



Regulatory framework for satellite-based electronic communications services in The Bahamas

Second Round Consultation Document

ECS 07/2025

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1 Introduction

1.1 Background

The Utilities Regulation and Competition Authority (“URCA”) is the independent regulator and competition body for the Electronic Communications Sector (“ECS”) in The Bahamas, which includes fixed and mobile telecommunications services, broadcasting, and the management of spectrum and numbering resources.

On 9 December 2024, URCA published the Consultation Document titled “Regulatory Framework for Satellite-Based Electronic Communications Services in The Bahamas, ECS 75/2024” (“the First Consultation Document”)¹. The objective of the First Consultation Document was to seek stakeholder feedback on URCA’s initial proposals to update and establish a comprehensive regulatory framework governing the operation, licensing, and market access of satellite-based electronic communications networks and services within The Bahamas (“Framework”). The first consultation round closed on 17 January 2025.

During the first consultation round, URCA received responses from ten (10) parties, representing both domestic and international stakeholders:

- The Bahamas Telecommunications Company Ltd. (“BTC”)
- Joint response from Cable Bahamas Limited and Be Aliv Limited (“CBL Group”)
- E-Space Inc. (“E-Space”);
- Eutelsat Group (“Eutelsat”);
- Global Satellite Operators Association (“GSOA”);
- Plan-S Satellite and Space Technologies Inc. (“Plan-S”);
- Rivada Space Networks (“Rivada”);
- Sateliot IoT Services, S.L. (“Sateliot”);
- Space Exploration Technologies Corp. and its subsidiary Starlink Services Bahamas Limited (“Starlink”); and
- Viasat.

Stakeholder submissions provided valuable insights and feedback on the key policy, licensing, and technical considerations relevant to the development of the proposed Framework. Respondents also provided comments on significant topical matters, including the regulatory treatment of Direct-to-Device (“D2D”) services and Internet-of-Things (“IoT”) and Machine-to-Machine (“M2M”) applications, and the inclusion of provisions to promote the safe and sustainable use of space.

On 8 July 2025, URCA published the responses to the First Consultation Document to allow stakeholders to review and comment on the positions advanced by other respondents.

¹ Available at <https://urcabahamas.bs/wp-content/uploads/2024/12/Consultation-Document-URCA-satellite-regulatory-framework-06Dec2024.pdf>

Interested parties were invited to submit additional feedback by 29 August 2025.²

Following URCA's publication of the responses to the First Consultation Document, comments were received from the following parties:

- Starlink;
- Skylo Technologies ("Skylo");
- Viasat;
- GSOA;
- Kuiper Systems LLC ("Kuiper"); and
- E-Space.

Based on its review of stakeholder submissions, including both initial comments and responses to other respondents' comments, URCA has identified several areas that warrant further clarification and discussion to ensure that the final Framework is comprehensive, and aligned with national policy objectives and international best practices.

1.2 Purpose and Scope

The purpose and scope of this Consultation are to:

- Clarify the licensing structure applicable to satellite operators under URCA's existing ECS regime.
- Introduce revised proposed spectrum fee models.
- Seek views on enabling emerging services such as D2D and Satellite-based IoT/M2M connectivity.
- Address space debris management and environmental sustainability, disaster management, and lawful, access and interception and data protection obligations.
- Invite stakeholder feedback and comments on URCA's proposals.

1.3 Consultation process

URCA extends its appreciation to all stakeholders who participated in the first consultation round and who provided additional feedback following the publication of responses in July 2025. The constructive engagement of these parties has contributed significantly to the refinement of URCA's proposals and to the development of this Second Consultation Document.

Building on that foundation, URCA now invites formal written responses to this Second Consultation Document from all stakeholders and interested parties. This consultation represents an important step toward finalising the Regulatory Framework for Satellite-Based

² Available at <https://urcabahamas.bs/consultations/urca-opens-second-round-of-consultation-for-the-satellite-regulatory-framework/>

Electronic Communications Services in The Bahamas, and URCA welcomes informed and evidence-based submissions on the matters presented herein.

Please note that responses to this Consultation Document must be submitted to URCA on or before **5:00 p.m. on 13 January 2026.**

Written responses or comments on this Consultation Document should be sent to URCA's Director of Electronic Communications (or designate):

- by email, to info@urcabahamas.bs.

When submitting responses, respondents are required to provide supporting explanations/reasons for each of their submissions. All responses must clearly indicate the reference to the Consultation Document and the questions addressed for each of the responses provided.

Following its review of the responses received, URCA will proceed to publish a Statement of Results and Final Decision, along with its intended Next Steps in this regard.

URCA reserves the right to make all responses available to the public by posting responses on its website at www.urbahamas.bs. Responses marked 'confidential' should provide supporting reasons to simplify URCA's evaluation of the request for confidentiality. URCA may, in its sole discretion, choose whether to publish any confidential document or submission. Further information on URCA's procedure for handling information marked 'confidential' submitted by consultation respondents and URCA's consultation procedures in general can be found in URCA's Consultation Procedure Guidelines³.

Please take note that any response to this Consultation Document that does not comply with the requirements set out herein may not be considered by URCA.

1.4 Publication of the Statement of Results

URCA has decided to exercise its discretion to defer publication of the Statement of Results until the completion of this Second Consultation Round. URCA considers that this approach ensures that the Statement of Results will reflect the full breadth of stakeholder input received throughout both consultation phases, including feedback on the revised proposals set out herein.

By consolidating the outcomes of both consultations into a single, comprehensive Statement of Results, URCA aims to promote regulatory transparency, avoid duplication of effort, and provide stakeholders with a clear and cohesive record of the rationale underpinning URCA's final decisions. This will also facilitate a more efficient implementation process, as the final Statement

³ URCA 04/2017 available at <https://urbahamas.bs/wp-content/uploads/2017/07/URCA-042017-URCA-Consultation-Procedure-Guidelines.pdf>

of Results will incorporate all relevant policy, licensing, and technical considerations emerging from the consultation process.

1.5 Legal and Regulatory Framework

This subsection sets out the legal and regulatory framework that governs URCA's power to conduct this consultation process.

URCA is charged with the responsibility, *inter alia*, of promoting the main objectives of the electronic communications policy set out in section 4 of the Communications Act, 2009 ("Comms Act"). These objectives include, amongst other things, to:

- (a) further the interests of consumers by promoting competition and in particular –
 - (i) to enhance the efficiency of the Bahamian electronic communications sector and the productivity of the Bahamian economy;
 - (ii) to promote investment and innovation in electronic communications networks and services;
 - (iii) to encourage, promote and enforce sustainable competition; and
 - (iv) to promote the optimal use of state assets, including radio spectrum; and

- (b) further the interests of persons in The Bahamas in relation to the electronic communications sector by -
 - (i) promoting affordable access to high quality networks and carriage services in all regions of The Bahamas;
 - (ii) promoting availability of a wide range of content services which are of high quality.

Section 5 of the Comms Act provides that all regulatory measures shall be made with a view to implementing the Electronic Communications Sector Policy objectives. Regulatory measures, *inter alia*, should be efficient and proportionate to their purpose and introduced in a manner that is transparent, fair and non-discriminatory.

Section 11 of the Comms Act requires URCA to allow persons with sufficient interest a reasonable opportunity to comment on a proposed regulatory measure which, in the opinion of URCA:

- (i) is of public significance; or
- (ii) whose rights or interests may be materially adversely affected or prejudiced by the proposed regulatory measure. URCA must also give due consideration to those comments prior to introducing the regulatory measure.

Section 13 of the Comms Act establishes that a regulatory measure is likely to be of public significance if it relates to a regulated sector and can lead to:

- (i) a major change in the activities carried on by URCA under the Comms Act or any other enactment;
- (ii) a significant impact on persons carrying on activities in a regulated sector; and/or

(iii) significant impact on the general public in The Bahamas or in a part of The Bahamas.

URCA therefore considers that the cumulative effect of the foregoing statutory provisions requires URCA to conduct another round of consultation on the Regulatory Framework for Satellite-based Electronic Communications Services in The Bahamas in order to clarify, refine, and address matters and stakeholder concerns identified during the first round.

1.6 Alignment with National and International Policy Objectives

URCA's seeks to ensure that its proposals for the Regulatory Framework for Satellite-Based Electronic Communications Services are aligned with the Government's Electronic Communications Sector Policy 2024–2027 ("ECSP 2024-2027"), the forthcoming National Spectrum Plan 2025–2028 ("NSP 2025-2028"), and the ITU Radio Regulations as updated by the World Radiocommunications Conferences ("WRCs"), the most recent being WRC-23.

1.7 Structure of the Remainder of this Document

The remainder of this document is structured as follows:

Section 2: Presents URCA's revised and new proposals for the regulatory framework governing satellite-based electronic communications services in The Bahamas.

Section 3: Outlines the Conclusion and Next Steps, summarising URCA's intended actions following this consultation.

2 URCA's Revised and New Proposals

In this section, URCA outlines its revised proposals and clarifications, addressing key matters raised during the first consultation round and subsequent feedback period following publication of responses in July 2025, namely:

- licensing categories and conditions for satellite operators;
- revised proposed spectrum fee structures;
- the regulatory treatment of emerging services such as D2D and IoT/M2M connectivity;
- lawful access, interception, evidentiary disclosure, and data-protection obligations applicable to satellite-based licensees;
- disaster-management and emergency communications obligations; and
- considerations relating to orbital and environmental sustainability, including equitable access to spectrum.

2.1 Licensing Framework

URCA recognises stakeholder requests for greater clarity and transparency regarding the licensing framework applicable to satellite operators. URCA is not proposing a new satellite

licence class. URCA proposes that the existing licence categories under its current ECS regime continue to apply to satellite operators. Maintaining a uniform licensing structure is paramount for URCA as it promotes transparency, ensures consistent regulatory treatment across all providers, and upholds URCA's commitment to a technology-neutral approach.

For the avoidance of doubt, URCA may, pursuant to section 27 of the Comms Act modify or impose specific licence conditions where necessary to address matters unique to satellite-based operations, and any such additional proposed conditions discussed further in subsequent sections of this document.

2.1.1 Existing Licensing Categories under URCA's Framework

URCA's licensing regime for the ECS distinguishes between Operating Licences and Spectrum Licences.

Operating Licences

URCA issues two main types of operating licences, namely the Individual Operating Licences ("IOLs") and Class Operating Licences ("COLs").

An IOL is required where a person:

- Requires access to public land under Part XIV of the Comms Act; and/or
- Provides a retail service that depends on a corresponding wholesale service, for example call termination services.

URCA issues two forms of COLs:

1. COL Not Requiring Registration ("COLNRR"): Applies to services provided free of charge to the public, such as free-to-air broadcasting.
2. COL Requiring Registration ("COLRR"): Applies to providers establishing or operating networks or carriage services within, into, or from The Bahamas that do not involve call termination, for example, fixed broadband providers.

Spectrum Licences

In addition to an operating licence, a person requires a spectrum licence to establish, operate, or use any radio apparatus that transmits within a frequency band allocated for electronic communications services.

URCA issues spectrum licences in two principal forms, namely the Individual Spectrum Licences and Class Spectrum Licences, contingent upon whether the spectrum is used on an exclusive or shared basis:

1. Individual Spectrum Licence (“ISL”) authorises a person to use a specified frequency band on an exclusive basis within a defined geographic area.
2. Class Spectrum Licence (“CSL”) authorises the use of spectrum on a shared, non-exclusive basis under defined technical conditions and power limits.

In practice, a person may require both an operating licence and a spectrum licence, depending on the nature of the network or service to be provided.

2.1.2 Application of Existing Licensing Categories to Satellite-Based Operators

Under URCA’s proposed Regulatory Framework, these existing licensing categories will extend to satellite-based electronic communications services to ensure consistent regulatory treatment across technologies.

1. The COLRR will apply to satellite operators providing capacity or wholesale satellite services to licensed carriers or enterprise customers, and to those offering retail services directly to end-users, where such operations do not require access to public land and/or do not involve the provision of call termination services.
2. The IOL will apply to satellite operators providing capacity or wholesale satellite services to licensed carriers or enterprise customers, and to those offering retail services directly to end-users, where such operations require access to public land and/or involve the provision of call termination services.

Spectrum licences for satellite-based operations will follow the same overall structure as terrestrial services, distinguishing between Individual Spectrum Licences and Class Spectrum Licences, depending on the nature of the spectrum use.

1. The ISL will apply to satellite operators that require access to specific frequency bands on an exclusive-use basis within The Bahamas.
2. The CSL Requiring Registration (“CSLRR”) will apply to satellite operators using spectrum on a shared, non-exclusive basis under defined technical conditions.

Question 1:

Do you agree with URCA’s proposal to apply the existing operating licence categories (Individual Operating Licence and Class Operating Licence Requiring Registration) to satellite-based electronic communications services?

2.2 Regulatory Fee Structure

In the first round of the consultation, stakeholders requested that URCA provide greater transparency on the fees applicable to satellite operators and to reconsider its proposal to charge

spectrum fees on a \$0.70 per MHz basis.

2.2.1 Overview of ECS Regulatory Fee Regime

Before presenting its proposals, URCA considers it important to clarify the regulatory fees applicable under the existing ECS framework. Under the Comms Act, URCA administers three main categories of fees: the Communications Licence Fee, the Annual URCA Fee, and the Spectrum Fee. Additional fees may also be payable to the Utilities Appeal Tribunal (“UAT”) or upon submission of certain licence applications (i.e., application fees). These fees are prescribed annually in URCA’s Fee Schedule, which sets out the applicable rates and calculation methodologies for each category. Table 1 below summarises the principal fee categories and their respective purposes.

Table 1 – Overview of ECS Regulatory Fee Regime

Fee Type	Basis	Recipient	Purpose
Communications Licence Fee	3 percent of Relevant Turnover ⁴	URCA bills and collects, then remits to the Government of The Bahamas	Reflects the licensee’s contribution for use of public resources and market-access rights.
Annual URCA Fee	If Relevant Turnover < BSD 500,000 → flat BSD 3,000 If ≥ BSD 500,000 → 1.448 % of Relevant Turnover (as of 2025). The percentage rate of 1.448% applies for 2025 and is subject to annual review and adjustment by URCA pursuant to Section 92(2) of the Comms Act.	URCA	Defrays URCA’s administrative and budgeted costs related to its regulatory oversight functions.
Spectrum Fees	Determined by the type and extent of frequency assignment	URCA bills and collects, then remits to Government	Recognises spectrum as a national resource

⁴ Currently defined in section 2 of the Comms Act as “the gross receipts in money or money’s worth of the licensee or any person in respect of whom an exemption determination has been made under section 17 attributable to: (a) the provision of a network or carriage service or use of any radio spectrum under any licence or exemption determination; and (b) a content service, including associated advertising revenue and other ancillary revenue, but after the deduction of sales rebates in The Bahamas during the relevant financial year”;

			and incentivises efficient use.
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2.2.2 Scope and Applicability

For the avoidance of doubt, this Consultation Document does not address the Communications Licence Fee or the Annual URCA Fee. The focus of this consultation is limited to spectrum fees applicable to satellite-based electronic communications services.

2.2.3 URCA’s Revised Spectrum Fee Proposals

URCA recognises that, unlike terrestrial networks, satellite operators often share spectrum rather than occupying dedicated frequencies on a fixed, exclusive basis, particularly in the Ka and Ku bands. Accordingly, URCA has reconsidered its earlier proposal to apply a per-MHz spectrum-fee methodology for Fixed-Satellite Service (“FSS”) operations using shared spectrum. Given the dynamic and internationally coordinated nature of satellite shared spectrum use, URCA considers that a per-MHz approach may not accurately reflect how satellite operators access and utilise frequency resources.

FSS

FSS is a radiocommunication service between earth stations at given positions (which may be specified fixed points or any fixed point within specified areas) using one or more satellites.⁵ FSS systems provide broadband connectivity, data distribution, and backhaul services across wide geographic areas and form the basis for many commercial satellite offerings, including VSAT networks, telecom backhaul, and enterprise connectivity.

URCA proposes a hybrid spectrum fee model for FSS that combines a flat base authorisation fee with a usage-linked component measured by the satellite licensee’s Relevant Turnover. The fee will apply on a blanket authorisation basis, covering all frequencies and earth stations operated by a licensee within the designated Ku- and Ka-bands, which represents a departure from the current per terminal or per frequency calculation. URCA considers that operators with a larger Bahamian customer base or more substantial commercial presence derive greater benefit from access to national spectrum resources and place higher overall demand on URCA’s spectrum management functions.

Accordingly, URCA proposes the following hybrid spectrum-fee model:

- **A Base Spectrum Authorisation Fee:** BSD \$40,000 per annum, applicable to all FSS operators; and
- **A Usage-Linked Component:** triggered when an FSS operator’s Relevant Turnover is

⁵ See Articles 1.20 and 1.21 of the ITU Radio Regulations

greater than or equal to BSD \$500,000 in any licence year, in which case the usage-linked fee is calculated as five percent (5%) of the Relevant Turnover.

For example, an FSS operator with BSD \$1 million in Relevant Turnover would pay BSD \$40,000 + 5% x BSD \$1 million = BSD \$90,000.

To benchmark URCA’s proposed FSS spectrum fee model and calculation, the table below summarises the spectrum-fee methodologies adopted in other jurisdictions, ranging from large economies with established satellite markets to regional regulators and Small Island Developing States (“SIDS”).

Table 2 - International and Regional Benchmarking of Satellite and Non-Terrestrial Network Fee Frameworks

Jurisdiction	Fee Structure	Assumptions / Notes (Illustrative)	Estimated Annual Cost (USD)
United States (FCC) ⁶	Flat annual regulatory fee per authorized NGSO system.	Small Constellation (< 1,000 authorized satellites): US \$ 375,140 / year Large Constellation (≥ 1,000 authorized satellites): US \$ 1,917,390 / year. ⁷ Fee reflects regulatory oversight cost, not spectrum consumption.	US\$ 375,140 (Small Constellation) or US\$ 1,917,390 (Large Constellation)
Canada (ISED) ⁸	Consumption-based per MHz (C\$ 124.84 / MHz / year)	Applies to space-station (satellite) spectrum licences on a per-MHz basis across all FSS bands. For illustrative purposes, assuming 500 MHz use × \$124.84 = CAD \$	~\$45,600

⁶ See <https://docs.fcc.gov/public/attachments/FCC-25-31A1.pdf>

⁷ <https://docs.fcc.gov/public/attachments/DOC-414320A1.pdf>

⁸ <https://ised-isde.canada.ca/site/spectrum-management-telecommunications/en/notice-no-smse-001-23-fee-order-space-stations>

		62,420 ≈ US \$ 45,600 / year. Given that satellite operations are internationally coordinated and shared, the per-MHz rate represents the value of authorized access to the frequency range, not exclusive national assignment.	
Singapore (IMDA) ⁹	Flat per terminal (SGD \$100 ≈ US \$74 each)	Applies to fixed VSAT or user terminals (e.g., Starlink). 1,000 terminals × \$74 = US \$74,000/year. Spectrum is shared and non-exclusive.	~\$74,000 (illustrative)
Trinidad & Tobago (TATT) ¹⁰	Spectrum-based for terrestrial fixed links: TT\$ 4,000 per MHz pair (≈ US \$ 588 / MHz)	Satellite (FSS) use is dynamic and non-exclusive; figure shown only as a reference benchmark. If applied notionally to 100 MHz, cost ≈ US \$ 58,800 / year.	~ \$58,800 (illustrative)
Jamaica (SMA) ¹¹	Tiered terminal-based fee J\$200,000 for up to	For approximately 1,000 VSATs = J\$ 6.5 million (≈ US \$42,000). This	~ US \$42,000 (illustrative)

⁹ See pg. 1 of <https://www.imda.gov.sg/-/media/imda/files/regulations-and-licensing/licensing/telecommunication/satellite-communication-station/guidesatecomm-sat-comm.pdf>

¹⁰ See pg. 748 of <https://tatt.org.tt/wp-content/uploads/2023/05/Fee-Regulations-2006.pdf>

¹¹ See pg. 3 of <https://sma.gov.jm/wp-content/uploads/2025/03/Development-of-Spectrum-Pricing-Fee-Structures.pdf>

	30 VSAT terminals, plus J\$6,500 per terminal for each terminal above 30.	model scales by the number of user terminals and is well suited to traditional VSAT deployments.	
ECTEL Proposal (2025) ¹²	Bandwidth-tiered annual spectrum fee: ≤ 10 MHz – XCD 12 000 (≈ US \$ 4 400); 10–100 MHz – XCD 25 000 (≈ US \$ 9 200); > 100 MHz – XCD 60 000 (≈ US \$ 22 000)	Proposed ¹³ under ECTEL’s August 2025 consultation to modernize spectrum fees for Non-Terrestrial Networks and satellite services. The model scales with the notional bandwidth used by each operator, although in practice NGSO and other satellite systems access spectrum dynamically and non-exclusively within internationally coordinated FSS bands.	\$4,400 – \$22,000 + 3% of revenue
URCA (Bahamas)	Proposed Hybrid model: flat base fee + turnover-linked component	Proposed flat base fee of BSD \$40,000 per year (covers all Ka/Ku FSS frequencies and terminals under a single authorization); + 5% of Relevant	\$40,000 + (5% of Relevant Turnover, as applicable)

¹² See pg. 16 of <https://www.ntrc.vc/docs/consultations/Consultation%20Document%20-%20Recommendation%20to%20Amend%20Classification%20Notice%20and%20Telecoms%20Fees%20Regs-5Aug2025.pdf>

¹³ These figures represent PROPOSED fees subject to consultation and are not yet adopted.

		Turnover where annual turnover \geq BSD \$500,000.	
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Earth Stations in Motion (“ESIM”)

ESIM refers to earth stations mounted on mobile platforms, such as aircraft, ships, or land vehicles¹⁴, that communicate with satellites, typically operating in the FSS. Unlike traditional fixed earth stations, ESIMs maintain connectivity while the platform is in motion through electronically steerable antennas and advanced tracking systems.¹⁵

URCA proposes to implement a flat annual spectrum fee of BSD \$3,000 for each ESIM service provider. This fee would apply on a blanket authorisation basis, covering all ESIM terminals operated under a single licence, irrespective of the number of terminals deployed or the platforms on which they are installed (e.g., vessels, aircraft, or land vehicles). The proposed approach replaces the previous tiered fee structure based on fleet size and is intended to promote regulatory transparency, ease of compliance, and administrative simplicity.

URCA derived the proposed BSD \$3,000 annual spectrum fee for ESIM services based on an internal assessment of existing ESIM authorisations, taking into account the average spectrum fees currently paid by ESIM service providers under the prevailing framework.

Exclusive Use Standard Spectrum¹⁶

Where a satellite operator requires exclusive-use standard spectrum, URCA proposes to continue to apply its established Methodology for Setting Bandwidth-Related Fees, as adopted in URCA’s Statement of Results and Final Decision on the Review of Radio Frequency Spectrum Pricing (ECS 01/2016, issued 28 January 2016).¹⁷

URCA’s fee formula to calculate bandwidth-related fees is $Fee = C * BW * TF * IF * FB$. Where:

- **C** = Base constant
- **BW** = Bandwidth (MHz)
- **TF** = Technology Factor
- **IF** = Interference Factor
- **FB** = Frequency Band Factor

The rates derived from the application of this methodology are set out in Table 15 of URCA’s 2025 Fee Schedule, which specifies the applicable annual fees per MHz by frequency range and

¹⁴ <https://www.itu.int/en/mediacentre/backgrounders/Pages/Earth-stations-in-motion-satellite-issues.aspx>

¹⁵ https://www.itu.int/dms_pub/itu-r/opb/rep/R-REP-S.2464-2019-PDF-E.pdf

¹⁶ As defined in section 2 of the Comms Act.

¹⁷ Available at <https://urcabahamas.bs/wp-content/uploads/2017/02/ECS-01-2016-REVIEW-OF-RADIO-FREQUENCY-SPECTRUM-PRICING.pdf>

geographic area. These rates constitute the applicable base constants for determining annual fees for exclusive-use satellite spectrum assignments.

Table 4 below reproduces the applicable rates from URCA’s 2025 Fee Schedule.

Frequency Range	National ¹⁸ / New Providence	Grand Bahama	Any Other Island
Up to 960 MHz	8,500	1,700	850
960 – 2,200 MHz	4,250	850	425
2,200 – 6,700 MHz	425	85	42.5
6,700 – 30,000 MHz	85	17	8.5
Above 30,000 MHz	42.5	8.5	4.25

For the avoidance of doubt, URCA advises that this Methodology does not apply to:

- Premium Spectrum¹⁹ as the Minister with Responsibility for the ECS has the power to determine fees for Premium Spectrum; nor
- shared or non-exclusive satellite spectrum assignments, including MSS/FSS bands (e.g., Ka- or Ku-band) that are not assigned on an exclusive-use basis.

2.2.4 Addressing Spectrum Fee Disparities and Competitive Concerns

During the first round of consultation, some respondents raised concerns regarding proposals for spectrum fees regarding satellite-based electronic communications services including FSS and ESIM, noting that it would lead to significantly lower fees than what would be applied to spectrum used by terrestrial operators. URCA has considered these concerns and provides the following explanation demonstrating why differentiated fee structures are appropriate, justified, and do not create competitive distortions.

Exclusive-use Spectrum and Shared Spectrum

Direct comparisons between exclusive-use terrestrial and shared satellite spectrum may not be appropriate, as the two resources differ in their nature, management, and economic characteristics. Terrestrial mobile spectrum typically comprises scarce and exclusive IMT bands frequencies assigned to a single operator within a defined geographic area. Such assignments grant exclusive rights and carry high opportunity costs, as allocating a band to one operator precludes its use by others.

By contrast, satellite spectrum in the Ku- and Ka-bands is internationally coordinated through the ITU and may be used simultaneously by multiple operators across jurisdictions. This spectrum

¹⁸ URCA will determine, on a case-by-case basis, whether to grant national authorizations or to restrict assignments to specific islands, taking into account the current spectrum holdings, the geographic distribution of existing services, and the individual characteristics and demand profile of each island.

¹⁹ As defined in section 2 of the Comms Act.

is shared and non-rivalrous, with low scarcity and minimal opportunity cost. The Bahamas exercises limited jurisdiction over these frequencies, authorizing the operation of user terminals.

Accordingly, exclusive-use terrestrial and shared satellite spectrum represent distinct regulatory resources, one scarce, exclusive, and nationally managed; the other shared, globally coordinated, and lower-cost to administer.

Other ECS Regulatory Fees

For the avoidance of doubt, satellite operators will also remain subject to the broader regulatory fee framework applicable to the Electronic Communications Sector. This includes payment of the Annual URCA Fee and the Communications Licence Fee, where applicable, both imposed at the same rates and under the same conditions as those applied to terrestrial operators.

2.2.5 Periodic Review of Satellite Spectrum Fee Methodologies

URCA recognises that market conditions and technology adoption in satellite-based electronic communications are rapidly evolving. Accordingly, URCA intends to review the applicable spectrum fee methodology at least every three (3) years, in alignment with the National Spectrum Plan review cycle, to ensure its continued relevance. This periodic review will enable URCA to adjust fee levels where satellite usage grows significantly or where evidence indicates competitive distortion or misalignment with the broader terrestrial fee framework.

Question 2:

- a. *Do you agree with URCA's proposed hybrid spectrum-fee model for FSS, comprising a BSD \$40,000 flat base authorisation fee and a turnover-linked component of three percent (5%) of Relevant Turnover where annual revenues exceed BSD \$500,000?*

If not, please provide reasons and any alternative structures URCA should consider.

- b. *Do you agree with URCA's proposed BSD \$3,000 annual spectrum fee for ESIM service providers, applied on a blanket authorisation basis?*

If not, please provide supporting rationale and propose an alternative approach.

- c. *Do you agree that URCA's existing Methodology for Setting Bandwidth-Related Fees (ECS 01/2016) should apply to cases where satellite operators require exclusive-use spectrum assignments?*

If not, please provide supporting rationale and propose an alternative approach.

- d. *Do you support URCA's proposal to periodically review the satellite spectrum-fee methodology (e.g., every three years, in line with the National Spectrum Plan review cycle)?*

If not, please indicate an alternative review interval or process.

2.3 Regulatory Considerations for D2D Satellite Operations in The Bahamas

2.3.1 Introduction

In light of recent technological developments and feedback received during the first round of this consultation, URCA considers it important to address the potential regulatory treatment of D2D satellite operations within The Bahamas. Responses to the First Consultation Document broadly supported further examination of D2D satellite operations as a means of extending mobile coverage and improving network resilience across The Bahamas.

D2D technology, also referred to as satellite-to-handset or non-terrestrial mobile connectivity, enables direct communication between satellites and standard mobile devices without the need for dedicated satellite terminals. This emerging capability is increasingly being used to supplement terrestrial mobile networks by extending coverage to areas where the deployment of traditional infrastructure is uneconomic or impractical.²⁰

URCA believes that D2D has the potential to significantly enhance ubiquitous connectivity throughout The Bahamas, particularly given its archipelagic geography and the wide dispersion of settlements across multiple islands and cays, which is a key policy objective of the Government's ECSP 2024–2027.

2.3.2 Relevance to The Bahamas

The introduction of D2D connectivity has particular relevance to The Bahamas, given its archipelagic geography and dispersed population centres. Many remote islands and cays remain underserved and unserved by terrestrial mobile networks due to the high cost of infrastructure deployment, maintenance and other reasons. URCA believes that D2D technology could therefore serve as a supplementary coverage solution, improving access to emergency communications, maritime connectivity, and public safety services in areas where terrestrial networks are unavailable or unreliable. It can also support government objectives under the ECSP 2024-2027 by promoting universal and resilient access to communications services.

2.3.3 International Developments

At the global level, the ITU is actively examining the regulatory and technical foundations for integrating non-terrestrial networks ("NTNs"), including satellite-based D2D and Supplemental Coverage from Space ("SCS"), into International Mobile Telecommunications ("IMT") systems.

²⁰ <https://www.gsma.com/connectivity-for-good/spectrum/wp-content/uploads/2025/10/Spectrum-for-D2D-Public-Policy-Paper-v3.pdf>

Through ITU-R Working Party 4C²¹ studies are underway under Resolution 253 (WRC-23)²² on the use of frequency bands identified for IMT by non-GSO and GSO satellite systems to provide IMT-based D2D connectivity. These studies focus on:

- the coexistence and sharing mechanisms between space- and ground-based IMT systems;
- spectrum compatibility and interference management;
- performance requirements and standardization frameworks for NTN-IMT; and
- potential regulatory measures to enable global harmonization of D2D operations.

The outcomes of these studies will inform Agenda Item 1.13 of WRC-27²³, which aims to consider possible new allocations to the mobile-satellite service for direct connectivity between space stations and IMT user equipment to supplement terrestrial IMT network coverage.

URCA will continue monitoring these developments to ensure national frameworks remain aligned with emerging international standards and best practices for D2D/SCS services and will consider appropriate revisions following the outcomes of WRC-27.

Several regulators are actively defining and considering frameworks to accommodate D2D or SCS operations within their national regimes. These initiatives recognize the potential for satellites to supplement terrestrial mobile networks by extending coverage to underserved or remote areas using existing mobile spectrum.

2.3.3.1 United States (FCC)

In March 2024, the FCC adopted its landmark "Single Network Future – Supplemental Coverage from Space" rules (FCC 24-28), establishing the first comprehensive D2D regulatory framework in the world. By virtue of these rules the FCC authorizes satellite operators to use selected terrestrial mobile bands (600 MHz, 700 MHz, 800 MHz, Broadband PCS, and AWS-H Block) on a secondary, non-interference basis, provided they enter into spectrum lease agreements with the terrestrial licensee(s) holding those frequencies.²⁴ Notable commercial partnerships leveraging this framework include AST SpaceMobile with AT&T²⁵ and T-Mobile with SpaceX²⁶. Currently, consumers are able to access voice and text connectivity via satellite to fill coverage gaps in terrestrial networks.

2.3.3.2 Canada (ISED)

Canada's Supplemental Mobile Coverage by Satellite ("SMCS") framework was finalized in February 2025, following a consultation launched in June 2024. The framework covers the 600,

²¹ <https://www.itu.int/en/ITU-R/study-groups/rcpm/Pages/wrc-27-studies.aspx>

²² https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A0000100013PDFE.pdf

²³ <https://www.itu.int/en/ITU-R/study-groups/rcpm/Pages/wrc-27-studies.aspx>

²⁴ <https://docs.fcc.gov/public/attachments/FCC-24-28A1.pdf>

²⁵ <https://about.att.com/story/2024/ast-spacemobile-commercial-agreement.html>

²⁶ <https://www.t-mobile.com/news/un-carrier/t-mobile-takes-coverage-above-and-beyond-with-spacex>

700, 800 MHz, AWS, and PCS bands, and establishes a dual-licensing approach under which the satellite operator holds a space-station authorisation, and a Canadian MNO obtains a separate earth-station license for end-user devices.²⁷ Partnerships with at least one Canadian MNO are mandatory, and agreements must be non-exclusive to promote competition. In July 2025, Rogers launched a commercial beta of satellite SMS services via Starlink satellites under this framework, offering the service free to all Canadians during the trial period²⁸.

2.3.3.3 United Kingdom (Ofcom)

In March 2025, Ofcom issued its consultation "Enabling Satellite Direct-to-Device Services in Mobile Bands", making the UK the first European jurisdiction to propose a regulatory framework for commercial D2D satellite services. Following the consultation, Ofcom published its decision in September 2025, confirming it will amend existing MNO licenses to add satellite usage rights and exempt handsets from individual licensing.²⁹ In January 2025, trials by Vodafone and AST SpaceMobile demonstrated satellite voice and video calls on standard smartphones from a remote mountainous area in Wales. Commercial authorization is expected in early 2026.³⁰

2.3.3.4 Australia (ACMA)

In September 2024, ACMA released regulatory guidance on D2D using IMT, allowing MNOs to deploy satellite coverage under their existing Australia-wide spectrum licenses without requiring a new license category. Satellite use is permitted in IMT bands with nationwide rights (700, 850/900, 800, and 2.5 GHz), provided the spectrum licensee agrees and interference limits are respected.³¹ Operators such as Telstra³² and Optus³³, both partnering with Starlink and TPG (partnering with Lynk Global)³⁴ are pursuing D2D deployments across remote Australia under this framework.

2.3.3.5 Mobile Satellite Service³⁵ ("MSS") Based D2D

Another option is to enable MSS-based D2D using spectrum already allocated for MSS. In particular, spectrum in the L and S bands has been widely authorized worldwide for MSS operations, and well-established coexistence and sharing mechanisms are in place. Moreover, 3GPP Releases 17, 18, and beyond explicitly incorporate the MSS L and S bands into standardized

²⁷ <https://ised-isde.canada.ca/site/spectrum-management-telecommunications/en/learn-more/key-documents/consultations/decision-policy-licensing-and-technical-framework-supplemental-mobile-coverage-satellite>

²⁸ <https://about.rogers.com/news-ideas/rogers-launches-satellite-to-mobile-service-in-canada/>

²⁹ <https://www.ofcom.org.uk/siteassets/resources/documents/consultations/category-1-10-weeks/consultation-enabling-satellite-direct-to-device-services-in-mobile-spectrum-bands/main-documents/statement-and-further-consultation-enabling-satellite-direct-to-device-services-in-mobile-spectrum-bands.pdf?v=402573>

³⁰ <https://www.vodafone.com/news/technology/vodafone-makes-historic-satellite-video-call-from-a-smartphone>

³¹ [https://www.acma.gov.au/sites/default/files/2025-](https://www.acma.gov.au/sites/default/files/2025-05/Regulatory%20guide_Operation%20of%20an%20IMT%20satellite%20direct-to-mobile%20service_0.pdf)

[05/Regulatory%20guide_Operation%20of%20an%20IMT%20satellite%20direct-to-mobile%20service_0.pdf](https://www.acma.gov.au/sites/default/files/2025-05/Regulatory%20guide_Operation%20of%20an%20IMT%20satellite%20direct-to-mobile%20service_0.pdf)

³² <https://www.criticalcommunicationsreview.com/satellite/other-news/115092/telstra-partners-with-starlink-for-d2d-in-australia>

³³ <https://www.datacenterdynamics.com/en/news/optus-signs-direct-to-cell-satellite-deal-with-spacexs-starlink/>

³⁴ <https://www.mobileworldlive.com/lynk-global/tpg-complete-sms-tests-on-lynk-leo-network>

³⁵ As defined in Article 1.25 of the ITU Radio Regulations

D2D architectures. As a result, MSS-based D2D services can be introduced in these bands without the need for additional national or international regulatory action.³⁶

URCA notes that several administrations have already authorized or are actively trialling MSS D2D services in the L and S bands, often through partnerships between satellite network operators and device manufacturers. For example, Viasat, together with GuardianSat, Quectel, Acceleronix, and Skylo, conducted a four-month demonstration in Brazil showcasing direct-to-device connectivity over Viasat's L-band satellites. The trial was touted to have enabled continuous automotive telemetry and messaging capabilities in areas lacking terrestrial coverage, validating the potential of L-band NTN systems to support emerging D2D and IoT applications.³⁷

2.3.4 *Proposed Regulatory Approach for The Bahamas*

URCA is seeking views on the most appropriate regulatory framework for enabling D2D satellite connectivity in The Bahamas. URCA is currently considering three potential approaches:

Option A – Partnership Model (IMT Spectrum)

Under this approach, D2D service provision would occur through partnerships between satellite operators and licensed MNOs, utilising IMT-allocated spectrum on a shared or secondary-use basis. This model aligns with early regulatory developments in the United States and Canada, allowing existing MNOs to extend their terrestrial coverage through satellite connectivity agreements.

D2D satellite operations under this model would be authorized pursuant to Article 4.4 of the ITU Radio Regulations, which permits administrations to authorize radiocommunication services in frequency bands not allocated for such services in the National Frequency Allocation Table ("NFAT"), provided such operations do not cause harmful interference to, and do not claim protection from, services operating in accordance with the NFAT. This option may require an amendment to the NFAT.

Under this model, Bahamian MNOs would continue operating under their existing Individual Operating Licence and Individual Spectrum Licence, which already authorize the use of IMT bands for the provision of mobile services. URCA considers that a modification to the MNO's ISL may be required to reflect the use of IMT spectrum for satellite-based D2D operations on a non-interference, non-protection basis, or to incorporate any other technical or operational parameters that URCA deems necessary to safeguard terrestrial services and ensure efficient spectrum use.

³⁶ See pg. 2 of <https://www.mss-association.org/wp-content/uploads/2024/09/MSSA-Comments-to-ISED-on-SMCS-in-Canada-091324.pdf>

³⁷ See pg. 7 of https://www.mss-association.org/wp-content/uploads/2025/05/MSSA-Presents-at-CITEL-MSS_D2D_IoT-Case-Studies-2-June-2025.pdf and <https://investors.viasat.com/news-releases/news-release-details/viasat-and-partners-deliver-first-its-kind-direct-device>

Where any additional IMT spectrum is required to support such operations, URCA is required to consult with the Minister responsible for the electronic communications sector in accordance with section 30 of the Comms Act regarding the applicable assignment method and spectrum fees. URCA proposes that any partnership or integration arrangement between an MNO and a satellite operator for the provision of D2D services shall at a minimum comply with the following requirements. These requirements are non-exhaustive and may be supplemented by additional conditions where URCA deems necessary:

- URCA issues a non-objection under an established notification process;
- URCA is notified at least forty-five (45) days prior to commencement of operations;
- the arrangement remains fully subject to the conditions of the MNO's spectrum licence, including technical, interference-management, and coverage obligations;
- the arrangement includes a technical coordination plan demonstrating that the proposed operations will comply with the MNO's ISL conditions and will not cause harmful interference to terrestrial services, as may be modified by URCA to include any additional technical conditions deemed necessary;
- the arrangement is supported by the submission to URCA of a copy of the commercial agreement, memorandum of understanding ("MoU"), or other document(s) governing the partnership between the MNO and the satellite operator;
- URCA must be notified by the MNO at least twenty-one (21) days prior to the intended termination of the arrangement between the MNO and the satellite operator, and such termination shall not take effect without URCA's prior non-objection, to ensure continuity of service and compliance with applicable regulatory requirements;
- URCA reserves the right to request further information relating to the arrangement between the MNO and the satellite operator prior to issuing the non-objection as well as during and after the arrangement has come to an end;
- URCA reserves the right to request technical reports or other supporting documentation from the MNO as a part of its assessment criteria for issuing a non-objection;
- URCA reserves the right to audit technical systems and request test results or network performance data;
- URCA may request the submission of periodic reports to URCA detailing coverage areas, user metrics, system upgrades, and any interference incidents;
- Operators must clearly disclose service limitations (e.g., latency, message delays, or emergency constraints) to end-users; and
- URCA may initially authorize deployments under a regulatory sandbox or trial licence to evaluate performance and stakeholder impact.

In this arrangement, the satellite operator would be required to obtain a Class Operating Licence Requiring Registration from URCA for the provision of electronic communications services in The Bahamas, where it does not already hold an IOL or a COLRR. The licence would be conditional upon compliance with the following non-exhaustive requirements, which URCA may amend or

supplement as necessary to ensure alignment with applicable technical, operational, market dynamics and spectrum management obligations:

- the use of IMT bands (e.g., 700 MHz, 800 MHz, 1800 MHz, or 1900 MHz) designated by URCA;
- the existence of a valid partnership or spectrum-use agreement with a licensed MNO for the provision of D2D services, which does not constitute a transfer or assignment of spectrum usage rights under section 38 of the Comms Act;
- compliance with secondary-use obligations (non-interference, non-protection) under Articles 4.4 of the ITU Radio Regulations;
- adherence to any technical parameters (e.g., PFD limits, coordination zones) that URCA may specify to protect terrestrial networks. URCA may undertake further targeted consultation on these parameters if this model is adopted within the Final framework;
- compliance with international coordination obligations under the ITU Radio Regulations;
- demonstration that operations will primarily serve remote, unserved, underserved, or disaster-affected areas where terrestrial coverage is limited;
- operators shall ensure that emergency voice or text communications originating via partnerships are routed to the appropriate national emergency response centres;
- URCA reserves the right to audit technical systems and request test results or network performance data;
- URCA may request the submission of periodic reports to URCA detailing coverage areas, user metrics, system upgrades, and any interference incidents; and
- Operators must clearly disclose service limitations (e.g., latency, message delays, or emergency constraints) to end-users.

URCA notes that, pursuant to section 38 of the Comms Act, a licensee may not assign the use of radio spectrum to a third party except as provided for under subsection (2). For the avoidance of doubt, the partnership model described above is therefore intended to enable coordinated D2D operations under the MNO's licensed spectrum, without constituting a transfer or assignment of spectrum rights. The MNO retains full control and responsibility for its authorised frequencies and licence obligations, and URCA will maintain oversight of such arrangements.

Option B – Standalone Model (MSS Spectrum in L- and S-Bands)

Alternatively, URCA could authorise D2D operators to provide services using spectrum already allocated to the MSS, such as the L-band (1–2 GHz) and S-band (2–4 GHz). This model would support standalone satellite-based connectivity independent of terrestrial networks and may require coordination with regional and international administrations through the ITU to ensure compatibility and prevent harmful interference.

In the Bahamian context, a satellite operator seeking to provide such services would likely require:

- an ISL issued by URCA for use of the relevant MSS frequencies (L- or S-bands); and
- a COLRR authorising the provision of electronic communications services to the public.

An IOL would only be necessary where the operator intends to offer voice services, which are not contemplated under URCA's current D2D framework.

URCA proposes that satellite operators seeking authorisation to provide standalone D2D services using spectrum allocated to the MSS shall, at a minimum, comply with the following non-exhaustive baseline requirements. URCA may amend or supplement these requirements as necessary to ensure continued alignment with national spectrum policy, international coordination obligations, and emerging standards.

- Operations shall use frequencies allocated internationally to the MSS and assigned under national allocations;
- Services should primarily target remote, unserved, underserved, or disaster-affected areas lacking terrestrial coverage;
- adherence to any technical parameters that URCA may specify. URCA may undertake further targeted consultation on these parameters if this model is adopted within the Final framework;
- compliance with international coordination obligations under the ITU Radio Regulations;
- The operator must ensure that emergency communications (voice or text) are routed to the appropriate national emergency response centres;
- URCA must be notified by the operator at least twenty-one (21) days prior to the intended termination of services. Such termination shall not take effect without URCA's prior non-objection, to ensure continuity of service and compliance with applicable regulatory requirements;
- Operators must clearly disclose service limitations (e.g., latency, message delays, or emergency constraints) to end-users;
- URCA may initially authorize deployments under a regulatory sandbox or trial licence to evaluate performance and stakeholder impact;
- Where a satellite operator intends to provide D2D connectivity services on a wholesale basis to one or more licensed MNOs in The Bahamas, whether through capacity leasing, gateway access, or integration into terrestrial mobile networks, the operator shall:
 - Notify URCA in writing at least forty-five (45) days prior to commencement of such arrangements;
 - Provide details of the technical configuration, coverage area, and service scope, including identification of the partnering MNO(s);
 - Submit a copy of the commercial agreement, MoU, or equivalent arrangement for URCA's review to ensure compliance with national policy and competition safeguards;

- Demonstrate that the proposed wholesale service does not constitute de facto provision of retail services to the public without the appropriate licence; and
- Confirm that all transmissions will operate within assigned MSS bands in accordance with applicable ITU coordination filings and the NFAT.
- URCA reserves the right to request additional information or to impose conditions or modifications to ensure consistency with the Comms Act, spectrum-management principles, and fair competition objectives.

Option C – Hybrid Model (IMT and MSS Spectrum)

Under this approach, URCA would establish a flexible framework that accommodates both partnership-based D2D services using IMT spectrum (Option A) and standalone satellite operations using MSS-allocated spectrum (Option B). This dual-pathway model recognizes that different use cases and service models may be best served by different technical and commercial arrangements.

In the Bahamian context:

- For IMT-based D2D operations, licensed MNOs would continue to operate under their existing IOL and ISL, subject to notification and URCA’s non-objection where satellite connectivity is introduced in partnership with a satellite operator as proposed above.
- For MSS-based D2D operations, satellite operators would require an ISL for the relevant MSS frequencies (L- or S-bands) and a COLRR to provide electronic communications services as referenced above.

This hybrid framework would allow both categories of operators to coexist and innovate within a clear regulatory structure.

It is important to note that, at this stage, the provision of D2D voice services is not contemplated within the proposed framework under any of the models set out herein. URCA notes that D2D operations would initially be limited to text messaging, emergency alerts, and low-rate data connectivity, consistent with the capabilities currently supported by emerging D2D satellite technologies and international trials.

Question 3:

- a. *Do you agree that D2D satellite technology has potential to enhance mobile coverage and network resilience across The Bahamas, particularly for remote islands and underserved areas? If not, please provide reasons and supporting evidence.*

- b. *Of the three proposed regulatory approaches—*

Option A: Partnership Model (IMT spectrum, secondary use via MNOs);

Option B: Stand-alone Model (MSS spectrum, independent satellite operations); and

Option C: Hybrid Model (IMT + MSS flexibility)—

which option do you consider most appropriate for The Bahamas and why? Please identify any technical, commercial, or policy considerations that URCA should take into account when determining the preferred framework.

- c. Do you have any views on which IMT frequency bands should be designated for implementation under Option A? Please provide reasons or supporting evidence for your views.
- d. Do you have any views on L and S spectrum bands being designated for implementation under Option B? Please provide reasons or supporting evidence for your views?
- e. Do you have views on the need for additional licensing or coordination requirements for D2D services?
- f. Do you foresee the need for additional IMT spectrum to facilitate the implementation of Option A for D2D service provision, and if so, what frequency bands might be most suitable to support such deployments in The Bahamas?
- g. Do you foresee any regulatory or technical challenges arising from the introduction of D2D services in The Bahamas (e.g., network security, handset compatibility, interference with terrestrial networks, or consumer protection matters)?

If so, please outline potential mitigation measures URCA should consider.

2.4 Regulatory Considerations for Satellite-Based IoT Services

The integration of IoT technologies with satellite networks represents a rapidly expanding segment of the global communications ecosystem. Satellite-based IoT enables the interconnection of devices and sensors in remote, rural, underserved and maritime areas that are beyond the reach of terrestrial networks. Typical applications include asset tracking, environmental and agricultural monitoring, energy infrastructure management, disaster response, and maritime logistics.³⁸

URCA recognizes that satellite-based IoT services can play a vital role in advancing national development objectives, particularly in enhancing connectivity across the Family Islands, improving network resilience, and supporting The Bahamas' transition toward a digital and data-driven economy.

³⁸ See pg. 9 of https://www.itu.int/dms_pub/itu-r/opb/rep/R-REP-M.2460-2019-PDF-E.pdf

2.4.1 International Developments

Internationally, ITU-R studies initiated under Resolution 248 (WRC-19)³⁹ and continued through Agenda Item 1.18 of WRC-23⁴⁰ examined the technical and regulatory conditions under which MSS systems may support narrowband and IoT/M2M applications within existing MSS frequency allocations, particularly in the L- and S-bands.

While WRC-23 did not reach consensus on introducing new allocations under Agenda Item 1.18, the Conference adopted Resolution COM6/8 (WRC-23)⁴¹, inviting the ITU-R to conduct further studies for WRC-27 on spectrum requirements, technical and operational characteristics, and conditions for non-GSO low-data-rate MSS systems. These studies will explore possible additional allocations to support the future development of narrowband MSS systems enabling IoT and telemetry applications.

URCA will continue to monitor these developments within the ITU-R framework and will assess their implications for The Bahamas' national licensing and spectrum management regime.

Several jurisdictions, including Australia (ACMA)⁴², Brazil (ANATEL)⁴³, and the United States (FCC)⁴⁴, have authorized IoT and M2M applications under existing MSS frameworks, allowing operators such as Iridium, Globalstar, and Inmarsat to deliver low-data-rate services for tracking, telemetry, and sensor networks using their L-band and S-band MSS spectrum allocations. These developments highlight a global shift toward the integration of IoT using satellite systems to supplement terrestrial networks and promote universal connectivity.

2.4.2 Relevance to The Bahamas

The Bahamas' geographic characteristics and dispersed population centres make satellite-based IoT particularly relevant. IoT applications can enhance service delivery in key national sectors such as, tourism, agriculture, fisheries, utilities, and environmental management. For example, satellite IoT networks can enable smart buoy systems for marine navigation, remote power and water system monitoring, and real-time logistics tracking for inter-island freight and vessels.

By facilitating reliable connectivity in areas without terrestrial coverage, satellite-based IoT can also support public safety, disaster preparedness, and climate resilience, aligning with the Government's ECS Policy 2024–2027 and broader national digital transformation goals.

2.4.3 Proposed Regulatory Approach

URCA is considering developing a regulatory framework for satellite-based IoT, and proposes the

³⁹ https://www.itu.int/dms_pub/itu-r/oth/0C/0A/R0C0A00000F0086PDFE.pdf

⁴⁰ <https://ctu.int/wp-content/uploads/2023/04/WRC-23-agenda-items-Mehtap-Dufour.pdf>

⁴¹ https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A0000110012PDFE.pdf

⁴² <https://www.acma.gov.au/2-ghz-mss-band-allocation>

⁴³ <https://omnispace.com/omnispace-expands-spectrum-portfolio-with-authorization-to-operate-mobile-satellite-system-in-brazil/>

⁴⁴ See pg. 2 of <https://docs.fcc.gov/public/attachments/FCC-20-48A1.pdf>

following:

- Authorize IoT services under existing satellite licensing categories, depending on the service configuration and spectrum use:
 - Class Operating Licence Requiring Registration: For MSS operators providing narrowband or low-data-rate IoT connectivity (e.g., asset tracking, telemetry, environmental monitoring).
 - Individual Spectrum Licence or Class Spectrum Licence Requiring Registration: For operators providing broadband or industrial IoT applications, depending on whether dedicated or shared spectrum is sought, respectively.
- Accommodate both standalone and partnership models: Satellite IoT services may be offered (i) directly by licensed satellite operators using dedicated MSS spectrum (e.g., L- or S-band, or (ii) through partnerships between licensed MNOs and satellite operators using terrestrial mobile spectrum to deliver integrated IoT connectivity solutions (e.g., hybrid terrestrial–satellite IoT networks).
- Require compliance with relevant technical and coordination standards under the ITU Radio Regulations to prevent harmful interference and ensure efficient spectrum use.
- Recognize different service models: URCA acknowledges that satellite IoT services may be provided either: Using dedicated MSS spectrum (L-band, S-band) by satellite operators such as Iridium, Globalstar, and Inmarsat; or – Using terrestrial mobile spectrum in partnership with MNOs, consistent with the D2D framework outlined in Section 2.3.4.

URCA proposes that the provision of satellite-based IoT services in The Bahamas shall, at a minimum, comply with the following non-exhaustive baseline requirements. These are intended to ensure alignment with national spectrum management objectives, the Comms Act, and international coordination standards under the ITU Radio Regulations. URCA may amend or supplement these requirements as necessary.

- All transmissions shall occur within spectrum bands allocated to the MSS or within URCA-designated IMT bands under partnership arrangements with MNOs.
- Must comply with any technical parameters and conditions to prevent interference.
- URCA may require operators to submit periodic operational reports to URCA detailing active IoT terminals, service coverage, spectrum use, and interference incidents.
- URCA reserves the right to request technical reports, performance audits, or test data at any time to verify compliance.
- URCA may initially authorize deployments under a regulatory sandbox or trial licence to evaluate performance and stakeholder impact.

- URCA may require operators to notify URCA at least forty-five (45) days prior to major service expansions, system upgrades, or termination of IoT operations.

Question 4:

- Do you agree that satellite-based IoT services have significant potential to enhance connectivity, resilience, and service delivery across The Bahamas, particularly in remote and maritime areas? If not, please provide reasons and supporting evidence.*
- Do you agree with URCA’s proposal regulatory approach for developing a satellite-based IoT framework? If not, please suggest an alternative regulatory approach and rationale.*
- Do you foresee any technical, regulatory, or coordination challenges for example, related to interference management arising from the deployment of satellite-based IoT services in The Bahamas? If so, please outline potential mitigation measures URCA should consider.*
- What are your views on spectrum bands that URCA should consider designating for satellite-based IoT? Please provide supporting reasons and evidence.*

2.5 Orbital and Environmental Sustainability Considerations

During the first round of consultation, stakeholders raised broader concerns about the sustainability and equitable use of space resources, particularly the concentration of orbital and spectrum allocations by large satellite constellations and the issue of space debris. URCA recognises that, although these matters are global in scope, they have direct implications for The Bahamas.

While URCA’s statutory remit is limited to the regulation of electronic communications networks and services within The Bahamas, it acknowledges that satellite operations intersect with broader issues of space governance, sustainability, and fair access to orbital resources. As satellite communications become increasingly integrated into terrestrial networks, URCA considers it timely to articulate its position on these emerging issues in support of a sustainable and inclusive space environment.

Accordingly, this section sets out URCA’s position on equitable access to orbital and spectrum resources and space-debris management, consistent with The Bahamas’ obligations under the Communications Act and relevant international frameworks established through the ITU and the United Nations Office for Outer Space Affairs (“UNOOSA”). URCA invites stakeholder views on its proposed approach to these matters and on how The Bahamas can best contribute to responsible and sustainable space governance.

2.5.1 Equitable Access to Orbital and Spectrum Resources

Regarding the concerns on equal access to orbital and spectrum resources, URCA emphasizes that, as a Member State of the ITU, The Bahamas participates in the global regulatory framework that ensures equitable access to the finite orbital and frequency resources used for satellite communications. The ITU-R manages these resources through coordination procedures and the application of Effective Power Flux Density (“EPFD”) limits, as established under Article 22 of the ITU Radio Regulations, to prevent harmful interference between geostationary (“GSO”) and non-geostationary (“NGSO”) satellite systems.

Pursuant to section 32(1)(a) of the Comms Act, URCA manages spectrum in an open, objective, transparent, and non-discriminatory manner. URCA ensures that any authorisation or coordination related to satellite services within The Bahamas is conducted transparently and on a non-exclusive basis to promote fair competition and market access. URCA will continue to monitor developments in ITU and regional fora (such as CITELE) to safeguard the spectrum environment, prevent over-occupation of orbital planes, and preserve access opportunities for future systems.

2.5.2 Space Debris Management and Environmental Responsibility

URCA notes the concerns raised regarding the potential environmental impact of space debris arising from satellite operations. URCA recognizes that, while its statutory remit under the Comms Act primarily concerns the regulation of electronic communications networks and services within The Bahamas, the management of orbital debris falls principally within the purview of international space law. In particular, URCA is cognizant of the United Nations Guidelines for the Long-term Sustainability of Outer Space Activities (2019), which call on States and operators to implement debris-mitigation measures and end-of-life disposal plans⁴⁵.

In addition to these international developments, URCA notes that The Bahamas has begun to establish a domestic framework addressing aspects of space activity oversight and environmental protection. Notably, the Civil Aviation (Space Flight and Re-entry) Regulations, 2025 (S.I. No. 13 of 2025)⁴⁶ confer responsibility on the Civil Aviation Authority of The Bahamas (“CAAB”) for the licensing and oversight of space launch and re-entry activities through Bahamian airspace, including ensuring compliance with environmental and safety requirements in coordination with other competent agencies.

URCA also notes that the Department of Environmental Planning and Protection (“DEPP”) has been advancing efforts to strengthen national environmental safeguards through environmental impact assessments and related policy initiatives.⁴⁷ URCA understands that the broader legal and regulatory framework governing the management of space debris and associated environmental

⁴⁵ <https://www.unoosa.org/oosa/en/ourwork/topics/long-term-sustainability-of-outer-space-activities.html>

⁴⁶ https://laws.bahamas.gov.bs/cms/images/LEGISLATION/SUBORDINATE/2025/2025-0013/2025-0013_1.pdf

⁴⁷ https://www.thenassauguardian.com/business/vp-spacex-working-through-environmental-impact-process-with-depp/article_95e90128-08df-45a5-b0b3-d72348b98334.html

matters is still evolving.⁴⁸

Notwithstanding that these matters extend beyond URCA's direct regulatory remit, URCA considers it important to promote responsible and sustainable satellite operations. Accordingly, URCA proposes to require satellite operators seeking a licence to provide electronic communications networks and/or services in The Bahamas to:

- (i) attest to compliance with internationally recognised sustainability and debris-mitigation standards such as those issued by the ITU, UNOOSA, or by their respective licensing administrations (e.g., the FCC); and
- (ii) comply with all applicable laws, regulations, rules, policies, and procedures relating to space debris management and environmental protection in The Bahamas, and cooperate with all relevant authorities, including DEPP and CAAB, in the discharge of their respective functions.

Question 5:

- a. *Do you agree with URCA's position on issues relating to orbital and spectrum-resource and space-debris mitigation?
If not, please provide reasons and supporting evidence.*
- b. *Do you agree with URCA's proposal to require satellite operators seeking authorisation in The Bahamas to attest to compliance with internationally recognised sustainability and debris-mitigation standards (e.g., ITU, UNOOSA, or the licensing administration of the operator's home jurisdiction)?
If not, please propose alternative or supplementary approaches that URCA could adopt to encourage environmentally responsible satellite operations.*
- c. *Do you agree with URCA's proposal that satellite operators seeking to provide electronic communications services in The Bahamas should be required to comply with all applicable Bahamian laws, regulations, and policies relating to environmental protection and the management of space debris, and to cooperate with relevant national authorities, including the Department of Environmental Planning and Protection (DEPP) and the Civil Aviation Authority of The Bahamas (CAAB)?
If not, please explain why.*

⁴⁸ <https://www.bahamas.gov.bs/news-press-release/space-tourism-business-now-part-of-the-global-economy-not-just-the-global-imagination-says-dpm-cooper>

2.6 Disaster Management and Emergency Communications

URCA notes the expressed willingness of certain satellite operators, in their submissions during the first round of consultation, to aid where feasible in the event of natural disasters or national emergencies. As stated in the First Consultation Document, URCA recognises that satellite-based networks and services can play a critical role in maintaining communications continuity when terrestrial networks are compromised or inoperable.

At present, the Disaster Management Regulations for the Electronic Communications Sector⁴⁹ apply to holders of Individual and Class Operating Licences designated as Critical Electronic Communications Infrastructure (“CECI”). URCA proposes that these provisions be extended to satellite-based operators once designated as CECI. Both the IOL and COLRR already require licensees to support national security and public safety initiatives by assisting the Ministry of National Security, the Royal Bahamas Police Force, and other authorised agencies in broadcasting and disseminating Alert Messages through the National Alert Warning System (“NAWS”) or any other legally mandated alert platform, in priority over all other network traffic.

Some respondents also sought clarification on how these existing obligations apply to satellite-based operators. In this regard, URCA intends to review and update the Disaster Management Regulations as part of its 2026 Annual Plan. The forthcoming public consultation on the revised Regulations will address the roles, coordination mechanisms, and expectations of satellite-based operators in national disaster management and emergency communications.

Question 6:

- a. Do you have views on how satellite operators could best collaborate with Government agencies (e.g., NEMA, the Royal Bahamas Police Force, or the Ministry of National Security) to support the dissemination of public-alert messages and maintain service continuity during emergencies?*

2.7 Lawful Access, Intercept and Data Protection

In the first-round consultation, URCA proposed the introduction of a Local Data Storage Requirement and a Local Representation Requirement for satellite service providers conducting the administration or management of their business from premises outside The Bahamas. These measures were intended to ensure compliance with lawful access, interception, evidentiary, and data-protection obligations under applicable Bahamian legislation as amended from time to time, including, but not limited to, the Interception of Communications Act, 2018, the Evidence Act, and the Data Protection (Privacy of Personal Information) Act, and any other applicable legislation governing the production or disclosure of records and data to competent authorities, including the Securities Commission of The Bahamas and the Financial Intelligence Unit, for the

⁴⁹ ECS 18/2020 available at https://mangra.dev/wp-content/uploads/sites/32/2020/12/Disaster-Management-Regulations-for-the-Electronic-Communications-Sector-in-The-Bahamas_Final-07122020.pdf

purposes of law enforcement or financial-crime investigations.

URCA also recognises the relevance of statutory provisions governing the production, disclosure, and safeguarding of communications data, as well as the need to protect the confidentiality, integrity and availability of such information in accordance with Bahamian law, in furtherance of URCA's statutory objectives to maintain public safety and security.

Some respondents, however, expressed concern that the proposed requirements could impose disproportionate compliance costs, discourage market entry, and conflict with global satellite network architectures, which typically rely on distributed infrastructure across multiple jurisdictions.

Having considered this feedback, URCA recognises the need to balance national security imperatives, lawful access requirements, and data-protection obligations with the practical realities of satellite network operations. In this regard, URCA is now seeking further stakeholder views on alternative mechanisms to ensure compliance with lawful access, interception, disclosure, and data-governance obligations, including the following options:

- **Notification and Cooperation Framework:** requiring all licensees to cooperate with lawful requests under applicable Bahamian law, including the Interception of Communications Act, 2018, the Evidence Act and other relevant legislation. Each licensee would be required to designate a responsible point of contact for such requests, whether based locally or overseas, and to demonstrate, to URCA's satisfaction, that appropriate technical and procedural safeguards are in place to enable lawful access when required. This may include:
 - maintaining a clear internal process for receiving, authenticating and executing lawful request and/or warrants;
 - providing details of the system architecture or gateway through which such requests or warrants can be actioned; and
 - confirming the point of contact authorised to liaise with Bahamian law-enforcement authorities.
- **Data Accessibility and Protection Assurance:** requiring licensees to demonstrate that communications data relevant to lawful access or evidentiary disclosure can be made securely and promptly accessible to Bahamian authorities upon lawful request, even where such data are stored outside the jurisdiction. Licensees must also ensure that such data are handled in compliance with the Data Protection (Privacy of Personal Information) Act as amended from time to time and other applicable data-governance standards, ensuring confidentiality, integrity, and proportional use.

Local Representation: maintaining the option for URCA to require the appointment of a local representative in cases where an operator's network configuration or corporate

structure presents heightened risks, or where direct cooperation with overseas entities may be impractical. The local representative would serve as a liaison for lawful access requests, regulatory notifications, and compliance communications with URCA.

Question 7:

- a. *Do you agree with URCA’s revised approach to ensuring compliance with lawful-access, interception, evidentiary-disclosure, and data-protection obligations—focusing on notification, cooperation, and data-accessibility assurances?
If not, please provide reasons and propose alternative compliance mechanisms.*
- b. *Do you support URCA’s proposal that all licensees should designate a responsible point of contact for lawful-access or interception requests under applicable Bahamian law (including the Interception of Communications Act, 2018, the Evidence Act, or other relevant statutes) and maintain internal procedures enabling the timely and secure execution of such requests or court orders?
If not, please indicate any operational or legal challenges that URCA should consider.*
- c. *Do you agree with URCA requiring licensees to demonstrate that communications data relevant to lawful access, evidentiary disclosure, or financial-crime investigations can be made securely and promptly accessible to Bahamian authorities, regardless of where the data are stored?
If not, please explain why and suggest suitable safeguards.*
- d. *Do you agree that URCA should retain the discretion to require appointment of a local representative in cases where the operator’s configuration or risk profile justifies enhanced oversight?
If not, please recommend alternative approaches.*

2.8 Summary of Licensing Categories, Proposed Licence Conditions, Proposed Permissible Services and Proposed Spectrum Assignment

This section consolidates URCA’s proposed approach to licensing and licence conditions for satellite-based electronic communications services in The Bahamas. It draws together the matters discussed in Sections 2.1 to 2.7, including licensing, spectrum fees, D2D, IoT/M2M services, orbital and environmental sustainability, lawful interception, data accessibility, and disaster management.

2.8.1 Proposed Licence Conditions

URCA proposes that the following baseline licence conditions shall apply to all satellite-based licensees, irrespective of service type or licence category. These conditions are intended to establish the core regulatory obligations applicable to all satellite-based authorisations and reflect URCA's policy objective of ensuring consistency, transparency, and regulatory parity between satellite-based and terrestrial networks and services, while recognising the unique operational and technical characteristics of satellite systems.

These baseline conditions mirror, and in some cases extend, the obligations that already apply to terrestrial licensees under URCA's standard IOL and COLRR, *mutatis mutandis*.

- **Regulatory Parity:** Where a satellite operator is functionally equivalent to a terrestrial network or service, for example, a FSS operator providing retail services directly to end users, the licensee will be subject to the obligations set out in the IOL or the COLRR, as applicable, relating to consumer protection, lawful intercept, cybersecurity, national alert warning systems, health safety and the environment, quality of service, and matters of national security.
- **Lawful Access, Interception, and Protection:** Licensees must maintain the technical and procedural capability to comply with all lawful access, interception, evidentiary-disclosure, and data-protection obligations under applicable Bahamian legislation.
- **Universal Service:** All licensees will contribute to the Universal Service Fund (USF) in accordance with the Communications Act and applicable regulations. URCA may, where appropriate, include satellite-based services within universal service initiatives aimed at extending connectivity to underserved and remote areas of The Bahamas.
- **Disaster Management and Emergency Communications:** All licensees shall cooperate with all national security agencies and relevant Government authorities to support emergency communications and disaster recovery efforts, where technically and operationally feasible. Licensees designated as CECI will also be subject to the Disaster Management Regulations and related obligations.
- **Local Incorporation / Partnership:** Entities offering retail services to the Bahamian public must be locally incorporated or partnered with a Bahamian licensee.
- **Infrastructure Sharing:** URCA may impose infrastructure-sharing or open-access obligations on satellite facilities where necessary to prevent anti-competitive outcomes.
- **Environmental and Orbital Responsibility:**
 - Licensees must comply with relevant ITU regulations, resolutions, guidelines and other measure relating to equal access to orbital and spectrum resources, and all UN guidelines, measure and other relevant measures which promote safe,

secure, and sustainable space operations. Licensees shall implement appropriate debris mitigation and end-of-life disposal measures consistent with international best practices, including ITU-R Recommendations and applicable national or regional requirements.

- Licensees shall also demonstrate attestation of compliance with these obligations by submitting evidence or certification from their licensing administration or responsible national space authority, confirming adherence to applicable debris mitigation, orbital management, and coordination protocols.
- Licensees shall comply with all applicable laws, regulations, rules, policies, and procedures relating to space debris management and environmental protection in The Bahamas, and cooperate with all relevant authorities, including DEPP and CAAB, in the discharge of their respective functions.

URCA reserves the discretion to impose additional or modified licence conditions where it considers this necessary to address specific market, technical, or policy considerations, or to ensure consistency with applicable law or international obligations.

2.8.2 Summary of Proposed Permissible Satellite-Based Electronic Communication Services and Proposed Regulatory Treatment

Table 5⁵⁰ below provides a non-exhaustive summary, for illustrative purposes, of the proposed application of URCA’s existing licensing categories, both operating and spectrum, to satellite-based electronic communications services. It outlines the principal distinctions between licence types, the nature of authorised activities, and examples of the services or facilities covered under each category.

Note: All licensees must comply with applicable Bahamian legislation as amended from time to time, including the Interception of Communications Act, the Evidence Act, the Data Protection (Privacy of Information) Act and all laws and regulations relating to the prevention of money laundering, terrorist financing, and other financial crimes. Additionally, all licensees must comply with relevant international frameworks governing safe and sustainable space operations. Unless otherwise indicated, restrictions on the provision of mobile services and voice services apply where relevant. All licensees shall operate strictly within their assigned frequency bands and power limits as specified by URCA and in accordance with the National Spectrum Plan.

Table 5.

Category	Service Type	Description	URCA Licence Type	Proposed Key Licence Conditions ⁵¹	Indicative Spectrum Bands	Proposed Fee Approach
FSS	Fixed Broadband	Broadband Internet access via satellite user terminals.	COLRR + CSLRR	<ul style="list-style-type: none"> • Must comply with COLRR/CSLRR conditions. • Restriction on mobile service provision. • Must comply 	Ka (27.5–30 GHz / 17.7–21.2 GHz); Ku (14–14.5 GHz / 10.7–12.7 GHz)	Annual URCA Fee – \$3,000 (< \$0.5m turnover) or 1.448 ⁵² % (≥ \$0.5m). Comms Licence Fee – 3% of Relevant Turnover Spectrum Fee – Base \$40,000 + Usage 5% of turnover (≥ \$0.5m). Tribunal Fees – TBD.

⁵⁰ The information presented in Table 5 is intended for illustrative purposes only and does not represent an exhaustive list of potential service categories or regulatory treatments that URCA may consider.

⁵¹ These conditions should be read in conjunction with the published Standard Terms and Conditions applicable to each referenced licence type.

⁵² Please note that the percentage rate of 1.448% applies for the year 2025 and is subject to annual review and adjustment by URCA pursuant to Section 92(2) of the Comms Act.

				with QoS, consumer-protection, disaster-management, lawful-intercept, and USF obligations.		
FSS	Satellite Backhaul	High-capacity links used to connect base stations, remote networks, or community sites to the core network via satellite (e.g., in Family Islands)	COLRR + CSLRR (shared) or ISL (exclusive) an ISL applies	<ul style="list-style-type: none"> • Must comply with COLRR + CSLRR/ISL. • Restriction on mobile services. 	C-, Ku-, Ka-, and Q/V-bands	Annual URCA Fee and Comms Licence Fee as above; Spectrum Fee per assignment type (shared or exclusive) as set out above; Tribunal Fees TBD.
FSS	VSAT	Data/private networks via VSAT systems.	CSLRR (shared) or ISL (exclusive)	<ul style="list-style-type: none"> • Must comply with CSLRR/ISL. • Restriction on mobile services. 	Ka, Ku, C (5.85–6.725 GHz / 3.4–4.2 GHz)	Per-station: <ul style="list-style-type: none"> • Dish <3 m – \$500 pa. • Dish ≥3 m – \$4,500 pa.
FSS	ESIM	Mobile earth stations providing broadband connectivity on maritime, aeronautical, and land-based platforms.	CSLRR (network-level blanket)	<ul style="list-style-type: none"> • No per-terminal licensing. • Restriction on mobile services. 	Ka, Ku bands	Flat annual spectrum fee of BSD \$3,000 per operator.

D2D	Messaging / Low-Rate Data	Direct satellite connectivity to consumer devices in remote or underserved areas.	(1) IMT-based – COLRR (partnership with MNO); (2) MSS-based – ISL + COLRR.	<ul style="list-style-type: none"> • No voice services. • Must comply with baseline conditions and requirements set out above in section 2.3 of this document. • Must comply with ISL/COLRR/CSLRR conditions. 	Designated IMT bands (MNO); MSS L & S bands	Annual URCA Fee and Comms Licence Fee as above; Spectrum Fee per assignment type (shared or exclusive) as set out above; Tribunal Fees TBD.
IoT / M2M	Machine-to-Machine / Low-Bandwidth IoT	Satellite-based telemetry and control communications.	COLRR + CSLRR (shared) or ISL (exclusive)	<ul style="list-style-type: none"> • No harmful interference. • Operate within assigned bands/power limits. • Must comply with baseline conditions and requirements set out above in section 2.4 of this document. 	MSS L & S bands; Ka, Ku bands	Same fee approach as D2D.
Emergency / Disaster Comms	Deployable Emergency Networks	Satellite communications for emergency response.	Temporary COLRR / ISL / CSLRR (as applicable)	<ul style="list-style-type: none"> • Priority access protocols. • Emergency-use restrictions. 	Determined by emergency service type	Fees waived for approved emergency use.

				Other conditions may apply depending on spectrum usage.		
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Question 8:

- a. *Do you agree that the proposed baseline licence conditions outlined in Section 2.8.1 appropriately extend existing ECS obligations (e.g., consumer protection, lawful intercept, disaster management, and environmental responsibility) to satellite-based licensees?
If not, please specify which conditions should be revised, clarified, or excluded.*
- b. *Do you consider that the summary table of permissible services and regulatory treatment (Section 2.8.2) accurately captures the range of satellite-based services expected to operate in The Bahamas and clearly maps them to the appropriate licence categories (Operating and Spectrum)?
If not, please identify any omissions, duplications, or misclassifications.*
- c. *Do you agree that the proposed licensing and spectrum-assignment framework (covering FSS, ESIM, D2D, IoT/M2M, and emergency-communications services) provides clarity?
If not, please recommend improvements or additional guidance URCA should include.*

3 Conclusion and Next Steps

This Second Consultation Document builds upon the findings and stakeholder feedback received during the first-round consultation on Satellite-Based Electronic Communications Services in The Bahamas. It presents URCA's refined policy proposals and clarified regulatory positions on licensing categories, spectrum authorisations, fee structures, and the treatment of emerging services such as D2D and IoT/M2M connectivity. It also addresses critical matters of national interest, including lawful access, interception, data protection, and environmental sustainability.

Following this consultation, URCA will review stakeholder feedback and issue a Statement of Results and Final Decision and Next Steps outlining its final policy position and next steps toward implementation of the Regulatory Framework for Satellite-based Electronic Communications Services in The Bahamas.