
Office of Utilities Regulation

Supplementary Consultation for the Cost Model for the Assessment of Fixed Infrastructure Sharing Rates

Consultation Document



OFFICE OF UTILITIES REGULATION

2021 September 3

Abstract

The Telecommunications Act ("the Act"), specifically Section 29A, empowers the Office 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 mandate established under section 29A, 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 document has been prepared to facilitate additional discussion and consultation with operators and industry stakeholders in relation to the development of a fixed infrastructure sharing cost model carried out by the Office of Utilities Regulation (OUR), with the support of Axon Partners Group Consulting (Axon Consulting).

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Consultation Process

Persons who wish to express opinions on this Consultation Document are invited to submit their comments in writing to the Office of Utilities Regulation (“OUR”) by post, delivery, facsimile or e-mail addressed to:

Office of Utilities Regulation
P.O. Box 593,
36 Trafalgar Road,
Kingston 10

Attention: Fay Samuels
Fax: (1) 876 929-3635
E-mail: FISC@our.org.jm

Responses are requested by 2021 October 1

Any confidential information should be submitted separately and clearly identified as such. The submission of confidential information should be accompanied by a detailed justification in keeping with section 7(6) of the Telecommunications Act.

Responses that are not confidential, pursuant to sections 7(6) and 7A of the Telecommunications Act, will be posted to the OUR’s website (<http://www.our.org.jm/>). Respondents are therefore requested, where possible, to supply their responses in electronic form to facilitate such postings.

Consultative Timetable

The timetable for the consultation is summarized in the table below:

Event	Date
Publish Supplementary Consultation Document	2021 September 3
Responses to the Consultation Document	By 2021 October 1
Comments on Responses	By 2021 October 15
Issue Determination Notice	By 2022 April 30

Chapter 1: Introduction

Background

- 1.1. Taking account of the realities of the Jamaican telecommunications sector, the OUR decided that proactive regulatory initiatives were necessary to address the sharing of fixed infrastructure. The OUR is of the view that the development of a tool by which to determine and validate fixed infrastructure sharing charges, will allow the OUR to discharge its mandate in an expeditious manner. As such the OUR has taken steps to develop a standalone fixed infrastructure sharing cost model to evaluate the costs of fixed infrastructure sharing services.
- 1.2. On 2020 January 8, the OUR published 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). The document outlined the proposed methodology for the development of the Fixed Infrastructure Sharing Cost Model. The relevant data request was also sent to operators in October 2019.
- 1.3. The OUR published the Determination Notice entitled "Assessment of Fixed Infrastructure Sharing Costs – Principles and Methodology - Determination Notice" (Document No. 2020/TEL/021/DET.005) (hereinafter "the Methodology") on 2020 December 28. The document presented the determinations regarding the methodological framework, which will be used to develop the infrastructure sharing cost model.
- 1.4. On 2021 January 18, the OUR published the Consultation Document entitled "Cost Model for the Assessment of Fixed Infrastructure Sharing Rates - Draft Model" (Document No: 2021/TEL/001/CON.001) (hereinafter "the Consultation Document") as well as the draft Fixed Infrastructure Sharing Cost Model ("the draft Model").

Purpose of the Document

- 1.5. In their feedback on the Consultation Document and draft Model, operators raised several concerns regarding some of the inputs included in the draft

Model. Most of these concerns involved the international benchmark data utilized in the draft Model.

- 1.6. The OUR would like to point out that an extensive data request process was carried out with Jamaican fixed operators between 2019 October 18 and 2020 May 26. Despite the extended data request period, operators provided minimal information throughout the process, with one operator indicating that international benchmarks should be utilized where operators have not provided the requested data. In keeping with **Determination 3** of the Methodology, in the absence of data from the operators, the OUR populated the remaining inputs based on international benchmarks and publicly available data.
- 1.7. Notwithstanding the foregoing, the OUR has taken the decision to issue a supplementary Consultation Document. The purpose of this document is as follows:
 - to clarify the source of some of the main inputs included in the draft Model; and
 - to give operators an additional opportunity to present verified arguments and/or data for the update of the inputs of the Fixed Infrastructure Sharing Cost Model.
- 1.8. The relevant aspects of the Fixed Infrastructure Sharing Cost Model, for which the OUR is seeking additional input from operators, are detailed in Chapter 3 of this document.
- 1.9. The OUR encourages stakeholders to support all comments on the Draft Model with relevant arguments and also data, analysis, benchmarking studies and information based on the national situation, or on the experience of other countries, (if relevant). The OUR is likely to give greater weight to comments supported by relevant, appropriate arguments and evidence.
- 1.10. Subsequent to this process, the Fixed Infrastructure Sharing Cost Model and the associated Determination Notice will be finalized and published.

Structure of Document

1.11. The remainder of the document is structured as follows:

- **Chapter 2** outlines the legal and regulatory framework that describes the remit of the OUR in regard to the setting of infrastructure sharing rates.
- **Chapter 3** seeks to clarify inputs utilised in the draft Model.
- **Annex A:** Summary of Questions.

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 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 formed the basis of 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:

"(1) Where the Office is required to determine the charges for the provision of interconnection by a dominant carrier, it shall, in making that determination, be guided by the following principles -

(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: Input Clarification

Introduction

3.1. As outlined in Chapter 1, the objective of this document is to provide clarity on some of the inputs included in the draft Model and to give operators another opportunity to provide any additional input that may be useful when populating the updated version of the Fixed Infrastructure Sharing Cost Model. As previously indicated, the OUR will likely give more weight to comments supported by appropriate data and evidence. We therefore urge operators to justify all figures and qualitative indications submitted in response to the consultation questions.

The relevant inputs covered in this Chapter include:

- Inputs Related to the Network Costs;
- Inputs Related to Network Usage; and
- Ancillary Services Defined in the Model.

The relevant aspects regarding each of these inputs are presented in the sections below.

Inputs Related to the Network Costs

Unit costs

3.2. For each network element defined in the draft Model, the following cost inputs are included:

- **Unit CapEx** - which represents all up-front costs that operators face when deploying each network element. These include any cost associated with the acquisition (including import costs) and installation of the network element, including upfront payments in the case of contracts considering Irrevocable Right of Use (IRUs).
- **Unit OpEx** - which represents all yearly recurrent costs that operators face in the operation and maintenance of the network element. These include,

among others, labour, materials and utility costs, as well as recurrent costs in the case of contracts considering IRUs. This input is included in the draft Model referenced to the unit CapEx. For example, a network element with a unit CapEx of 100 JMD and a unit OpEx of 5% will show a recurrent OpEx of 5 JMD each year.

- 3.3. As presented in the Consultation Document, due to the lack of information provided by the operators, the unit cost inputs included in the draft Model were based on data from international benchmarks. The benchmarks used included references from bottom-up models developed by regulators from 17 countries¹ and available in Axon's internal databases. The benchmarks include references from Europe and the Middle East, as well as countries in the Americas and the Caribbean. The references from the benchmark countries were converted to JMD using the appropriate exchange rates. For the unit OpEx, the conversion considered the effect of purchasing-power-parity (PPP) between the benchmark countries and Jamaica. The numbers included in the model for each network element are calculated as the average of the values for benchmark countries.
- 3.4. As a result, figures from Table 1 below were extracted from the benchmark exercise conducted for the draft Model.

¹ Including Belgium, Cayman Islands, Croatia, Cyprus, France, Italy, Mexico, Norway, Spain, Sweden and 7 additional confidential sources from countries in the Americas, Caribbean, Middle East and Europe.

Table 1: Network Element Unit CAPEX and OpEx

Resource	Units	Unit CAPEX	Average Unit OpEx
Ducts.Ducts.# of kms	JMD/# of kms	503,641	0.7%
Subducts.Subducts.# of kms	JMD/# of kms	281,077	2.4%
Trenches.Trenches - Urban.# of kms	JMD/# of kms	6,205,823	0.8%
Trenches.Trenches Inter_Urban.# of kms -	JMD/# of kms	4,527,101	0.9%
Manholes.Manholes - Urban.# of manholes	JMD/# of manholes	56,822	0.5%
Manholes.Manholes Inter_Urban.# of manholes -	JMD/# of manholes	56,822	0.5%
Poles.Wood poles.# of poles	JMD/# of poles	31,539	2.6%
Poles.Concrete poles.# of poles	JMD/# of poles	216,200	1.9%
Fibre cable.Underground fibre cable.# of kms	JMD/# of kms	325,434	1.6%
Fibre cable.Aerial fibre cable.# of kms	JMD/# of kms	505,599	1.8%

Source: Draft Model

Question 1: What are your views on the figures presented in Table 1 above? Please provide reasons inclusive of any data or other relevant evidence to support your response. Also, please indicate any additional disaggregation in the network elements (e.g. considering different configurations) present in your network.

Useful Lives

- 3.5. The useful lives represents the period where the assets are fit for economical use. The draft Model uses the useful lives as the period over which the capital costs (unit CapEx) of a particular network element is depreciated.
- 3.6. The useful lives included in the draft Model are, unless otherwise stated, based on the same international benchmark used in the definition of the unit costs presented in the previous section. For network elements present in other recent models developed by the OUR, the figures from those models were considered more appropriate and so were included in the draft Model. Considering this, the figures in Table 2 below, were based on international benchmark data.

Table 2: Useful Lives

Resource	Useful life (years)
Ducts.Ducts.# of kms	35
Subducts.Subducts.# of kms	29
Trenches.Trenches - Urban.# of kms	33
Trenches.Trenches - Inter_Urban.# of kms	33
Manholes.Manholes - Urban.# of manholes	33
Manholes.Manholes - Inter_Urban.# of manholes	33
Poles.Wood poles.# of poles	20
Poles.Concrete poles.# of poles	20
Submarine Cable Landing Stations	20

Source: Draft Model

Question 2: What are your views on the figures presented in Table 2 above? Please provide reasons inclusive of any data or other relevant evidence to support your response and, if applicable, the useful lives that you consider appropriate to be included in the Fixed Infrastructure Sharing Cost Model.

Fully Depreciated Assets

- 3.7. The provision of fixed telecommunication services involves the use of multiple network elements, deployed over time. In modern networks, it is common to see that fixed services are provided by the means of infrastructure assets, which were deployed a long time ago. This deployment over time, leads to a situation where portions of the assets involved in the provision of fixed telecommunication services (especially fixed infrastructure assets) may be fully depreciated, from a financial standpoint. In practice, these fully depreciated assets do not generate any cost for its owner (i.e. these costs are already recovered).
- 3.8. As presented in **Determination 8** of the Methodology, the draft Model includes a feature to remove these fully depreciated costs from the cost base used to calculate the costs of the services. This feature is included with the objective of avoiding the over-estimation of the actual costs faced by the modelled operator due to the consideration of costs already recovered in the past.
- 3.9. To this end, the draft Model includes a parameter that accounts for the percentage of the modelled assets that are assumed to be fully depreciated. This parameter is applied when calculating average capital costs (depreciation and cost of capital) of infrastructure assets (e.g. ducts, trenches and poles). It should be noted that this parameter does not affect the calculation of operational costs.
- 3.10. Due to the unavailability of data from operators, the parameter included in the draft Model is based on an estimate of the amount of fully depreciated assets, which is based on Axon's experience in the field.

Question 3: What are your views on the percentage of fully depreciated assets included in the draft Model? Please provide reasons inclusive of any data or other relevant evidence to support your response and, if applicable, the percentage you consider appropriate to be included in the Fixed Infrastructure Sharing Cost Model.

Staff Related Costs

- 3.11. Staff costs are included in the draft Model to calculate the cost of ancillary services, including a relevant component based on the costs of labour from technicians and administrative personnel.
- 3.12. The draft Model considers that staff costs take the form of i) direct costs (i.e. wages) and ii) indirect costs. Wages from engineers and administrative staff included in the draft Model are based on publicly available reports² from specialized research agencies. Indirect costs are added on top of wages, through the parameter “Percentage of the total personnel costs that are due to the salary” included in the draft Model. This parameter is based on data from previous studies performed by Axon.
- 3.13. In addition to this, the draft Model considers that ancillary services shall include additional costs for necessary materials and a mark-up for the recovery of non-network costs (general and administration costs).

Question 4: What are your views on the inputs concerning staff-related costs? Please provide reasons inclusive of any data or other relevant evidence to support your response and, if applicable, the figures that you consider appropriate to be included in the Fixed Infrastructure Sharing Cost Model.

Costs associated with Landing Stations

- 3.14. The unit costs presented for cable landing stations in the draft Model (CapEx and OpEx) account for all the costs associated with the landing station, on a per square metre basis. These costs include the cost of rental (or construction), maintenance and operation of the landing station.

² Including, among others, SalaryExplorer, PayScale and PayLab and an analysis of salaries associated with relevant job offers.

- 3.15. In the particular case of the OpEx, the draft Model also considers the general maintenance and operational costs associated with the landing stations. These general maintenance and operational costs should, in the OUR's view, be allocated evenly throughout the space existing in the landing station, to provide an average cost of maintenance per square metre.
- 3.16. Furthermore, the draft Model includes a parameter that represents the percentage of the space in the landing station that could be used to place telecommunications equipment. This parameter is intended to ensure that the operator can recover all the costs associated with the landing station, even if not all of the space can be used to place telecommunications equipment.
- 3.17. Due to the lack of information provided by the operators in the data request process, the calculations for these parameters are based on data from public reports³, which examine the cost of storage or warehouse structures in Jamaica.

Question 5: What are your views on the figures considered for unit costs for landing stations? Please provide reasons inclusive of any data or other relevant evidence to support your response and, if applicable:

i. the unit costs that you consider appropriate to be included in the Fixed Infrastructure Sharing Cost Model; and

ii. any costs related to landing stations that should, in your view, be considered in this calculation.

³ Mainly from "Market trend report 2018-2019 on Caribbean & Latin America construction", prepared by BCQS international.

Inputs Related to Network Usage

Use of Aerial Cables

3.18. The draft Model considers that all fibre cables are aerial. This was an assumption, given the lack of information provided by operators in the data request process.

Question 6: What are your views on the figures considered for the percentage of aerial cables? Please provide reasons inclusive of any data or other relevant evidence to support your response and, if applicable, an alternative percentage that you consider appropriate to be included in the Fixed Infrastructure Sharing Cost Model.

Other Network Parameters

3.19. The draft Model includes several network parameters that are used to dimension the network architecture of the modelled operator. These parameters are based on different sources as follows:

- **Operators** - Some of the inputs included in this part of the draft Model are based on actual data provided by operators in the data request process, including some inputs provided in the context of the data request for the Fixed Cost Model, where applicable.
- **Axon's calculation assumptions based on data provided** - For some of the inputs, Axon has calculated or estimated the appropriate inputs based on data available in the context of the data request process or based on other publicly available data or references.
- **International benchmark** - For those inputs where no additional information was available, Axon has conducted a benchmark with international references to include such inputs in the draft Model. This benchmark is based on data extracted from bottom-up models developed by regulators around the world.

3.20. The inputs included in the draft Model result in a network that, for the most part, presents a very similar network structure between urban and inter-urban areas. This assumption is followed given the lack of information provided by the operators in the data request process to prove otherwise. The only exception to this is the percentage of lit strand, which was based on data available to Axon from a benchmark with international sources.

3.21. As a result, the network parameters included in the model are as seen in Table 3 below.

Table 3: Included Network Parameters

Description	Units	Urban	Inter-urban
Average ducts per trench	ducts/ trench	4.00	4.00
Average distance between manholes	km/ manhole	0.55	0.55
Average subducts that can be introduced in a duct	subducts/ duct	3.00	3.00
Average cables per subduct	cables/ subduct	1.00	1.00
Average strands per fibre cable	strands/ cable	48.00	48.00
Average cables supported by a wood pole	cables / pole	2.00	2.00
Average cables supported by a concrete pole	cables / pole	2.00	2.00
Average distance between poles	metres	30.00	30.00
Percentage of fibre kilometres that are directly buried (without duct)	% of kilometres	-	-

Description	Units	Urban	Inter-urban
Percentage of lit strands in a cable	% of lit strands	31.04%	15.00%
Percentage of ducts that are used	% of ducts	50.00%	50.00%
Percentage of poles that are made out of concrete	% of poles	25.00%	25.00%
Percentage of fibre cables that are aerial	% of cables	100.00%	100.00%

Source: Draft Model

Question 7: What are your views on the figures considered for the network inputs presented in Table 3 above? Please provide reasons inclusive of any data or other relevant evidence to support your response and, if applicable, the network parameter figures that you consider appropriate to be included in the Fixed Infrastructure Sharing Cost Model.

Ancillary Services Defined in the Model

3.22. As outlined in **Determination 11** of the Methodology, the Fixed Infrastructure Sharing Cost Model shall include any relevant ancillary services that are identified. Based on the absence of additional information in the data request or consultation process on the Methodology, no additional ancillary services were included in the draft Model. The OUR will

consider any additional ancillary services identified in this round of consultation for inclusion in the Fixed Infrastructure Sharing Cost Model, as long as they are deemed to be relevant.

Question 8: Do you consider that there are any additional ancillary services that should be included in the Fixed Infrastructure Sharing Cost Model? If yes, please describe such service(s), and provide detailed information on the labour and material costs associated with these service(s).

Annex A: Summary of Questions

Question 1: What are your views on the figures presented in Table 1 above? Please provide reasons inclusive of any data or other relevant evidence to support your response. Also, please indicate any additional disaggregation in the network elements (e.g. considering different configurations) present in your network.

Question 2: What are your views on the figures presented in Table 2 above? Please provide reasons inclusive of any data or other relevant evidence to support your response and, if applicable, the useful lives that you consider appropriate to be included in the Fixed Infrastructure Sharing Cost Model.

Question 3: What are your views on the percentage of fully depreciated assets included in the draft Model? Please provide reasons inclusive of any data or other relevant evidence to support your response and, if applicable, the percentage you consider appropriate to be included in the Fixed Infrastructure Sharing Cost Model.
Question 4: What are your views on the inputs concerning staff-related costs? Please provide reasons inclusive of any data or other relevant evidence to support your response and, if applicable, the figures that you consider appropriate to be included in the Fixed Infrastructure Sharing Cost Model.

Question 5: What are your views on the figures considered for unit costs for landing stations? Please provide reasons inclusive of any data or other relevant evidence to support your response and, if applicable:

- i. the unit costs that you consider appropriate to be included in the Fixed Infrastructure Sharing Cost Model; and
- ii. any costs related to landing stations that should, in your view, be considered in this calculation.

Question 6: What are your views on the figures considered for the percentage of aerial cables? Please provide reasons inclusive of any data or other relevant evidence to support your response and, if applicable, an alternative percentage that you consider appropriate to be included in the Fixed Infrastructure Sharing Cost Model.

Question 7: What are your views on the figures considered for the network inputs presented in Table 3 above? Please provide reasons inclusive of any data or other relevant evidence to support your response and, if applicable, the network parameter figures that you consider appropriate to be included in the Fixed Infrastructure Sharing Cost Model.

Question 8: Do you consider that there are any additional ancillary services that should be included in the Fixed Infrastructure Sharing Cost Model? If yes, please describe such service(s), and provide detailed information on the labour and material costs associated with these service(s).