



GENERAL NOTICE 11/2024

Proposed decision on the Revision of Towers / Masts Infrastructure Sharing Costs Sharing Guidelines 2019

The Eswatini Communications Commission as the regulatory body for the electronic communications sector has, in accordance with section 38 of the Eswatini Communications Commission (ESCCOM) Act, 2013 prepared the draft decision on the revision of towers/mast infrastructure sharing costs guidelines 2019.

The current Towers and Masts Facilities Sharing Cost Guidelines 2019 which established a fair infrastructure sharing cost framework for communications towers and masts infrastructure in the country have been reviewed. Whilst the framework guided the industry and stakeholders fruitfully for the past five (5) years, the Commission noted that there were gaps in the parameters and methodology used in the calculation of the sharing cost estimates. The proposed review of the framework seeks to address these gaps.

A copy of the proposed decisions are available on the Commission's website at www.esccom.org.sz. In accordance with section 32 of the ESCCOM Act, 2013, the public is hereby invited to submit their written presentations on these proposed decisions on or before **9 December 2024** to legal@esccom.org.sz

**Chief Executive
Eswatini Communications Commission**



General Notice 11/2024

**PROPOSED DECISION IN TERMS OF
SECTION 38 OF THE ESWATINI
COMMUNICATIONS COMMISSION ACT,
2013:**

Revision of Towers / Masts Infrastructure Sharing
Costs Sharing Guidelines 2019 - Passive
Infrastructure Sharing Cost Guidelines, 2024

25 October 2024



ESWATINI
DATA PROTECTION
AUTHORITY



CIRT
ESWATINI COMPUTER
INCIDENT RESPONSE TEAM



Eswatini Communications Commission
UNIVERSAL
ACCESS SERVICE FUND

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I. Introduction

The rapid growth of the telecommunications industry has led to an increased demand for network infrastructure, particularly optical fibre, towers / masts that support the transmission of wireless signals. As more telecom operators strive to expand their network coverage and provide reliable services, the proliferation of individual towers has become a common sight on landscapes worldwide. However, this uncoordinated and duplicative approach to infrastructure deployment has resulted in several challenges, including high costs, inefficient resource utilization, visual clutter, and environmental concerns

Recognizing the need to address these challenges and promote a more sustainable and efficient approach, the concept of tower and mast infrastructure sharing plays a very significant role in the telecommunications industry. Infrastructure sharing involves multiple telecom operators and infrastructure providers utilizing the same tower or mast, thereby reducing costs, optimizing resources, and improving network coverage. The lack of regulations relevant to these points of interest would result in the inadequate siting, construction, and modification of numerous telecommunication masts with the risk of introducing possible adverse visual impacts to the landscape and environment.

To facilitate and regulate this practice, the Commission issued the **Electronic Communications (Facilities Sharing) Regulations, 2016** which were later supplemented by the **Towers and Masts Infrastructure Sharing Costs Guidelines, 2019**. These regulatory tools seek to provide a comprehensive framework that outlines the principles, methodologies, and best practices for sharing the costs associated with tower infrastructure. They aim to establish fairness, transparency, and efficiency in cost-sharing arrangements among all involved stakeholders. By adhering to these guidelines, stakeholders can foster collaboration, reduce redundant infrastructure, optimize resource utilization, and ultimately enhance the quality and reach of telecommunication services while integrating ethical practices thus reducing the ecological footprint associated with tower constructions and minimizing visual impact on the environment.

While the current guidelines in use may provide a solid foundation, it is essential to recognize the need for adjustments and adaptations to reflect the evolving cost landscape and ensure their

continued relevance. As the telecommunications industry advances, various factors can impact the costs associated with tower and mast infrastructure sharing. One crucial consideration is the effect of inflation and other market dynamics that may lead to increased costs over time. These cost increases can erode the cost-sharing arrangements outlined in the existing **Towers and Masts Infrastructure Sharing Costs Guidelines, 2019**, potentially leading to imbalances and financial challenges for stakeholders involved in infrastructure sharing.

Furthermore, the highly dynamic, evolving technologies, changing consumer demands, and regulatory developments of the telecommunications industry introduce new considerations and challenges that may not have been adequately addressed in the previous guidelines. It then becomes imperative to update the guidelines to encompass emerging cost drivers, technological advancements, and industry trends, ensuring that they remain effective in facilitating fair and efficient cost-sharing practices.

To address these concerns, periodic reviews and updates of the guidelines are necessary. Clause 12 of the **Towers and Masts Facilities Sharing Cost Guidelines, 2019** provides that the Commission has the power to review any part of the Guidelines as and when necessary, from time to time. In this regard, and based on initial engagements with industry stakeholders, the Commission has initiated a process to review the Towers and Masts Infrastructure Sharing Guidelines, 2019. The revised draft of the guidelines, now cited as the **Passive Infrastructure Sharing Cost Guidelines 2024**, as contained in [Annex A](#), provides a framework that accurately reflects the current cost landscape, facilitates efficient infrastructure sharing, and supports the industry's growth and development in an environment of changing costs and evolving needs.

The guidelines also provide recommendations for adopting environmental sustainability by reducing overall carbon emissions and energy consumption. This approach aligns with green initiatives and promotes eco-friendly practices within the telecommunications industry.

2. Scope and Mandate of the Commission

Within the framework of the Eswatini Communications Commission Act (Sections 6, 7, and 8), the Commission is entrusted with the promotion of innovative, secure, modern and competitive

communications infrastructure and the delivery of related services, ensuring that all communications services contribute effectively to economic and social development.

In fulfilling these responsibilities, the Commission is bound by certain obligations outlined in the Eswatini Environmental Authority Act which necessitates the establishment of measures to safeguard the environment concerning the services, products, operations, or activities regulated by the Commission.

3. Contextual Overview

Throughout the operationalisation of the current **Towers and Masts Facilities Sharing Cost Guidelines 2019**, the Commission has noted that there are some gaps in the parameters and methodology used in the calculation of the sharing cost estimates. To a certain extent, it has been noted that they do not effectively support infrastructure providers in achieving efficient cost recovery, potentially resulting in financial strains or insufficient reinvestment in infrastructure maintenance and upgrades hence the need to review the current guidelines to a framework that supports fair and efficient cost recovery. Additionally, the current framework does not seem to promote or encourage further investments in infrastructure by service providers.

The Commission has observed inconsistencies in the placement of antennas on shared towers which can lead to signal interference and degradation in signal quality. Correct antenna placement is essential for optimizing signal coverage, minimizing interference, and ensuring a seamless communication experience for users as well as for the efficient use of the radio frequency spectrum.

The Commission has noted that, in cases where operators share infrastructure, each operator maintains their own power backup generator. During power outages these two generators operate simultaneously leading to operational challenges, increased maintenance costs, and against the Environmental, Social, and Governance (ESG) aspects of reducing emissions and promoting efficient energy usage.

Moreover, the increasing demand for shared infrastructure services has necessitated a comprehensive review to ensure scalability and sustainability. Therefore, this review aims not only to address the gaps in the current guidelines but also to improve operational efficiencies and establish a more robust infrastructure framework for the future.

In light of the foregoing, and supplementary to the **Electronic Communications (Facilities Sharing) Regulations, 2016**, the Commission has initiated a process to review the Towers and Masts Facilities Sharing Cost Guidelines, 2019. The reviewed draft guidelines are as contained in [Annex A](#) of this document for stakeholder consultation and input.

These Guidelines are issued in accordance with Section 38 (b) of the Eswatini Communications Commission Act, 2013 (hereinafter ESCCOM Act) which empowers the Commission to issue Guidelines that serve as a directive in pursuing its regulatory objectives.

4. Development of the Revised Framework

In response to the evolving needs of the telecommunications industry and the gaps identified in the current infrastructure-sharing framework, a comprehensive exercise was undertaken to revise the infrastructure-sharing costs framework. The following outlines the key steps and actions taken in the development of the revised framework as highlighted in [Annex B](#). These have been undertaken with the aim of addressing shortcomings, promoting equitable cost allocation, and enhancing financial sustainability within the infrastructure-sharing ecosystem.

- A thorough assessment was conducted to identify the shortcomings of the existing cost guidelines and understand the challenges faced by infrastructure providers in achieving efficient cost recovery. Industry trends, cost structures, and regulatory requirements were analysed to inform the revision process.
- The existing Towers and Masts Facilities Sharing Cost Guidelines, 2019 were reviewed to ensure alignment with the regulatory objectives.
- The cost guidelines were revised to reflect the enhanced cost recovery mechanisms and address inefficiencies in the previous cost framework. Clear cost components, pricing structures, and methodologies for shared infrastructure services were added to provide clarity and consistency in cost allocation.

Invitation for Comments

As part of the public consultation process contemplated by section 32 of the ESCCOM Act, the Commission hereby invites written comments from interested stakeholders and the general public on the proposed **Passive Infrastructure Sharing Cost Guidelines, 2024**. The deadline for submission of comments is **17h00 on the 9th of December 2024**. The submissions should be addressed to:

The Chief Executive
Eswatini Communications Commission
P.O. Box 7811
Mbabane
Email: legal@esccom.org.sz

Annex A



Subject : **Passive Infrastructure Sharing Cost Guidelines, 2024**

Number : **11/2024**

Scope : **All Individual and General Licence Holders, Any owner and/or lawful possessor of Tower and Mast facilities (licensed or unlicensed, natural or juristic person)**

Circulated : **25 October 2024**

1. Citation

These Guidelines shall be cited as the **Passive Infrastructure Sharing Cost Guidelines, 2024**.

2. Definitions

2.1. For purposes of these Guidelines:

- a) “*Licensee*” has the meaning assigned to it in the Electronic Communications Act, 2013
- b) “*Passive Infrastructure*” shall mean the physical facilities and components shared among multiple facilities owners, such as towers, antennas, shelters, rooftop structures, power supply systems, transmission equipment, air-conditioning, diesel generators, and associated electrical and civil works, excluding Active Infrastructure.
- c) “*Facilities owner*” shall mean all Individual and General Licence Holders, Any owner and/or lawful possessor of Tower and Mast facilities (licensed or unlicensed, natural or juristic person)
- d) “*Facilities seeker*” shall mean any licensed service provider wishing to enter into an agreement with the facilities owner for the purpose of collocation or passive infrastructure sharing.

3. Objectives

The purpose of these Guidelines is to:

- 3.1 Review the current costs for passive infrastructure sharing, considering the following factors:
 - o The capital costs associated with building the Tower / Mast infrastructure;
 - o The costs associated with site rental, where the site is constructed on Title Deed land;
 - o The costs associated with routine and scheduled maintenance requirements of the Tower or Mast infrastructure;
 - o The costs associated with the provision of security on site;
 - o Structural integrity assessment

- o The costs associated with construction and maintenance of the access road to site;
 - o The costs associated with the provision of electricity to the site;
- 3.2 Introduce new cost measurements to the passive infrastructure cost-sharing guidelines which include:
- o Structural integrity assessment
 - o Access road costs
- 3.3 Establish a centralized backup power strategy by deploying a single shared generator onsite.
- 3.4 Establish best practices for Environmental, Social, and Governance (ESG) aspects of reducing emissions and promoting efficient energy usage
- 3.5 Protect the interest of consumers of electronic communications services
- 3.6 Present the preferable antenna position for the facilities seeker on the tower and mast infrastructure of the facilities owner.
- 3.7 To guide the treatment of costs related to the maintenance of the passive infrastructure
- 3.8 To maximize the use of network infrastructure including but not limited to base station sites, antennas, generators, and in-house wiring to enhance sharing and reduce duplication of investment for network facilities.
- 3.9 To minimize the environmental effect, to ensure minimum occupation of land space while maximizing the utilization of existing infrastructure and installations.
- 3.10 To ensure the optimum utilization of the facilities owners' capital expenditures on supporting infrastructure, facilitating the whole sector.
- 3.11 To minimize effects and address issues of health concern regarding radiation emissions from the passive communication infrastructure.

4. Application

- 4.1. The Guidelines apply to all Individual and General Licence Holders, any owner and/or lawful possessor of passive infrastructure (licensed or unlicensed) and any person natural or juristic who privately owns possesses, holds and/or controls the facilities.
- 4.2. The provisions of these Guidelines shall not affect the duty of any person to comply with any other applicable provision of legal frameworks applicable in the regulation of the electronic communications sector.

5. Application of Electronic Communications (Facilities-Sharing) Regulations, 2016

5.1. Notwithstanding these Guidelines, the Electronic Communications (Facilities Sharing) Regulations, 2016, remain applicable.

6. Facilities-sharing pricing framework considerations

6.1. All facilities owners shall deal with each other transparently and equitably following the pricing framework set out in these Guidelines and based on a cost-sharing approach when concluding facilities-sharing agreements.

6.2. The pricing framework on masts/ tower infrastructure considers the following factors:

- (a) Positioning or location of equipment on the tower structure.
- (b) Site rental costs.
- (c) Provision or availability of security on the site to be shared.
- (d) Tower construction costs
- (e) The height and type of the tower to be shared.
- (f) Electricity supply.
- (g) Costs related to construction and maintenance of access road to the site.
- (h) Costs related to the maintenance of the tower structure
- (i) Costs related to installation and maintenance of generators
- (j) Structural integrity assessment costs

7. Infrastructure / Facilities sharing conditions

The facilities shared under these Guidelines shall be governed by the Electronic Communications (Facilities Sharing) Regulations, 2016 as well as the following considerations:

7.1 A seeker to share facilities seeker shall be guided as follows on the number of equipment and or antennas to be installed on the Tower/Mast Infrastructure:

- 7.1.1 An Individual Licensee facilities seeker shall be allowed a **maximum of three (3)** microwave antennas on the tower with a maximum size of 1.2 metres to be installed.
- 7.1.2 A General Licensee and any other facilities seeker shall be allowed a **maximum two (2)** microwave antennas on the tower with a maximum size of 0.8 metres to be installed.
- 7.1.3 An Individual Licensee facilities seeker shall be allowed a maximum of **three (3)** service antennas (multi-band) to be installed on the tower for mobile communications and only **one (1)** for other point-to-area communication services.
- 7.1.4 The spacing (antenna position) between antennas on the shared tower infrastructure shall be **one meter (1m)**.
- 7.1.5 In accordance with Section 2(h) of the **Electronic Communications (Facilities Sharing) Regulations, 2016**, **One (1)** generator shall be installed at the tower premises to adhere to the environmental goals of the Environmental, Social, and Governance (ESG) aspects of reducing emissions and promoting efficient energy usage.

8. Towers and Masts Infrastructure Structure and pricing framework

Parties to a facilities-sharing agreement shall conclude facilities leasing agreements guided by the following pricing structure:

- 8.1. For equipment located inside the perimeter fence of a site, the owner shall charge as follows:
 - 8.2.1 *For a 54-meter tower, the facilities owner shall charge a monthly fee not exceeding **E8791.36 (Eight Thousand Seven Hundred and Ninety-one Emalangeni Thirty-Six cents)**.*
 - 8.2.2 *For a 45-meter tower, the facilities owner shall charge a monthly fee not exceeding **E7832.17 (Seven Thousand Eight Hundred and Thirty-Two Emalangeni Seventeen cents)**.*

8.2.3 For a 36-meter tower, the facilities owner shall charge a monthly fee not exceeding **E6701.38 (Six Thousand Seven Hundred and One Emalangeni Thirty-Eight cents)**.

8.2. For equipment located outside the perimeter fence of a site the owner shall charge as follows:

8.3.1 For a 54-meter tower, the facilities owner shall charge a **monthly fee not exceeding E6575.82 (Six Thousand Five Hundred and Seventy-Five Emalangeni Eighty-Two cents)**.

8.3.2 For a 45-meter tower, the facilities owner shall charge a **monthly fee not exceeding E5616.13 (Five Thousand Six Hundred and Sixteen Emalangeni Thirteen cents)**.

8.3.3 For a 36-meter tower, the facilities owner shall charge a **monthly fee not exceeding E4485.34 (Four Thousand Four Hundred and Eighty-Five Emalangeni Thirty-Four cents)**.

9. Towers and Masts Infrastructure established under universal service and access programme

Towers and Masts Infrastructure established under the universal service and access programme shall be subject to the following fee structure:

9.1 For equipment located inside the perimeter fence of a site the owner shall charge as follows:

9.1.1 For a 54-meter tower, the facilities owner shall charge a **monthly fee not exceeding E1890.00 (One Thousand Eight Hundred and ninety Emalangen)**.

- 9.1.2 For a 45-meter tower, the facilities owner shall charge a **monthly fee not exceeding E1260.00 (One Thousand Two Hundred and Sixty Emalangeni)**:
- 9.1.3 For a 36-meter tower, the facilities owner shall charge a **monthly fee not exceeding E525.00 (Five Hundred and Twenty-Five Emalangeni)**:

10. Backup Power Generators

10.1. Where the Tower / Mast infrastructure being shared has a backup power generator installed, the following principles shall apply:

- 10.1.1. *Dependent on the size and availability of capacity, the sharing partners are obliged to share power from the backup generator;*
- 10.1.2. *The capital costs will be shared in a similar manner as the Tower / Mast infrastructure itself. That is, the owner will assume **80% of the total cost for the generator** while the facilities-sharing seeker shall assume **20% of the total cost of the generator**.*
- 10.1.3. *The operational and maintenance costs of the generator, including fueling, shall be **equally shared (50/50)** between the facilities owner and the facilities sharing seeker.*

11. Incidental charges

- 11.1 The facilities owner shall be allowed to charge an all-inclusive maximum sum of **E4000.00 (Four Thousand Emalangeni)** in respect of application and site survey costs.
- 11.2 All other incidental charges not provided for in these Guidelines shall be submitted to the Commission for approval.

12. Review, amendment and repeal of the Guidelines

- 12.1. The Commission shall review and amend these Guidelines as and when necessary from time to time.
 - 12.2. The Towers and Masts Infrastructure Sharing Costs Guidelines, 2019 are hereby repealed and replaced by these Passive Infrastructure Sharing Cost Guidelines, 2024
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[Annex B](#)

This Annex provides additional supporting data and information on how certain decisions and assumptions have been arrived at during the review process of the **Towers and Masts Facilities Sharing Cost Guidelines 2019**. It provides a comprehensive methodology that was followed to come up with the new Passive infrastructure sharing costs guidelines.

Methodology

For the review of the current framework, the following principles or considerations have been adopted:

- (1) Review of Cost baselines: the starting point in the development of the revised framework was to establish cost baselines (2024 estimates) for some of the major elements required for tower and masts infrastructure establishment and operation. These elements include costs related to tower construction, site rental, maintenance of the tower infrastructure, site security, and structural integrity assessments. The table below shows some of the costs related to these elements.

Element	2024 Price
Tower Construction	SZL 1 610 000,00
Site rental	SZL 6 093,25
Tower maintenance (54 m)	SZL 503 920,00
Security	SZL 4 459,33
Structural integrity assessment	SZL 401,73
Access road cost	SZL 321 915,20

- (2) Secondly, the Commission, in line with the approach adopted during the development of the Towers and Masts Facilities Cost Sharing Guidelines, 2019, has maintained that the cost-sharing weight must remain at 80% contribution by the facilities owner and 20 % contribution by the facilities seeker.
- (3) Lastly, a provision for five percent (5 %) inflationary adjustment has been applied to the tower, rental, maintenance, security cost, structural integrity assessments, and access road costs base. This adjustment has been made to ensure that that the costs remain relevant over time and that the facilities owner can recover the increasing costs associated with maintenance, upgrades, and other operational expenses.

Based on the above, the estimated sharing costs, for different sharing configurations, and different tower/mast heights, are calculated as below:

54-Meter Tower:

Element	2024 Price Estimates	20% Contribution by Facilities Seeker	
		Equipment inside premises of facilities owner	Equipment outside premises of facilities owner
Tower Construction	SZL 1 610 000,00	SZL 4 299,96	SZL 4 299,96
Site rental	SZL 6 093,25	SZL 1 218,65	
Tower maintenance	SZL 503 920,00	SZL 1 345,86	SZL 1 345,86
Security	SZL 4 459,33	SZL 891,87	
Structural integrity assessment	SZL 401,73	SZL 80,35	SZL 80,35
Access road cost	SZL 321 915,20	SZL 536,53	SZL 536,53
Total	SZL 2 446 789,51	SZL 8 373,20	SZL 6 262,69
5% Inflation adjustment	SZL 2 569 128,99	SZL 8 791,86	SZL 6 575,82

This calculation shows a 22,1% increase inside premises and a 39,9% increase outside premises from the previous 54m tower of the Towers and Masts Facilities Sharing Cost Guidelines 2019.

45-Meter Tower:

Element	2024 Price Estimates	20% Contribution by Facilities Seeker	
		Equipment inside premises of facilities owner	Equipment outside premises of facilities owner
Tower Construction	SZL 1 300 000,00	SZL 3 472,01	SZL 3 472,01
Site rental	SZL 6 093,25	SZL 1 218,65	
Tower maintenance	SZL 471 700,00	SZL 1 259,81	SZL 1 259,81
Security	SZL 4 459,33	SZL 891,87	
Structural integrity assessment	SZL 401,73	SZL 80,35	SZL 80,35
Access road cost	SZL 321 915,20	SZL 536,53	SZL 536,53
Total	SZL 2 104 569,51	SZL 7 459,21	SZL 5 348,69
5% Inflation adjustment	SZL 2 209 797,99	SZL 7 832,17	SZL 5 616,13

This calculation shows a 22,4% increase inside premises and a 47,8% increase outside premises from the previous 45m tower of the Towers and Masts Facilities Sharing Cost Guidelines 2019.

36-Meter Tower:

Element	2024 Price Estimates	20% Contribution by Facilities Seeker	
		Equipment inside premises of facilities owner	Equipment outside premises of facilities owner
Tower Construction	SZL 920 000,00	SZL 2 457,12	SZL 2 457,12
Site rental	SZL 6 093,25	SZL 1 218,65	
Tower maintenance	SZL 448 470,00	SZL 1 197,76	SZL 1 197,76
Security	SZL 4 459,33	SZL 891,87	
Structural integrity assessment	SZL 401,73	SZL 80,35	SZL 80,35
Access road cost	SZL 321 915,20	SZL 536,53	SZL 536,53
Total	SZL 1 701 339,51	SZL 6 382,27	SZL 4 271,75
5% Inflation adjustment	SZL 1 786 406,49	SZL 6 701,38	SZL 4 485,34

This calculation shows a 28,9% increase inside premises and a 60,2% increase outside premises from the previous 36m tower of the Towers and Masts Facilities Sharing Cost Guidelines 2019.

Universal Access Service Fund Towers

UAS Site Costs	Contribution by Facilities Seeker		
	54M	45 M	36 M
2019 Costs	SZL 1,800,00	SZL 1,200,00	SZL 500,00
5% Inflation Adjustment	90	60	25
Proposal	SZL 1 890,00	SZL 1 260,00	SZL 525,00

Five percent (5%) provision for inflationary adjustments has been applied to all the towers and masts infrastructure established under the universal service and access fund.

Address

—

Sibekelo Building,
Fourth Floor North
Wing, Mbabane,
Eswatini

Phone

—

+268 2406 7000

Online

—

Email: info@esccom.org.sz
Website: www.esccom.org.sz