

## JAMAICA PUBLIC SERVICE

### **QUESTION/COMMENT 1:**

*When compared to Bahamas the relief of the islands are in stark contrast to Jamaica and the spectrum benefits that can be realized for users there cannot be equated to spectrum benefits users in Jamaica would gain - given the rugged terrain.*

- *What considerations were included in the analysis to account for this disparity in topology, as it does have a direct impact on spectrum utilization?*

**SMA's response:** Please note that the benchmarking exercise was not a comparison to the Bahamas but is referencing a similar study conducted by the Bahamas. Additionally, spectrum awards data from the Policy Tracker (PT) database, which includes information from 62 countries worldwide was also used. Further, the SMA recognizes that topology has a direct impact on spectrum utilization. Additionally, it should be noted that auction prices would have taken this into consideration as well. As such, the auction data utilized during the benchmarking exercise would have captured considerations from countries with similar topology.

### **QUESTION/COMMENT 2:**

*In the calculation of the annual spectrum fee for PtP and PtmP there is consideration for an Inflation Factor. It is recommended that this factor not be included in the fee calculation, as it add variability to the price of the spectrum and affects the ability of companies to forward budget. If it is included in the fee calculations, consideration should be given to a cap for this figure.*

**SMA's response:** It is customary for the SMA to apply an inflationary rate to its fees to preserve the time value of money. In implementing the inflation factor the SMA will ensure that prior notice is given to allow for forward/future planning as the inflation rate proposed to be used will be aligned to that which is proposed by the Bank of Jamaica/S.T.A.T.I.N.

### **QUESTION/COMMENT 3:**

*There are no considerations given in the fee calculations to a utility such as JPS, which utilize spectrum solely to support their operations in the delivery of reliable, safe energy – not for commercial gain. Access to affordable, interference free spectrum is needed for JPS to roll out a Smart Grid or it will be very expensive to build, or at worst, impossible.*

**SMA's response:** The fees take account of spectrum for commercial as well as non-commercial (private) use. The Commercial Network users are those spectrum users who derive significant commercial benefit from the use of the spectrum, or those whose business activities are solely dependent on the use of the spectrum. Conversely, Non-Commercial/private users are those spectrum users who derive little or no significant commercial benefit from the use of the spectrum.

Additionally, it should be noted that spectrum is not priced based on the specific applications utilizing the spectrum.

# SMA Spectrum Pricing Consultative Document

## Questions/Comments and Responses



### **QUESTION/COMMENT 4:**

*There was no mention of 3.5 GHz for PtP links for fixed services. Please clarify if this spectrum will be offered for PtP links in Jamaica?*

**SMA's response:** The 3.5GHz ranges from 3.4 – 3.6GHz contains allocation for fixed services in Jamaica that include PtP and PtmP networks.

## DIGICEL (JAMAICA) LIMITED

### **QUESTION/COMMENT 1:**

*Digicel notes that the proposed pricing would not apply to existing allocations. This approach is distortive of competition and it represents an unwarranted and unjustified regulatory support for operators whose initial spectrum acquisition will be after the new pricing regime comes into effect. This gifts a wide-ranging regulatory support to a potential new entrant. Digicel also notes that the memorandum relating to the award of the 700MHz band contained specific but limited regulatory supports for new entrants.*

**SMA's response:** The proposed mobile spectrum rates can be accessed by any operator for the acquisition of new spectrum. It is not specific to new entrants, as such incumbents as well as new entrants can benefit. Additionally, it is the SMA's view that since the existing operators are already licenced at prescribed rates for a specified term, as per the licence conditions, these proposed rates would not be applicable to existing assignments until the expiration of the licence term, if there are no further changes. However, incumbent operators may access additional spectrum at the proposed rates.

### **QUESTION/COMMENT 2:**

*The Authority has not offered any reasoning or justification for the proposed structure for the applicability of any new pricing regime. The Authority's reasoning in adopting this approach is entirely absent from the consultation. The Authority has carried out no analysis as to any distortions in competition or disincentives to investment which would be caused by its proposed approach.*

*Digicel notes that the objects of the Telecommunications Act which established the Authority include under sections 3. (a) (i) and 3. (d) respectively:*

*"promoting fair and open competition in the provision of specified services and telecommunications equipment;" and*

*"to promote the telecommunications industry in Jamaica by encouraging economically efficient investment in, and use of, infrastructure to provide specified services in Jamaica."*

*In omitting to carry out the analysis outlined above the Authority cannot know if its proposals conform to the objects of the Act and has failed in its duties under Section 21(3) (a) of the Act. This requires that "In performing its functions under this Act, the Authority shall ... have regard to the objects, provisions and purposes of this Act and the provisions of the Radio and Telegraph Control Act; "*

**SMA's response:** The SMA is of the view that the new pricing regime will not put a new entrant in an advantageous position, which is in keeping with the Telecommunications Act of fair and open competition. Bearing in mind that the proposed spectrum prices are open to all market players and are based on the calculated economic value of the spectrum as determined by the benchmarking exercise.

### **QUESTION/COMMENT 3:**

*While the pricing proposed is calculated on an annual basis Digicel believes that it is appropriate that the Authority sets out that the payment of related fees are also on an annual basis.*

**SMA's response:** Please note that payment plans are outside the scope of this consultation, which is focused primarily on the pricing of the spectrum. However, the comment has been noted.

### **QUESTION/COMMENT 4:**

- (a) *Digicel notes that a graduated rate is proposed for the pricing of Mobile Access Spectrum, it is Digicel's view that there is no justifiable rationale for pricing Mobile Access Spectrum in this way for the bands within scope of this consultation and proposes instead that a uniform lower rate be used.*

*Uniform pricing for the in scope bands is more fair and transparent as these bands have not dissimilar characteristics in terms of the services which they can support. This would encourage competition among mobile telecoms stakeholders by ensuring a more uniform cost base in the acquisition of spectrum. Single rate pricing would also encourage more uniform exploitation of spectrum by stakeholders which is an important consideration given that spectrum is a finite resource, and encourage the acquisition of non-adjacent bands thereby minimising interference and increasing the utilisation of spectrum.*

**SMA's response:** It is widely established that spectrum prices set through an effective and competitive auction process provides the clearest indication of market value. For that reason, the Consultant in conducting the benchmarking exercise relied on auction outcomes to guide the pricing exercise. Against that background, data from a similar study conducted by the Bahamas was utilized in addition to spectrum awards data from the Policy Tracker (PT) database, which includes information from 62 countries worldwide. Bearing in mind as well that auction data includes considerations in relation to maturity of equipment, end user eco-system, technology deployment, inherent technical characteristics, etc.

- (b) *While outside of the scope of the current consultation, Digicel believes that at an early date the Authority should set out the pricing structure for bands that are likely to be used for future 5G services. The characteristics of these bands in terms of channel sizes and supported services are likely to be sufficiently distinct from the bands under consideration in this consultation to justify consideration of alternative pricing structures. Early knowledge of the approach to be adopted would give regulatory certainty and encourage early deployment of 5G technology. Digicel would welcome a preliminary industry engagement by the Authority on this issue.*

**SMA's response:** The SMA notes Digicel's comments.

### **QUESTION/COMMENT 5:**

*Digicel proposes that the Efficiency Factor be calculated by reference to any two of the three factors set out in the consultation document (i.e. Polarization Factor, Antenna Performance Factor and Frequency Re-Use Factor) and that a licensee that satisfies any two of the three factors be classified as category 2.*

**SMA's response:** The SMA duly notes the comments regarding the efficiency factor.

### **QUESTION/COMMENT 6:**

*Additionally, if an operator uses one polarization in an existing fixed wireless link and now opts to use dual polarization, it is not clear from the Consultation Document how the operator will benefit from efficiency factor. The Authority needs to clarify whether the operator will be permitted to renegotiate spectrum fee due to adoption of dual polarization or whether the operator must request dual polarization at the time of application. Digicel notes that the considerations of pricing fairness outlined above also apply to this consideration as well.*

# SMA Spectrum Pricing Consultative Document

## Questions/Comments and Responses



**SMA's response:** The SMA notes Digicel's consideration and proposes that if an operator uses one polarization in an existing wireless link and now opts to use dual polarization, the impact on the fees will be reflected at the point of the next renewal period.

### **QUESTION/COMMENT 7:**

*Similarly, for the other criteria (i.e. antenna performance and frequency re-use factor), the Consultation Document is silent on whether the efficiency factor only apply at the time of application or can be applied after the operator upgrade fixed wireless system to use higher performance antenna or frequency re-use.*

**SMA's response:** Please refer to the response provided at **QUESTION/COMMENT 6**.

### **QUESTION/COMMENT 8:**

*Digicel recommends that for the frequency re-use factor, consideration be given to operator adoption of multiple-input and multiple-output (MIMO) technology. Using the same channels, with multiple radios, an operator can double capacity and thereby increase spectrum efficiency. Consideration should also be given to operator re-use of the same channel at least twice from the same point of presence. Option 1 of Figure 1 below illustrates a scenario in which an operator utilises three frequencies or three channels, in this scenario there is no re-use of spectrum and the Authority would be unable to issue these frequencies (F1, F2 and F3) to another operator within the same geographical area. In option 2 however, the operator uses two frequencies or three channels where there is reuse of frequency (F1) from the same point of presence and the Authority would be free to issue spectrum which would otherwise have been used under option 1 (F3), to another operator within the same geographical area.*

**SMA's response:** Digicel's comments are noted for further consideration.

### **QUESTION/COMMENT 9:**

*Digicel notes that the Executive Summary of the Final Report on Development of Spectrum Pricing Fee Structures drew attention to the SMA's increased reliance on capital grant transfers and outlined options to address the shortfall which included absorption of a minimum of 15% of Spectrum License Fees. While this issue was outside the scope of the report, Digicel recommends this approach to the SMA.*

**SMA's response:** Digicel's comments are noted.

### **QUESTION/COMMENT 10:**

*Digicel notes that the Consultation Document contains no proposals for spectrum above 23GHz and for spectrum used to support backhaul (e.g. 4GHz, 5GHz and 10GHz), it is Digicel's view that these should be covered by the proposed revision to spectrum fees.*

**SMA's response:** The SMA accepts that the current study did not account for spectrum above 23GHz, however, the SMA accounted for all current assignments related to fixed services.

### **QUESTION/COMMENT 11:**

*Digicel notes that the Consultation Document does not address the calculation of base fee when using multiple channels, it is our view that this should be clearly addressed.*

**SMA's response:** The SMA's pricing mechanism focuses on the frequency band and the occupied bandwidth for the link, as per the Radio and Telegraph Control (RTC) Act, as opposed to the channel.

## READYNET LIMITED

### **QUESTION/COMMENT 1:**

Please find our response to the proposed VSAT Spectrum Fees as contained in the “Revision to Spectrum Pricing” document. For clarity, we set out below what we interpret as the annual fee that would now apply to a 50% discounted, rural VSAT terminal:

- (i) VSAT Spectrum Fee: J\$2,500 (50% of recommended DTH rate)
- (ii) Regulatory Fee: J\$1,750 (70% of VSAT Spectrum Fee)
- (iii) Application Fee: J\$ 40 (1 x application for 500 VSATs)
- Total: J\$4,290**

### **SMA’s response:**

ReadyNet’s interpretation of the proposed fees is incorrect. To be clear, the proposed fees are as follows:

#### **VSAT Spectrum Fees**

Current Fees	Recommended Fees		
Annual Spectrum Fee J\$	Number of VSAT terminals	Annual Spectrum Fee (J\$)	
\$500,000 per Terminal		Direct to Business (DTB)*	Direct to Home (DTH)*
	Up to 30	\$200,000	\$150,000
	More than 30	\$6,500 per terminal	\$5,000 per terminal

The recommended fees are two tiered. The first tier is up to 30 terminals, whereby there is a price of Ja\$200,000 and Ja\$150,000 for DTB and DTH, respectively. The second tier, which is any amount over 30 would equate to the first tier amounts plus a per terminal rate of Ja\$6,500 and Ja\$5,000 for DTB and DTH, respectively. The related discounts apply.

### **QUESTION/COMMENT 2:**

- (i) The glaring disparity in internet access between urban and rural communities

It is self-evident that rural communities which comprise roughly half of Jamaica’s population is badly underserved; priority should rightly be placed on rural communities and special interest groups as you have identified.

**SMA’s response:** SMA notes ReadyNet’s comments

- (ii) We agree and support the proposed discount rate given the higher costs associated and lower income levels in rural communities

**SMA’s response:** SMA notes ReadyNet’s comments

- (iii) We recommend that “rural”, “unserved” and “underserved” communities be pre-defined for greater clarity.

**SMA’s response:** The SMA would first like to define broadband as it relates to unserved and underserved.

# SMA Spectrum Pricing Consultative Document

## Questions/Comments and Responses



According to the ITU's recommendation I.1.13, broadband combines connection capacity and speed that is faster than rate 2Megabits/Sec. Against that background:

- "Unserved" is the non-existence of broadband.
- "Underserved" is data speed less than 2Megabits/Sec.

(iv) We recommend "Special Targeted Groups" should be pre-defined for greater clarity.

**SMA's response:** At this stage, the SMA's recommendation is for the Special Target Group to be according to a list of institutions approved by the GoJ, for example, approved entities – Jamaica Constabulary Force, Jamaica Fire Brigade, etc; and approved educational institutions – these are GoJ's supported educational institutions; libraries etc.

### **QUESTION/COMMENT 3:**

(a) *We believe there should be a larger differential between DTB and DTH; DTH pricing is proposed at 75% of DTB pricing. We recommend this should be no more than 50%*

**SMA's response:** It is the SMA's view that the prices proposed are very reasonable considering that the consultant conducted research on rates regionally (the Americas, which includes Caribbean countries) and recommended rates closer to the lower/middle end of the range, and the SMA proposed a further incentivised reduction in prices.

(b) *We recommend that community VSAT services (e.g. community Wi-Fi, where the use of a VSAT terminal is shared by members of a community) should be explicitly categorized under Direct-to- Home category for clarity.*

**SMA's response:** The SMA disagrees with the suggestion that community VSAT services should be categorized as Direct-to-Home (DTH) since, by definition, it is not a home.

### **QUESTION/COMMENT 4:**

*Satellite services for national redundancy warrants special consideration.*

*As a national resource in the event of disasters (e.g. hurricanes, earthquakes, etc.), the need to have fast-reacting satellite connectivity and capacity-on-demand is paramount.*

- *We request consideration of an overall further 10% reduction in the proposed VSAT Spectrum fees based on the need to attract and reserve satellite capacity for national redundancy purposes across all industries*

**SMA's response:** Please see comments at **QUESTION/COMMENT 3 (a)**.

### **QUESTION/COMMENT 5:**

*The COVID pandemic has exacerbated the competition for satellite capacity.*

*While supporting analysis includes comparative VSAT fee structures of other relevant countries, the situation is very dynamic and information presented might quickly become obsolete in the wake of the pandemic and the global economic crisis. Satellite capacity can be redirected to larger, more cost- friendly economies in Latin America if the overall pricing regime is comparatively less attractive in Jamaica. For example, there are **zero** VSAT fees in either Guatemala or Peru.*

# SMA Spectrum Pricing Consultative Document

## Questions/Comments and Responses



- *We recommend a further overall reduction of the proposed VSAT fees by 40% to ensure attractiveness of the Jamaican market to all satellite operators*

**SMA's response:** Please see comments at **QUESTION/COMMENT 3 (a)**.

Further, the SMA sought clarification/confirmation from the authorities responsible for spectrum pricing within the named countries, with respect to the claim of zero VSAT fees, and were informed to the contrary, as it relates to Peru. It was noted in Peru that VSAT fees are required. The SMA awaits confirmation from Guatemala.

### **QUESTION/COMMENT 6:**

*The overall costs of operating VSATs need to be considered in arriving at the VSAT fee element. As we understand it, further Regulatory Fees are prescribed in the Telecoms Act at 70% of the VSAT spectrum fees. In addition, VSAT customer premises equipment (CPE) costs (including importation duties) requires higher capex.*

- *We recommend that the additional regulatory fees and higher CPE costs be offset by the further reductions proposed to the VSAT Spectrum Fees in (4) and (5) above.*

**SMA's response:** Please see comments at **QUESTION/COMMENT 3 (a)**.

### **QUESTION/COMMENT 7:**

*As a general observation, we strongly recommend that en bloc application processing be permitted for multiple VSAT terminals and the current requirement for prior identification of customer VSAT locations be removed. Instead, annual reporting of installed VSATs should suffice.*

**SMA's response:** The SMA will take this recommendation into consideration.

### **QUESTION/COMMENT 8:**

*Given the momentum that has been gained from the initial installation of VSATs for the Ministry of Education, Youth & Information, we request clarity on:*

- the timing of implementation for the new VSAT spectrum pricing regime*
- whether the revised VSAT spectrum pricing can be separated from other regimes if the other areas (namely mobile and fixed services) prove more problematic resulting in time delays.*

- *We recommend that the new VSAT pricing regime be implemented no later than **September 30, 2020**.*
- *We recommend that the VSAT spectrum pricing regime be implemented separately if delays emanate from the other areas under consideration.*

**SMA's response:** The SMA will conclude its segment of the exercise as scheduled, however the above responsibilities fall within the ambit of the Government of Jamaica.



## CABLE & WIRELESS JAMAICA LIMITED (T/A FLOW)

### **QUESTION/COMMENT 1:**

*Whereas we find the designated license types considered to be appropriate, the overall approach is very disappointing. Since it offers little or no expectation that the market will benefit in the near or medium term from reduced spectrum prices. The proposal effectively renders the outcome of the consultation materially unbeneficial to existing spectrum licensees. Namely, the proposal will only impact applications for:*

- a) Additional spectrum – incumbent operators*
- b) Spectrum licenses for which the license tenure has expired and is to be renewed – incumbent operators*
- c) Spectrum acquired by a new entrant*

*How useful is it for the benefit of proposed price reductions not flow through to existing service providers until several years from now, if at all e.g. 5, 6 or 7 years from now? And neither is it a concession to say that any of the proposed increases will not be applied to existing assignees, since they are already contracted at prescribed rates for a specified term. Any such increase could not properly be imposed.*

**SMA's response:** The proposed mobile spectrum rates can be accessed by any operator for the acquisition of new spectrum. It is not specific to new entrants, as such incumbents as well as new entrants can benefit. Additionally, it is the view of the SMA that since the existing operators are already licenced at prescribed rates for a specified term as per the licence conditions, these proposed rates would not be applicable to existing assignments until the expiration of the licence term, if there are no further changes. However, incumbent operators may access additional spectrum at the proposed rates.

### **QUESTION/COMMENT 2:**

*Furthermore, what is the justification to assign a new entrant the same type of spectrum, to be used for the same purpose, for a lower price than the existing licensees? If the spectrum is deemed to be less valuable, why not reduce the charge to all users? What advantage is there to introduce pricing anomalies into the market? The thinking behind applying discriminatory pricing against incumbents needs to be explained. Since it appears unfair.*

**SMA's response:** The SMA is of the view that the new pricing regime will not put a new entrant in an advantageous position, which is in keeping with the Telecommunications Act of fair and open competition. Bearing in mind that the proposed spectrum prices are open to all market players and are based on the calculated economic value of the spectrum as determined by the benchmarking exercise.

### **QUESTION/COMMENT 3:**

*But even more stark, is the lack of proposals exploring payments schemes or the option of putting up a performance bond in lieu of paying a license fee to guarantee the roll out of an entire network in a specified time period, such that the fee would be waived if achieved. Basically, there are no effective incentives to stimulate further investment and the rapid roll out of high-speed mobile broadband or 5G networks to propel Jamaica into becoming a fully digital society. Incentives are required to super charge our ICT infrastructure deployment.*

**SMA's response:** Please note that payment schemes/plans are not within the scope of this consultation.

### **QUESTION/COMMENT 4(A):**

*We see no pricing proposal to enable service providers (with a robust plan) to be assigned spectrum at no charge, in order to allow them to innovate and test services that they plan to deliver. We believe that Jamaica's development is being stymied by the continued approach to treating spectrum primarily a revenue earner and not as a critical development tool.*

**SMA's response:** The above point is noted, however test service is not within the scope of this consultation.

### **QUESTION/COMMENT 4(B):**

*We need a mechanism that enables spectrum to be made available at a low or reasonable cost to entities with a credible plan, the ability to put up a performance bond and a track record of investing billions of dollars into the economy. Instead we see a focus on increasing the prices for 700 MHz and AWS spectrum, which are both critical to enable high speed wireless broadband networks. While reducing the prices for 850, 900, 1800 and 1900 spectrum, which spectrum bands have already been fully assigned, or are almost fully assigned. And with incumbents effectively being barred from benefiting from these lower prices, they effectively represent an unattainable benefit at this time. This proposal offers no fresh approach. It is not transformational. The market requires more. Pricing flexibility needs to be codified and the prices of key spectrum needs to be reduced as a catalyst for rapid network expansion.*

**SMA's response:** The SMA cannot speak to a mechanism to price spectrum "at a low or reasonable cost to entities with a creditable plan...track record of investing...into the economy". Industry best practice dictates that the spectrum is primarily priced based on its value and the amount that is being used. For that reason, the benchmarking exercise was conducted to determine the value of the frequency bands under consideration.

### **QUESTION/COMMENT 5:**

*We have no fundamental disagreement with the algorithms being proposed to calculate the various spectrum license fees, provided that the values assigned to each parameter is known, such that the fee can be recalculated by a licensee. Except that in the context of Jamaica, the base fees are inflated and should be reduced.*

**SMA's response:** The Base fee recommended is evidence based, which was determined through research conducted by the consultant on related spectrum prices from regional countries as well as others from outside region 2 (the Americas).

### **QUESTION/COMMENTS 6 AND 7:**

*We believe that the policy framework as outlined by the SMA is both desirable and reasonable. However, in our view, the Authority's proposal is lacking in several the areas required by the framework. Primarily, it does not properly reflect:*

- a. **the economic value of the spectrum in the Jamaican context**
  - While convenient the benchmarks relied on are inappropriate for the Jamaican context.
  - Given the stark absence of Caribbean auction data, **Jamaica's failed auction and the "hire purchase type" arrangements** that are now in place to facilitate access to spectrum, the countries against which Jamaica has been benchmarked are inappropriate. Especially when one takes account of the fact that in Jamaica there is no secondary market for trading, leasing and/or the resale of the spectrum by assignees.

# SMA Spectrum Pricing Consultative Document

## Questions/Comments and Responses



*Not to mention the country's market structure, investments constraints, demographics, physical geography and government policies. The fact is that spectrum valuation is highly situational and variable. And the approach used is not appropriate.*

**SMA's response:** It is important to note that the benchmarking exercise utilized auction data gathered from markets that are similar to that of Jamaica, that is, markets within the region. In conducting a benchmarking exercise, it is customary to utilize data from countries within your region as there are certain similarities (for example, geographic conditions, the natural landscape, eco-system, spending habits, etc). Notwithstanding, the process also includes normalizing (through exchange rate, inflation, disposable income, population size, the tenure of the licence, GDP, etc) of data obtained, to the country of its use, in this case, the Jamaican market. In the absence of auction data in the region, this data could be sought from selected countries outside the region since the normalization process is a feature of the exercise.

### **QUESTION/COMMENT 8:**

*For example the current onerous restrictions the government is seeking to impose on where cell sites can be located, and the spectrum frequency that can be used at the site has material implications for the value of spectrum to service providers.*

**SMA's response:** Kindly note that this does not fall within the scope of the consultation.

### **QUESTION/COMMENT 9:**

*Given Jamaica's anemic economic growth over the last decade, perhaps it is best to price mobile spectrum (in particular) using a Net Present Value (NPV) value approach, which takes into account the cost to build out a entire network, projection of future revenues, the efficiency and capability of the technology being used and the marketability of the applications and services that the spectrum will support over the license period.*

*Whatever, approach that is used, it needs to be tailored to address the Jamaica context and not merely import approaches used elsewhere. Neither do we find the work of the consultants to be sufficiently rigorous nor did they provide the Authority with pricing options to consider. For such a consequential issue and at such an unprecedented time, we believe that this is a short-handed approach that weakens the consultation.*

**SMA's response:** Whilst the SMA notes FLOW's recommendation, it is widely established that spectrum prices set through an effective and competitive auction process provides the clearest indication of market value, which is the basis for determining prices.

### **QUESTION/COMMENT 10.**

*b. **adequately promote the public policy goal** of ubiquitous high-speed mobile broadband across the country*

- The Authority has not spelt out the public policy goals that it intends to incentivize and hence has failed to demonstrate how its pricing proposal is to help it achieve them.*

**SMA' response:** Whilst the related goal is important to recognize, and was not listed, this does not present any obstacle in commenting on the proposed prices, which is the essence of the consultation.

### **QUESTION/COMMENT 11.**

**foster competition and the provision of services at affordable prices.**

- *The Authority has not adequately demonstrated how its proposal will foster fair competition and enable affordable prices. For one, setting different prices to use the same spectrum type undermines competition based on bias/discrimination against one service provider versus another. And lends itself to an administrative nightmare to manage. Benchmarking high spectrum prices that do not reflect Jamaica's reality, stymies an operator's ability and/or speed at which it can roll out its island wide network and/or upgrade its network technology (especially in underserved areas). Given the material cost of the network elements, the duties to land the equipment, the volatility of the exchange rate, the rapid pace of technological change and the weak demand in many poor areas of the country, spectrum needs to be seen as a tool to facilitate economic growth and development, and not primarily as a revenue earner for the government. In this way, services are likely to be made more affordable to customers island wide.*

**SMA's response:** The SMA believes that the abovementioned has been answered in our previous responses.

### **QUESTION/COMMENT 12.**

*Additionally, spectral efficiency can be improved by the introduction of new technologies like 5G that would require massive capital expenditures to renew the radios across Jamaica. 5G is included in our company's strategic network plan. Also new spectrum is needed to deploy 5G.*

*Since the data demand will the exponential growth trend explained above, during the next 10 years the price per GB will be decreasing. To make it sustainable, the operators require decreasing costs for the capacity growth alternatives. This is the reason why the spectrum fees should be decreasing year over year in order to allow the operator to keep investing in new sites and in new technologies.*

*For reasons explained above we consider that the benchmarks relied on are inappropriate. **Hence all the conclusions derived from them should be set aside.***

**SMA's response:** Please see SMA's response at **QUESTION/COMMENT 6 & 7.**

### **QUESTION/COMMENT 13.**

*We accept that the Authority means well but ask that it reconsiders its proposal to price spectrum using the categories Direct to Business and Direct to Home. Instead we would recommend that a reasonable price be proposed, and a single price be used. This is consistent with the principle that the spectrum be efficiently used and eliminates the administrative nightmare to otherwise manage. Especially in the context that many persons operate their businesses from their home.*

**SMA's response:** Please note that the Direct-to-Business (DTB) and Direct-to-Home (DTH) services are in relation to satellite services.

### **QUESTION/COMMENT 14.**

*We have invested in fixed network infrastructure in multiple areas only to suffer from multiple acts of vandalism and theft. On several occasions as soon as the plant is replaced it is stolen or vandalized. We believe that the Authority in such circumstances, should provide fixed wireless spectrum at a very low cost to enable the affected companies to have an economically feasible option to provide the affected*

# SMA Spectrum Pricing Consultative Document

## Questions/Comments and Responses



*communities with service. Such an approach would greatly buttress the government's universal access policy. The pricing policy needs to address this issue.*

**SMA's response:** Please note that the price of spectrum is determined primarily by its value and the amount of spectrum utilized.

-End of Document-