



Response to the SMA's:

Revision to Spectrum Pricing Consultation
Document

July 29, 2020

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A. Introduction

Flow welcomes the opportunity to respond to the Spectrum Management Authority's (SMA's) consultation document on **Revision to Spectrum Pricing**. Flow's comments represent the views of both Cable and Wireless Jamaica Ltd and Columbus Communications Jamaica Ltd. We consider this consultation to be long overdue. It is important that a very collaborative and transparent approach be maintained so that all views can contend.

Flow reserves the right to expand on its comments later. Kindly direct any questions that you may have to Charles Douglas, Senior Manager, Regulatory Affairs at charles.douglas@cwc.com.

B. Summary of Proposals

We are excited at the opportunity to fundamentally address the current structural weaknesses of pricing approach to the assignment of spectrum in Jamaica.

In our view, a key pillar for Jamaica to rapidly become a truly digital society, is the *need* for lower priced spectrum. The proposals in this consultation document do not achieve this in any meaningful way. Instead they appear to reinforce the status quo and are seemingly imported from jurisdictions that do not appropriately represent the Jamaican context. And neither do they address in the current challenges in the market for spectrum nor our failed spectrum auction experience.

C. Proposed Adjustments to Spectrum License Fees

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.

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.

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.

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. 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.

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.

D. Policy Framework for Spectrum Management Fees

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:

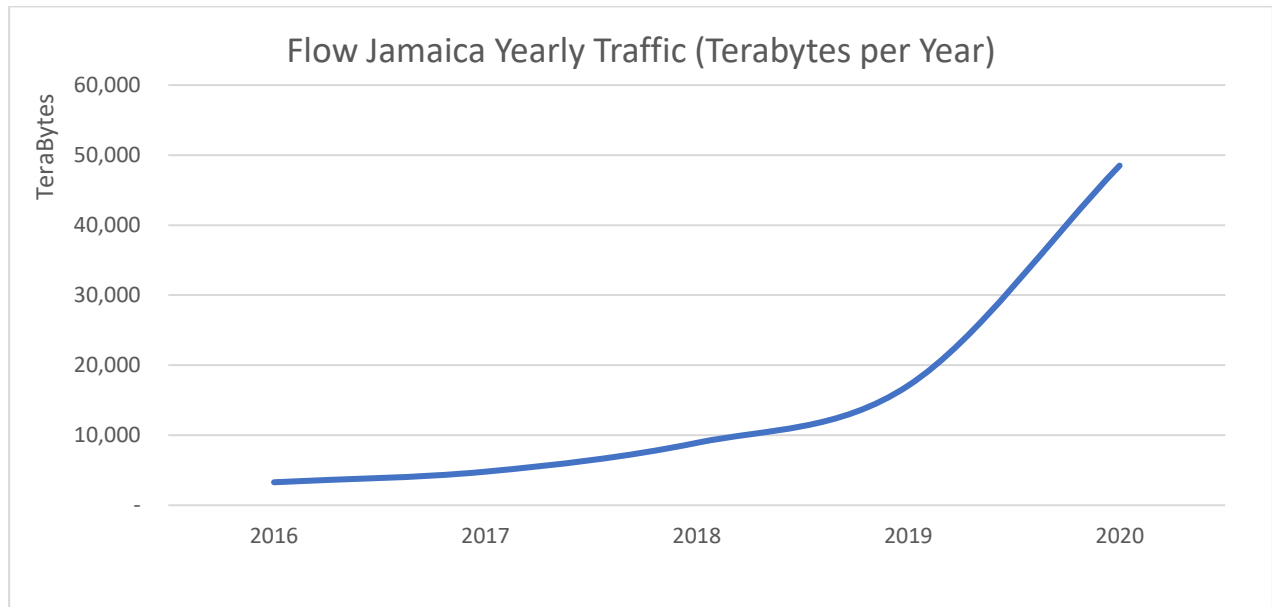
- a. **the economic value of the spectrum** in the Jamaican context
 - While convenient the benchmarks relied on are inappropriate for the Jamaican context.
 - Given the stark absence of Caribbean auction data, *Jamaica's failed auction* and the "hire purchase type" arrangements that are now in place 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. 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.
 - 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.
 - 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.

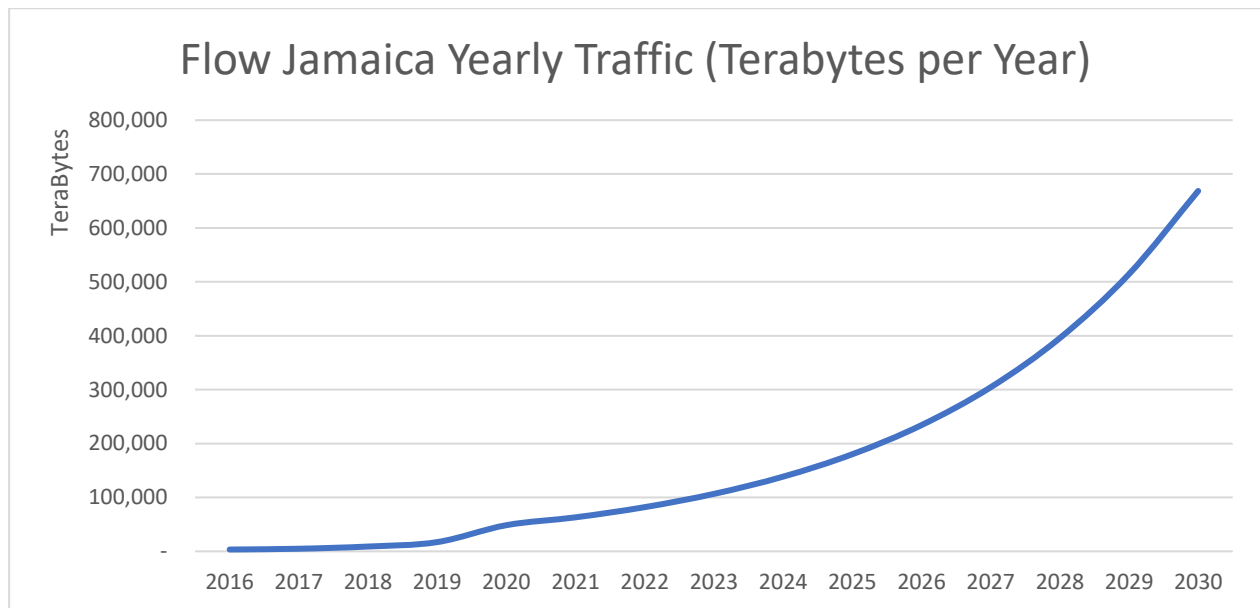
- b. **adequately promote the public policy goal** of ubiquitous high-speed mobile broadband across the country
 - The Authority has not spelt out the public policy goals that it intends to incentivize and hence has failed to demonstrate how its pricing proposal is to help it achieve them.
- c. **foster 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.

E. Mobile Service

Mobile data traffic has been growing exponentially during the past 4 years:



According with global trends and international benchmarks, the traffic growth will maintain its pace during the next 10 years:



The traffic growth is explained by an increase of the average data consumption per user and by an increase in the number of data users.

Data demand growth has been stimulated as well by attractive offers, and because prices per GigaByte have been consistently decreasing year over year.

As an example, our prepaid data offer during February 2017 use to be:

Duration	Price	Data allocation	Auto Renew	Activation Code	Text Activation
2 day	\$ 100	100 MB	No	*146*2*1#	100MB to 145
3 days	\$ 200	300 MB	No	*146*3*2#	300MB to 145
7 days	\$ 400	400 MB	Yes	*146*7*1#	400MB to 145
30 days	\$ 700	750 MB	Yes	*146*30*2#	302 to 145
30 days	\$ 1,000	1.5 GB	Yes	*146*30*3#	303 to 145
30 days	\$ 1,750	3 GB	Yes	*146*30*4#	304 to 145
Pay per use	\$45/MB	N/A	N/A	N/A	N/A

Our current offer is:

	5 DAYS \$420	28 DAYS \$2,300	30 DAYS \$4,900 MTB AUTO-RENEW
Data	300MB	4GB	Unlimited
Youtube	Unlimited	Unlimited	Unlimited
Social Media	Unlimited	Unlimited	Unlimited
Anywhere Local Calls (including Digital numbers)	Unlimited	Unlimited	Unlimited
Anywhere Local Texts (including Digital numbers)	Unlimited	Unlimited	Unlimited

If we try to compare equivalent offers, the 30 days/3GB offer from 2017 (highlighted in red) can be compared with the current 28 day/4GB offer. The main difference between two offers is that the unlimited Youtube and Social Media features were charged as metered traffic back in 2017 (counted as part of the 3GB allowance).

The unlimited nature of the current offer allows our customers to have a worry-free experience with Youtube and Social Media, which are the most demanded applications. The average data consumption of the users with this plan is around 10 Gbytes/month.

The following tables summarizes how the price per GByte paid by our customers changed from 2017 to 2020:

	2017	2020	% Change
Plan Price (JMD)	1,750	2,300	31%
Average consumption (GB)	3	10	233%
Price per GB (JMD)	583	230	-61%

Exchange Rate USD (JMD)	130	143	
Plan Price (USD)	14	16	19%
Price per GB (USD)	5	2	-64%

The exercise can be repeated for the other data plans and the price erosion is always bigger than 60%.

In the coming years, the only way to sustain the traffic growth and increase the network capacity are:

- Add new mobile sites
- Add additional radios on existing sites using new spectrum
- Increase spectral efficiency (bps per Hertz)

The three options increase the operator's costs:

- New sites require additional capital expenditures and also increase the operational expenditures, mainly power and leases.
- New spectrum requires capital expenditures on new radios and antennas for the new spectrum and also to pay the spectrum fees.
- Spectral efficiency requires new technologies on the same spectrum. Our company had already implemented this option on most of the sites by repurposing 3G spectrum and converting the radios from 3G to LTE. A critical aspect of this technology conversion is how fast the customers change their phones to an LTE enabled phone. Flow is doing important efforts on this front by offering a low cost – subsidized LTE enabled handset:



B10

\$3,100 + GCT

prepaid plan

- 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 strategical 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.**

F. Fixed Service

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.

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

G. Closing comments

We applaud the Authority for issuing this consultation. It is timely and badly needed. We believe that the proposals need revision. The proposal(s) are not transformative. And so, will not move the market from where it is already at. The benchmarks relied on are inappropriate. Bottom line, we believe that the proposed spectrum prices are still too high to incentivize an Industry-wide ramped up deployment of broadband infrastructure across Jamaica. Since now the cost of spectrum (as well as the proposed prices) make the business case infeasible. We are keen for us to use this opportunity to address and correct this challenge.

End of document