

TELECOMMUNICATIONS REGULATORY COMMISSION

VIRGIN ISLANDS

REPORT ON THE CONSULTATION ON THE BROADBAND MARKET ANALYSIS AND PART II OF THE BROADBAND MARKET ANALYSIS: REGULATORY REMEDIES

17 December 2015

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The address for responses to this document or enquires regarding this document is:

Broadband Market Analysis Consultation Part II
Telecommunications Regulatory Commission
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The deadline for responses is **22 January 2016**



Instructions for submitting a response

The Telecommunications Regulatory Commission of the Virgin Islands (“TRC”) invites comments on this consultation document from all interested parties.

Comments should be submitted by **22 January 2016** in line with the guidelines for conducting consultations set out in the Telecommunications Code (Part 1) (Public consultations and Public Hearings) Guidelines, 2010¹. The TRC reserves the right not to consider any responses submitted after this date.

Preferably responses to this document should be sent by email to consultations@trc.vg (indicating the subject): “Consultation on the Broadband Market Analysis: Part II Regulatory Remedies”. Alternatively, the responses may be sent to the address (or the number) below:

Consultation on the Broadband Market Analysis: Part II Regulatory Remedies –Telecommunications Regulatory Commission P.O. Box 4401 or 27 Fish Lock Road, 3rd Floor Road Town, Tortola, British Virgin Islands VG 1110 Fax: (284) 494 6786.

Responses should include: In the case of responses from corporate bodies (legal persons):

- the name of the company/institution/association/other organisation;
- the name of a principal contact person; and
- full contact details (physical address, postal address, telephone number, fax number and email address).

In the case of responses from individual (natural) persons, name and contact details (including email).

In the interest of transparency, the TRC will normally make all submissions received available to public, subject to confidentiality of the information received. The TRC will evaluate requests for confidentiality according to relevant legal principles.

Respondents are required to clearly mark any information included in their submission which they consider to be confidential, and provide reasons why that information should be treated as such. Where information claimed to be confidential is included in a submission, respondents are required to provide both a confidential and a non-confidential version of their submission. The TRC will determine whether information claimed to be confidential is to be treated as such and, if so, will not publish that information. In respect of information that is determined to be non-confidential, the TRC may publish or refrain from publishing such information at its sole discretion. Once the TRC has received and considered responses to this consultative process, it will issue a final statement on the consultation which will be published on the TRC website.

¹ [http://www.trc.vg/attachments/030_G00349_SI%20No%20100%20of%202010%20-%20Telecommunications%20Code%20\(Part%201\)%20\(Public%20Consultations%20and%20Public%20Hearings\)%20Guidelines,%202010.pdf](http://www.trc.vg/attachments/030_G00349_SI%20No%20100%20of%202010%20-%20Telecommunications%20Code%20(Part%201)%20(Public%20Consultations%20and%20Public%20Hearings)%20Guidelines,%202010.pdf)
[20Telecommunications%20Code%20\(Part%201\)%20\(Public%20Consultations%20and%20Public%20Hearings\)%20Guidelines,%202010.pdf](http://www.trc.vg/attachments/030_G00349_SI%20No%20100%20of%202010%20-%20Telecommunications%20Code%20(Part%201)%20(Public%20Consultations%20and%20Public%20Hearings)%20Guidelines,%202010.pdf)
[28Part%201%29%20%28Public%20Consultations%20and%20Public%20Hearings%29%20Guidelines,%202010.pdf](http://www.trc.vg/attachments/030_G00349_SI%20No%20100%20of%202010%20-%20Telecommunications%20Code%20(Part%201)%20(Public%20Consultations%20and%20Public%20Hearings)%20Guidelines,%202010.pdf)

Executive Summary

Following the Broadband Market Consultation, which took place from 29 January to 5 March 2015, the Commission has assessed responses from LIME and Digicel and publishes this second stage consultation document which sets out further options for regulation.

Taking into account LIME's comments and the launch of CCT's GOFASLTE product, the Commission has reviewed the market definition for retail fixed broadband set out in the first Broadband Market Consultation. The Commission has found that fixed wireless broadband, mobile broadband and fixed wireline broadband are not substitutes at the retail level. The market definition requires that the retail broadband product be provided at a fixed location and is not portable. The Commission has found that the market definition for the wholesale broadband access market also remains appropriate without sufficient substitutes at the wholesale level.

The Commission finds LIME dominant in both the markets for fixed retail broadband and for wholesale broadband access and sets out Determinations of Dominance as follows:

LIME is dominant in the retail fixed broadband market

LIME is dominant in the wholesale broadband access market

Following these Determinations of Dominance, the Commission is able under Section 26 of the Telecommunications Act (the "Act") to regulate the provision of fixed broadband service. The Commission finds that there is a competitive problem and that LIME's dominance in the retail fixed broadband market means that customers do not have sufficient choice of supplier of broadband products especially at the higher connection speeds. The Commission sees that this lack of choice is damaging to consumer welfare as customers suffer repeated price increases of over 10% and where some customers find that their connection speed is below that sold to them they have no alternative to switch to. Consumer welfare is affected as some customers experience long waiting times without internet services whilst waiting for connection. In a world where broadband is increasingly seen as a basic human right, this simply is not good enough.

The Commission therefore sets out options for retail price and quality regulation. The Commission has no fixed views at this point which of the options (if any) are appropriate for the BVI and seeks feedback from all stakeholders including the public and licensed public suppliers. The options for retail price and quality regulation are summarized below.

Retail Price Regulation Options:

- Require further price increases to be subject to Commission approval
- Require LIME to reduce prices to levels prior to 1 November 2015 increase
- Benchmark retail prices against LIME's comparable pricing in the region
- Benchmark retail prices against international broadband pricing (eg price per Mbp/s download speed) for selected countries
- Restrict price increases to a level below inflation (eg RPI-X)

Retail Quality Regulation

- Incentive regulation to enforce the delivery of sold connection speeds through required reporting and refund system
- Ability for consumers to terminate contracts if connection speeds do not meet sold standard
- Commission monitoring of connection speeds and fines for not meeting advertised connection speeds
- Commission monitoring of time to receive a new connection and fines for exceeding a certain delay
- Commission monitoring of fault repair and fines for delay

The Commission wishes to engage the licensed public suppliers in full and open discussion on the above and other options in order to achieve the right kind of broadband regulation for the BVI.

Report on Consultation

The consultation on the Broadband Market Analysis was launched by the Telecommunications Regulatory Commission (“the Commission”) on 29 January 2015 and closed on 5 March 2015. The Draft Determinations of Dominance for the Provision of Fixed Broadband Services were published at the same time. Responses to the consultation were received from:

- Cable and Wireless (BVI) Limited (“LIME”)
- Digicel

The Market Analysis sought to review the broadband market in the BVI and to assess if any operators were dominant in the provision of broadband services. The Market Analysis was structured into three parts:

1. Definition of the relevant markets which were set out as:
 - The market for retail fixed broadband service
 - The market for wholesale broadband access
2. Assessment of competition and evidence of significant market power which proposed to designate LIME BVI as dominant as follows:
 - LIME BVI as dominant in the market for retail fixed broadband service
 - LIME BVI as dominant in the market for wholesale broadband access
3. Assessment of appropriate regulatory obligations and remedies.

This Report sets out the responses of the stakeholders to the questions posed in the consultation document and provides a conclusive view from the Commission taking into account the views of all the stakeholders. The report sets out the Commission’s decisions with respect to the Determinations of Dominance and also sets out possible regulatory options seeking further consultative input from stakeholders.

Demand Side Substitutability (Questions 1-3)

Three types of broadband service are available in the BVI; fixed broadband service, fixed wireless broadband service and mobile broadband service. The task for the Commission is to establish if all three exist in the same market as substitutes or whether it is possible to define narrower markets which establish that the services are not completely substitutable. In the consultation document, the Commission set out that mobile broadband and fixed wireless broadband are not substitutes for fixed line broadband due to the difference in speed and reliability offered by fixed line broadband and the mobility of mobile broadband. The Commission noted that CCT’s fixed wireless WIMAX product was no longer on sale at the time of publication and therefore a customer could not switch from fixed line broadband to fixed wireless as a substitute. The Commission therefore defined fixed retail broadband as the relevant market with LIME occupying 100% market share.

In their response to the consultation document, LIME stated that fixed wireless broadband provided by CCT and Digicel and mobile broadband products provided by CCT, Digicel and LIME are all substitutes to LIME's fixed wireline broadband products offered to residential and business customers in the BVI. LIME stated that they believed that the Commission's definition of the relevant retail market including only fixed wireline broadband connections was too narrow. LIME further argued that fixed wireless "offers service to a fixed location, just as fixed wireline service is offered to a fixed location."

At the date of publication of the first consultation document in January 2015, fixed wireless products were not in wide enough use by the public in the BVI to be considered by the Commission as substitutes. In July 2015, CCT launched its GOFASTLTE residential product which offers fixed wireless internet to the home. Consumer reaction via the news blogs and Facebook to the launch and to LIME's planned price increases which are detailed below, suggest that some consumers may see fixed wireless broadband as a substitute to fixed broadband. The tables below set out the packages advertised on the operators websites.

Table 1: CCT GOFASTLTE Product

Plan	Price	Speed	Uses
CCT GOFASTLTE1	\$99	Up to 4 down and 1 up	Email and browsing
CCT GOFASTLTE2	\$199	Up to 8 down and 2 up	Audio streaming
CCT GOFASTLTE3	\$299	Up to 12 down and 3 up	Gaming and video

Table 2: LIME Broadband Packages with Contract²

Plan	Speed	Old Price	New Price from November 1 st 2015
Mega	1Mbp/s	\$55.00	\$63.25
Mega Plus	2Mbp/s	\$74	\$88.55
Mega Max	3Mbp/s	\$99	\$113.85
Mega Extreme	8Mbp/s	\$148	\$170.25
Superfast 60	6Mbp/s	\$64.99	\$74.75
Superfast 120	12Mbp/s	\$99.00	\$113.85
Superfast 240	24Mbp/s	\$144.90	\$166.75
Superfast 480	48Mbp/s	\$199.00	\$228.85

Table 3: LIME Broadband Packages with No Contract

Plan	Speed	Old Price	New Price from November 1 st 2015
Mega	1Mbp/s	\$65.00	\$73.25
Mega Plus	2Mbp/s	\$84	\$98.55
Mega Max	3Mbp/s	\$109	\$123.85

² The Commission notes that all of LIME's fixed broadband packages also require the purchase of line rental at the minimum cost of \$21.50 per month.

Plan	Speed	Old Price	New Price from November 1st 2015
Mega Extreme	8Mbp/s	\$158	\$180.25
Superfast 60	6Mbp/s	\$74.99	\$84.75
Superfast 120	12Mbp/s	\$109.00	\$123.85
Superfast 240	24Mbp/s	\$154.90	\$176.75
Superfast 480	48Mbp/s	\$209.00	\$238.85

The tables show that the maximum connection speed offered by CCT is up to 12 Mbp/s and the maximum connection speed offered by LIME is up to 48 Mbp/s. Therefore there would appear to be demand substitutes up to 12Mbp/s but above 12 Mbp/s, there is no substitute to LIME’s fixed broadband product.

Indeed when 4G LTE (using 700 MHz spectrum) is introduced in the BVI, the speeds available may be able to compete with the lower end fixed line packages but will not be capable of offering the same maximum speeds as fibre and cable connections through fixed line broadband. As set out in the consultation document, data usage limits also prevent mobile broadband from being substitutable with fixed line broadband.

Fixed wireless broadband is not a new concept but is becoming more widely used as a substitute to fixed broadband in rural areas. For example in Australia, the National Broadband Network (“nbnTM”) has rolled out a fixed wireless network to provide broadband internet in areas not fully served by the national fibre network. A recent report by Ovum³ observes the performance of fixed wireless networks in a number of countries. Therefore there are arguments to suggest that fixed wireless could be included in the fixed broadband service market. However, as outlined above fixed wireless products on sale in the BVI currently cannot offer the same maximum speeds as fixed broadband. The Ovum report states that the nbn network in Australia is capable of offering download speeds of 50Mbp/s therefore the Commission acknowledges the theoretical possibility that fixed wireless products with higher download speeds can be offered but notes that this is not currently the case and that fixed wireline download speeds are expected to remain higher than fixed wireless download speeds.

Furthermore, mobility and portability affect substitutability. In the first consultation document, we explained that we did not see fixed and mobile broadband as substitutes, because customers can access mobile data on the go with mobile broadband products but cannot do so with fixed broadband products. The Commission understands that the CCT GOFASTLTE product has an element of portability. Whilst customers cannot use the GOFASTLTE product to access data on the go as they might through a mobile phone, a GOFASTLTE box is portable. A customer can take the box from home and use it in the office or take it to another location which is in an area receiving the wireless signal and use it to access the internet there. A customer cannot unplug a fixed wireline connection and take it with them to access the internet at another location. Fixed wireline internet is not portable. Therefore whilst some consumers may see

³ Ovum: Fixed Wireless Broadband A Global Comparison 10 July 2015

fixed wireless products such as CCT's GOFASTLTE product as a substitute to fixed line internet, there are limits to the extent of substitutability due to connection speed and portability.

The SSNIP Test

In the consultation document, the Commission carried out a Small but Significant Non-transitory Increase in Price test ("SSNIP") test to assess substitutability. A SSNIP test assesses if a hypothetical monopolist can profitably increase price by 5-10%. If a 5-10% price increase causes enough customers to switch to an alternative product so that the price increase is not profitable for the monopolist then the market definition should include both products. If the monopolist is able to profitably increase price then the market can be defined for that product only. In the consultation document, the Commission compared LIME's 2MB no contract fixed broadband plan with mobile data, a dongle and MIFI plans offered by the mobile providers. CCT's WIMAX product was not included in the analysis as it was not available for customers to switch to. The Commission argued that LIME would be able to profitably increase price by 10% without enough customers switching to an alternative. The Commission's view is that consumers purchase the fixed retail broadband plan on the basis of having a more reliable internet connection at home without the data limits conferred by the mobile plans. The Commission therefore concluded that the relevant product market was fixed retail broadband excluding mobile broadband.

LIME in their response, argued that the Commission's conclusion was unsubstantiated without actual data to support it. The Commission holds firm with the view that consumers do not see mobile broadband as a substitute to fixed broadband in the home and equally fixed broadband cannot be a substitute to mobile broadband service on the move. In terms of real evidence, LIME has recently introduced a price increase on 1 November 2015 of over 10% which in itself demonstrates that LIME is able to profitably maintain a 10% increase in price.

In the face of what LIME argue to be a competitive arena with fixed wireless broadband products on offer from CCT and Digicel and mobile broadband products on offer from the three mobile operators, LIME have chosen to increase fixed broadband prices from 1 November 2015. This is the second price increase for fixed broadband services since the Commission first stated it would analyse the market for broadband services in its Market Review Framework in 2010. Over the period 2010-2015, fixed broadband prices per megabyte have been falling across the globe but in the BVI price per megabyte has been increasing in real terms.

The Commission does not believe that LIME would introduce a price increase that would not be profitable. Some public responses set out on the blogs suggest that some consumers may switch to CCT's fixed wireless product CCTGOFASTLTE. However, CCT's fixed wireless product is not available in all the areas where LIME's fixed line network reaches and therefore some customers may not be able to substitute fixed wireless for fixed wireline.

In assessing LIME's submission and CCT's GOFASTLTE product, the Commission has considered whether fixed wireless should be included in the market for fixed broadband as it is accessed by the consumer at a fixed location. The Commission acknowledges that consumers may see CCT's GOFASTLTE product as a substitute for LIME's fixed line products. However due to the following factors:

- The portability of CCT’s GOFASTLTE product
- The fact that the CCT GOFASTLTE product and LIME’s fixed broadband products are not available for use in all the same areas
- The higher connection speeds available on fixed line broadband
- LIME’s price increase above 10% as evidence of a SSNIP test

The Commission sees that the arguments weigh more heavily in favour of a narrower market definition whereby fixed line broadband and fixed wireless broadband are not complete substitutes. The Commission sees that at the current time fixed wireless broadband shares more characteristics in common with mobile broadband and the expected path of mobile broadband. Fixed wireless broadband exhibits some limited portability and is subject to lower maximum download speeds. Therefore, the Commission does not see fixed wireline broadband, fixed wireless broadband and mobile broadband as demand side substitutes.

Supply Side Substitutability: Question 4

In the consultation document, the Commission set out that there is no ready supply side substitute to the fixed broadband network which would not require investment and reconfiguration to offer a fixed broadband service. Fixed line broadband networks take a significant amount of time and investment to build and whilst BVI Cable TV’s cable network could be used to offer a fixed broadband service, it is not “internet service ready”.

LIME, however, disagreed with the Commission and argued that there were a further five separate networks providing broadband connections in the BVI, CCT’s fixed wireless network, Digicel’s fixed wireless network, LIME’s mobile network, CCT’s mobile network and Digicel’s mobile network.

The mobile networks do not offer connection speeds at the same level as the fixed network and as explained in the consultation document even with the introduction of 4GLTE mobile broadband in the future, the speed capability of a fixed line network is expected to be higher and therefore mobile networks cannot be substitutes for fixed line networks. Equally the fixed wireless networks do not currently offer retail packages above 12Mbps and therefore could not be expected to offer the highest connection speeds available on fixed.

Therefore the Commission sees that there may be some substitutability between LIME’s fixed line broadband network and fixed wireless broadband networks which can offer speeds up to 12Mbps. But there are no supply side substitutes which are capable of offering up to 48Mbps.

Retail Fixed Broadband Market Definition: Question 5

On the basis of the above reasoning, the Commission retains the definition of the market for fixed line broadband as only including fixed wireline broadband.

The Commission therefore defines the relevant market as the Market for fixed retail broadband service. This definition includes the provision of broadband service at a fixed non-movable location.

Wholesale Broadband Access: Questions 6-7

The consultation document set out an analysis of the wholesale market for fixed broadband and defined a market for wholesale broadband access. This market looks at the infrastructure used to provide the fixed broadband service. Fixed networks in the BVI are currently capable of offering a retail service of up to an advertised 48Mbps/s download speed. Fixed wireless networks are currently capable of offering a retail service of up to an advertised 12Mbps/s download speed. Therefore, a wholesale user of a fixed wireless network would only be capable of offering a retail service of up to 12Mbps/s and would not be able to compete with LIME's product of up to 48Mbps/s. Mobile LTE networks may be technically capable of offering connection speeds up to 50Mbps/s but fixed wireline networks are expected to be able to consistently offer higher connection speeds as all technologies advance.

In the view of the Commission, fixed wireless and mobile networks do not yet constitute effective wholesale substitutes to fixed wireline networks. The wholesale consumer would always prefer to buy the fixed wireline wholesale service in order to be able to offer a wider range of products to its customers.

LIME in its response to the consultation, stated that LIME do not believe that wholesale fixed wireless broadband connections in the BVI constitute an economic market. LIME stated that they believed that the definition was too narrow based on the Commission's retail market analysis. The Commission does not find LIME's argument sufficient to adapt the Commission's reasoning set out above.

Therefore the Commission remains with its initial wholesale market definition as the market for wholesale broadband access.

The Commission defines the relevant market as the market for wholesale broadband access.

Dominance: Questions 8-9

Based on the initial market definitions which set out the retail market for fixed broadband service and the wholesale market for fixed broadband service, the Commission found LIME dominant in both. LIME objected to this finding on the basis that the markets had been incorrectly defined.

The Commission has considered LIME's submission and found that the previous market definitions should hold despite developments in the related markets. The Commission finds that LIME has 100% market share of the fixed line retail broadband market.

Similarly, as the definition of the wholesale market has not changed, the Commission sees that LIME is dominant in the provision of fixed wholesale broadband access.

The Commission therefore determines that LIME is dominant in the following markets and sets out the rationale in the Determination of Dominance published concurrently with this document.

- **LIME is dominant in the market for retail fixed broadband service**
- **LIME is dominant in the market for wholesale broadband access**

Consumer feedback on Fixed Broadband Provision: Questions 10-11

With LIME dominant in the retail market for fixed broadband service, the Commission asked the public what the problems were with having one provider for fixed internet service. The Commission carried out an online survey (at the same time as the consultation from 29 January 2015 – 5 March 2015) to assess consumer views of the provision of broadband service in the BVI. 82% of the respondents had ADSL (LIME's broadband product) as their main broadband product, most respondents also had mobile broadband but used their ADSL for the more data heavy applications. Respondents expressed great concern that it sometimes took over two months to receive a fixed connection and that there was no other option. Consumers expressed that they felt they were "stuck with" LIME's fixed broadband product through lack of choice of alternatives and also stated that price and the slow speed were serious concerns. Consumers prioritized reliability and connection speed for ADSL over price, limits of use and contract terms as their main concerns.

The Commission therefore sees that as a result of there being one dominant provider of fixed retail service and one dominant provider of wholesale broadband access which has so far prevented the development of alternative fixed broadband products, there is a competitive problem as consumers suffer from lack of choice. If a consumer is not happy with the price, connection speed or time to receive a connection then the consumer has no choice of comparable substitutes. The small market share of fixed wireless and the relative infancy of these fixed wireless products does not exert sufficient competitive effect on the fixed broadband product to ensure that LIME does not increase price and therefore the Commission perceives that there is a significant and enduring lack of competition in the provision of fixed broadband service which is damaging to consumer welfare in the BVI.

Regulation of price and quality: Questions 12-13

Once the Commission has made a formal Determination of Dominance, then under Section 26 of the Telecommunications Act, (the "Act"), the Commission is able to regulate the way that the dominant public supplier provides the service. The consultation document asked whether the emphasis of any retail regulation should be on price or quality. LIME responded to say that they believed that regulations on price or quality are unnecessary and will produce unintended consequences. LIME argued that if the Commission chose to regulate a single operator then it would impede and not promote competition by distorting competitors' incentives to invest and compete in a manner LIME said would be "harmful to consumer welfare."

The Commission stated in the consultation document that we would wait for feedback before developing the possible regulatory options. Therefore, whilst we have established that there is a need for regulation, we take no view yet on the final solution but present below the possible options.

No regulation: Question 14

One possible option does remain, which the Commission raised in the consultation document, that of no regulation. In response, LIME expressed the view that no regulation is the preferred option as the market had operated until then without regulation and had resulted in rapid innovation and robust competition between technology platforms.

The Commission disagrees that it is absence of regulation that has resulted in rapid innovation in the provision of broadband service and disagrees that there is robust competition between technology platforms. The Commission does not see that mobile broadband effectively competes with fixed broadband as otherwise disgruntled customers would be switching to mobile broadband service in significant numbers. Few customers have so far switched from fixed line broadband to fixed wireless broadband due to the infancy of this product. LIME has invested in the broadband network to deliver higher connection speeds because, despite the lack of competition, there is a need to put the BVI technologically on a par with the rest of the Caribbean. LIME has upgraded the network in the BVI as part of a regional network upgrade.

It is well understood by the Commission that any regulation should not affect or disincentivise investment. LIME has invested \$7m in a network upgrade and it would therefore be inappropriate for the Commission to draw up a regulation which penalizes that investment.

During the consultation on International Connectivity, the Commission argued that “no regulation” was not an option where it had found LIME dominant in the provision of international connectivity services. The resulting regulation focused on the regulation of wholesale landing station services to enable public suppliers other than LIME who had been declared dominant, to access international connectivity on the same basis as LIME BVI. The intention is that other operators will then be able to provide more competitive broadband services to compete with LIME’s product. LIME’s ability to access international connectivity on more preferential terms than other public suppliers prior to the regulation meant, in the Commission’s view, that “no regulation” was not an option as without regulation the situation would not change. In the case of the broadband market, the Commission sees that without intervention, it is possible that the situation could change if another public supplier chooses to build a comparable fixed broadband network and offer comparable connection speeds to LIME.

The Commission therefore keeps this question open and asks respondents to identify their views on no regulation of the retail and wholesale fixed broadband markets.

Wholesale Broadband Access regulation: Questions 15-18

Digicel’s response focused on the issue of wholesale broadband access regulation. Digicel argued that wholesale broadband access regulation is not necessary in the BVI. Instead, Digicel argued, the Commission should focus on the enforcement of the current access obligations set out in the Interconnection and Access Requirements. LIME suggested that the demand for wholesale broadband access regulation is likely to be limited.

In the course of the consultation, the Commission has not received any requests for wholesale broadband access regulation. Whilst in many other markets, Regulators have found that the competitive problem is rooted at the wholesale level, the Commission does not find that this is necessarily the case here. Given the size of the BVI market, it may not be the most efficient path to real competition to force LIME to open up its network at some level between the customers connection in the home and LIME's core network to allow other providers to offer the service instead. By this the Commission is not saying it would not be possible for other providers to offer a broadband service using LIME's network but that regulating the offer of LIME's network at this stage does not appear to address the main problems in the market.

The Commission is currently of the view that the wholesale market should remain unregulated. If other entities wish to apply to use LIME's network and perhaps to extend it to areas not served by LIME, then the Commission would be willing to assist in discussions and if an agreed outcome is not reached then to revisit the requirements for wholesale broadband access regulation.

The Commission seeks any further input from respondents on the requirement for wholesale broadband regulation.

The key problem, as the Commission sees it lies in the retail market for fixed broadband which is not easily fixed by a wholesale remedy. Increasing prices and inconsistency in the availability of maximum connection speeds are the chief complaints. Not achieving the advertised connection speeds means that customers are not getting the products they purchased. Consumers, if they are not happy with price increases or the connection speed they are receiving have no choice of ready alternative supplier. Some protection needs to be put in place which ensures that customers get the connection speed they are sold and customers who are not willing to pay increased prices need to have an alternative.

Regulatory options and remedies

The Commission therefore now consults openly on the need for retail regulation and for the appropriate form if retail regulation is to be adopted. Retail regulation is considered to be regulatory intervention of the highest form and should only be adopted as a measure of last resort.

In 2010, the Commission conducted a consultation reviewing the relevant markets for review under its new Market Review programme. This programme was set up in 2010 along the same lines as the market review framework in use by regulators in the European Union. The Market Review programme set out that the broadband market would be reviewed in due course. Following this review, LIME increased the price of fixed broadband service. In the intervening years the Commission has been made aware by the public and through its own use of LIME's broadband products that pricing and quality problems persist. On the 8 January 2015, the Commission published a notice in the BVI Gazette and in the BVI Beacon announcing that a public consultation would take place after the two week notice period had elapsed. On 29 January 2015, the Commission published the Broadband Market Analysis proposing to designate LIME as dominant in the provision of fixed broadband service. Over the past five years the Commission has been warning of the possibility of regulating the fixed broadband market. LIME's most recent action is to increase prices again by over 10%. The Commission's approach of monitoring the market and warning LIME of impending determinations of dominance has not deterred LIME from increasing price.

The Commission understands that LIME may argue that it has invested \$7m in a network upgrade and it is therefore appropriate to increase the price of broadband services where broadband speeds have increased. However, many customers will experience an increase in price with no change in the connection speed. A contract customer who lives in an area which has not benefited from LIME's upgrade now pays \$88.50 instead of \$74 for the same 2 Mbp/s service. A contract customer in the same area with a 3Mbp/s service now pays \$113.85 per month up from \$99 a month. Yet a contract customer in the superfast broadband area pays the same amount for 12Mbp/s. The Commission sees that LIME's pricing creates inequity between consumers. Whilst the Commission does not expect superfast broadband customers to face further price increases to level the differences, the Commission simply cannot understand why one customer pays \$113.85 and receive 12Mbp/s and another customer pays the same but receives only 3Mbp/s. In a competitive environment with multiple suppliers, an alternative supplier would reduce the price of the inferior product to gain market share. The Commission also notes that LIME also require the payment of a monthly line rental fee to enable the purchase of a broadband product. This form of tying further increases the cost of broadband to the consumer.

In an industry where price per megabyte is falling, the Commission does not see that it is appropriate to increase prices as LIME have done. The Commission notes that LIME has not proposed to increase prices across all its markets in the Caribbean which have received a network upgrade.

Retail Price Regulation

In the face of what appear to be unjustified and distortionary price increases, the Commission must therefore consider retail price regulation as an option. The Commission could impose a requirement for LIME not to increase prices without approval from the Commission and only so with some inflation adjusting RPI-X formula. The Commission could benchmark LIME's prices against another of LIME's markets in the Caribbean and require that the pricing be matched in the BVI. Such measures could be put in place to protect consumers from further price increases. We set out some of the options below.

Retail Price Regulation Options:

- Require further price increases to be subject to Commission approval
- Require LIME to reduce prices to levels prior to 1 November 2015 increase
- Benchmark retail prices against LIME's comparable pricing in the region
- Benchmark retail prices against international broadband pricing (eg price per Mbp/s download speed) for selected countries
- Restrict price increases to a level below inflation (eg RPI-X)

Question 1:

1a) Should the Commission consider retail price regulation? If not, why not?

1b) What form out of the above options should retail price regulation take?

1c) Are there any alternative forms of retail price regulation the Commission should consider?

Retail Quality Regulation

Consumers have expressed severe concerns at not receiving the download speeds related to the product they purchased. The Commission is mindful that connection speed can be affected by many factors, for example, the different types of consumer devices using the connection and the simultaneous operation of running other applications. Ofcom, the UK telecommunications regulator published advice for consumers on 7 November 2015 advising consumers on how to improve their broadband speed. Ofcom have advised that consumers keep their router as far away as possible from other electrical devices (for example speakers) as well as those which emit wireless signals such as cordless phones and baby monitors. The Commission therefore proposes to develop guidance for consumers in conjunction with the fixed broadband provider.

One regulatory option is to require that LIME reimburse customers when the connection speed falls below the level sold to the customer. For example, if a customer purchases a 12Mbps package then the customer would expect to be able to download at a speed of 12Mbps all the time. If the customer were able to provide proof to the public supplier that a speed of less than 12 Mbps was being delivered at any point, then the public supplier could be obliged to provide a refund. Refunds could be granted up to the value of the customer's monthly bill. The purpose of such a requirement would be to incentivize the public supplier to provide exactly at least the download speed sold to the customer at the time of the contract. In order for this system to work, the public supplier would need to put in a place a reporting system for the customer to report speedtests directly to the public supplier through an accurate reporting system with the appropriate fraud protections in place. Any complaints regarding the refunding of below par connections speeds could be reported to the Commission for the Commission to take enforcement action. Such an option requires the development of software which can allow both the consumer and LIME to accurately measure broadband speed performance and the Commission is investigating this option further. The Commission looks to engage LIME in full discussion about the possible options and invites LIME to contribute significantly to the design of the appropriate regulation.

Retail Quality Regulation Options

- Incentive regulation to enforce the delivery of sold connection speeds through required reporting and refund system
- Ability for consumers to terminate contracts if connection speeds do not meet sold standard
- Commission monitoring of connection speeds and fines for not meeting advertised connection speeds
- Commission monitoring of time to receive a new connection and fines for exceeding a certain delay
- Commission monitoring of fault repair and fines for delay

Question 2

2a) Should the Commission consider retail quality regulation? If not, why not?

2b) What form(s) out of the above options should retail quality regulation take?

2c) Are there any alternative forms of retail quality regulation the Commission should consider?

Selecting the appropriate Regulatory Option and next steps

The Commission is mindful that the broadband market is a dynamic market and that other public suppliers may launch and develop products which may change the structure of the market. In the case of LIME's dominance, the Commission proposes to review the market in three years time or in the event of receiving evidence of a change in dominance. The Commission wishes to consider regulation(s) which will both incentivize LIME to provide a better value and better quality of service product whilst at the same time allowing for the development of competition in the market.

The Commission wishes to seek feedback from all stakeholders including the public and all licensed public suppliers. The Commission is open to the submission of analysis, reports and suggestions on the appropriate form of regulation and is open for discussion at the request of stakeholders.

The next steps subsequent to the publication of this report are as follows:

1. Publication of the Determinations of Dominance on the same date:
 - LIME declared dominant in the market for retail fixed broadband service
 - LIME declared dominant in the market for wholesale broadband access
2. Consultation on the options for regulation ends on 22 January 2016.
3. The Commission will assess the responses and will write a third stage report on the consultation. If appropriate, the Commission will set out the proposed regulatory options.
4. If the Commission then decides to move forward with a retail regulatory proposal, then the Commission will commence as set out in Article 18 of the Licence.

The following table sets out the timeline for amending the Licence.

Timeline	Procedural Steps
Day 0	Publication of short report on second consultation
+ 30 days	Period of negotiation on Licence Amendment
Day 0	Publication of Notice of Licence Amendment (<i>upon expiration of 30-day period of negotiation</i>)
Day 30	Due date for Response from licensees (<i>to facilitate 30-day period of consultation</i>)
Day 40 +	Hearing for Licensees and third parties with a legitimate interest (<i>not less than 10 days of receipt of responses from licensees</i>)
Day 60 +	Report and opinion of TRC (<i>not less than 60 days of date of publication of the Notice</i>)
Day 90 +	Directive (<i>not less than 90 days of date of publication of the Notice</i>)

Therefore, following publication of this report, the ensuing consultation, negotiation and licence amendment process will take a minimum six months before a regulation enters into force.

Conclusion and the Determinations of Dominance

Upon consideration of the arguments set out in response to the Market Analysis and Draft Determinations and based on the conclusions drawn by the Commission as set out above, the Commission now plans to designate LIME BVI as the public supplier dominant in the markets for the provision of fixed broadband in the VI in accordance with section 26(3) of the Telecommunications Act, 2006 as follows:

LIME BVI is dominant in the market for retail fixed broadband service

LIME BVI is dominant in the market for wholesale broadband access

The TRC does not find that any of the arguments put forward in the responses received by the public are so convincing to persuade the Commission that LIME BVI not dominant in these markets.

The TRC invites all stakeholders to respond to this consultation by labeling responses “Broadband Market Consultation Part II: Regulatory Remedies” and submitting to consultations@trc.vg