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# **Office of Utilities Regulation**

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## **Assessment of Fixed Infrastructure Sharing Costs – Principles and Methodology**

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### **Determination Notice**

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**OFFICE OF UTILITIES REGULATION**

2020 December 28



## DOCUMENT TITLE AND APPROVAL PAGE

1. **DOCUMENT NUMBER:** 2020/TEL/021/DET.005

2. **DOCUMENT TITLE:** Assessment of Fixed Infrastructure Sharing Costs – Principles and Methodology – **Determination Notice**

### 3. PURPOSE OF DOCUMENT

This document contains the main decisions of the Office of Utilities Regulation regarding the methodological framework that will be used in the development of a cost model to assess the costs of fixed infrastructure sharing services.

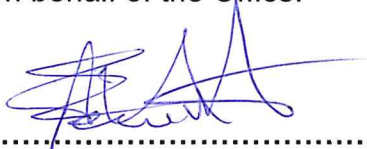
### 4. ANTECEDENT PUBLICATIONS

Publication Number	Publication Title	Publication Date
2020/TEL/001/CON.001	Update of the Fixed Cost Model and Assessment of Fixed Infrastructure Sharing Costs - Principles and Methodology – Consultation Document	2020 January 8

### 5. Approval

This document is approved by the Office of Utilities Regulation and the decisions therein become effective on **2020 December 28**.

On behalf of the Office:



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Ansord E. Hewitt  
**Director-General**

2020/12/28  
.....  
**Date**





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## **Abstract**

The Telecommunications Act ("the Act"), specifically Section 29A, empowers the Office of Utilities Regulation ("Office"/"OUR") to impose on operators the obligation to share infrastructure (tangibles and intangibles) and to determine the terms and conditions of a sharing arrangement. In keeping with the powers under section 29A of the Act, the OUR has developed and consulted on Infrastructure Sharing Rules ("the Draft Rules"). These Rules are currently awaiting promulgation. Once promulgated, the Rules will be applicable to all telecommunications infrastructure that is amenable to sharing.

This Determination Notice sets out the approach that the Office will take in relation to the development of a cost model to assess the costs of fixed infrastructure sharing services, based on the principles outlined in the Act and the OUR's draft Infrastructure Sharing Rules.

The document also sets out the OUR's response to comments on the Consultation Document dated 2020 January 8 and entitled "Update of the Fixed Cost Model and Assessment of Fixed Infrastructure Sharing Costs - Principles and Methodology – Consultation Document" (Document No: 2020/TEL/001/CON.001).



# **Chapter 1: Introduction**

## **Background**

- 1.1. The Consultation Document, "Update of the Fixed Cost Model and Assessment of Fixed Infrastructure Sharing Costs - Principles and Methodology – Consultation Document" (Document No: 2020/TEL/001/CON.001) was published on 2020 January 8 (the "Consultation Document"). Responses to the Consultation Document were requested from industry stakeholders by the deadline of 2020 February 19.
- 1.2. The Office of Utilities Regulation (the "OUR" or the "Office") received one response to the Consultation Document from Cable & Wireless Jamaica Limited ("C&WJ") and Columbus Communications Limited ("Columbus"). Together, C&WJ and Columbus are referred to as "Flow". Stakeholders were then given until 2020 March 5 to comment on the response received from Flow. The OUR received one comment on Flow's response from Digicel Jamaica Limited ("Digicel").

## **Purpose of this Determination Notice**

- 1.3. This Determination Notice details the Office's comments on the response to the Consultation Document and the stakeholder comment on the submitted response. The Office's comments in this Determination Notice will be specific to the comments pertaining to the assessment of fixed infrastructure sharing costs. The comments relating to the update of the fixed cost model for termination rates have been addressed in a separate Determination Notice - "Update of Cost Model for Fixed Termination Rates – Principles and Methodology – Determination Notice", Document No: 2020/TEL/010/DET.003.
- 1.4. This Determination Notice also sets out the approach that the OUR plans to take regarding the development of a model for the calculation of fixed infrastructure sharing costs.

## Structure of Document

1.5. The remainder of this document is structured as follows:

- **Chapter 2** outlines the Legal Framework that describes the remit of the OUR in regard to the setting of infrastructure sharing rates.
- **Chapter 3** presents OUR Responses to Stakeholders' General Comments.
- **Chapter 3** presents a summary of the comments from stakeholders to the OUR's proposals in the Consultation Document and provides the OUR's response. This chapter also presents the determinations regarding the methodological framework for the assessment of the cost of providing fixed telecommunications infrastructure sharing services.
- **Annex A** summarises the determinations made in this document.
- **Annex B** includes a glossary of the terms and abbreviations used throughout this document.

## Chapter 2: Legal and Regulatory Framework

2.1. The power of the OUR to regulate telecommunication services and facilities is articulated in the Telecommunications Act ("the Act"), of which the main objectives are:

- (a) *To promote and protect the interest of the public*
- (b) *To promote universal access to telecommunications services for all persons in Jamaica*
- (c) *To facilitate the achievement of the objects referred to in paragraphs (a) and (b) in a manner consistent with Jamaica's international commitments in relation to the liberalization of telecommunications; and*
- (d) *to promote the telecommunications industry in Jamaica by encouraging economically efficient investment in, and use of, infrastructure to provide specified services in Jamaica.*

2.2. As part of its overall functions to regulate specified services and facilities under section 4(1) of the Act, and in keeping with its express power to determine the rates which may be charged in respect of the provision of a prescribed utility service under section 4(4) of the Office of Utilities Regulation Act ("the OUR Act"), the OUR is authorised to determine the prices charged by telecommunications operators for the provision of services.

Section 4(1)(a) of the Act states:

*"(1) The Office shall regulate telecommunications in accordance with this Act and for that purpose the Office shall –*

*(a) regulate specified services and facilities"*

Section 4(4) of the OUR Act states:

*"(4) The Office shall have power to determine, in accordance with the provisions of this Act, the rates or fares which may be charged in respect of the provisions of a prescribed utility service."*

2.3. A "specified service" is defined in section 2 of the Act to mean, inter alia, a telecommunications service, while a "prescribed utility service" is defined in section 2 and the First Schedule of the OUR Act to include the provision of telecommunications services.

2.4. With respect to infrastructure sharing, express provisions regarding the powers of the OUR to impose an infrastructure sharing obligation and to determine the terms and conditions of the infrastructure sharing obligation are set out in section 29A of the Act which reads as follows:

*"(1) Subject to subsection (3), the Office may -*

*(a) impose an infrastructure sharing obligation on a licensee, where the Office considers it to be justified having regard to any of the following considerations –*

*(i) matters relating to public health or to the environment or town planning or other development considerations;*

*(ii) economic inefficiencies; or*

*(iii) physical or technical impracticability;*

*(b) determine the terms and conditions of any infrastructure sharing obligation imposed pursuant to paragraph (a); and*

*(c) hear and determine complaints made by licensees and disputes in respect of charges and other terms and conditions of the infrastructure sharing arrangement.*

*(2) All infrastructure sharing arrangements made by the Office shall include the making of rules, after consultation with the Minister, for the*



*apportionment of the costs of sharing infrastructure; and the rules shall be made in accordance with the principles set out in section 33.*

*(3) In determining whether to impose an infrastructure sharing obligation on a licensee, or in determining the terms and conditions of an infrastructure sharing obligation imposed under subsection (1), the Office shall consult with licensees, the relevant environmental and planning authorities and the Authority.*

*(4) In this section-*

*"infrastructure sharing" means the provision to licensees of access to tangibles used in connection with a public network or intangibles facilitating the utilization of a public network;*

*"intangibles" includes agreements, arrangements, leases, licences, franchises, rights of way, easements and other similar interests;*

*"tangibles" includes-*

- a) lines, cables and wires;*
- b) equipment and apparatus;*
- c) towers, risers and masts;*
- d) conduits, tunnels and ducts;*
- e) manholes and other holes and pits;*
- f) poles and antennae;*
- g) huts and landing stations; and*
- h) land, building and other real property."*

2.5. In accordance with its powers under Section 29A of the Act, on 2017 March 30, the OUR published and consulted on a Notice of Proposed Rule-Making on Infrastructure Sharing which included Proposed Infrastructure Sharing Rules - Document No. 2017/TEL/002/NPR.001 (Infrastructure Sharing NPRM). The OUR further published on 2018 February 9 its comments on the responses received from this consultation in the document - Infrastructure Sharing: OUR's Comments on Responses to Notice of Proposed Rulemaking (Document No. 2018/TEL/003/RES.001), which document in combination with the Infrastructure Sharing NPRM, the proposed infrastructure sharing rules to be promulgated (the "Draft Rules"). The Draft Rules, which were developed in accordance with section 33 of the Act, are yet to be promulgated, but outlines the guidelines proposed by the OUR for, inter alia, the assessment of rates for shared infrastructure. While the Draft Rules are not yet in effect, the proposals in this Determination Notice are consistent with the provisions of the Draft Rules, so as to ensure consistency in the overall regulatory framework when the Infrastructure Sharing Rules are put into operation.

2.6. Clauses 7.1 to 7.4 of the Draft Rules state:

*7.1 An Infrastructure Provider shall set infrastructure sharing rates in accordance with the following principles:*

- a. Charges for infrastructure sharing shall be determined in a transparent manner - details as to how charges for infrastructure sharing have been determined, shall be disclosed to the Office upon request.*
- b. Infrastructure Providers shall unbundle distinct facilities and corresponding charges sufficiently so that the Infrastructure Seeker pays only for the specific elements required.*
- c. Charges for the provision of infrastructure shall be structured in such a manner so as to distinguish and separately price for the following aspects:*

- i. The implementation of sharing including testing;*
  - ii. Rental charges for use of the infrastructure; and*
  - iii. Variable charges for ancillary and supplementary services.*
- d. Costs shall be borne either by the Infrastructure Seeker or the Infrastructure Provider or both, based on whether their respective requests and compliance therewith cause those costs to be incurred. However, the Infrastructure Provider shall not seek to recover from the Infrastructure Seeker the costs associated with providing existing technical information about the site, including the Infrastructure Provider's review of such requests and technical analysis.*
- e. Infrastructure sharing charges shall be cost-based and shall be set to allow the Infrastructure Provider to recover a reasonable rate of return on its capital appropriately employed, all attributable operating expenditures, depreciation and a proportionate contribution towards the Infrastructure Provider's fixed and common costs. However, where the Infrastructure Provider and Infrastructure Seeker are providing each other with the same services the related infrastructure sharing charges can be reciprocal for the same service.*
- f. Infrastructure sharing charges shall not include compensation for loss of business as a result of providing infrastructure sharing services to the Infrastructure Seeker.*
- g. Infrastructure sharing charges should serve to promote the efficient use of assets and sustainable competition and maximize benefits for customers. The infrastructure sharing*

*charge offered to the Infrastructure Seeker shall not be more than the cost of owning and operating similar infrastructure.*

- h. Infrastructure sharing charges must be impartial/non-discriminatory. This means that charges for infrastructure must be no less favourable than those the Infrastructure Provider offers its connected company or any other licensed operator.*
- i. The burden of proof that infrastructure sharing charges are based on costs shall lie with the Infrastructure Provider in all cases.*

*7.2. In the setting of its charges an Infrastructure Provider shall utilize the fully distributed cost methodology, using current cost accounting and the annuities approach to depreciation.*

*7.3. Every Licensee shall develop a standard price list which shall provide guidance for determining the price for all sharing arrangements with other Infrastructure Seekers.*

*7.4. The standard price list shall be reasonable, non-discriminatory, and based on the costing methodology as mandated by the Office.*

- 2.7. Section 29A(1)(c) of the Act outlines the OUR's powers to settle complaints and disputes in respect of, *inter alia*, charges for infrastructure sharing arrangements. Clauses 7.5 to 7.7 of the Draft Rules provide further details regarding this aspect, specifically:

*7.5 Where the Office has been asked to intervene in a dispute regarding infrastructure sharing charges, the Infrastructure Provider shall, within ten (10) working days of a written request from the Office, supply the Office with such data as the Office may require, for the purpose of determining that the Infrastructure Provider's proposed charges are set in accordance with the principles set by the Office, unless the Office expressly extends this period in writing.*

*7.6. Where the Office has been unable to obtain cost information that it is reasonably satisfied is relevant and reliable from a Licensee it may take into account local and international benchmarks, reciprocity and other approaches that in the opinion of the Office is relevant to the setting of charges for infrastructure sharing.*

*7.7. The Office may in consultation with stakeholders, revise the costing methodology for infrastructure sharing.*

2.8. The principles of cost orientation are stated in Section 33 of the Act which are extracted as follows:

- (a) costs shall be borne by the carrier whose activities cause those costs to be incurred;*
- (b) non-recurring costs shall be recovered through non-recurring charges and recurring costs shall be recovered through recurring charges;*
- (c) costs that do not vary with usage shall be recovered through flat charges and costs that vary with usage shall be recovered through charges that are based on usage;*
- (d) costs shall include attributable operating expenditure and depreciation and an amount estimated to achieve a reasonable rate of return;*
- (e) where the Office has been unable to obtain cost information that it is reasonably satisfied is relevant and reliable it may take into account local and international benchmarks, reciprocity and any other approach that in the opinion of the Office is relevant.*

## **Chapter 3: OUR's Responses to Stakeholders' General Comments**

### **Introduction**

- 3.1. As was noted earlier, one response to the Consultation Document was received from Flow. The OUR also received one comment on Flow's response to the Consultation Document from Digicel. The feedback from the stakeholders included general comments on the proposed methodology, which were not directed towards a particular aspect of the proposed methodology.
- 3.2. The OUR has considered the general comments made by stakeholders and now provides in this Chapter, a summary of the stakeholders' general comments and the OUR's responses to those comments.

### **Stakeholders' Comments & OUR's Responses**

#### **Relevancy of the Infrastructure Sharing Model**

##### **Stakeholders' Comments**

- 3.3. Flow has stated that the development of a fixed infrastructure sharing cost model runs contrary to the intent of the Draft Rules. Flow claims that the OUR is even proposing an ex-ante costing for infrastructure sharing when the proposed Infrastructure Sharing Rules ("the Draft Rules") anticipate an ex-post approach to costing only if and when there is a dispute concerning pricing among parties negotiating an infrastructure sharing arrangement. According to Flow, infrastructure sharing costing should therefore be limited to the specific infrastructure that is under negotiation, not conducted speculatively on facilities that may or may not come under dispute at some point in the future. In line with this, Flow commented that the Act, as written, gives the OUR no such authority, since it is allowed to intervene in the event of disputes related to pricing, at which time it can ask for specific and relevant information to adjudicate on the dispute.

- 3.4. Digicel indicated that while the draft Infrastructure Sharing Rules may provide that the OUR would only intervene to set a price after a dispute has arisen, this does not preclude the OUR from developing a methodology for setting a price in advance of such a dispute arising. Digicel has stated that, given the time required to develop cost models, it is prudent that the OUR develops such models in advance of the actual need as they are remedies for market failure. The company also noted that delays in deploying models once the need arises ultimately results in consumer welfare deficits.
- 3.5. Additionally, Digicel has also commented that the development of an infrastructure sharing model:
- Reduces the scope for disputes arising as market players have certainty and clarity as to the approach that will be adopted by the OUR in determining price; and
  - Provides incentives to Licensees to arrive at commercially agreed terms within the likely range that the OUR would determine.
- 3.6. Finally, Digicel has mentioned that if no disputes arise after the development of a model, this is likely to be a direct consequence of the existence of the model.

### **OUR's Response**

- 3.7. The OUR acknowledges the comments provided by Flow and Digicel.
- 3.8. The OUR disagrees with Flow that the OUR's role in relation to the setting of infrastructure sharing rates is confined solely to instances where there is a dispute. Section 29A(1)(c) of the Act gives the Office the authority to determine complaints and disputes in respect of rates charged in an infrastructure arrangement. However, section 29A(1)(b) of the Act empowers the Office to determine the terms and conditions of any infrastructure sharing obligation it imposes on a licensee. This is a separate and distinct rate-setting power granted to the OUR under the Act. The Office is of the view that an



infrastructure sharing model would assist the OUR in determining these terms and conditions.

- 3.9. The OUR agrees with Digicel that the OUR's intervening role in a dispute between operators does not prevent it from developing a methodology for setting infrastructure prices before such disputes arise. The OUR also concurs with Digicel regarding the benefits to be obtained from the development of an infrastructure sharing model. Even if the Office's rate-setting mandate was confined to the settlement of disputes, it would be very useful to have a model that estimates infrastructure sharing rates in advance of any dispute between Licensees, as it would allow for the timely provision of critical information needed for decision making.
- 3.10. It is the preference of the OUR that increased voluntary sharing occurs in the telecommunication sector. Where such sharing does not materialize however, the OUR is of the view that the development of the model in question will serve as the basis for determining fixed infrastructure prices, and thus allow the OUR to discharge its mandate in an expeditious manner.
- 3.11. The objective of this project is the development of a tool which will provide the OUR with a reliable means by which to determine and validate fixed infrastructure sharing charges. Based on the parameters and values requested in the data request that was previously sent to operators, the OUR believes that the model will estimate, in a robust way, the costs of sharing infrastructure elements based on the operational reality of the operators in Jamaica.
- 3.12. The OUR considers that having a model which can be used to both, define wholesale rates and solve disputes between operators will bring certainty to the market. The resulting increased confidence in the market will foster investments in next generation access ("NGA") networks in Jamaica, while ensuring that no duplicate infrastructure is required for the deployment of these networks.



3.13. Furthermore, the Office notes that the development of models that calculate the costs for infrastructure sharing services is not an uncommon practice internationally. Some national regulatory authorities (“NRAs”) such as Mexico’s Federal Telecommunications Institute<sup>1</sup> have developed fixed infrastructure models, while NRAs in countries such as Argentina, Oman and Norway have included infrastructure services in their fixed BULRIC models. These models are used for multiple purposes, such as:

- to define wholesale rates included in reference offers; or
- to solve disputes in relation to infrastructure sharing rate agreements.

3.14. The OUR wishes to highlight that if operators are not in agreement with the fixed infrastructure sharing rates estimated in the infrastructure sharing model, they will have the opportunity to provide comments and supporting evidence during the subsequent consultation process for the draft fixed infrastructure sharing model.

## **Exclusion of Mobile Infrastructure Elements**

### **Stakeholders’ Comments**

3.15. Flow has indicated that it is unclear why the first effort the OUR has undertaken to develop an infrastructure sharing costing model is one which singles out fixed infrastructure (without any justification) to the exclusion of mobile infrastructure. Flow has also indicated that the OUR appears, without justification, to be targeting Flow, which is by no means the only infrastructure holder in the industry. Flow has also raised the issue of other matters not being addressed such as the sharing of mobile towers, which it believes is material to the process.

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<sup>1</sup><http://www.ift.org.mx/politica-regulatoria/modelo-de-red-de-acceso-fija-para-servicios-de-desagregacion-y-comparticion-de-infraestructura>

3.16. Digicel noted that the market for mobile infrastructure sharing is fundamentally different to that of fixed. Digicel has stated that there is a wholesale only provider of mobile infrastructure active in the market in Jamaica and a history of mutual sharing between mobile operators on commercially agreed terms. Therefore, Digicel believes that it is within the margin of discretion of the OUR, as an expert regulator, to identify that there is a greater need for the development of a model for the sharing of fixed infrastructure, and to proceed on that basis.

### **OUR's Response**

3.17. The OUR acknowledges the comments of Flow and Digicel.

3.18. It is a globally accepted fact that sharing of telecommunications infrastructure reduces unnecessary duplication and costs, and speeds up network deployment. This results in greater efficiencies for both parties to a sharing agreement and the sector at large. Telecommunications regulators cognizant of the benefits of infrastructure sharing have sought to implement regulatory initiatives aimed at facilitating increased sharing. Regulators typically focus on the areas of a sector where the highest barriers to entry are likely to be created, or where disputes are more likely to arise. According to both the Broadband Commission and the European Commission, passive infrastructure accounts for a significant portion of a broadband network deployment costs.<sup>2</sup> It is therefore reasonable that a regulator would make this aspect of telecommunications infrastructure its first priority to avoid unnecessary duplication.

3.19. In the case of Jamaica, the presence of more than one mobile network operator ("MNO") with an island-wide network, as well as a licensed tower company,

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<sup>2</sup> Broadband Commission, The State of Broadband 2014: broadband for all at 72-73 (Sep 2014). Available at <http://www.broadbandcommission.org/documents/reports/bb-annualreport2014.pdf> European Commission, Proposal for a Regulation of the European Parliament and of the Council on Measures to Reduce the Cost of Deploying High-Speed Electronic Communications Networks (26 Mar 2013). Available at <http://ec.europa.eu/digitalagenda/en/news/proposal-regulation-european-parliament-and-council-measures-reduce-cost-deploying-high-speed> (

Phoenix Tower Jamaica Limited, all of which have voluntarily entered into sharing agreements with other licensees, reduces the urgency for regulatory intervention with respect to passive infrastructure in the mobile segment. However, the fact that the two fixed networks with the widest territorial scope, as well as all the cable landing stations in Jamaica, are owned by the same entity, would necessitate proactive regulatory initiatives to address the sharing of fixed infrastructure. The broadband revolution requires extensive investment in fibre optic networks for both fixed and mobile operators. In the case of mobile operators, as they seek to deploy their 4G/LTE and 5G networks, they will need transmission links that can handle higher data throughput. This will require them to install fibre-to-the-tower. Existing fixed infrastructure such as ducts and dark fibre could therefore be bottleneck facilities for both the mobile and fixed segments of the telecommunications sector.

3.20. Although the OUR is not currently undertaking any costing initiatives in relation to passive mobile infrastructure sharing, it will introduce other initiatives to facilitate sharing in the mobile segment. In fact, the OUR has included a project in its 2020/21 Work Plan which will seek to develop a regulatory framework for mobile virtual network operators (“MVNOs”).

### **Inclusion of the Update of the Fixed Cost Model and the Development of the Infrastructure Sharing Model in the Same Consultation Process**

#### **Stakeholders’ Comments**

3.21. Flow has indicated that the significant differences between the costing approaches to fixed interconnection services and fixed infrastructure sharing, means that they should properly be handled in separate consultations, as indeed they have been to date. Flow has also indicated that combining an infrastructure sharing model with the fixed interconnection service model will:

- Increase the delay for one or both of them.
- Represent a notable departure from how these matters were previously handled, i.e., as separate proceedings.

### **OUR's Response**

3.22. The OUR acknowledges Flow's comments.

3.23. The manner in which it schedules its projects is at the discretion of the OUR. Moreover, the OUR had signalled that it would include both the update of the existing fixed model and the costing of fixed infrastructure sharing in a single project from late 2018 when it circulated its draft Corporate Business Plan to operators and requested feedback. Flow therefore had ample time to raise these concerns prior to the start of the project.

3.24. The OUR is aware of the risks of combining the update of the existing fixed model and the development of the fixed infrastructure sharing model in the same process and has taken steps to mitigate these risks. Further, the OUR is of the view that factors such as delayed response to data requests and a prolonged consultation process pose a greater risk to the timely completion of the project. There are also synergies in having both models being updated/developed over the same time period and by the same Consultancy. It is also for this reason that the OUR has decided to include the update of the WACCs for fixed (a required input for both models) and mobile carriers under the same Consultancy.

3.25. While the methodologies of the models were discussed in a single Consultation document, it does not mean that the development of one model will be contingent on the other. Moreover, the Consultation Document will be the only document issued which deals with both matters jointly. Going forward separate documents will be issued for each model, as is evident from this document.

### **Reasonability of the Draft Rules**

#### **Stakeholders' Comments**

3.26. Flow has indicated that it has previously commented on regulatory overreach and a lack of clarity embedded in the Draft Rules. Based on that, Flow commented that the Draft Rules give the OUR the right to force any licensee to

share any of its assets. Flow further asserted that any bounds on that right have been obscured by the lack of clarity on how the OUR is to apply the three factors, set out in Section 29A(1) of the Act, relating to the application of the sharing obligation.

3.27. Aligned with the above, Flow has indicated that many of the Draft Rules apply to "dominant" Licensees and the infrastructure owned by those Licensees and that the general infrastructure sharing obligation on a licensee declared dominant is ultra vires the Telecommunications Act, as this law imposes no such obligation. Flow also noted that there has been only one dominance determination in Jamaica to date and it is set out in terms of retail service not facilities, and as such, it is not clear what the relevance of dominance in retail service would mean in this context.

3.28. Flow also commented that paragraph 4.4 of the Draft Rules states that the OUR will issue a directive on imposing an obligation on non-dominant licensees to share specific, identified infrastructure. The company is of the view that this implies a case-by-case approach to the terms and conditions of the infrastructure sharing and not the development of a cost model for setting prices for a comprehensive set of services. Aligned with this, Flow indicated that Section 7 of the Draft Rules presents principles for setting rates for infrastructure sharing, but does not require charges to be developed prior to a commercial negotiation for infrastructure sharing and indeed only anticipates a role for the OUR if the parties cannot agree on infrastructure sharing charges.

3.29. Finally, Flow has commented that given that the Draft Rules i) have not been promulgated and ii) have not been consulted upon in terms of the process and applicability, it believes that the questions the OUR pose regarding infrastructure sharing pricing principles are premature at best and that the Office should conduct a separate consultation on how the Draft Rules should be applied.

### **OUR's Response**



3.30. The OUR acknowledges the comments of Flow and notes that Flow's general comments regarding the Draft Rules were extensively ventilated in its response to the Infrastructure Sharing NPRM. The OUR formally responded to these and other concerns raised by stakeholders in the document, Infrastructure Sharing: OUR's Comments on Responses to Notice of Proposed Rulemaking 2018/TEL/002/NPR.001 ("OUR's Comments on Responses"). Nevertheless, the OUR will broadly respond to the concerns raised regarding the Draft Rules in this Consultation and, where appropriate, refer stakeholders to OUR's full response detailed in the relevant documents relating to the consultative process for the Draft Rules.

3.31. Firstly, the OUR takes this opportunity to remind Flow that pursuant to section 29A of the Act, the OUR has the power to determine the terms and conditions of an infrastructure sharing obligation, which terms and conditions may include charges. As such, there is nothing precluding the OUR from developing a tool, such as the cost model, which the OUR can use for determining proposed costing for infrastructure sharing services. The OUR acknowledges the provisions of the Draft Rules, particularly section 7, and notes that the OUR's development of an infrastructure sharing model will not affect the obligations as stated in section 7 of the Draft Rules. The development of a model that can determine and validate infrastructure sharing charges will, *inter alia*, assist the OUR with the assessment of whether price lists published by the infrastructure provider is reasonable and the OUR's adjudication of any dispute.

3.32. The Infrastructure Sharing NPRM and OUR's Comments on Responses have set out how the OUR proposes to implement an infrastructure sharing obligation on both dominant and non-dominant licensees, and details how it intends to apply the three considerations set out in section 29A(1)(a) of the Act, that is: (i) matters relating to public health, the environment, town planning or other development considerations; (ii) economic inefficiencies; or (iii) physical or technical impracticability, in determining whether to impose such an obligation. The matter of how those three considerations are to be applied have therefore already been the subject of a consultative process.

3.33. The OUR disagrees with Flow's comment that the imposition of a general infrastructure sharing obligation on a licensee that is declared dominant is ultra vires the Act. Section 29A(1) of the Act grants the OUR the power and discretion to impose an infrastructure sharing obligation on a licensee where the OUR considers it to be justified, and having regard to any of the three considerations mentioned above. In the Infrastructure Sharing NPRM and OUR's Comments on Responses, the OUR has consulted on and set out its reasoning in relation to its justification for the imposition of a general infrastructure sharing obligation on dominant licensees. In the OUR's Comments on Responses, the OUR noted that the process of declaring a licensee dominant, would have considered the presence of economic inefficiencies and thus the relevant pre-requisite for imposing an infrastructure sharing obligation would be met by the finding of dominance. It should be noted that the Draft Rules make provision for a licensee to apply for the removal of the obligation with respect to any infrastructure.

3.34. Flow's assertion that there has been only one dominance determination in Jamaica to date and that said determination is only set out in terms of retail services is incorrect. The OUR has issued two Determination Notices which address dominance. The first Determination Notice entitled "Determination Notice: Dominant Public Voice Carriers" (Document No: TEL 2003/7) was issued in 2003. This Determination declared Cable & Wireless Limited dominant in four markets - three retail and one wholesale:

- Fixed access (business and residential);
- Domestic retail services;
- International retail services;
- Fixed network interconnection services.

The fixed network interconnection services market, which is a wholesale market, is defined to include "switching, transmission, termination and other apparatus and system used in supplying telecommunications services".

The second dominance determination entitled “Determination Notice: Assessment of Dominance in Mobile Call Termination” (Document No: TEL 2004/10) was issued in 2004. This Determination declared all mobile carriers dominant in the wholesale market of call termination on their individual networks.

- 3.35. Finally, the Draft Rules, including their applicability and content, have already been the subject of industry consultation and do not form a part of the current consultative process. The pending promulgation of the Draft Rules does not preclude consultation on the development of the fixed infrastructure sharing model. For reasons mentioned earlier, there is nothing precluding the finalisation of the model in advance of the implementation of the infrastructure sharing framework and rules.



## **Chapter 4: Methodology for the Assessment of Fixed Infrastructure Sharing Costs**

### **Introduction**

4.1. Chapter 4 of the Consultation Document presented the methodology proposed to be followed in the development of the fixed infrastructure sharing model. Specifically, the following methodological aspects were described:

- Period of Time Modelled
- Definition of the Reference Operator
- Data Sources
- Cost Standard and Cost Elements to be considered
- Treatment of Capital-Related Costs
- Services to be included in the Fixed Infrastructure Sharing Model

4.2. The OUR has considered the comments made by stakeholders on the proposed methodology and now provides a summary of the stakeholders' comments, its responses, and subsequent determinations below.

### **Stakeholders' Comments & OUR's Responses**

#### ***Period of Time Modelled***

##### **OUR's Proposal**

4.3. The Office proposes that the infrastructure sharing model covers the period 2018-2025, consistent with the updated fixed cost model.

##### **Stakeholders' Comments**

- 4.4. Flow believes that the costing of fixed infrastructure should be limited to the specific infrastructure that is under negotiation, not conducted speculatively on facilities that may or may not come under dispute at some point in the future. Consequently, Flow believes that sponsored costing should be conducted only if and when the negotiating parties cannot agree on prices and decide to raise a dispute with the OUR. Therefore, Flow does not agree that there should be any "*Period of Time Modelled*".
- 4.5. On the other hand, Digicel has indicated that it is reasonable for the OUR to develop a cost model in anticipation of its need. The company believes that there are limited categories of infrastructure, which can be shared, and that a model, which can flexibly deal with these, is reasonably straightforward to develop. Additionally, Digicel has indicated that given that the technology underpinning the infrastructure does not change rapidly, a seven (7)-year modelling period is not unreasonable.

#### **OUR's Response**

- 4.6. The OUR disagrees with Flow's position that sponsored costing should be conducted only if and when the negotiating parties cannot agree on prices and decide to raise a dispute with the OUR. As indicated in Chapter 3, the OUR's power in relation to infrastructure sharing is not confined to the settlement of disputes. The development of a tool by which to determine, as well as validate fixed infrastructure sharing charges, allows the OUR to discharge all its powers in relation to infrastructure sharing in an expeditious manner, as well as create certainty in the sector. As described in the consultation document, the period of time modelled will be relevant in providing regulatory certainty for stakeholders throughout the modelled period.
- 4.7. The OUR agrees with Digicel's remark that there is unlikely to be rapid technological development in the sector within the period of time defined in the model, justifying the proposed time period. The OUR also agrees with Digicel that the specific categories of fixed infrastructure that can be shared will indeed

allow the Office sufficient flexibility in the creation of an infrastructure model in anticipation of its need.

- 4.8. Based on the above, the Office maintains its position to develop an infrastructure sharing model, which will cover the period 2018-2025.

**Determination 1: The fixed infrastructure sharing model will cover the period 2018-2025.**

### ***Definition of the Reference Operator***

#### **OUR's Proposal**

- 4.9. As stated in the Consultation Document, the OUR is of the view that the modelled operator should be a "combined" operator resulting from the acquisition of Columbus by C&WJ's parent company.

#### **Stakeholders' Comments**

- 4.10. Flow does not agree that there should be any question of a "reference operator" and again stated that the development of a fixed infrastructure sharing cost model runs contrary to the intent of the Draft Rules. Flow has also stated that "given the potential for infrastructure sharing by any telecommunications infrastructure holder (once warranted), the costs involved will be specific to the infrastructure concerned". As such, the company believes that establishing a "reference operator" cost list, is not only inappropriate, but also likely to be misleading.
- 4.11. Flow has also indicated that the OUR's proposal to build a generic infrastructure sharing cost model for a "reference operator" is not based on the Draft Rules, and that the model is unlikely to estimate the actual costs involved in a sharing agreement being negotiated between parties over a specific infrastructure.

- 4.12. Digicel is of the view that disputes in respect of one-off or very limited amounts of infrastructure are likely to be better dealt with on a case by case basis. However, Digicel finds that it is appropriate to establish a model and costs based on a "reference operator" to resolve infrastructure sharing disputes that are wider in scope. Digicel has also stated that the nature of infrastructure sharing is that they are long term arrangements that allow for the extent of the shared network footprint to be varied over time, thus reference operator pricing gives market certainty and provides incentives for efficiency over time.

#### **OUR's Response**

- 4.13. Regarding Flow's position, the OUR wants to highlight that as noted earlier in this chapter, the development of an infrastructure sharing model does not run contrary to the Act or the Draft Rules. Moreover, based on the parameters and values requested from operators in the data request, the model will estimate, in a robust way, the costs of sharing infrastructure elements based on the operational reality of the reference operator in Jamaica. Flow should also be reminded that it will have the opportunity to comment on the algorithms, and the input values in the draft model. In the case that Flow considers that any particular aspect of the Jamaican fixed telecommunication sector has not been properly taken into account, it can make its comments as well as provide relevant arguments, data and other information to support those comments.
- 4.14. The OUR agrees with Digicel that the establishment of an infrastructure sharing model with costs based on a "reference operator" will provide market certainty and encourage efficiency.
- 4.15. Regarding Digicel's comment, that certain disputes are better addressed on a case-by-case basis, the OUR would like to point out that populating the model for each individual dispute will be data-intensive and will require significant effort in terms of the data required from the operators. This will likely result in an extended timeframe within which a dispute can be resolved. Therefore, the OUR considers that having a complete model beforehand, will provide a higher degree of certainty and accelerate the resolution of disputes.

4.16. Based on the above, the OUR maintains its position to develop a fixed infrastructure sharing model, and is of the opinion that modelling a reference operator based on the incumbent, represented by the combination of C&WJ and Columbus, is appropriate to calculate and validate the costs of fixed infrastructure sharing services.

**Determination 2: The Office will consider a reference operator equivalent to the combination of C&WJ and Columbus.**

#### ***Data Sources***

##### **OUR's Proposal**

4.17. In regard to data sources, the OUR proposed that the information provided by operators will be employed as the primary and preferential source to populate and calibrate the fixed infrastructure sharing model.

##### **Stakeholders' Comments**

4.18. Both Flow and Digicel are in agreement with the data sources proposed by the OUR.

##### **OUR's Response**

4.19. The Office acknowledges Flow's and Digicel's agreement.

**Determination 3: The Office will use the information provided by operators as the primary source of data. International benchmark information, deemed appropriate for the Jamaican reality, will be utilised as an alternative data source.**

#### ***Cost Standard and Cost Elements to be considered***

4.20. The OUR proposed that the model follow a fully distributed costs (FDC) methodology.

4.21. Bottom-up cost models may include a number of cost elements, which can typically be classified within the following groups:

- Network CapEx
- Network OpEx
- General and Administrative (G&A) costs

4.22. The categories listed above are analysed in the sections following.

#### Network CapEx

##### **OUR's Proposal**

4.23. The OUR stated in the consultation document that all relevant network CapEx elements (investments made by operators for deploying the network such as, ducts, subducts etc.), installation costs and other one-off fees should be included in the infrastructure sharing model.

##### **Stakeholders' Comments**

4.24. Both Flow and Digicel agree with the network CapEx elements proposed by the OUR.

##### **OUR's Response**

4.25. The Office acknowledges Flow's and Digicel's agreement.

**Determination 4: Network CapEx elements considered in the fixed infrastructure sharing model will include costs of deployment, installation and other one-off fees.**

#### Network OpEx

##### **OUR's Proposal**



4.26. The OUR proposed that OpEx (network personnel, outsourced maintenance services, recurrent charges for subcontracted network services, network elements rentals and other administrative fees or taxes) should be included in the cost model as the absolute yearly unit OpEx associated to each network element. In the case that absolute yearly unit costs are not available from the operators, alternative methodologies such as the calculation of unit OpEx as a percentage of unit CapEx may be applied.

#### **Stakeholders' Comments**

4.27. Both Flow and Digicel agreed with the OpEx approach proposed by the OUR.

#### **OUR's Response**

4.28. The Office acknowledges Flow's and Digicel's agreement.

**Determination 5: Network OpEx will be included in the fixed infrastructure sharing model as the absolute yearly unit OpEx (or percentage over unit CapEx) for each network element.**

#### **General & Administrative (G&A) Costs**

##### **OUR's Proposal**

4.29. The OUR proposes to include G&A costs (human resources, finance, management, etc.) in the fixed infrastructure sharing model based on a mark-up percentage on top of costs, aligned with the methodology of the fixed model. This approach is robust given that the same reference operator is considered in both models.

#### **Stakeholders' Comments**

4.30. Both Flow and Digicel agreed with the G&A costs approach proposed by the OUR.

#### **OUR's Response**

4.31. The Office acknowledges Flow's and Digicel's agreement.

**Determination 6: G&A expenses will be included in the fixed infrastructure sharing model based on a mark-up percentage on top of costs.**

#### **Cost of Capital**

##### **OUR's Proposal**

4.32. The OUR believes that the costing of services needs to take into account a reasonable rate of return on invested capital that an operator would be able to earn in a truly competitive market. The OUR therefore proposed the use of the Weighted Average Cost of Capital (WACC) for this purpose.

#### **Stakeholders' Comments**

4.33. Both Flow and Digicel believe that the OUR's proposed use of the WACC for the calculation of the rate of return on the capital of the operator is reasonable.

#### **OUR's Response**

4.34. The Office acknowledges Flow's and Digicel's agreement.

**Determination 7: The Weighted Average Cost of Capital (WACC) will be included for the calculation of the reasonable rate of return on the capital of the operator.**



## ***Treatment of Capital-Related Costs - Asset Valuation Method***

### **OUR's Proposal**

- 4.35. To be consistent with the approach set out in Rule 7.2 of the Draft Rules, the OUR will follow a current cost accounting (CCA) approach.
- 4.36. The OUR believes that the most appropriate methodology to implement the CCA methodology is the absolute valuation approach.

### **Stakeholders' Comments**

- 4.37. Flow believes that the OUR's proposed use of CCA for the evaluation of assets is reasonable.
- 4.38. Digicel disagrees with Flow and believes that historical cost accounting (HCA) is the more appropriate cost standard based on the following aspects:
- Infrastructure assets have long asset lives and are unlikely to be replaced or renewed over the duration of the sharing agreement.
  - The nature of sharing means that the asset involved is likely to have been in place for some time and will have been depreciated.
  - Unlike active elements of the network, the unit costs of infrastructure elements tend to rise over time so a price based on CCA is likely to provide the infrastructure provider with windfall profits.

### **OUR's Response**

- 4.39. The Office acknowledges Flow's and Digicel's responses.
- 4.40. As stated previously, the CCA approach proposed is aligned with the approach set out in the Draft Rules. Specifically, Rule 7.2 of the Draft Rules defines the asset valuation methodology that should be followed:

*7.2. In the setting of its charges an Infrastructure Provider shall utilize the fully distributed cost methodology, using current cost accounting and the annuities approach to depreciation.*

4.41. Furthermore, international best practice shows that the CCA approach is, by far, the most common methodology among NRAs for the definition of wholesale rates. This is, for instance, outlined by the BEREC in their annual report for Regulatory Accounting<sup>3</sup>, and is also the case for other countries observed in the Americas.

4.42. However, the OUR notes Digicel's point regarding the level of depreciation of the elements in the network due to the historical deployment patterns of the modelled operator. In international practice, it is common that, in the implementation of a CCA approach, an adjustment is performed to avoid the over-recovery of already depreciated assets. This adjustment can be, for instance, applied by removing the assets that are fully depreciated, from a financial perspective, from the cost base of the modelled operator. On the other hand, as stated in rule 7.2. of the Draft Rules, the model will follow the tilted annuities approach to depreciation, which considers the evolution of the assets through the period modelled.

4.43. Therefore, the OUR agrees that the effect of fully depreciated assets is an aspect that should be closely looked at in order to understand its potential impact. The OUR proposes to include an option in the model that allows the removal of the fully depreciated assets to avoid the over-recovery of costs of the modelled operator.

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<sup>3</sup>Source: BEREC Report Regulatory Accounting in Practice 2019.  
[https://berec.europa.eu/eng/document\\_register/subject\\_matter/berec/download/0/8907-berec-report-regulatory-accounting-in-pr\\_0.pdf](https://berec.europa.eu/eng/document_register/subject_matter/berec/download/0/8907-berec-report-regulatory-accounting-in-pr_0.pdf)

**Determination 8: The fixed infrastructure sharing model will utilize the absolute valuation methodology in its evaluation of assets on a current cost accounting (CCA) basis. In addition, the model will include an option to remove the fully depreciated assets of the modelled operator from the cost base.**

***Services to be Included in the Fixed Infrastructure Sharing Model***

4.44. In alignment with the Draft Rules, the OUR, proposed to include the following types of services:

- Infrastructure sharing implementation and testing services
- Rental charges for use of the infrastructure
- Ancillary and supplementary services

**Infrastructure sharing implementation and testing services**

**OUR's Proposal**

4.45. The Office proposed to include the following implementation and testing services:

- Feasibility study
- Service registration.
- Accompaniment.

**Stakeholders' Comments**

4.46. Both Flow and Digicel agreed with the implementation and testing services proposed by OUR.

#### **OUR's Response**

4.47. The Office acknowledges Flow's and Digicel's agreement.

**Determination 9: The following implementation and testing services will be included in the model:**

- (i) Feasibility study,**
- (ii) Service registration and**
- (iii) Accompaniment.**

#### **Rental charges for use of infrastructure**

##### **OUR's Proposal**

4.48. The OUR believes that due to the current state of the Jamaican telecommunications sector, and in line with the definition of infrastructure in the Act, services related to the following should be included in the initial version of the infrastructure sharing model:

- **Duct rental.** The OUR believes that it is relevant to disaggregate the cost of this service in the following categories: Urban and Inter-urban.
- **Sub-duct rental.** The OUR believes that it is relevant to disaggregate the cost of this service in the following categories: Urban and Inter-urban.
- **Pole rental.** The OUR believes that it is relevant to disaggregate costs depending on the type of pole (e.g. wood or concrete).
- **Dark fibre:** The OUR believes that it is relevant to disaggregate the cost of this service in the following categories: Urban and Inter-urban.

- **Collocation in Submarine Cable Landing Stations (SCLS).** The OUR may disaggregate the costs of this service for each of the different SCLSs available.

### **Stakeholders' Comments**

4.49. Flow does not agree that there should be any pre-specified list of services for cost modelling based on the following:

- OUR sponsored costing should be conducted only if and when the negotiating parties cannot agree on prices and raise a dispute with the OUR.
- The costing should be relevant to the infrastructure sharing under negotiation, not conducted speculatively for facilities, which may or may not be under dispute.

4.50. Digicel disagreed with Flow's position and considers that there are limited variants of fixed infrastructure sharing, and the advance modelling by the OUR of the cost of these variants produces the following advantages:

- Creates market certainty;
- Reduces the scope for disputes; and
- Shortens the timelines for dispute resolution should disputes arise.

### **OUR's Response**

4.51. The OUR acknowledges Flow's and Digicel's comments.

4.52. Regarding Flow's comment about sponsored costing, the OUR reiterates that its rate-setting power in relation to infrastructure sharing is not confined solely to instances where there is a dispute. Additionally, the availability of a tool with a predefined set of services by which to determine, as well as validate, fixed infrastructure sharing charges will allow the Office to discharge all its powers

in relation to infrastructure sharing in an expeditious manner and create certainty in the sector.

4.53. In the case of its dispute resolution powers, the OUR believes that the development of a tool which enables the estimation of infrastructure sharing rates in advance of any dispute will provide market certainty, as well as a faster dispute resolution process. In this context, the Office agrees with Digicel's comment that the development of the model will improve market certainty and have a positive effect on the dispute resolution process.

4.54. Based on the foregoing, and in line with the Draft Rules, the Office will develop an infrastructure sharing model that includes all relevant infrastructure elements/services that could be shared between operators. Specifically, the rental services that will be included in the infrastructure sharing model are:

- Duct rental
- Sub-duct rental
- Pole rental
- Dark fibre
- Collocation in Submarine Cable Landing Stations (SCLS)

**Determination 10: The following rental services will be included in the fixed infrastructure sharing model:**

**(i) Duct rental,**

**(ii) Sub-duct rental,**

**(iii) Pole rental,**

(iv) Dark fibre and

(v) Collocation in Submarine Cable Landing Stations (SCLS).

Ancillary and supplementary services

**OUR's Proposal**

4.55. After consideration of the previously listed services, the OUR proposed that no additional services (beyond those presented in the sections above) should be considered in the infrastructure sharing model.

**Stakeholders' Comments**

4.56. Flow believes that the determination of additional ancillary services should be taken for the given case at hand; and not excluded ex-ante. Also, in line with the position taken in previous sections, Flow has indicated the following:

- OUR sponsored costing should be conducted only if and when the negotiating parties cannot agree on prices and raises a dispute with the OUR.
- The costing should be relevant to the infrastructure sharing under negotiation, not conducted speculatively for facilities which may or may not be under dispute.

4.57. Digicel disagrees with Flow's position and considers once more that there are limited variants of fixed infrastructure sharing and the advance modelling by the OUR of the cost of these variants produces the following advantages:

- Creates market certainty,
- Reduces the scope for disputes and
- Shortens the timelines for dispute resolution should disputes arise.



4.58. Additionally, Digicel has also indicated that to the extent that likely ancillary services can be identified, these services should be included in the cost modelling exercise.

#### **OUR's Response**

4.59. As previously mentioned, the objective of this project is the development of a tool which provides the OUR with a reliable means by which to determine and validate fixed infrastructure sharing charges which is likely to create market certainty regarding infrastructure sharing. The Office sees the definition of a fixed list of services as a tool to provide further clarity and certainty to the market.

4.60. On the other hand, the Office partially agrees with Digicel's remarks regarding the inclusion of other ancillary services. The OUR notes that if additional ancillary services are identified these should be included in the model. However, the OUR notes that no further relevant services have been identified thus far.

4.61. Based on the above, the infrastructure sharing model will include any relevant ancillary services that are identified. Currently, no additional ancillary services have been identified for consideration (beyond those presented in the sections above) to be included in the infrastructure sharing model.

<b>Determination 11: The fixed infrastructure sharing cost model will include any relevant ancillary services that are identified.</b>
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## **Annex A: Summary of Determinations**

Determination 1: The fixed infrastructure sharing model will cover the period 2018-2025.

Determination 2: The Office will consider a reference operator equivalent to the combination of C&WJ and Columbus.

Determination 3: The Office will use the information provided by operators as the primary source of data. International benchmark information, deemed appropriate for the Jamaican reality, will be utilised as an alternative data source.

Determination 4: Network CapEx elements considered in the fixed infrastructure sharing model will include costs of deployment, installation and other one-off fees.

Determination 5: Network OpEx will be included in the fixed infrastructure sharing model as the absolute yearly unit OpEx (or percentage over unit CapEx) for each network element.

Determination 6: G&A expenses will be included in the fixed infrastructure sharing model based on a mark-up percentage on top of costs.

Determination 7: The Weighted Average Cost of Capital (WACC) will be included for the calculation of the reasonable rate of return on the capital of the operator.

Determination 8: The fixed infrastructure sharing model will utilize the absolute valuation methodology in its evaluation of assets on a current cost accounting (CCA) basis. In addition, the model will include an option to remove the fully depreciated assets of the modelled operator from the cost base.

Determination 9: The following implementation and testing services will be included in the model:

- (i) Feasibility study,
- (ii) Service registration and

(iii) Accompaniment.

Determination 10: The following rental services will be included in the fixed infrastructure sharing model:

(i) Duct rental,

(ii) Sub-duct rental,

(iii) Pole rental,

(iv) Dark fibre and

(v) Collocation in Submarine Cable Landing Stations (SCLS).

Determination 11: The fixed infrastructure sharing cost model will include any relevant ancillary services that are identified.