



Cable and Wireless (BVI) Limited

Response to the
Telecommunication's Regulatory Commission

**SPECTRUM AWARD 2015 –
CONSULTATION DOCUMENT**
(Reference Number C/6/2015)

28 July 2015

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Cable and Wireless (BVI) Limited, trading as LIME (“LIME BVI”) is pleased to provide the following answers to the Commission’s questions set out in the “*Spectrum Award 2015 – Consultation Document*” issued on 30 June 2015.

1. Do you agree that only the Unitary Licence Holders that operate mobile networks in the VI should be eligible to take part in the comparative evaluation process?

LIME BVI’s response: Yes

2. Do you agree that a comparative evaluation award process is the most appropriate in light of the demand for valuable spectrum?

LIME BVI’s response: Yes

3. Do you agree with the Commission’s proposal not to include the 450 MHz band in the award? If not, please give reasons for your response.

LIME BVI’s response: Yes

4. Do you agree that the 700 MHz band should be included in this award? If not, please give reasons for your response.

LIME BVI’s response: Yes

5. Do you agree with the Commission’s proposals for the packaging of the 700 MHz band? If not, please give your reasons and propose an alternative approach showing how it best meets the Commission’s objectives in respect of competitive provision of high speed mobile services in the VI.

LIME BVI’s response: No.

We have reviewed the feasibility of the proposed P lots, and submit that the proposed Packages 1 and 2 will render the spectrum of both packages unusable.



The Commission has proposed to assign the 700 MHz band in three P lots:

1. P1 being Blocks A and B (698-704 MHz paired with 728-734 MHz, plus 704-710 MHz paired with 734-740 MHz),
2. P2 being Block C (710-716 MHz paired with 740-746 MHz), and
3. P3 being Blocks C1 and C2 (776-787 MHz paired with 746-757 MHz).

The 3rd Generation Partnership Project (“3GPP”) has standardised LTE around various standard carrier sizes – 1.25, 2.5, 5, 10, 15, and 20 MHz – with peak data rate proportional to carrier size. The standards, however, only set out what is possible. In practice, devices are only manufactured to the requirements of the major operators such as AT&T in the United States. LIME BVI has been unable to find any evidence of LTE having been deployed in anything less than 10MHz carriers, in line with spectrum assignments made to AT&T. As a result, the device ecosystem that is available to LIME BVI is based on 10 MHz carriers. Moreover, the devices are designed to use the specific 10 MHz carriers assigned to AT&T.

The issue is, therefore, that the Commission’s proposal to put Block B in lot P1 and Block C in lot P2 effectively splits “Band 17” in half between two operators.

As the Commission is aware, the equivalent of Blocks B and C (designated as “Band 17” by the 3GPP has been assigned to AT&T in the United States, while the equivalent of Blocks C1 and C2 (designated as “Band 13” by the 3GPP) has been assigned to Verizon in the United States. Because of AT&T’s size and scale, a number of companies have manufactured cost-effective handsets to use Band 17. Unfortunately, because they were manufactured for AT&T’s needs, they are designed to use the entire Band 17 (i.e. both of the Commission’s Blocks B and C). Handsets that use only half of Band 17 are either not available or not available on a sufficient scale as to be cost-effective. Further, to the best of our knowledge, LIME BVI is not aware of any handsets that support both Blocks A and B simultaneously.

In addition, if LIME BVI were to attempt to use a device designed for a 10 MHz carrier on a 5 MHz carrier within Band 17 (i.e. either Block B or Block C), it is probable that the device would cause interference into any adjacent carriers and vice-versa, that any use of the adjacent carriers by third parties would cause interference with the device. This is because the devices are filtered to use an entire 10 MHz carrier and would seek to use all of it. This means that any handsets that LIME BVI could procure for Band 17 (assuming LIME BVI were awarded either the currently-proposed lot P1 or P2) would try to use another operator’s spectrum (i.e., whoever was awarded the other of the two currently-proposed lots P1 and P2), and vice versa.

In other words, if the Commission were to split LTE Band 17 as proposed, and assign Blocks B and C to different operators, the LTE performance across entire Band 17 and thus both networks would be compromised resulting on low throughput, high latency and high dropped calls. The end result is that assignment of Blocks B and C to different entities is simply not practical for either entity.

We propose, therefore, that the Commission re-package the 700 MHz band as follows:

- Package P1: Block A
- Package P2: Blocks B & C

With this packaging the 700 MHz band spectrum assignment will be aligned with 3GPP standards and operators will be able to procure cost-effective and functional handsets.

	Band 17			Band 17				
	Band 12				Band 12			
Freq (MHz)	698	704	710	716	722	728	734	740
	A	B	C			A	B	C

6. Do you agree that the 1900 MHz and AWS-1 bands should be included in this award? If not, please give reasons for your response.

LIME BVI's response: Yes.

7. Do you agree with the Commission's proposals for the packaging of the 1900 MHz and AWS-1 bands? If not, please give your reasons and propose an alternative approach showing how it best meets the Commission's objectives in respect of competitive provision of high speed mobile services in the VI.

LIME BVI's response: Yes

8. Do you agree with the Commission's proposal for a new provision in the draft Frequency Authorisation that requires operators to realign their spectrum holdings should they be requested to do so by the Commission? If not, please give your reasons.

LIME BVI's response: No

LIME BVI notes that the only operator to whom this proposal might apply is Digicel, as they are currently the only operator with an assignment in the 1800 MHz band.

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LIME BVI requests, therefore, that the Commission either not include this provision in the Frequency Authorisation, or make the operation of such a provision to a further consultation process, so that interested parties and the Commission can assess the impact of a “re-alignment” on competition in the Virgin Islands.

Please note that the information submitted above is highly sensitive and would provide LIME BVI’s competitors a significant level of detail in respect of LIME BVI’s strategy in responding to the upcoming Invitation to Apply. If disclosed, this information could be used to LIME BVI’s financial and competitive detriment. LIME BVI therefore requests confidential treatment of this submission in keeping with section 80 of the *Telecommunications Act* and section 10 of the *Telecommunications Code (Part 1) (Public Consultations And Public Hearings) Guidelines, 2010*. A redacted version will be prepared for the public record.

9. Do you agree with the Commission’s proposal not to include the 2500 MHz band in the award? If not, please give reasons for your response and indicate how you think the spectrum should be packaged to address interference with the US VI in line with the objectives and timetable for this Award.

LIME BVI’s response: Yes

10. Do you agree that the proposed comparative evaluation process (described in paras 5.8 - 5.12 above) is most appropriate for assignment of spectrum in the 700 MHz, 1900 MHz and AWS-1 bands?

LIME BVI's response: Yes

11. Do you propose an alternative method of assignment? Please justify such proposal in terms of the most efficient use of spectrum and other Commission objectives and the ease of implementation.

LIME BVI's response: No

12. Do you agree that the spectrum caps of 60 MHz for an operator's holdings below 1 GHz and 170 MHz for all of an operator's spectrum holdings should be applied in this award? If not, please give your reasons.

LIME BVI's response: Yes

13. Do you agree that minimum service requirements be applied to all spectrum blocks awarded?

LIME BVI's response: Yes

14. Do you have any other comments on the minimum service requirements?

LIME BVI's response: No

15. Do you have any comments on the evaluation criteria?

LIME BVI's response: No

16. Do you propose any changes to the evaluation criteria weightings? Please justify such changes in terms of the Commission's objectives and the ease of implementation.

LIME BVI's response: No

17. Do you have any comments on the Commission's proposals to assign lots in the 1900 MHz and AWS-1 as described in para 5.26?

LIME BVI's response: Yes.

We understand that 700 MHz should be considered the coverage layer, AWS and 1900 MHz should be the capacity layer.

18. Do you have any comments on the draft Invitation to Apply (ITA) that is published in a separate document?

LIME BVI's response: No

19. Do you have any comments on the draft frequency authorisation that is appended to the draft ITA?

LIME BVI's response: Yes

LIME BVI recommends that the word "lawful" be inserted between the words "any" and "instructions" in Article 2.1.2. This would ensure consistency between the wording in Articles 2.1.2 and 2.1.3.

We ask that the Commission issue, prior to or at the same time as it issues the Invitation to Apply, clear guidance on what it intends in Article 3.2.1(b) which requires sites "blend in with the surrounding physical environment to the maximum extent possible" or, alternatively, delete the Article. Some facilities, such as masts and towers, may need to be constructed to be maximally visible in order to not be hazards to aircraft. Others, such as roof tops, may be pre-existing and not within an operator's ability to modify or "blend in". Finally, other agencies such as the Town and Country Planning Department may have jurisdiction over such matters, and this Article could place an operator in the difficult position of needing to comply with inconsistent and incompatible directives from different agencies, failing which they would be in breach of a Frequency Authorisation.

The requirement in Article 3.3.2 to supply prescribed information on a quarterly basis appears to be an unnecessary administrative burden, particularly if there are no changes that were required to be notified to the Commission under Articles 3.1.12 or 3.3.3. LIME BVI recommends that this obligation be modified such that

records listed in Article 3.3.1 only need to be supplied at the end of a quarter in which they may have been modified following a notice submitted under Articles 3.1.12 or 3.3.3.

20. Do you agree that licences should have a 15 year duration? If not, please propose an alternative with reasons.

LIME BVI's response: Yes

21. Do you agree that the Commission should not include a use it or lose it condition in licences?

LIME BVI's response: Yes

We have taken note of the Commission's arguments why a "use it or lose it" condition should not be included in the frequency authorisations, and agree that they will mitigate any incentive or likelihood of an operator not rolling out in a timely manner. However, these appear to apply primarily to the beginning of the term of a frequency authorisation. LIME BVI recommends that the Commission consider provisions ensuring that any spectrum assigned continues to be used, or else be returned for potential use by another party. These do not necessarily have to take the form of a "use it or lose it" clause, but LIME BVI believes that the Commission should ensure it has all the tools necessary to ensure spectrum is not hoarded at any time during the term of a frequency authorisation.

22. Do you have any comments on the level of spectrum fees proposed by the Commission?

LIME BVI's response: No

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