill and keep convention, and sectoral providers are not permitted to impose price controls for terminating calls or messaging (SMS/MMS) on their network.

2.6 Implementation and Offering of Services and Products of the *ex ante* remedies

30. All SMP sectoral providers must implement and offer the products according to the *ex ante* remedies imposed on them on or by 1700 Bermuda time on 1 October 2025.
31. At least 10 days prior to the implementation of a WARP based remedy, SMP sectoral providers must submit to the Authority the following information including all relevant data for the Authority to verify the calculations:
- a. The SMP provider's calculation of the applicable WARP prior to the price adjustment

- b. The SMP provider's modelled calculation of the applicable WARP incorporating the required price adjustment

2.7 Summary of Determinations

32. The relevant markets, designated SMP sectoral providers and *ex ante* remedies are set out in summary form in the following table, which is provided only for reference.

Summary of Relevant Markets, SMP Providers and Ex ante Remedies

Market	Level	SMP Provider(s)	Ex ante Remedies
Fixed Broadband	Retail	OneComm (incl. BDC & Logic)	<ul style="list-style-type: none"> • Entry-level anchor product ≥ 100 Mbps / 20 Mbps, $\leq \\$80$/month. • Prominent advertising & staff training on entry-level anchor product. • Annual adjustments based on international benchmarking. • Reduce WARP by 7% (Oct 2025), then Y% annually to 2028. • Must offer stand-alone service. • Provide KPIs to the Authority.
	Wholesale	OneComm	<ul style="list-style-type: none"> • Supply on Fair, Reasonable and Non Discriminatory (FRAND) terms. • Unbundling required unless infeasible. • Wholesale price cap = Retail minus X% (initial X set by international benchmarking, reviewed biennially). • Adjust pricing per Authority's reviews. • Provide KPIs to the Authority.
Mobile Services	Retail	Digicel & OneComm (joint)	<ul style="list-style-type: none"> • Entry-level anchor product ≥ 10 GB/month, $\leq \\$50$. • Prominent advertising & staff training on entry-level anchor product. • Annual RA benchmarking adjustments. • Price caps/reductions per Authority's median price review based on international benchmarking. • Must offer stand-alone service. • Provide KPIs to Authority.
	Wholesale	Digicel & OneComm (joint)	<ul style="list-style-type: none"> • Supply on FRAND terms. • Access seekers must show reasonable demand. • Provide KPIs to the Authority on wholesale supply.
Fixed Voice	Retail	Digicel	<ul style="list-style-type: none"> • Maintain copper facilities until the Authority approves decommissioning timetable. • Must continue island-wide, stand-alone fixed voice. • Provide KPIs to the Authority.
Business Connectivity	Retail	Digicel & OneComm (joint)	<ul style="list-style-type: none"> • Provide KPIs to the Authority on retail business connectivity (incl. own downstream businesses).
	Wholesale	Digicel & OneComm (joint)	<ul style="list-style-type: none"> • Supply on FRAND terms. • Unbundling required unless infeasible. • Wholesale price cap = Retail minus 42% (reviewed biennially).

Schedule to the Regulatory Authority (Market Review of the Electronic Communications Sector) General Determination 2025

Market	Level	SMP Provider(s)	<i>Ex ante</i> Remedies
			<ul style="list-style-type: none"> • Adjust pricing per Authority's reviews. • Provide KPIs to the Authority.
Call Termination (Fixed & Mobile)	Wholesale	All providers offering voice & messaging services	<ul style="list-style-type: none"> • Must terminate all valid calls and messages. • Interconnect (directly/indirectly) on FRAND terms. • Cannot refuse reasonable interconnection requests from new entrants. • Must follow existing bill and keep convention for domestic calls. • No price controls allowed for termination.

Part 3. Information Provision and Key Performance Indicators (KPIs)

3.1 Introduction

33. SMP sectoral providers with a KPI obligation must provide KPI information to the Authority on a quarterly basis.

34. SMP sectoral providers must submit KPIs four times per year based on the following schedule:

Filing Quarter	Period Covered	Filing Deadline is 1700 Bermuda time on the dates below
Q1	1 April – 30 June	31 August
Q2	1 July – 30 September	30 November
Q3	1 October – 31 December	28 February
Q4	1 January – 31 March	31 May

35. The first KPI report (following the publication of this General Determination is for Q3 2025-2026 (1 October 2025 – 31 December 2025) and is due on 28 February 2026.

36. In all instances, KPIs must be provided as of the last day of the reporting period. Averages are to be calculated over the entire reporting period unless specified otherwise.

37. KPIs must also relate to all products billed in the review period including any that are supplied to end users but may not be advertised on the SMP sectoral provider's website.

38. The RA will provide SMP sectoral providers with a template for the collection of the required information, which will be made available by 1 October 2025.

39. The information collected in any KPI requirement may overlap with information collected annually by the Authority for its Market Analysis reports.

40. SMP sectoral providers in certain markets must provide KPI information at both the retail and wholesale levels as specified in Sections 3.2 and 3.3 below.

3.2 Retail KPI Obligations

41. In retail markets in which a KPI obligation is imposed (for example broadband, mobile), SMP sectoral providers must provide the following information:

- a. The number of customer complaints during the reporting period, subdivided by type (reliability, speed, contractual terms, billing) and service (fixed broadband, mobile, fixed voice, business connectivity).
 - b. The average time taken to address customer complaints during the reporting period, measured from when the complaint was first reported until the complaint was closed.
 - c. The three most common causes of complaints during the reporting period.
 - d. The number of faults during the reporting period, subdivided by type (loss of service, intermittent dropouts, etc.); and “faults” are defined as lost or impaired service due to issues in the SMP sectoral provider’s network.
 - e. The average time taken to address faults during the reporting period (from first identification until conclusion).
 - f. The top three most common causes of faults during the reporting period (e.g. customer equipment, local loop fault, no fault found).
42. For **Fixed Broadband** (excluding wholesale connections but including any broadband product that is part of a bundle), SMP sectoral providers must provide:
- a. The number of subscribers on each product at the end of the reporting period (designated by download speed), including anchor products, subdivided by residential/commercial.
 - b. The price of each retail broadband product at the end of the reporting period.
43. For **Mobile Services** (including bundled services but excluding Mobile Virtual Network Operator (MVNO) services), SMP sectoral providers must provide:
- a. The number of subscribers on each retail mobile package at the end of the reporting period, subdivided by residential/commercial.
 - b. The price of each retail mobile package at the end of the reporting period.
 - c. The number of prepaid subscribers at the end of the reporting period.
 - d. The average data use per user (averaged over the reporting period) for each mobile package, subdivided by residential/commercial.

44. For **Fixed Voice Telephony**, SMP sectoral providers must provide:

- a. The total number of retail FVT customers split between residential and commercial use as well as service delivery method (e.g. copper, VOIP) at the end of the reporting period.
- b. The price of each retail fixed voice package at the end of the reporting period.
- c. The average provisioning time (from customer order to service delivery and customer sign-off) for any FVT connection during the reporting period.

3.3 Wholesale KPI Obligations

45. In wholesale markets in which a KPI obligation is imposed (for example broadband, mobile), SMP sectoral providers must provide the Authority with a number of wholesale KPIs according to the service offered to access seekers, as well as the services that the SMP sectoral providers provide to their own retail division.

46. For **Fixed Broadband**, SMP sectoral providers must provide:

- a. The number of wholesale fixed broadband connections and associated revenue at the end of the reporting period, broken down by product/speed and access seeker.
- b. The average time taken to provide a new wholesale fixed broadband connection (from the time the order is placed by the access seeker to service acceptance by the access seeker). This average is to be calculated over the whole reporting period and provided per access seeker.
- c. The average time taken to provide a new fixed broadband connection for internal use (i.e. the SMP provider's retail division).
- d. The average time taken to address faults affecting the wholesale network during the reporting period, from when the fault was first reported by any wholesale access seeker until the fault has been closed; and "faults" are defined here as lost or impaired service due to issues in the wholesale network (i.e. faults that are the responsibility of the SMP sectoral provider).
- e. The total number of faults affecting the wholesale network during the reporting period, subdivided between faults reported by the SMP

provider's retail division and faults reported by any wholesale access seekers.

- f. The top three most common causes of faults affecting the wholesale network during the reporting period (e.g. customer equipment, local loop fault, no fault found).

47. For **Mobile Services**, SMP sectoral providers must provide:

- a. The number of MVNO subscribers, broken down by MVNO on a per month basis.
- b. The total number of network faults reported by an MVNO to the SMP provider during the reporting period, subdivided by each MVNO.
- c. The average time taken to address network faults reported by an MVNO to the SMP provider during the reporting period, subdivided by each MVNO.
- d. The top three most common causes of network faults reported by an MVNO to the SMP provider during the reporting period.
- e. The average data use per user (averaged over the reporting period) for each mobile package, subdivided by access provider.

48. For **Business Connectivity** (excluding any internet broadband services), SMP sectoral providers must provide:

- a. The number of wholesale terminating segments and associated revenue provided by the SMP provider at the end of the reporting period, broken down by wholesale access seeker and product/speed.
- b. The number of wholesale terminating segments used internally by the SMP provider (self-supply) at the end of the reporting period, broken down by product/speed.
- c. The average time taken to provide a new wholesale terminating segment (from the time the order is placed by the access seeker to service acceptance by the access seeker). This average is to be calculated over the whole reporting period and provided per access seeker.
- d. The average time taken to provide a new wholesale terminating segment for internal use (ie the wholesale SMP sectoral provider's retail division).
- e. The average time taken to address network faults (from first identification) during the reporting period, subdivided between the SMP provider's retail division and any wholesale access seekers; and "faults" are defined here

as lost or impaired service due to issues in the SMP provider's network (i.e. those faults that are the responsibility of the SMP sectoral provider).

- f. The total number of faults during the reporting period, subdivided between the SMP provider's retail division and any wholesale access seekers.
- g. The top three most common causes of faults during the reporting period (e.g. customer equipment, local loop fault, no fault found).

3.4 Summary of KPI Obligations

49. The KPI Obligations imposed on SMP sectoral providers as part of the designated *ex ante* remedies are set out in summary form in the following table, which is provided only for reference.

Table: Summary of KPI Requirements

Service / Market	Retail KPIs (SMP Providers must provide)	Wholesale KPIs (SMP Providers must provide)
General (all services)	<ul style="list-style-type: none"> No. of customer complaints (by type: reliability, speed, contractual terms, billing; by service). Average time to address complaints. Top 3 causes of complaints. No. of faults (by type). Average time to address faults. Top 3 causes of faults. 	<i>Not applicable (general complaints/faults covered within service-specific wholesale reporting).</i>
Fixed Broadband	<ul style="list-style-type: none"> Subscribers per product (by speed) at end of reporting period, incl. anchor products, split residential/commercial. Price of each retail broadband product. 	<ul style="list-style-type: none"> No. of wholesale broadband connections & associated revenue (by product/speed & access seeker). Avg. time to provide new connection (per access seeker). Avg. time to provide new internal connection (retail division). Avg. time to resolve wholesale faults (per access seeker). Total no. of wholesale faults (split retail division vs. access seekers). Top 3 causes of wholesale faults.
Mobile Services	<ul style="list-style-type: none"> Subscribers per retail package (split residential/commercial). Price of each retail mobile package. No. of prepaid subscribers. Avg. data use per user (by package, split residential/commercial). 	<ul style="list-style-type: none"> No. of MVNO subscribers (per MVNO, monthly). No. of network faults reported by MVNOs (per MVNO). Avg. time to resolve MVNO-reported faults (per MVNO). Top 3 causes of MVNO-reported faults.

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Service / Market	Retail KPIs (SMP Providers must provide)	Wholesale KPIs (SMP Providers must provide)
		<ul style="list-style-type: none"> • Avg. data use per user (by package, split by access provider).
Fixed Voice Telephony (FVT)	<ul style="list-style-type: none"> • Total no. of customers (residential/commercial), by service delivery method (e.g. copper, VOIP). • Price of each retail fixed voice package. • Avg. provisioning time (order to delivery & sign-off). 	<i>No separate wholesale KPI obligation specific to FVT (covered under call termination obligations in Section 1).</i>
Business Connectivity	<ul style="list-style-type: none"> • KPIs on retail business connectivity services (including own downstream businesses). 	<ul style="list-style-type: none"> • No. of wholesale leased line connections & revenue (by product/speed & access seeker). • No. of leased line connections used internally (self-supply), by product/speed. • Avg. time to address wholesale network faults (split retail division vs. access seekers). • Total no. of wholesale faults (split retail division vs. access seekers). • Top 3 causes of wholesale faults.

Part 4. Price and Specification Adjustment Process

4.1 General

50. Where a date for implementation or data submission has been specified in this General Determination, the time for compliance must be 1700 Bermuda time on that date.
51. Any changes to the prices, specifications, WARP adjustments or wholesale adjustments will be made by the RA in the form of an Administrative Determination.

4.2 Retail Anchor Products

52. The specifications and price of entry-level anchor products will be reviewed after an annual benchmarking exercise conducted each August.
53. If the Authority determines that a change to specifications and/or price of the retail anchor products is required it must make an Administrative Determination to that effect and notify the affected SMP sectoral provider(s) by 1 September of each year, and the SMP sectoral provider(s) must implement any required change by 1 October of each year.
54. At the discretion of the Authority, the prices and specifications for any anchor product may be adjusted if, within 10 business days following enactment of this General Determination (or within 10 business days of the notification of any future change), SMP sectoral providers present robust evidence that the price or specifications are not sustainable on a forward-looking basis.
55. If such an adjustment is agreed by the Authority, the affected SMP sectoral providers must implement the changes within one billing cycle (30 days) from the date the Authority notifies the provider(s) of the new price or specification.
56. Further adjustments will only be considered after this initial 10-day period if there is a material change in circumstances, supported by credible evidence, demonstrating that the price cap is not sufficient to cover costs.

4.3 Retail Price Adjustments

57. The median retail price in both the fixed broadband and mobile markets will be reviewed after an annual benchmarking exercise conducted each August.
58. If the Authority determines that an adjustment to the applicable median retail price is required by means of a Y% adjustment to the affected SMP sectoral provider's WARP, it must make an Administrative Determination to that effect

and notify the affected SMP sectoral provider(s) by 1 September of each year, and the SMP sectoral provider(s) must implement any required change by 1 October of each year.

59. At the discretion of the Authority, price reductions specified for a SMP sectoral provider's retail products may be adjusted if the affected sectoral provider presents credible evidence that the reduction would not allow recovery of a reasonable return.
60. Such evidence must be presented within 10 business days of enactment of the General Determination, or within 10 business days of the SMP sectoral provider being advised of future price changes (scheduled for 1 September 2026, 1 September 2027, and 1 September 2028).

4.4 Wholesale Price Adjustments

61. The "Retail minus X%" used for wholesale products will be reviewed biennially as part of the Authority's international benchmarking exercise.
62. If the Authority determines that a change to the value of X is required, it must make an Administrative Determination to that effect and notify the affected SMP sectoral provider(s), who must implement the change within one billing cycle (30 days) of the Authority's notification.
63. At the discretion of the RA, the value of X may be adjusted if, within 10 business days of enactment of the General Determination (or within 10 business days of any future change), SMP sectoral providers present robust evidence that the value of X is not sustainable on a forward-looking basis.
64. If such an adjustment is agreed by the Authority, it must make an Administrative Determination to that effect, and the SMP sectoral provider(s) must implement the change within one billing cycle (30 days) from the date the Authority notifies the affected SMP sectoral provider(s) of the new value of X.

Part 5. Merger Control Obligations

65. The Authority removes the 2014 and 2015 Merger Control Obligations imposed on Digicel and OneComm.